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1ST INTERNATIONAL CONFERENCE ON
ECONOMICS AND SOCIAL SCIENCES



PROCEEDINGS OF
THE 1ST INTERNATIONAL CONFERENCE ON ECONOMICS AND SOCIAL SCIENCES

CHALLENGES AND TRENDS IN ECONOMIC AND SOCIAL SCIENCES RESEARCH

*The Bucharest University of Economic Studies
Bucharest, April 16-17, 2018*

*Coordinated by:
Dalina DUMITRESCU and Andreea ZAMFIR*



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Assessment of Climate Change Implications on Food Safety and Human Health

Raluca Andreea ION¹

Abstract

At the beginning of the twenty-one century, the relations between climate change, pollution, food safety and human health become more complex. Climate change drives to abundance of pests and weeds that will need higher levels and use of chemicals and fertilizers on crops, leading, furthermore, to higher amounts of chemicals in food. Air pollution, as a form of climate change manifestation, is a major source of particulate contaminants that can accumulate in edible parts of plant and, then, in food. Under these conditions, the objective of this paper is to assess the impact of the use of chemicals in agriculture and the air pollutants accumulated in plants on human health affected by diseases caused by contaminated food intake. Data regarding digestive diseases are analysed in correlation to pesticide use and greenhouse gas emissions, as air pollutant, using the regression model. The main findings show that digestive diseases are correlated to pesticide and insecticide uses, but there is little information on how air pollution may increase food unsafety. The relevance of the study emerges from the fact that information on the burden of food contamination diseases can adequately inform policy-makers and help them to allocate appropriate resources for food safety prevention and control.

Keywords: *foodborne disease, food contamination, human health, climate change, air pollution, pesticide use*

JEL Classification: *Q18, Q54, Q53, I15*

1. Introduction

Health is a concern of all people. It could be affected by many factors, but an alarming one is the climate, which worsened. High temperatures, extreme events, worsened air quality, and rising sea levels harm human health. Climate related factors may impact food safety through changes in temperature and precipitation patterns, air modifications, and changes in agricultural practices and contaminants' transport pathways.

The report of The Interagency Working Group on Climate Change and Health (Portier *et al.*, 2010), outlining the research needs on the human health effects of climate change, describes these effects: Asthma, respiratory allergies, and airway diseases, caused by human exposure to pollen, moulds and air pollution, cancer, cardiovascular disease and stroke intensified by increasing heat stress, foodborne diseases and nutrition problems caused by food contamination. This study focuses on the last group of illnesses. A foodborne disease is defined

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by WHO (2015) as a disease commonly transmitted through ingested food. It comprises a broad group of illnesses, and may be caused by microbial pathogens, parasites, chemical contaminants and biotoxins. Among them, the chemical contaminants are studied in the paper.

Food may be contaminated with pathogens and chemicals resulting from worsened air quality, polluted soil and water and higher temperatures which enable pests and pathogens to multiply faster. This raises the questions how safe the food in a changing climate, polluted air, soil and water is, and which are the implications on human health.

In the context of climate change, food become source of exposure for foodborne illness, resulted from ingesting food that is spoiled or contaminated with microbes, chemical residues such as pesticides, or other toxic substances. Worldwide, an estimated 600 million – almost 1 in 10 people – fall ill after eating contaminated food and 420,000 die every year, resulting in the loss of 33 million healthy life years (WHO, 2017). In Romania, 1,662,237 cases of digestive diseases were reported in 2015 (National Institute of Statistics database, 2018) and WHO (2017) reports 14,497 deaths attributable to ambient air pollution.

Even there is evidence on climate change affecting human health, there is little information on whether pesticide use and air pollution, as a result of climate change, affect food safety.

Previous studies (Poole *et al.*, 2005) demonstrate that air pollution is a major source of particulate contaminants that can accumulate at toxic levels in the edible portion of crop plants.

Moreover, WHO report (2015) acknowledges that foodborne diseases are an important cause of mortality, but the burden of unsafe food, and especially the burden arising from chemical and parasitic contaminants, has been unknown.

In this context, the objective of this piece of research is to assess the impact of pesticide use and air pollution on human health affected by diseases caused by contaminated food intake.

Statistical data regarding digestive diseases are correlated to pesticide and insecticide uses in agriculture and to greenhouse gas emissions, as air pollution indicator.

The paper is structured into six parts. After the introduction, the second section presents the literature review with the final goal of establishing the study hypotheses, in the third part. It is followed by the experimental section, presenting the variables and the methods used for their analysis. In the fifth part, the findings are discussed and the hypotheses are verified. Finally, the results are summarized and the conclusions are drawn.

2. Problem Statement

There is abundant evidence on climate change effects on human health. The climate drivers identified in literature (Crimmins *et al.*, 2016) are categorized into two groups: factors with direct effects on health and factors with indirect effects on health. Among the first group, the main drivers are extreme weather events, including high temperature, torrential rains and flooding, droughts, and storms (McMichael *et al.*, 2003). Outdoor air quality is a result of climate change and has negative implications on human health. Floods result from the interaction of rainfall, surface run-off, evaporation, wind, sea level, and local topography (McMichael *et al.*, 2006). Flooding is one mechanism for transporting pathogens and chemicals onto agricultural land (Boxall *et al.*, 2009). Indirect effects of climate change on human health are infectious diseases, including malaria, Lyme disease, and food-related infectious diseases.

Epidemiological studies reported data collected in Brisbane, Australia from 1996 to 2001, showing that respiratory – and cardiovascular – related hospital admissions and mortality were elevated when both temperature and particulate matter concentrations increased (Ren and Tong, 2006).

Other specialists (Qian *et al.*, 2007) reported that each 10 $\mu\text{g}/\text{m}^3$ increase of NO_2 was associated with an increase in total non-accidental, cardiovascular, stroke, cardiac, respiratory, and cardiopulmonary mortalities.

FAO (2008) reports describe the possible implications of climate change of food safety: agents of food-borne disease with specific consideration of zoonotic diseases, mycotoxin contamination, biotoxins in fishery products and environmental contaminants with significance to the food chain.

A report of the Food Standard Authority from U.K. classifies the factors affecting food safety into three categories: the food microbiological content, the concentrations of chemical elements and the levels of radiation (Food Standards Authority, 2010). As regards the first factor, many foodborne pathogens, such as Salmonella and Campylobacter, grow well in warm, moist conditions.

The second factor is the presence of chemicals in food: pesticide and veterinary medicine residues, natural, environmental and process chemical contaminants, including particulate matter and polluted air. Climate change may affect agricultural technologies. The abundance of pests and weeds will change the type, level and use of chemicals and fertilizers on crops (Miraglia *et al.*, 2009). These changes in technologies lead to higher amounts of chemicals administered to crops and found, finally, in food. The idea that climate of many developing countries favours the proliferation of pests is sustained in WHO (2015) reports anew.

The third factor is radiation in food that may occur from the breakdown of elements within food (Food Standards Authority, 2010).

Mycotoxins are another significant food safety concern. They are chemicals produced by certain moulds or fungi, and are considered to be carcinogens (FAO, 2008). Toxins which are formed by some fungi and grow on crops, they are later consumed through contaminated crops or indirectly through animal products (e.g. meat or milk from animals) that have eaten contaminated feed (Russell *et al.*, 2010). Adak (*et al.*, 2005) estimates the risks from foodborne illness associated with consuming different food groups and types. He found that the consumption of poultry and shellfish carry the highest disease risk and are associated with the highest hospitalization rates.

Tirado (*et al.*, 2010) argues that climate change may have an impact on the occurrence of food safety hazards at various stages of the food chain. It also affects socio-economic aspects related to the all food systems, from agriculture to human behaviour which all, in return, influence food safety.

Reports (IPCC, 2007a, b) acknowledge that air quality and climate change are strongly interconnected. Air quality is determined by heat, humidity, degree of ultraviolet (UV) radiation, and many other factors. Portier (*et al.*, 2010) argues that changes in any of these can directly reduce air quality, by increasing air concentrations and human exposures to a variety of toxic air pollutants, including chemicals, fungi, and aeroallergens.

Climate change-induced shifts in precipitation patterns will also affect particulate matter fate and behaviour. Particulate matters are described by Forster (*et al.*, 2007) as both natural and anthropogenic sources of soils, dusts, acids, organic chemicals, and metals; they enter the atmosphere through direct emissions or are formed as secondary particles through atmospheric chemical reactions.

3. Research Questions and research hypotheses

The results of previous research described above drive to the need of answering the questions how safe the food in a changing climate is and which are the implications on human health.

This piece of research starts from the premise that climate change, through increasing in number and types of pests and weeds, needing more amounts of pesticides, and worsened air quality, has negative impact on human health in Romania. The hypotheses tested in this paper are:

H1: Changes in pesticide use, as effects of climate changes in pests and weeds, may be connected to digestive diseases.

WHO (2015) sustains that unsafe food containing harmful bacteria, viruses, parasites or chemical substances, causes more than 200 diseases – ranging from diarrhoea to cancers.

H2: Air pollutants, accumulated in edible parts of plants, may be connected to digestive diseases.

Portier (*et al.*, 2010) found that a decline in air quality can result in illness and the rise in concentrations of certain air pollutants increases the risk of cancer. It has been demonstrated (Pope *et al.*, 2002) that reductions in emissions of sulphur dioxide, nitrous oxides, and particulate matter lead to reductions in rates of premature death including from certain cancers.

Bearing in mind all the considerations above, this paper studies the climate changes in relations to the consequent health effects. Thus, this study aims to identify the complex relationships among climate change, food safety and human health. In pursuing this, statistical data on pesticide use, air pollution and new cases of illnesses are presented in experimental section.

4. Research Methods

For validating the hypothesis that climate change, through increasing the amounts of pesticide use and worsened air quality, has negative impact on human health, the relationships between variables corresponding to human health and variables corresponding to climate change are analysed.

The variable corresponding to human health are the cases of digestive diseases, expressed in thousand cases. Digestive diseases have been chosen because pesticide enter the body when people intake food containing pesticide residues, that is digested and it affects the digestive system. Pesticide poisoning may cause nausea, vomiting, diarrhea, stomach cramps, headache, weakness, confusion, excessive sweating, chills etc. (WHO, 2015). Data on digestive diseases have been retrieved from the National Institute of Statistic of Romania database.

There have been selected three variables corresponding to climate change – pesticide use (expressed in tonnes of active ingredients), insecticide use (expressed in tonnes of active ingredients) and total greenhouse gas emissions (expressed in kilotons of CO₂ equivalent).

Pesticides are chemical substances administrated to crops to control pests and weeds. They include insecticide, herbicide, fungicide and other substances. Insecticide use have been chosen because it is administrated to crops for pests' management and, as argued before, climate change induced changes in pests' number and behaviour. Data on pesticide and insecticide have been retrieved from the Food and Agricultural Organization database. Data on greenhouse gas emissions have been retrieved from the World Development Indicators database.

The relationships of dependence between the variables are analysed with SPSS 22, using the regression model. The confidence interval is 95%. Twenty-one observations have been introduced, for the period 1995-2015.

The first step is to verify whether there is a dependency relationship between dependent variables (cases of digestive diseases) and independent variables (pesticide use, insecticide use and greenhouse gas emissions), by calculating the correlation coefficients. Simple regression models have been used to find out the intensity of the dependency between digestive diseases and pesticide use, insecticide use and air pollutants (Table 1).

5. Findings

The results of the regression models are presented in Table 1. The models are statistically significant since the values of Sig. are below 0.05. Significant correlations have been found

between digestive diseases and pesticide use ($R^2=0.849$), and insecticide use ($R^2=0.816$), and weaker correlation between digestive diseases and total greenhouse gas emissions ($R^2=0.577$).

Table 1. The influence of pesticide use, insecticide use and air pollutants on the number of cases of digestive diseases

Variable	Coefficients of correlation	Coefficients of regression function	Standard error	Sig.
Pesticide use	849	177	017	000
Insecticide use	816	839	091	000
Total greenhouse gas emissions	577	035	007	000

Source: Results of the regression model

The findings show that 1-unit growth in pesticide use leads to 0.177 growths in new cases of digestive diseases, under a standard error of 0.017. Increases by 1-unit in insecticide use lead to 0.839 increase in new cases of digestive diseases, under a standard error of 0.091. The results validate the hypothesis that changes in pesticide use, as effects of climate changes in pests and weeds, may be connected to digestive diseases (H1). The findings are likewise those found by Ebi (*et al.*, 2006), showing that people are vulnerable to climate change because they have a reduced capacity to acclimatize to extreme heat and are also more vulnerable to vector-, food-, and water-borne disease. The results are consistent to WHO (2015) findings showing that diarrhoeal diseases are the most common illnesses resulting from the consumption of contaminated food, causing 550 million people to fall ill and 230,000 deaths every year.

The results of the regression model show that increases in total greenhouse gas emissions by 1-unit lead to 0.035 increases in new cases of digestive diseases, under a standard error of 0.007.

The weak correlation between air pollutants and new cases of digestive diseases does not validate the hypothesis sustaining that air pollutants, accumulated in edible parts of plants, may be connected to digestive diseases. The weak correlations between digestive diseases and air pollutant can be explained by the indirect effect of air pollution on food safety, the pollutant first passing through agricultural plants where it accumulates, then passing through food product and then to human body.

6. Conclusions

Climate change, through air pollution and intensive use of pesticide, may have an impact on food safety and human health, because the cases of digestive diseases are correlated to pesticide and insecticide uses, but there is little information on how air pollution may increase food unsafety.

The results are consistent to those found by Portier (*et al.*, 2006) who enumerated, among the human health effects of climate change, foodborne diseases and nutrition problems caused by food contamination. Furthermore, reports of the Food Standards Authority (2010) consider that the presence of chemicals in food: pesticide and veterinary medicine residues, natural, environmental and process chemical contaminants, including particulate matter and polluted air, is a factor affecting food safety.

In conclusion, instead to be a source of essential nutrients, food can be a source of exposure for foodborne illness, resulted from ingesting food that is contaminated with chemical residues, or other toxic substances accumulated in plants from air pollutants.

The current research has its limitations. The first one is that not all digestive diseases are caused by contaminated food intake. There are other causes for digestive problems, and future research should consider only those cases of digestive diseases caused by food poisoning.

Another limit is the high levels of the values of standard error, especially for the regression model between insecticide use and new cases of digestive diseases (.091), which narrows the

interpretations of the results. One more limitation could be the fact that, in their ways to human consumption, agricultural products are transformed into food products, and, during the processing operations, pesticides residues and air pollutants accumulated in agricultural product can also be transformed or even destroyed. One last limitation is that not only climate change, but also agricultural practices are responsible for chemical residues in agricultural products, because of their intensive forms of growing crops, excessive use of fertilizers, and pesticides.

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The Impact of Globalization Phenomena on Food Safety

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Abstract

Nowadays, globalization means the involvement and continued development of the countries in the world, which aims at a significant reduction in the cost of transport and communication. On the other hand, these actions may result in the creation of artificial barriers, which may interfere with the transfer of knowledge and the relationship between people. The purpose of this investigation is to show that the changes created by globalization are inevitably influenced by the resistance of the rural population, in various forms, as well as consumer movements on food safety and fair trade, movements of the farmers concerned of the impact of globalisation on relations distributive transactions rural or the use of pesticides. Farmers are worried about the fact that because the traditions of globalization could be forgotten, and in particular traditional foods. For this purpose, this research will analyse the consumption of nitrogen and phosphorus from agricultural crops in the countries of the European Union for example Italy, Germany, France, Greece, Hungary or Romania, but also Switzerland. The research is based on data from Commission European Union reports and the database of Eurostat, which offers to the interpretation of exact data on the use of these inorganic fertilisers in agricultural crop. The main objective is to observe the trend for the use of the two inorganic fertilizers during the period 2014-2016, as well as comparing the countries in scope. The case of Switzerland provides an example to be followed for the European community as it reduces the amount of nitrogen and promotes use of phosphorus, as demonstrates consumer care. In the world economy and society, rural represents one of the most important branches, the reason for which we believe that it is crucial to approach the impact of globalization on these areas.

Keywords: *food safety, rural areas, globalization, agriculture, pesticide usage*

JEL classification: *Q5*

1.Introduction

Nowadays the phenomenon of globalization is speeding more and more. Compared to the average of the other countries in the European Union, Romania ranks among the countries with the highest percentage of the population living in rural areas. From this point of view, the good functioning of the rural economy is very important in combating poverty in these areas.

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Through this article we want to highlight the causes or the consequences of the globalization phenomenon in the rural economy in Romania, as well as the effects of chemical fertilizers used in the fertilization of the agricultural land experienced in the safety and food security. The rural economy is strongly determined by the dependence on agricultural activities, at this time the main economic activity at the level of communes and villages in this sector remains agriculture, even though the share of the rural population has during the last decade consistent migration to the urban area. Thus, we consider it essential to preserve the environment in these areas and to protect it by using organic fertilizers as well as to increase economically by investing in infrastructure, farm modernization and refurbishment. All these aspects lead to the creation of new jobs and, implicitly, the good functioning of the economy in these rural areas so that Romania can aim to have a fair competition on the market in the context of globalization.

2. Problem Statement

Globalisation is a phenomenon spread all around the world and worth studied from all points of view and in all areas of development. Even though it's been over 50 years since it started, a definition that includes all the topics and fields was not published yet: George Ritzer (2003) in "Globalisation of nothing" study defines the globalization phenomena as a perspective which emphasizes the ability of modern states and organizations to a large extent capitalists to increase their power and influence on the globe; George Soros defined the phenomena as the free movement of capital, accompanied by the growing domination of global financial markets and multinational corporations over national economies.

Anthony Giddens offers a definition containing predominantly sociological elements: globalization is changing the fundamental nature of our everyday experiences. In the present paper globalisation was studied from a food safety standpoint as the food trade is more and more growing and there should be more emphasis on the impact that the phenomena have on the population.

3. Research Questions/Aims of the research

The purpose of the study is to present the globalisation effects on rural areas and food safety.

As the globalization phenomena is very complex worth being studied from a food safety standpoint and in the present paper it can be noticed that government intervention is the key for safety and security.

4. Research Methods

In this research, it was realised a SWOT analysis on the globalization in rural areas, which demonstrates that the changes created by globalization are inevitably influenced by the resistance of the rural population movements in various forms, as well as consumers on food safety and fair trade, movements of the farmers concerned of the impact of globalisation on relations distributive transactions rural or the use of pesticides. For this purpose on the basis of several extracted data from the reports of the Commission European Union and on the basis of Eurostat data, which offers for interpretation exact data on the use of inorganic fertilizers, more exactly the nitrogen and phosphorus in agricultural crop, has been carried out an analysis at the level of several EU countries, such as Germany, Spain, France, Italy, Greece, Hungary or Romania, but also Switzerland.

5. Countryside- globalization and food safety

The rural area is defined as the region outside of urban areas, this area is characterized by low population compared to that of urban areas. Romania stands out compared to other EU Member States through rural footprint arising from the share of the population in these areas, the high percentage of 44.6 percent of the total population lives in rural areas with a density of 45.1 inhabitants/km² while the average of other countries in the European Union is at a rate of only 25% (EUROSTAT Database, 2018). For this reason, economic development in rural areas of Romania is very important in combating poverty in these areas. Nowadays, the phenomenon of globalization plays a major role in the development of rural areas as well as the safety and security of supplies. Globalization represents involvement and continuous development of countries around the world. On the other hand, out of these actions may lead to the creation of artificial barriers because of which the transfer of knowledge may be blocked and on a small scale the relationship between people may be affected.

In the global economy and society, rural is one of the most important branches, which is why we believe that it is crucial to deal with the effects of globalization impact respectively safety and food security in rural areas.

According to Webster, globalization is defined as “development of a global economy increasingly integrated characterized in particular by free trade, free capital flows and the resort to foreign markets with cheaper labor.”

The effects of globalization are being felt in Romanian rural areas from several perspectives; for example, effects over technology, migration of population from rural to urban areas, effects over increasing competitiveness within the agro-food sector. One of the main topics that require a thorough approach in the context of globalization is food safety and security. The concept of security and food safety was broached for the first time in the year 1963 in Rome, during the debate, Food and Agriculture Organization (FAO). Supplying the population with quality produce shows a growing interest and at the same time a challenge that all countries of the world especially the underdeveloped ones face nowadays. The General objectives of food safety laws are the free movement of goods, protection of interests of consumers taking into account the health and welfare of animals, plant health, environment protection and protection of population health.

To meet these conditions, food operators must meet the requirements of the legislation in the field of food industry, to hold the systems and procedures for ensuring the traceability of the products. Authorities involved in the control of food must monitor and control the observance of legislation of active operators in the field. In terms of Economics, this phenomenon of globalization has created opportunities for big corporations to invest in rural areas in Romania.

Acquisition of agricultural associations and strategic industries by these companies has led on the one hand to the increasing number of working places in these areas, thus increasing the competitiveness of the sector in Romania, which could hardly cope with this pressure.

On the other hand, from the point of view of the agriculture the need to have a very good yield per cultivated hectare has led to massive fertilization of the soil with pesticides that contain mixtures of substances with biologically active ingredients against pests. The active ingredients are toxic substances that lead to the degradation of the soil and of the environment.

These actions of soil fertilization through pesticides have repercussions throughout the food chain so that resulted from this production is processed into food for the population or reaches the farms as feed for the animals we eat. All these aspects present a real threat to food safety and security.

Another negative aspect which emerges as a result of the phenomenon of globalization is that the raw material obtained from the harvesting of agricultural land is exported towards countries in which the company owns the processing units, and the finished product obtained

after processing is restored in Romania. These import-export shares of large companies influence directly the devaluation of local farmers.

In the context of real risk and uncertainty, substantiation of the decision requires both effective action in due time and solid knowledge in the process of multiple causes related to globalization, thus decisions to avoid risks and uncertainties regarding the proper functioning of the rural economy development remain at a minimum and at the same time lead to an increase in sustainability.

5.1 Globalisation in the rural areas – Swot analysis

George Ritzer (2003) in “Globalisation of nothing” study defines the globalization phenomena as a perspective which emphasizes the ability of modern states and organizations to a large extent capitalists to increase their power and influence on the globe. As the globalisation is centred on economy side, we must also take into consideration the social, environment and political sides.

Table 1. Strengths and weaknesses of globalization in rural areas

Strengths	Weaknesses
-global market with free flow of information and knowledge transfer facilitator due to network connectivity especially for rural population; -online market where producers and consumers can meet; -brings competition on the market that facilitates a decrease in selling price; -high infusions of technology and foreign capital; -increase on the investment of foreign especially in agriculture and food sector;	-economic and social disparities between countries became intense; -increase on industrialization of agriculture that have an impact on the environment and food safety; -unfair competition between local small producers and multinational companies; -decrease on traditional foods sells due to the higher price; -massive depopulation in rural due to migration;

Source: data processed in the research activity

Table 2. Opportunities and threats of globalization in rural areas

Opportunities	Threats
-free trade on the global market; -transnational regulatory framework; -know-how transfer from the developed countries; -employment opportunities due to foreign investments; -intellectual property rights preservation; -improvements in living standards of rural population;	-a threat to national identity and tradition; -plants and animal diseases can spread much faster due to global free market; -small scale business face extinction as they can't comply with the global market requirements; -agricultural land is bought by the foreign and the production is exported;

Source: data processed in the research activity

As it can be seen in the above analysis, globalisation can have a positive impact on the rural areas if the governments create some internal support policies for traditional and small producers. Supporting the internal firms and farms in order to be able to maintain their businesses. If we consider the food safety in a globalised market, the risks are higher and very difficult to quantify as it becomes very difficult to track the entire food chain.

The impact of globalisation on agriculture and food sector varies depending on the countries development state. Globalization can greatly enhance the role of agriculture as an engine of growth in low-income countries by making it possible for agriculture to grow considerably

faster than domestic consumption and also can help countries to increase food security (FAO, 2017).

For the developing countries where internal market mainly consists small producers, globalisation is noticed as negative phenomena. Due to the fact that small producers practice a higher price as the manufacturing costs are higher for them, global giant corporations have an advantage from a selling price standpoint. Changes created by globalisation are inevitably infused with resistances by the rural population, which take multiple forms affecting the agrarian world: consumer movements concerned with food safety and the fair trade; farmer movements concerned with the impact of globalization on rural/urban distributive relations, pesticide use; farmer/peasant movements concerned with protecting a way of life against agribusiness (McMichael, P, 2007). Rural population are mainly concern on the fact that due to globalisation traditions might be forgotten, especially traditional foods.

5.2 Fertilisation usage in agricultural production

The fertilisation plan is a useful tool both for the establishment of the doses of organic fertilisers (produced in the unit or procured from outside the unit) and minerals and economic decisions related to the availability of any excess of organic fertilisers produced in the unit and the choice of the moments conducive of procuring quantitative and qualitative requirements of mineral fertilizers or organic matter (in the case in which the establishment does not have sufficient reserves).

In the following tables it was studied the amount expressed in tonnes of some of the most important inorganic fertilizers, nitrogen and phosphorus. The distribution was made at European level, i.e. the EU average, 10 countries where agriculture has a high degree of growth or growth potential, and Switzerland, the European country that is surrounded by countries that make up the community space.

Table 3. The consumption of nitrogen in the period 2014-2016

GEO/TIME	2014	2015	2016
The average of the European Union (EU28)	394,578	405,079	-
Bulgaria	322,004	341,608	365,913
Czech Republic	325,667	397,136	407,184
Germany	1,675,289	1,822,791	1,710,616
Greece	165,942	164,334	185,019
Spain	1,101,895	1,068,103	-
France	2,190,930	2,208,168	2,221,231
Italy	505,126	517,854	517,854
Hungary	326,753	358,421	365,482
Poland	1,098,455	1,003,597	1,043,004
Romania	303,562	357,352	344,311
Switzerland	51,600	45,800	48,500

Source: Data extracted from EUROSTAT DATABASE

In the above table, it can be noticed that among the countries analyzed, the highest amount of nitrogen used can be found in France, where growth is gradual each year. Germany, Spain, and Poland use very large quantities of this type of fertilizer, but the amount used differ from year to year. Also, it can be seen that the trend at European Union level is the increase in the quantity of nitrogen, as is the case and in most of the countries listed above. Romania is located at the bottom of this classification alongside Greece and Switzerland, having some of the most natural production. It can be seen that Switzerland has a decreasing trend from the year 2014, which suggests that products made and consumed by the inhabitants of this country have the highest degree of quality.

Table 4. The consumption of phosphorus in the period 2014-2016

GEO/TIME	2014	2015	2016
The average of the European Union (EU28)	41,317	40,490	-
Bulgaria	28,144	27,573	36,050
Czech Republic	20,070	21,221	20,716
Germany	123,999	131,503	125,643
Greece	24,024	21,962	22,515
Spain	174,028	179,784	-
France	206,798	187,054	191,677
Italy	73,664	75,149	75,149
Hungary	35,987	35,530	39,797
Poland	148,917	132,544	142,281
Romania	51,772	57,921	55,097
Switzerland	4,192	4,235	4,279

Source: Data extracted from EUROSTAT DATABASE

In Table number 2, it may be noticed that among the countries analyzed, the highest amount of phosphorus used can be found in France, where in 2015 there has been a drop of approximately 10% of the amount used in the previous year. This trend is also found at European Union level, at the opposite pole of Switzerland, the country which showed an increase from year to year concerning the amount of phosphorus used. Spain, Poland and Germany used very large quantities of this type of fertilizer, but the amount varies annually.

Bulgaria, Greece and the Czech Republic are the countries listed in the framework of the European Union with the most small quantities of phosphorus, but far from the level used in Switzerland which uses about 4-6 times less quantity.

As regards the annual constant use of phosphorus may be noted countries such as Italy, the Czech Republic and Switzerland, where agricultural land has received with small differences in the same level of the fertilizer which is analyzed in the table number 2.

The big difference is that many of the Member States shall grant a significant support to farmers to ensure that they can invest more in fertilizers. The first thing which must be done in Romania is subsidizing the phosphorus. In all developed countries in which it has carried out a policy of balance of the soil from the point of view of the needs of nutrients, was done in the first place a suprafosfatare because the reserves were few. In the absence of this item, irrigation is in vain and nitrogen is used in an attempt useless to achieved remarkable productions.

In the year 2018, the amount of fertilisers used worldwide will go to 200 million tonnes, with 25% higher than in 2008, according to a report published by the Food and Agriculture Organization of the United Nations (FAO). This prediction has been carried out in the conditions in which the world consumption will increase by 1.8% per year. FAO stresses that the production potential of fertilizers will not exceed the total consumption, such as the difference between the real available fertilizers and demand will increase for phosphate and nitrogen, potassium, three main categories of fertilizers.

The overall consumption of nitrogen, by far the most used fertilizer, would increase by 1.4% per year in 2018, while the phosphate consumption will increase by 2.2%, and potassium with 2,6%. Comparative, the offer for the three products will increase by 3.7%, 2.7% and 4.2% per year. Asia is the largest consumer of fertilizers in the world, and is based on imports for all three basic types. As regards Romania, it uses only half of the quantities of chemical fertilizers which are applied in developed countries in the European Union. The Romanian agriculture did not affect the environment over the past 50 years. Romania is not used only half of the quantities of chemical fertilizers which are applied in Hungary and Poland or even 25% of what is used in more developed countries, the Netherlands and Spain. In absolute figures, the amount of chemical fertiliser was 491.000 tonnes, of which 344.000 tonnes, nitrogenous phosphatic

fertilizer 113.000 tonnes and potasice 33,000 tonnes. The EU average, of the 15 countries older, Romania is located at half as well as the quantity used.

6. Conclusions

As a result of the study, in Romania, rural economy and food security and safety are threatened by the phenomenon of globalization. From an economic point of view, foreign investors have leased a large part of agricultural land and farms in rural areas, creating unfair competition for small farmers in those areas, which are unable to compete with large corporations who are forced to sell or also lease the farms or agricultural land they own to these companies.

From the point of view of food safety and security, the use of pesticides to achieve higher productivity has been shown not to offer an optimal medium and long-term solution as these can lead primarily to lower quality of harvested raw material, which is later seen in the processed foods consumed by the population of our country, as well as in the infertility of the soil saturated with these chemical fertilizers. At the same time, we believe that the effects of globalization phenomenon have supported the increase of competitiveness as the country through the investments that have materialized here and through the jobs created by these investments. In conclusion, the importance of globalization phenomenon must be studied and understood in detail because of the negative effects that can be felt for the long term. By doing so, negative effects can be avoided by adopting measures and a plan that will increase the economic growth of the rural areas in Romania implicitly combating poverty in these areas.

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Globalization of Wine Safety: Romanian Consumers' Perceptions

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Abstract

Globalization leads to intense commodities circulation. As the offer gets richer and richer, the providers are compelled to find and communicate as many differentiation elements as possible in order to consolidate or expand their market. In food safety, origin and traceability are objective control factors on the one hand, and on the other hand, they are influencing the decision to buy. As far as the WINE is concerned, it benefits of a dedicated law, which makes it one of the safest products of the beverages industry. The wine is a product of which origin represents a competitional advantage, but also a (local) element of building the (global) cultural patrimony. The wine is an omnipresent global commodity, but the widely varied offer leads to the consumer being able to get orientation in front of the shelf only based on the familiar elements.

In this context, we aim to assess, within the producer's communication and consumer's perception, the association of the food safety and specificity attributes with the certification given by the DOC (Denomination of Controlled Origin)/IG (Geographical Origin)/Varietal. The hologram guarantees not only the satisfaction degree or hierarchy in the top of the preferences, and that wine bears the identity of place and technological parameters set by the law and the finite product has a clear traceability. Subscribed to this classification there is also the notion of terroir which, at least theoretically, guarantees organoleptic particularities obtained by adding up all the soil, climate, wining style and tradition factors.

Keywords: *wine, globalization, wine safety, origin, authenticity, DOC, IG*

JEL Classification: *Q00*

1. Introduction

With a production of wine of 3.3 mhl in 2016, Romania is the 13th wine producer country worldwide and occupies the 6th position in Europe, after Italy (50.9 mhl), France (45.2 mhl), Spain (39.3 mhl), Germany (9.0 mhl) and Portugal (6.0 mhl) (OIV, 2017). The vineyard cultivated area in Romania in 2016 was 182,300 hectares. In 2016, the wine-yard cultivated area for obtaining the Denomination of Controlled Origin wines was of 81,800 hectares (namely

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44.9%), and in order to obtain the Geographical Indication wine was of 27,100 hectares (namely 14.9%) (APEV, www.wineromania.com).

The legislation regulations concerning the Denomination of Controlled Origin domain (DOC), of Geographical Indication (IG) and the notes related to the tradition for wines must pursue the protection of the consumer's interests of the producers, ensuring a good functioning of the market and promoting the quality products. DOC and IG guarantee the fact that the wine comes from *somewhere*, and the consumers informed about the wine seem to believe that *somewhereness* is important. The wine labels provide us with information related to who, what, when, where and how the content of a wine bottle has been obtained (Veseth, 2017).

Worldwide level, the role of the wine producer's message unification towards the consumers through the label – regarding the raw material, type of the wine, location of origin, quality level, etc., is attributed to the International Organization of Wine and Vine (OIV), international body of which Romania is part. At a European level, there is a system ensuring the protection in each member state of the European Union encouraging the use on a wide range of the notion of Denomination of Controlled Origin and Geographical Indication, generating equal/loyal competition between the producers and guarantee for authenticity. Even in the context of lack of unity regarding the outside EU legislation (see USA, South Africa, Chile, Argentina, New Zealand, Australia), an important number of orientation elements for the consumer to be common to all the producing countries, which responds to the mature markets' requirements.

The associative structures of producers integrate the state regulations or replace them where there are absent or where they do not protect enough the various production area.

This research considered three major objectives:

- Comprehension of the criteria based on which an educated consumer makes a demarcation between *safe/authentic* wines and the others;
- The importance of communication/receival of the information related to universal criteria of guaranteeing safety, such as DOC or IG;
- inventory of patterns of wine consumers in Romania, in this context.

The aim of the project is to identify the level of knowledge of DOC and IG meaning by the informed consumer, so that the quantitative study material can be elaborated later on. The group consisted of decision makers of both producers and consumers who dedicate time and money to education in this field, being recruited at the GoodWine International Wine Fair, which took place in Bucharest, at Romexpo, between March 2nd and 4th 2018.

In order to accomplish the work, primary research was used, by sociological inquiry based on in-depth interviews, along with participatory and non-participatory observations and secondary research, by collecting relevant information from specialized publications.

2. Problem Statement

In the consumerist burst of growth of the late 20th century, there was a migration from “substance and function towards form and manner” (Bourdieu, 2004). Quantitative consumption “that has gained ground on our whole life” (Baudrillard, 2005) began in the first decades of the 21st century to be oriented towards the qualitative dike.

According to the study “Middle Class Vinosphere – a study on culture, consumption and perception of wine in the segment of 25-45 years old” made by “shortCUT Research”, quality is the main attraction point of the middle-class wine consumer (Floroi, 2012).

Wine has the valence to confirm a place identity, along with history and cultural elements, transfers gustative and emotional satisfaction, and at the same time socially validates the person who acquires it.

The design of label, though very important in marketing strategies, is not sufficient without the inscriptions on it and information transmitted by all means of communication by the producer. This complete set can make the difference in choice which also includes a number of factors that do not come from the product but are already in the consumer's personal background.

Besides the psychosocial side and motivations that are part of the social sphere, an individual is influenced also by education when he/she has to make a decision. „Consumer's education is the process through which companies systematically share their knowledge with consumers to develop consumers' positive attitudes” (Honebein, 1997). Unfortunately, the education of the mainstream consumer in Romania is limited to exclusive commercial communications and broadcasts with alleged connoisseurs, where the show takes precedence, not the information.

This study is knowingly avoided by any value hierarchy or interpretation in terms of the taste affinities of different consumers. The taste nuances (but also the ability to detect them) differ from wine to wine and from one person to another (Veseth, 2017). Even so, the taste is an interpretation element *after* the bottle has been opened, while DOG and IG holograms or inscriptions DOC and IG provide the first information *before* the bottle is opened. At the same time, certified information on the conditions of production, conditioning, packaging and labeling of wines is transmitted according to the norms contained in the related tender books drawn up by the professional associations of producers in the delimited wine-growing area, according to the provisions of the legislation.

In Romania, the National Office of Vineyard and Wine Products (ONVPV), an institution subordinated to the Ministry of Agriculture and Rural Development, certification and control body, establishes the set of actions concerning the activity of wine producers in Romania interested in obtaining quality wines using the name of a registered designation of origin or the name of a geographical indication.

The certification insignia of the origin and authenticity of DOC/IG/Varietal wines is the secure and personalized hologram, with unique series and, more recently, QR code. By scanning the QR code, the buyer arrives at the ONVPV site which gives him/her information about the wine lot that the unit is part of. At the date of drafting this article, the QR code is not working.



Figure 1. The sign of DOC/IG/variatal

3. Research Questions/Aims of the research

Denomination of Controlled Origin (DOC) refers to the name of a region or locality, a designated place or, in exceptional cases, a country that serves to designate a product originating in that particular region/locality/designated place/country and to which quality/characteristics are essentially due to the geographical environment with natural and human factors that is produced in the delimited geographical area (ONVPV, www.onvpv.ro).

Geographical Indication (IG) refers to the name of a region or locality, a designated place, which serves to designate a product originating in that particular region/locality/designated

place and possessing characteristics attributable to that geographical origin and which production takes place in the precise geographic area (ONVPV, www.onvpv.ro).

We define the informed/educated wine consumer as an individual with an average level of knowledge about wine, who consults the specialized press and dedicated bibliography, who attends tasting/fairs/exhibitions dedicated to the field and who understands that in his/her glass there is more than an alcoholic drink, accepting wine as a cognitive experience with psycho-emotional nuances.

This type of consumer opts for certain wines depending on the occasion of consumption, partners, menu, and so on, which means nuanced quality and not quantity.

This research aims to answer the following questions:

- Is there a correlation between the standardization of wine safety (through DOC/IG/Varietal) and the acquisition process for the trained wine consumer in Romania?
- What are the criteria for defining the quality/safety of a wine for an educated consumer?
- How do consumers assess specific DOC and IG information? Is there sufficient information about the meaning of DOC and IG?

4. Research Methods

It has been chosen to treat this topic from a qualitative perspective because the theme involves an interest in local, circular and symbolic causality and involves comprehension and presentation of complexity. Therefore, everything can be significant, and the logic of discovery and empathic approach are essential.

The research also aims to visualize *the general* through *the individual*, or by capturing individual attitudes.

Recent research methods in socio-anthropology propose a finer outline, with quantitative research being done after finding out questions from individual interviews. This exploratory preliminary research will underpin a detailed, quantitative study of DOC/IG/Varietal relevance in the acquisition process. In order to answer the research questions, we chose to use the sociological inquiry based on in-depth interviews. It aims to identify the variables and the relationship between the variables. Intensive, personal interviews will be semi-structured, based on a previously conducted interview guide through which the researcher will try to find out:

- which are the main criteria for choosing the wine (for consumers);
- how well information about DOC and IG was appropriate;
- how the safety/quality of the wine is communicated/guaranteed.

Interviews have been duplicated by participatory and non-participatory observation throughout the fair, and information from the past 4-5 years has also been assimilated (the researchers being present at each edition).

In addition to primary research, we also used secondary research by collecting data from academic papers, specialist books, statistics provided by GoodWine organizers to contextualize the approached issue and provide a wider framework. For the selection of respondents, we used: the non-probabilistic sampling of opportunity, the intentional sampling and the sampling of the most available subjects. Thus, we chose 10 wine producers from different parts of the country and 20 participants in the fair, including 10 women and 10 men. The GoodWine context has facilitated access to informed and passionate wine consumers. As a preliminary research aiming to provide directions and crystallization of research questions, it was considered that the selected respondents formed a distinct group, relevant to this study.

5. Findings

In the analysis of the interviews, we have chosen to specify only the first name of the respondents and no information that can make them recognizable.

GoodWine Dynamics

The GoodWine Fair, held in March 2018, was at its 21st edition. In the 10 years there has been a positive dynamic of both visitors and exhibitors. The ticket was priced from 15 Ron to 50 Ron and still the number of visitors is increasing. *People do not come to drink, they come to learn, they are interested in more and more sophisticated wines; this is one reason wine fairs will never die (GoodWine organizer)*. All interviewed respondents were at the fair in previous editions as well. Nearly most of them learned about this event for the first time because of the recommendations.

Consumer criteria for choosing wine

The following recurring wine selection criteria have been identified:

- the price (quality-price ratio);
- the brand/producer (notoriety, trust);
- the conjunctural situation;
- the story.

The price is for many consumers a psychological threshold, assuming that a wine under a certain amount cannot be of good quality. There are also cases where the price determines very clearly the choice. *I have a big problem with wines between 30 and 70 Ron in Romania, they do not say anything, I prefer wines under 30 Ron where the quality-price ratio is very good, or over 70 Ron, where the quality-price ratio is very good (Bogdan D.)*. The brand is an essential factor in the purchasing decision. *It also matters what you know about the wine cellar. In Romania, I know the producers, I make the quality difference depending on the producer. In other countries where I do not know the producers, the first selection criterion is DOC/IG (Silviu)*. Marketization of the brand is also very important, with attractive bottles and labels. *I like the heavy, better quality bottle (Bogdan M.)*. *When you choose between 2-3 wines that you do not know, you choose the one which attracts you more (Ionuț)*. The consumer with a minimal wine education is tempted to choose resonance or known brands in the family. *In Romania, all those areas with wine-growing research stations have remained very imprinted in the collective mentality, which, in fact, now are nowhere to be found (Ștefan)*. One respondent concluded that for a consumer, the most important is the conjunctural influence (a wine gets different valences depending on the events he met it, the hypostasis in which he consumed it, the way the wine was presented to him, and especially, by whom the recommendation was made).

Recommendations are overwhelming in our country, it's an extreme, those reviews are the result of those people's taste buds (Tiberiu). Tiberiu also emphasizes that *the judgment is done too much only at the theoretical level, which should be just the starting point, the discovery remaining the job of the consumer, the taste buds should translate into your language*. Many times, the idea of correct wine is mistaken with that of a special wine. Only a few respondents buy wine depending on food, (food and wine pairing), and one respondent said that *he trusts the "vivino" mobile app, although there are cases where the rating does not match the reality (Ionuț)*. In addition, we noticed that if the respondents have an event or want to buy a wine and not make a mistake, they do not want to take risks, they buy familiar wines they have tasted before. Another notable trend is trust towards the Old World (mainly France). However, we are aware of the limits of this classification by criteria, since taste is a subjective component for an unknowing consumer. *A good wine is good wine even if it's not on your taste (Alexandru)*.

Classification of consumers according to the importance given to DOC/IG

Out of the two great intuitive categories (those who know what DOC/IG is and those who have never heard of it, the latter being the majority in the Romanian market), we chose to focus our attention on the first group. Therefore, we have identified three attitudes:

1. those for whom holograms are of high importance in the acquisition process and trust these certifications.

One respondent has responded to us from the very beginning that *DOG/IG would make our lives easier (Silviu)*, and someone else has argued why these certifications provide safety: *Like anything that has a label, a control, it has an additional safety element (Ionuț)*.

those who trust classification, but this is not a central element in the acquisition of wine

2. One respondent is given a trusted note that the wine is produced in the respective area, certified by clear rules, but there is no one to look for *so many DOCs that either have been forgotten or are new or irrelevant at present (Lucian)*. There are cases where the consumer expects behind a DOC hologram to be a quality wine: *Personally, if I see the hologram, I have some certainty, safety. However, I had unpleasant surprises (Tibi)*.
3. those who deny the importance of DOC/IG.

Some respondents claim that the brand is stronger than DOC/IG certifications: *The French promote the call. Americans, Australians rely on the brand, and the world already knows that brand has good wines. It does not necessarily matter the DOC/IG, but marketing. There are wine cellars that do not have a hologram, but they have built very strong brands on the market (Diana)*. Others are reluctant because of legislation: *For me personally, they do not have much influence because of the legislation (Mihaela)*. One of the respondents, who is also a wine trader, says that DOC/IGs are only relevant for people aged 50-60 because they have lived in a period of emphasis on these aspects. *In Romania, I do not even know of the wines I sell have a hologram or not. This subject is so inconsequential (Silviu)*. He also claims that medals from the contests are more visible on the wine bottle, as the buyers' curiosity intensifies. *The contest bullet has something written, it represents something, the hologram is silver, and that's all, it has a code.*

Promoting DOC/IG among consumers

Concerning the importance of DOC/IG holograms for the educated consumer, opinions are divided, but all converge to the same conclusion: faulty communication/promotion. But here the opinions differ. Some respondents believe that the ONVPV should take action and be actively involved in promotion (*the ONVPV should normally also be involved in promotion; from an economic point of view, ONVPV takes some money on the respective bullets, which it should invest in promotion, being an agency under the Ministry of Agriculture (Diana)*). Others claim that producers have this role. *Producers must want to belong to a DOC/IG, to co-operate a little the whole story; there is a need for synergic action, to want to coagulate, but the Romanians do not really know how to work together. Producers in a certain area could create a story that everyone could use (Lucian)*. A producer from Oltenia admitted that his wines have only IG Dealurile Olteniei because DOC Mehedinți has no resonance for Romanian consumers, even much less for those across the border. Another producer, this time from Dealu Mare, was sure that the DOC/IG holograms do not have any impact for most of the consumers.

Other opinions argue that the issue depends on Consumer Protection. On the other hand, a respondent opposes this idea. *The consumer does not exist, he has to be educated, formed. The state has no means to educate, to protect the consumer from all the abuses that occur every day. Consumer Protection is more an organization running after those who have been claimed, it cannot prevent, it has no funds, no people. Producers are the ones who have to educate consumers (Ștefan)*. Another often-reiterated opinion is the low frequency of organized events

and tasting absolved of “commercial”. Respondents agree, almost unanimously, that the number of events should be increased and should be better communicated. Promotion by inserting specific information in the curriculum of courses, meetings *how to learn the wine* (Bogdan M.), tasting, workshops. The more consumers are informed and the more they understand, the more they become interested. *People should be educated to drink wine, especially quality wine* (Ioana). *However, those who go to tasting are in a niche or in the field, very interested people. Those who only drink at the holiday table are not interested in events* (Ioana).

For no respondent, ONVPV does not represent 100% a guarantee of the safety of wine, its fairness, for various reasons. *It's not as strict as in other countries, it's not quite upward on the producers* (Tiberiu).

Some respondents identified HORECA (abbreviation for Hotel/Restaurant/Café) as a possible resource for consumer education. Very few restaurants, comment respondents, are designed and run after a business plan. Volatility of personnel inhibits initiatives to hire (or form) sommeliers or refine waiters. This reality is the basis for the release of obsolete or wholly false information about wine. Beer, with a ROI (return on investment) that is net superior to wine, has budgeted a consistent communication, even if it has little to say. Wine can be based on real information from history, anecdote, technological performance. Ignoring the certification power of DOC and IG, as safety elements, makes retailers' representatives doubt the honest indication of the origin but *it would make promotion* if it would be paid.

6. Conclusions

Even though among respondents there is a confusion about the obligations, skills and responsibilities assigned to control bodies, producers and industry organizations, there is a correlation at an early stage between the food safety of wine and the acquisition process. Most respondents do not, however, perceive DOC and IG as food safety elements, although objectively, at present, are the only elements that certify vinicultural and oenological practices regulated by law and are also the only references to traceability. Respondents assess DOC and IG information as insufficient and unclear. Therefore, due to the lack of relevant statistics in the Romanian wine sector, the outcomes of this study cannot be generalized. Thus, this preliminary research will stand as a foundation for a further quantitative study regarding the Romanian wine consumer trends.

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Forms of Electronic Training. Principles of Educational Games

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Abstract

The basic research carried out, the work brings a new approach to knowledge development and help identify best practices in an area of prime importance: that of training, with direct impact on the welfare of a nation. In order to identify and scale the research area of the issues addressed, we used a number of specific research methods such as the analysis of existing training systems, especially those developed in eLearning to identify issues that rationally justify the introduction of technologies computer and communication in education. Then we made an inventory of the new trends in training in superior education and presented their characteristics. Finally, we presented the conclusion that emerged from research and indicated new directions for research development.

Keywords: *Electronic training, higher education*

JEL Classification: *P36, I23*

1. Introduction

From a theoretical point of view, research in the field of electronic information and communication training concludes that using the computer only as a behavioural model promoted by Burrhus Frederic Skinner in “The Analysis of Behaviour: A Program for Self-Instruction, with James G. Holland, 1961”.

In the model’s perspective, the teacher has a total control over what is learned and how to learn. Today, this model is outdated, with significant changes in roles, innovation, and the way technology is used. Martin Weller, “Professor in Educational Technology” at The Institute of Educational Technology-UK Open University, points to different pedagogical models that have introduced effective learning strategies in e-learning. These are: constructivism, resource-based learning, collaborative learning, problem learning, or project learning where the role of the instructor is scrolling between the coordinator and the supervisor.

2. The state of knowledge in the field

Recently, a researcher considers in his article that the main mistake in the higher education institutions’ education is the perception of students as information processing robots who listen

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to lessons, read manuals, perform practical tasks, and ultimately demonstrate all the knowledge gained within exams (Veynbender, 2017). After analysing the results of studying students' opinions about the most important professional and personal qualities of the teacher, he concludes that the priority of practical training consists of intensive training and business games. The author proposes a business game in the formation of external economic activity as well as a variant of training a teacher for the transfer of knowledge.

Another researcher mentions in his works that gamification has been successfully applied in some educational settings. However, he states that there is a shortage of studies in terms of gamblers applied to university management courses. In a recent paper, he described a practice of enforcing a gamble in a course of Research/Management Operations conducted to undergraduate students. His experience consisted mainly of using challenges, personalized feedback, badges, and rankings to implement the most important gameplay and related dynamics. The researcher concludes that this experience has seen an increase in student participation in courses, an increase in students' advancement, as well as a better assessment of students' courses. In his article he also offers some recommendations on how to implement an operational research course for students through gamification (Dias, 2017).

Some teachers have proposed through their articles to explain the relevance of approaching technology approaches as a mediator of learning in education and, in particular, in immersive learning. They believe that Augmented Reality (AR) is part of emerging trends that already stimulate these new training approaches. They present in their works experiences of teacher training at the head of a higher education institution in Colombia (Pedraza Goyeneche, Amado Plata, Lasso Cardenas, & Munevar Garcia, 2017). Teachers conclude that RA is a very technological tool relevant and appropriate to be appropriate with didactic and pedagogical, because allows interaction in real scenarios from digital resources as mediators learning. The RA can also truly be a didactic strategy, technologically and pedagogically supported, which can stimulate both students and teachers the motivation and interest in learning from learning.

Engineering studies and teacher education imply the need to develop a methodology to enhance the students' professional development, a Ukrainian author writes in a paper. It focuses on introducing the concepts of "integrated development approach", "integrated interdisciplinary method of education development", "integrated development in education"; consider factors that improve the training of future specialists with the principles, methods and techniques that encourage creativity, the development of personal qualities, the use of innovative inventions related to educational technologies, rationalization (Vayntraub, 2017).

It is also about the improvement of the quality of vocational education as one of the main goals of the conditions for the modernization of the educational environment in Russian teachers, considering that the essence of change is the shift from a simple transfer of knowledge, skills and abilities in the teaching process to the formation of competence professional students (Vasileva, Fahrutdinova, Fahrutdinov, & Diuanova, 2017). The main method of professional skills training was interactive teaching methods, such as interactive simulation, interactive emulation, interactive imitation, and interactive stimulation. As a result, they considered that they have obtained satisfactory evidence on the effectiveness of competence-based and interactive approaches to training students' professional skills.

Academic research training is considered fundamental to the quality of higher education, and in this context, technological mediation becomes essential to attain student-centered learning objectives at any time, and at any moment is the conundrum of researchers in El Bosque-funded papers University of Bogota, Colombia. They summarize, in an article, the findings of a study, the purpose of which was to evaluate the results of the formative research of two groups of students who have interacted with learning environments (E-learning and U-learning) (Velandia-Mesa, Serrano-Pastor, & Martinez-Segura, 2017). The results of their study reveal that learning environments can reinforce formative research as a continuous process of

educational research through personalization, adaptation and situational learning, marking significant differences in e-learning environments at the systematization stage.

3. Research Questions/Aims of the research

Can the traditional training limits be exceeded with the help of new information and communication technologies? is the question we are trying to answer our research.

If so, what are the most appropriate training methods for higher education?

4. Identification of issues that justify the process of refinement of traditional training systems

The localized problems have a general character and highlight a number of negative aspects in the functioning of the instructive-educational process, both socially and politically and economically.

From the analyses carried out in a series of Romanian organizations that have as main activity of training the following categories of problems identified in the process of training systems improvement are detached:

- non-correlation of training processes with the dynamics of technical-scientific progress;
- the impossibility of knowing in due time, at different levels of training, the training needs according to the psycho-physical characteristics of the individual, but also by the social, economic and political environment to which he belongs;
- lack of information of political or economic decision-makers on the level of training of different categories of population;
- the non-existence at the level of the communities organizing the training of an information and communication infrastructure that allows for the timely obtaining of information necessary for carrying out detailed social, economic or political analyses;
- the absence of integrated training systems that allow both the real-time control of the instructional and educational process and its correlation with the actual consumption of human, material, financial or time resources;
- the failure to use an effective tool to substantiate and track dynamically the evolution of the individual training level in order to make a valuable judgment on the existing human resources fund at a certain point in time;
- the non-use of a predictive instrument in conducting instructional and educational activities that would allow the a priori knowledge of the evolution of quantitative and qualitative indicators on the level of training and the hypothesis that there could be a relationship between the level of training and the welfare of a nations;
- the lack of a unitary information system at the level of the organizations that would allow for the interdependence between the economic activities and the training of the human resources used.

5. Findings

Besides current meaning, information and communication technologies that accompany an educational process through e-learning in mind the following forms:

- Electronic or virtual courses;
- Informal learning;
- Combined training systems;
- Training communities;

- Knowledge management;
- Network training;
- Training with and for work;
- Computer game training/Gamification.

Most of the discussions in the e-Learning centers are on-line, taking the form of *lectures or courses* organized under the guidance of an instructor (teacher) and accompanied by different forms of information transmission: text, graphics, animations, multimedia presentations.

Instructors are guided in program teaching and learning activities and calendar planning.

Courses, as in the case of classics, are divided into units of learning, each learning unit containing: the learning objectives, the content of learning, various interactive methods and assessment (initial, final and final). These are built on the principles of active learning: to learn, the participant has to interact with the educational content, in particular the learner's web page.

Regardless of how knowledge is passed, control and responsibility for learning is at the learner. However, it is necessary to trace and guide it, in the case of electronic training systems, the feedback is immediately received and strengthens the lessons learned.

Contrary to expectations, *informal learning* regarded as the most advanced form of learning.

This means finding and acquiring that information strictly necessary goals and objectives set for work to be done. It is often likened to the search for food by animals. However, informal learning has gained momentum due to the need to develop an instructor of management information and a portfolio of the student.

Blended Learning has emerged as a reaction to the inefficiency of eLearning. This type of training combines synchronous and asynchronous learning situations, ultra-modern and classical learning.

Training communities view learning as a social activity. Because most business issues are extremely complex and dynamic, solutions to yesterday's problems are no longer fit today.

Knowledge Management is an interactive learning form that is achieved by exchanging information between real and didactic economic activity.

If learning communities generally arise around a goal, a concept, or a theme, *Networked Learning* is a personal activity with unrestricted access to informational content based on the link between people and resources. It is the foundation for knowledge management. Network training responds best to challenges, concept changes or any other nature that can occur in the training process being instantly transmitted to all users, and they remain permanently anchored to the new.

Continuous improvement or learning by and for work known as *Electronic Performance Support Systems (EPSS)* or *Work-Flow Learning* is that type of learning in which knowledge is injected/transmitted to meet/solve a punctual problem when it occurs. It constitutes a real alternative to courses, regardless of the form of organization, in virtual or real classes.

6. Gamification

From Arthur Samuel, with his famous program in 1959 that wanted to be a concrete example that could support the concept of artificial intelligence, and until today, the computer game industry seems to have found the ingredients needed to build intelligent systems and technologies artificially, the authors advocate a set of principles that should be respected when designing electronic learning systems is desired, either through computer games.

These principles are:

- *Learn to play the game.* In other words, it is necessary for the rules of the game to be made known to the participants before the game starts and eventually it can be played in the virtual environment not only virtual. Knowing how to run, the expected results

are the determining factors for designing the virtual environment so that the satisfaction from the end of the virtual game is the same as that of the real game.

- *Learn about players.* The structure of the players is very important. It is essential to know if the game can be played individually, with an opponent or partner, in a team, simultaneously or consecutively, with time or without time limit, etc. The success of a game is also given by the effort that players have to make during the game, the skills and abilities they have and the skills they need to train.
- *Capture the player's attention and instruct him.* Every game must have a stake. The rules of the game must be clearly formulated and players must be aware that the end belongs to those endowed with certain virtues to be cultivated: patience, perseverance, understanding, boldness, imagination, and so forth.
- *The game must be consistent and stable in the ideas it promotes.* The construction of the scrolling algorithm of the game stages must respect some of the particularities of the training systems: from easy to hard, from simple to compound. At the same time, the predictability of scenarios must leave room for creativity, spectacular, overturning but without exaggeration. Attractiveness and motivation of any kind must be subordinated to the purpose for which the game was created.
- *Optimization for adaptability.* The experience in creating computer games has induced a new rule in game design, namely customizing scenarios according to player specificity. Each player has his/her own personality and that is why it is very hard to find a universally accepted, accessible and motivating model. That's why a solution could come by changing and continually developing scenarios by player. In other words, it is necessary to have a permanent feedback supported by a permanent evaluation of the player's adaptability while at the same time resizing the effort required.

7. Conclusions

We note that, regardless of the form of learning organization, electronic training systems integrate at least:

- knowledge-based systems;
- search technologies in databases;
- information and communication technologies;
- Artificial intelligence/intelligence systems;
- database technologies and modelling technologies.

They can be considered as virtual learning environments: web pages, on-line courses, interactive training programs, simulation programs for laboratory experiments that can be accessed on the web. From a technical point of view, electronic training systems tend to be standards for the concept of reuse of content. These can be referred to as SCORM-Shareable Content Object Reference Model, MathML-Mathematical Markup Language, IMS-Information Management System, SVG-Scalable Vector Graphics, XML-Extensible Markup Language etc.

Beyond conceptual or technical considerations, an advanced e-learning system “is not to demonstrate that it has immediate results in a competition with other types of educational systems, but to replace some of the current structures with a new, possibly superior, performance spectrum to meet inherent changes in culture and civilization”.

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Entropy and Negentropy, Society's Dilemma

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Abstract

In this paper the authors highlight the existing dilemma in society regarding entropy and negentropy. The authors start from the idea that entropy being a natural law, it cannot be cancelled but only managed. Here comes the conclusion that for all types of systems: social, computer, urban, the entropy state that characterizes them, can have, to some extent, both advantages and disadvantages. The existing dilemma in society regarding entropy and negentropy involves the individual, meant to rationally manage a number of aspects not only social, computer, urban etc., action that leads not only to gain advantages but sometimes also disadvantages. By knowing everytime the certainties and uncertainties about development, we will be able to take the necessary measures to reduce uncertainty. This paper is a continuation of entropic and negentropic research of the authors from the living world to the economics.

Keywords: *Entropy, negentropy, survival, resources, systems*

JEL Classification: *O10, P40*

1. Introduction

At the beginning of the nineteenth century, the industrial revolution brought major changes within the society, such as: increasing the incomes of the nations, expanding urbanism, the emergence of new professions in all branches of activity, the development of education, etc. To these new changes are added other one's changes, such as: globalization, migration, stopping vices, violence etc.

The development of sociology as a science in the nineteenth and twentieth centuries has created favourable premises for it to incorporate into its epistemological apparatus, among news and information, knowledge, notions of order and disorder, preparing the combination of the sociology with entropically approach.

In the entropic approach the social values, truth, goodness, beauty helped by human qualities (intelligence, talent, morality, competence etc.) have their reverses too, the perverse face with which they coexist in an ideal process controlled by the majority, sets rules of social behaviour.

Many of these rules are found in what we call traditional ecological knowledge [3].

Entropy is the natural tendency of a system to enter into inner disorder. Its opposite, the negentropy or negative entropy, is the pressure exerted to maintain the inner order of the system

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and survival. The concept of “entropy” originates in thermodynamics, the field that studies heat transfer in a system. According to the second law of thermodynamics, for a system to become more orderly, a transfer of energy from its outside face is required.

Social (organizational) systems also tend to lose their inner balance, so they will disorganize, enter entropy. In these social systems, in a certain way, we must compensate entropy [5]. Social entropy is considered to be the cornerstone of the evolution of today’s human society [4].

Being a natural law, entropy, including the social one, cannot be cancelled but only managed, understanding the saving of natural resources (low entropy), increasing efficiency in their use, reducing parasitic consumption, promoting production patterns and consumption patterns which are proven to be sustainable, peace and collaboration policies instead of war and ethnic violence, strategic vision of the functioning of effector systems.

The 20th century brought sociology some challenges, namely [4]:

- processes of mechanization, automation, robotization;
- cybernetics with its applications;
- society of Knowledge;
- artificial intelligence;
- the perverse effects of negentropy; the phenomenon of globalization and the direct social effects: human migration, communication and information, increase in world GDP volume etc.

2. Social Negentropy

Social negentropy appears as a pool of information and knowledge – a product of human experience in all its positive and negative development – and which has inspired in the history of the population, rules of behaviour, habits, customs, traditional knowledge, transformed into behaviours of order, stability, population safety.

Negentropy has a typical component of every person, its entropy/negentropic field, but also an externally induced component that gives it the character of “social”. This is imposed by the structure of society, its culture, the system of administration, the vocation of the population etc.

The formation of personal negentropy begins with childhood, the period known as the “seven years of home”, when the responsibility of educating children belongs to the parents (stage one). The widening of the negentropic field is a continuous process of life, the next stage (the second) being represented by state education, free and compulsory. Inclusion in society also requires the passage of other stages, such as the acquisition of a profession with which a person enters into the structure of the national social system. The actual professionalization begins with the third stage, similar to the gymnasium, in which young people prepare for the transformation of natural resources into goods and services, they accumulate and produce new information and knowledge, they become economically independent of the family and society, standing out professionally. In the fourth stage, of the university, high-level specialists are trained and in a very varied professional range [4]. As they become decision-makers of the systems of the effectors, they have the task of influencing the social negentropia in order to serve the national interests-shown by strategic objectives and policies for their realization.

This memorandum-curriculum report has a sudden change in the second half of the 20th century and especially at the beginning of the 21st century, when the electronic computer offers the opportunity to store vast amounts of information and knowledge, but also to deliver them quickly, inexpensively, transmitted at very high distances.

- N. Georgescu-Roegen highlighted, together with the remarkable results of economic growth, the following components of this typical industrial age [4]:
- exhaustion of natural resources;
- accumulation of waste including used products;

- completing the evolution cycle of the effector processes;
- uncertainties in the intuition of what is beyond the endpoint of an economic, social, cultural process etc.

The new conditions in which contemporary society evolves, with changes in the structure of negentropia, lead to new requirements to adapt the paradigm of the process of evolution from growth to development, sustainable development, survival etc.

In almost all concepts of evolution of human society, to human resources are recognized an essential role as a renewable resource, with a potential far from being fully valorised, capable of adapting to all turbulences in the economic, social, cultural, military, religious age of the present time. Such a resource is considered to be appropriate for the emanation of negentropia to ensure the survival of the species, of the society.

The concept of economic survival is detailed in the book “Survival-the paradigm of a sustainable future” [2], integrating the principles of the entropic approach, so that the opposition of the restrictive factors of the evolution of the human society with the ones trying their control so that society and the living natural environment can survive. In this desire of adaptation for the purpose of survival, the decisive role is their thinking, intelligence, talent, wisdom and emanation, negentropy.

The concept of survival is based on the premise that “economic cycles have a final point” [4] and has as its main objective the removal of the final point by the negentropy of the human resource.

The principles of this concept are [4]:

- saving resources;
- reducing the volume of parasitic expenses of individual and social interest;
- harnessing the negentropy of previous human generations;
- the continuous increase of the individual and social consumption of goods and services.

The tools which this concept is operated are:

- factor control: demographic growth, resource exhaustion rate, environmental pollution, poor governance etc.
- managing the acquisition, selection, generation and capitalization of social negentropy.

2.1 Elements of the structure of social negentropy

Accepting the definition of social negentropy as the amount of the information and knowledge possessed by a society at a certain moment, it can be seen this cumulative negentropy through its sources of training and dynamics within the systems of the national social system effectors. Thus negentropy (individual-society) knows the following route [4]:

- Outside the system:
 - general negentropic background, free as access;
 - negentropy purchased, selected.
- Inside the system:
 - selecting the negentropy necessary for the functioning, the evolution of the system;
 - making use of selected negentropy;
 - generation of new negentropy and its partial or total capitalization.
- Outside the system:
 - the newly

Indigenous populations generators of negentropy – interest in modern society created negentropy increase enters the general flow.

- Loss of negentropy:
 - obsolescence
 - accidents, natural or man-made disasters;
 - poor governance at national level;
 - loss of memory media;
 - demographic loss.

The basin of this type of negentropy contains, according to the UN estimates, about 5000 groups inhabited by about 300 million people who live in several countries in five continents.

There is some belief that some human communities in Romania, in the Carpathian region, meet the characteristics of indigenous peoples (Apuseni Mountains, Maramures etc.) and they remain bearers and generators of negentropy.

The indigenous population is subject to great pressure from the outside of the human system and the desire to exploit natural resources (ores, forests, arable land etc.) in the interests of developed countries, with the direct consequence of culture loss, economic base, Mother Nature relationship, of the areas currently inhabited by indigenous peoples.

Biodiversity is found under red code. Losses in biodiversity have increased with industrialization and they continue to grow. This must draw attention to the importance of biodiversity conservation in indigenous communities, not only for their survival as a source of living, but also as a potential for biodiversity rehabilitation in developed countries.

A solution to preserve biodiversity in indigenous areas and to ensure the regeneration of biodiversity in countries suffering from this problem is to declare the “protected areas” of the current areas where the native population lives, the greater probability of preserving biodiversity, could also be interested in Romania to protect its indigenous population and prohibit the sale of land from protected areas through sale.

The negentropy of indigenous population has economic value: it should generate income, which is not happening today just a very small extent (tourism).

Today, it is recognized that every person has the ability to innovate, to create what compels the current society to preserve this capacity and historical information and to capitalize on them.

The meaning of the term of capitalization is rather rich, from which it is retained [4]:

- organization of the knowledge stock;
- criteria for capitalizing on them;
- selecting resonant knowledge with contemporary, current interest.

It is considered that the maintenance and consolidation of indigenous populations, of their knowledge, condition the welfare of the present society. 80% of the Earth’s population is dependent on the social negentropia of current indigenous populations.

2.2 The dichotomy of traditional and indigenous knowledge

Negropypia includes in its structure the perverse effects of knowledge accumulated by human generations, which are part of people’s nature as reactions to the historical diversity of situations, the environment and the behaviour of people, their culture, intelligence etc.

A list of the perverse effects of social negentropy associated with traditional and indigenous knowledge could include the following dichotomous effects to those considered conventional, normal [4]:

- violence manifested in the family, community, extended to the country level or even worldwide, its object being found in the creation of advantages, obtaining goods, access to natural resources, a solution to the poverty inequality – wealth, the desire for power etc.
- knowledge directed to the discovery and use of drugs – initially used for magical, symbolic, remedy against disease, drugs have become a means of "pleasure to live", or to stimulate this pleasure.

Occult science

Occultism brings from the beginnings of human history practices, beliefs, information, being part of occult sciences. As practice, occultism means knowledge and using magic, astrology etc. In its entirety, occultism is a negentropic conglomerate, largely overshadowed by modern science, compulsory education, and the culture of today's society.

The last components, vibrations from esotericism, contemporary science took them into consideration as a law of nature that sustains the principles of resonance and consonance – fundamentals in their turn for the transmission of information, knowledge and the formation of negentropy.

2.3 Stages of social negentropy

On the individual's life cycle, the stages of training, capitalization, adding of new knowledge that make the individual present in social life in the social negentropic field can be identified. Thus, the following sequence of phases in which negentropia is present, accessed, manifested, integrates with the social one [4] can be presented:

- a) childhood, illustrated also by the phrase "the seven years of home" is the beginning of the formation of individual negentropia, which at this stage manages to think independently, to assimilate some essential behaviours to the survival process, to know its place in the family, in the community. In European culture and civilization, the child did not miss the concern of society, tending to be granted a specific status with his needs and rights. For childhood, parents had clear obligations, of which education was very important.
- b) adolescence, stage 7-14, marked by state-level education that assumes that the presence, assistance, support of parents, the whole family begins to diminish in favour of the education system organized at national level.
- c) survival, stage 14-19 years. When mature, the young graduate student is apt (theoretically and practically) to become autonomous in a survival process. It can be said that for 19 years, parents, school, through their teachers and teachers, the adult child have given the outline of a man able to integrate into a process, to capitalize the negentropia accumulated up to this age with his own effort and society and, what is important is likely to gradually start generating negentropy – part of social negentropy.
- d) development, stage 19-23 years. University education conducted under the aegis of the state or in particular, concentrates the dynamic power of social negentropy with sensitive influence over the economic, social, ecological, cultural, etc. performances. of a country.

On the scale of his historical evolution, man has generated and accumulated knowledge that allowed him survival, progress, evolution to the current civilization. This negentropy is manifested from the family level (tradition) to the national level. Accessing, selecting the part

of social negentropy that interests in utilitarian, scientific sense, for the pleasure of living is conditioned by the capacity of the receiver, of the person interested in accessing, processing-assimilation, using information for individual, collective, company or personal purposes national level.

Here is the place of the education, education system, to facilitate the transaction from historical knowledge to its capitalization and to facilitate the formation of new information (knowledge, negentropy). Thus, the education system is the main trainer of selecting entities in the information flows of negentropy.

Historical knowledge, became negentropy (individual or social) has in its structure not only experience, positive thinking, but also experience, negative thinking, accumulated by man, and which often prove perennial (vices, for example). This finding makes it necessary to design the second system of information selection in their external flow, unlike the first selection system, which consists of concepts, principles established by society (morality, behaviour, legislation) or the one who manages negentropy (patron, state, parent to child etc.).

A third selection system, the negentropy management stage, could be identified, which aims to identify from the blackhearrow flow those trends that may be favourable or unfavourable to society and which are proactively treated. We are on a higher level of historical knowledge of dichotomic knowledge that requires the evolution of an effector process according to its predestined cycle.

3. Entropy and negentropy of public space

The entropy of public space means the degree of disorganization of those elements that create the urban image, while negentropia consists in ordering and regulating the urban public space (squares, streets, buildings etc.). Space has no significance only of physical stretching, but of the place where the individual manifests itself.

For example, in the Middle Ages space spontaneously develops around a central market, being more dispersed and more disorganized than in the classical, so more entropic.

The first negentropic intentions are manifested during the Renaissance, when a spatial organization takes place that replaces the medium lacking the shape of the medieval period. Industrial Revolution marks the beginning of great technological breakthroughs, new materials, construction types, urban elements etc. Negentropy, in this case, translates into the need to order urban space. The climax of ordering and regularizing is manifested in the twentieth century, when the first social experiments carried out in the name of negentropy took place.

In today's city, control has a technological appearance, manifested by technological improvement, the impressive development of circulation networks, the popularization of markets with only one function (totally different from Renaissance markets, when they were places for meeting, resting, pedestrian traffic etc.), becoming monotonous and unsatisfactory, being designed for car traffic. An urban market can be continuously transformed either into a space for public protests, or in a showroom, a place for public dialogues, etc. Increasing the complexity of the economic system is entropically reflected on social contact, the development of multifunctional centres leading to disorganization [1].

Entropy is actually a contradictory term (dichotomic): it can bring advantages when it comes to achieving a difficult thing to do, a happy occurrence or the opportunity of an event, but also a great risk when it comes to the urban spatial configuration. Excessive planning forces people to certain directions, dehumanizes them, transforms them into a "car". So, the city has to keep a certain degree of disorganization, entropy, to allow the complex evolution of any system, to truly be "for people".

4. Conclusions

This work is a continuation of entropic and negentropic research from the living world to the economics of the authors.

The existing dilemma in society regarding entropy and negentropy involves the individual, meant to rationally manage a number of aspects not only social, computer, urban etc., action that leads not only to gain advantages, but sometimes also disadvantages. Also, man has to analyse a series of aspects that outline a typology of systems with applicability in the administrative, social etc., starting from an analysis of the entropy law as a natural law as well as aspects of negentropy. Man has to reflect on the state of things, knowing that by doing small things, important ones are done. In such situations, man is the best manager.

From antiquity until today, the rhythm of entropy knowledge has outlined greater certainties in the case of social development, by maintaining high society. These can generate oscillations of information entropy, so frequent changes in the uncertainty about social development. If we do not know at all times certainty and uncertainty about development, we will not be able to take the necessary measures to reduce uncertainty.

The term of order is often reduced to the knowledge we can obtain by statistically tracking social microstars. We find that the variation of social entropy per unit of time is the result of the entropic balance sheet containing a shift term, where the transfer of entropy of the natural environment is made to the social system. The other term expresses the production of social entropy within the social system as a result of the irreversible phenomenon that is unfolding.

Therefore, in today's vision, more than ever, information, entropy, negentropy (as phenomenon-social dilemmas) remain not only orientable but also uncertain.

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**The Poultry Meat and Eggs Consumption Impact on
Salmonellosis Cases**

Ruxandra-Eugenia POP¹

Abstract

Salmonella infestation occurs among the population, most of the time, as a result of eating foods such as meat, eggs, or products that contain raw eggs. The most serious complication of infestation with this bacterium is the development of typhoid fever, a disease that can lead even to death in less developed countries. Salmonellosis can also cause complications among children, the elderly, pregnant women, or people with low immunity. It was observed, after analyzing the statistical data that the number of cases of Salmonella infestation has been increasing over the last analyzed period. This paper seeks to analyze the impact of Salmonella infestation on the egg and poultry meat market in Romania, taking the period between 1995 and 2015 as well as the link between these variables. It is also interesting to see how the value of imports and exports on these two markets evolved, taking into account this variable. Of course, not only factors such as Salmonella infestation are defining to observe the oscillation of the above-mentioned elements. The level of consumer education and income, access to information, are only a few elements that have an important role in the decision to purchase agri-food products.

Keywords: *Salmonella infestation, eggs market, chicken meat market, consumption, regression model*

JEL Classification: *Q18, I15*

1. Introduction

Infestation with Salmonella bacteria is one of the major threats the markets for animal products generally face. At European level, more than 100,000 people make Salmonellosis, according to EFSA (European Food Safety Authority) data [1]. Moreover, it is estimated that the economic burden to deal with this problem could reach 3 billion euros annually. At national level, as we will see in the paper, statistics show that the number of Salmonella-detected cases is on average over 1000 per year. It is known that Salmonella-bearing foods are: beef and pork, poultry and eggs, or raw egg products. The largest share of sources of contamination, according to specialty studies, belongs to eggs and their products (67%) and only 33% to poultry, pigs and beef (Painter *et al.*, 2013). [2]. Lately, the market for eggs and products derived from them has experienced a climate of instability due to a salmonella epidemic. By the end of 2016, approximately 300,000 pieces imported from Poland were withdrawn from the market. They did not reach consumers in the case of Romania, but in Croatia there were three cases of death

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with source of eggs imported from Poland. Also, in the European egg market in 2017 in August, there was the phenomenon called by the specialists the “fipronil crisis” due to the removal of a significant number of laying hens from production, amid the existence of an epidemic among them. Although the Romanian farms have not been affected by this phenomenon, the Romanian egg market has suffered, with a rise in prices and a considerable drop in domestic production (Rudniçi, 2007) [4].

2. Problem Statement

Given the Salmonella infestation of agro-food products and the danger to which the population is exposed, there are numerous native and foreign scientific publications, primarily from a medical point of view, which analyze how these bacteria is spreading, as shown in population populations, ways to prevent salmonella contamination, treatments, risk factors and others. From the point of view of the agro-food economy, there are a number of materials that address the risks of micro-organism contamination to which the animal or cage is subjected, Salmonellosis being the most common disease in animals. This paper analyzes the impact of the spread of the bacterium on egg and poultry consumption, as well as the trade balances recorded in these markets.

3. Research Questions/Aims of the research

The purpose of the research is to assess the impact of Salmonella infestation on agro-food products such as egg and poultry meat on the consumption of these products, but also on the value of imports and exports recorded on these markets.

The objectives of this research are represented by answers to the following questions:

- Is a direct relationship between the number of recorded salmonellosis cases and the consumption of eggs at national level?
- Is a direct link between the number of recorded salmonellosis cases and the poultry meat consumption at national level?
- Is a direct proportional link between the number of recorded salmonellosis cases and the value of recorded imports?

4. Research Methods

The research methods used for this paper are the quantitative and comparative analysis of the data recorded on The National Institute of Statistics databases regarding the following aspects: Salmonella cases registered in Romania, consumption of eggs and poultry meat. Variables and linkage between variables will be analyzed using the SPSS statistical program to obtain a regression model. These parameters are used to see whether there is a link between the two or more variables and also to interpret the link strength type (weak, medium, or high). The time frame of the paper is between 1995 and 2016. Another method of analysis used in the paper is the scientific documentation using specialized literature written in the field.

5. Findings

The variables that the paper aims to analyze and interpret to assess the impact of Salmonella bacteria infestation on agro-food products such as egg and poultry meat on the consumption of these products will be presented below.

5.1 Variable 1: Salmonellosis cases recorded in our country

Table 1 presents the data available on INSSE database about the number of Salmonella cases detected in Romania between 1995 and 2016:

Table 1. Number of disease cases Salmonellosis Romania 1995-2016

Year	Salmonellosis cases (number)
1995	1727
1996	1193
1997	1129
1998	1391
1999	1103
2000	827
2001	1036
2002	1177
2003	1006
2004	930
2005	716
2006	645
2007	620
2008	624
2009	940
2010	1096
2011	924
2012	868
2013	1457
2014	1634
2015	1539
2016	1492

Source: adapted from Tempo Online Database (2018) [3]

We note that most cases of Salmonellosis were recorded in 1995, 2013, 2014 and 2015. The least number of cases occurred between 2006 and 2008.

5.2 Variable 2: Consumption on the egg market in Romania

Table 2 presents the data available on INSSE database about the average annual consumption of eggs, registered in Romania, between 1995 and 2016:

Table 2. Average annual consumption on the egg market 1995-2016

Year	Egg Consumption (pieces)
1995	197
1996	199
1997	186
1998	201
1999	206
2000	208
2001	227
2002	239
2003	241
2004	292
2005	288
2006	282
2007	276
2008	280

2009	256
2010	253
2011	264
2012	245
2013	247
2014	246
2015	262
2016	267

Source: adapted from Tempo Online Database (2018) [3]

The consumption of eggs in Romania peaked in the years 2004, 2005, 2006.

The minimum value achieved of the eggs consumption was reached in 1997, 1995 and 1996.

5.3 Variable 3: Consumption on the poultry meat market in Romania

Table 3 presents the data available on INSSE database about the average annual consumption of poultry meat, registered in Romania, between 1995 and 2016:

Table 3. Average annual consumption on the poultry meat market 1995-2016

Year	Poultry Meat Consumption (kg)
1995	13
1996	13
1997	12,1
1998	13,8
1999	12,7
2000	12,6
2001	16
2002	18,9
2003	20,2
2004	20,1
2005	21,5
2006	21,8
2007	20,7
2008	20,7
2009	20,1
2010	22,7
2011	17,5
2012	18,2
2013	17,5
2014	20,1
2015	23
2016	24,1

Source: adapted from Tempo Online Database (2018) [3]

Table 3 shows the oscillation of poultry meat consumption in Romania between 1995 and 2016. Thus, the maximum values are recorded in 2016, 2015, 2010. The smallest values were registered in 1997, 2000, 1995 and 1996. We also notice a considerable decrease in the years 2011-2013 compared to the previous years. This is due to the number increased of bird flu registered in the same period in our country.

5.4 Statistical analysis of the link between the case variables Salmonellosis – annual average consumption/head per capita egg – annual average consumption – head poultry meat

The result of the regression models is presented in Table 3. The models are statistically significant since the values of Sig. are below 0.05. Significant correlations have been found

between the poultry meat consumption and the number of Salmonellosis cases ($R^2=0.764$). On the other hand, the regression models show that there is significant correlation between the eggs consumption and the number of Salmonellosis cases ($R^2=0.693$).

Table 4. The influence of poultry meat consumption and eggs consumption on the number of cases of Salmonellosis diseases

Variable	Coefficients of correlation	Coefficients of regression function	Standard error	Sig.
Poultry consumption	meat .764	.874	.919	.000
Eggs consumption	.693	.440	.020	.041

Source: Results of the regression model

The findings show that 1-unit growth in chicken meat consumption leads to 0,87 growths in new cases of Salmonellosis diseases, under a standard error of 0.919. Increases by 1-unit in eggs consumption lead to 0.440 increase in new cases of Salmonellosis diseases, under a standard error of 0.020. This result validates the hypothesis that the human consumption of poultry meat and eggs has impact over the increasing number of Salmonellosis registered cases, in Romania.

6. Conclusions

The human consumption of poultry meat and eggs in Romania does affect the increasing number of Salmonellosis cases. However, if we want to make a comparison between the impact that the two variables have under the number of cases found with Salmonella bacteria, we can say that, in this case, the poultry meat consumption has a bigger one. This conclusion confirms what we had quoted in introduction regarding what Painter affirm in his published study, regarding the Foodborne Illness Source Attribution estimates for Salmonella.

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Consequences of Lifestyle Change on Population Health

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Abstract

If a few decades ago, the society was analyzing the theories about the expansion of space and contraction of time, in recent years, approaches to the contraction of time theory are increasingly being discussed, both by specialists and by non-specialists. The rhythm of people's lifestyle is changing especially in developing countries, people spend more and more hours at work, to the detriment of leisure and family time. People's traditions and eating habits are affected by the changes in the structure of the day, from a temporal perspective as follows: we work harder, we spend more time at the office and we spend less time at home, we cook less and we buy and consume more processed foods. In the context of globalization, the food that is offered to us is more and more accessible, the offer is diversified, permanent and available from a sensory perspective. The marketing is doing his job, convincing us that we need the new products, that these new products are better compared to previous versions and makes us spend money on what we do not really need. We work more, eat more food and more calories but we tend to do less exercise, obviously health problems arise for many of us, such as overweight and obesity, problems that occupy an important place in today's society problems. The forecasts show that by 2030 over 50% of Romanians will be obese. For some countries, the figure could even reach 90%, suggest some estimates. (Sarbu 2016).

Keywords: *Lifestyle, Globalization, Obesity, Body Mass Index (BMI), Health*

JEL Classification: *Q01; I15*

1. Introduction

The food production system and consumption patterns are being transformed at an unprecedented rate as a result of the global changes on social and economic levels. The urbanization together with the foreign direct investments in the developing countries and their markets influence not only the workforce but also the ways of food production, processing and storage and encourage the intensive agriculture, therefore enabling the emergence of big food retails such as food outlets and supermarkets. By offering diverse food products for the consumers that can afford them, the cooking habits of home prepared meals has shifted from classic and traditional cooking to pre-prepared foods or ready to eat meals which are often consumed away from home. All of these changes have a direct impact on the health and nutritional status of people in developing countries. We can state that there is a rapid increase

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in overweight and obesity particularly among adults all over the Europe’s countries. (Kennedy *et al.*, 2004).

The increasingly global food trade along with the growing population requires not only greater quantities of food products but also safe food. The safe food refers not only to the nutritional values but also to the pathogens and illness causing bacteria, parasites, fungus or other toxins, metals or E-coli, therefore the food safety became a significant global issue, that generates an impact on the international food trade and the health of the population. (Buzby 2001)

Although the food producers in order to prosper they must offer some degree of food safety, as they depend on their reputations in order to sell their products, but still, the food market does not achieve the social desirable amount of food safety. Firstly, the consumers cannot determine if the food is safe without buying it and even if they buy that food and consume it, and secondly, they cannot be certain that the food made them ill or that it might influence their health status on long term. (Mitchell 2003)

In order to control the quality of the food, The Europe Union (EU) has implemented its own policy regarding the food security. At present, the EU food safety policy targets the entire food chain and its purpose is to guarantee the following: the safety and nutritional value of food; high standards of animal welfare and agricultural products; clear information regarding the origin, content, labeling and use of food. (EU 2014)

The World Health Organization (WHO) is the entity that regulates the food safety worldwide and the authority responsible for public health. WHO states that the main problem generated by the globalization of the food system is the obesity and it is classified as a social disease. This disease is one of the greatest public health challenges of our times. Since the 1980 the number of people that are affected by obesity has tripled and it is continuing to rise at a fast pace. (WHO 2018)

Peretianu *et al.*, (2009) defines obesity as being a conventional diagnostic which is calculated based on the weight and height of the patients.

The Body mass index, BMI is the easiest test that can be positively quantified and correlated with the patient’s body fat, consisting in a measure of a person’s weight relative to their height (Ferrera 2004):

$$BMI = \frac{\text{Weight in Kilograms}}{(\text{Height in Meters})^2} \quad (1)$$

BMI is an important indicator of the health of the population, and it’s vastly used not only in scientific and professional environments but also by non-specialists and the general public.

The use of the BMI is recommended because it can be easy correlated with the negative effects of the obesity, it is a general criterion for sorting out the people and to study the effects of various therapies applied on the obese patients and last but not least, the most studies use the BMI as criteria for their research. (Peretianu *et al.*, 2009)

Table 1. Body Mass Index BMI Categories according to World Health Organization

Weight Category	BMI
Underweight	≤18.5
Normal weight	18.5-24.9
Overweight	≥25.0

Source: Ferrera (2004), p. 83

The normal BMI must have a value between 18.5 and 25 otherwise, if the BMI is less than 18.5 the person is catalogued as being underweight, if the BMI has a value between 25 and 30,

the person is catalogued as being overweight and if the BMI passes the 30 mark, than the person is considered to suffer from obesity. (Peretianu *et al.*, 2009)

2. Problem Statement

In the 21st century the body weight of the people living in developed and developing countries has substantially increased due to the globalization phenomenon, which transformed the people's life on political, economic and social levels. (De Vogli *et al.*, 2014)

The number of overweight and obese people has been growing exponentially in the recent years and many people struggle to maintain a normal weight in today's global economy. The new living environment that was created by the globalization process spans from low breastfeeding rates, to geographically or financially problems that make the access to ingredients of a healthy diet almost impossible, lack of cooking skills or the aggressive marketing of energy rich foods to urbanization and lifestyle pressures that reduce the opportunity for sports and physical activities. While being overweight or obese was a problem for only high-income countries, because of the globalization process, obesity is now a big trouble for the people from low and middle-income countries that live in the urban areas and have a sedentary lifestyle. (EUROSTAT 2017)

People's weight is influenced by the food they eat and the sports and physical activities that they practice. Therefore, a multitude of demographic, psychological, cognitive, behavioral and emotional and environmental factors influence their choices. On the other hand, the factors that determine people's diets consist into the attitudes towards eating healthy, motivation, food addictions, access to fast food and snacks, emotional stress, trends in food accessibility, nutritional and diet trends, and the most important of them, food advertising and pricing.

Some of the factors that influence people's weight and are a part of the globalization process are as follows:

Sedentariness, characterized by lowering the physical effort done by the modern society people is the key factor in the energetic balance that leads to becoming overweight, as a mechanism of stocking the excess energy.

The technology, mainly represented by the television and the computer are also important factors that influence the obesity levels. Studies have shown that people who stay in front of the TV or PC more than 4 hours a day gain double the weight than a normal person that has physical activity and spends less time on TV or PC. (Peretianu *et al.*, 2009)

Lack of NEAT-Non-exercise activity thermogenesis, concept that refers to the time that we spend for the daily physical activities other than sports. Therefore, NEAT represents the energy that we use for walking, office work, agricultural or household activities. (Levine 2003)

Studies have shown that obese people tend to stay on chairs with 2.5 more hours than the average of non-obese people. (Peretianu *et al.*, 2009)

Smoking is strongly associated with obesity as being an independent factor for this disease. People who smoke a lot, in specially men, tend to be fatter than the non-smoking people, therefore the BMI can be correlated with the number of smoked cigarettes. (Chiolero *et al.*, 2007)

Stress and unusual events – many patients realize the fact that they tend to gain in weight after they live through some stressful experiences or unusual events.

Disorders of food intake – obese people have a different behavior regarding their feeding habits, quantitative and qualitative compared to normal people.

Although the epidemiology of obesity shows that hyper alimentation and the lifestyle changes of the human species consist into important factors for obesity, the genetic factor cannot be removed from this equation. Specialists state that more than 80% from the BMI

variation is due to genetic factors, but the genetic factors work together with today's problems and cause the rate of obesity to grow both on local and global levels. (Peretianu *et al.*, 2009)

Given the rapid development of the modern retail, processed foods are becoming more accessible, both geographically, and economically priced.

In the first 2 months of 2018, the food retailer PROFI opened 18 new stores and reached to a total of 722 stores, being the network with the most units and with the largest expansion in Romania. (Retail FMCG 2018) Also, Mega Image, another food retailer opened another big concept store in Bucharest, reaching to a total of 600 stores. (PROFIT.RO 2018) Carrefour Romania also inaugurated a supermarket in 2018, reaching a total of 223 units (Retail FMCG 2018) while Rewe Romania the Penny Market network by opening a new supermarket in 2018 reached to a total of 222 units. (Dragomir 2018) Another big supermarket retailer, Kaufland also opened a new supermarket in February, reaching to a total of 119 units. (Kaufland 2018)

All of these supermarket retail chains sell imported products and promote food that is traded at global level. Also, there are planned big events for the fast food sector as well, Mc Donald's Romania planning to open 7 more restaurants in Romania, while at present McDonald's is owning 71 restaurants in 21 cities of Romania and over 4.500 employees. McDonald's manager declared that their goal for 2018 is to exceed the number of 73 million customers that visited McDonald's restaurants last year. (Cicovschi 2018)

By changing the people's dietary patterns towards the consumption of processed foods that can be prepared quickly and easily, the people also changed their working, social and lifestyle habits, with the result that more and more adult persons are becoming overweight and eventually suffer from obesity. (Peretianu *et al.*, 2009)

3. Research Questions/Aims of the research

Does the lifestyle change influence the health state of the people?

4. Research Methods

The research method consists into comparing official data collected from Eurostat regarding the BMI of Romania's population and the EU's average and linking the results with the process of globalization by analyzing various case studies and articles that tackle the subject of globalization and obesity.

5. Findings

The data used in the present article is retrieved from official EU statistical analysis which was conducted between 2013 and 2015. The data refers to the average of overweight male and female persons that live in the EU and in Romania.

Table 2. Overweight population in EU and Romania (%)

Age over 18 years old	Overweight average (%)	Male (%)		Female (%)	
Region		Overweight	Obese	Overweight	Obese
EU	51.6	59.1	15.6	44.7	15.3
RO	55.8	63.2	8.7	49	9.4

Source: Overweight and obesity – BMI statistics EUROSTAT (2017)

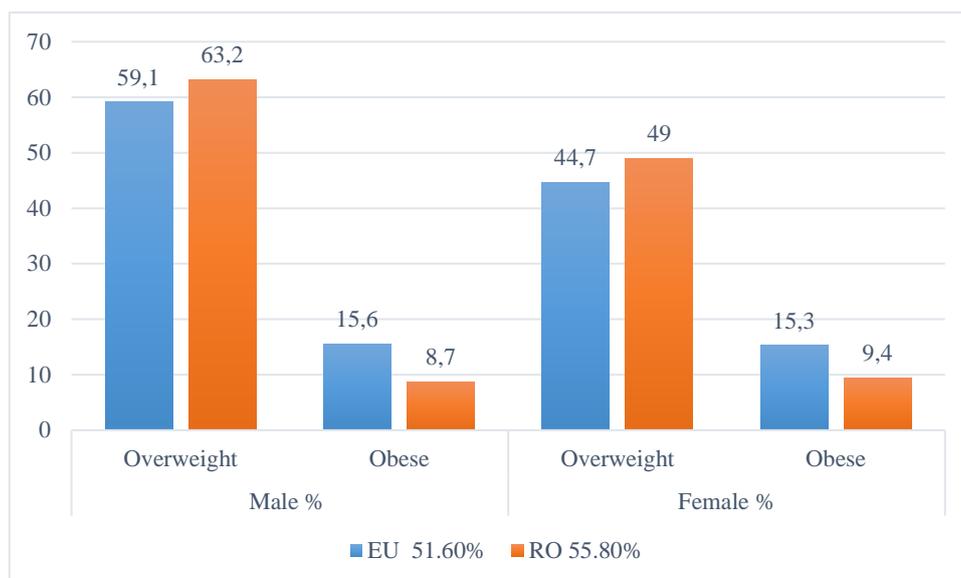


Figure 1. Overweight population in EU and Romania (%)
 Source: adapted from EUROSTAT (2017)

For the studied period of 2013-2015, 51.6% of the EU’s population was overweight while the average for overweight people in Romania was 55.8%.

In the EU, 59.1% of the male population over 18 years old was overweight, having a BMI over 25 while 15.6% of the overweight male population was also obese, having the BMI over 30.

In Romania, 63.2% of the male population over 18 years old was overweight, having a BMI over 25 while 8.7% of the overweight male population was also obese, having a BMI over 30.

Regarding the female population of the EU’ 44.7% of the female population over 18 years old were overweight, having a BMI over 25 while 15.3% of the overweight female population were also obese, having a BMI over 30.

In Romania, 49% of the female population over 18 years old was overweight, having a BMI over 25 while 9.4% of the female population that were overweight were also obese, having a BMI over 30.

The average of overweight people that live in Romania is bigger than the EU’s average with 4.2%. Even though the number of overweight male persons that live in Romania is bigger with 4.1% compared to the EU’s average, the number of men that suffer from obesity is smaller in Romania, only 8.7% being obese out of 63.2% while in the EU, 15.6% out of 59.1% male persons suffer from obesity. Regarding the female population, Romania’s average of overweight women is higher with 4.3% than the EU’s average, but again, similar to the male situation, in Romania, only 9.4% out of 49 women suffer from obesity while in the EU, 15.3% out of 44.7% suffer from obesity.

Table 3. Overweight population in Romania, year 2000 vs. year 2014 (%)

Year	Male (%)		Female (%)	
	2000	2014	2000	2014
Overweight	38	63.2	28.6	49
Obese	7.7	8.7	9.5	9.4

Source: adapt from EUROSTAT (2017) and RCHPB (2016)

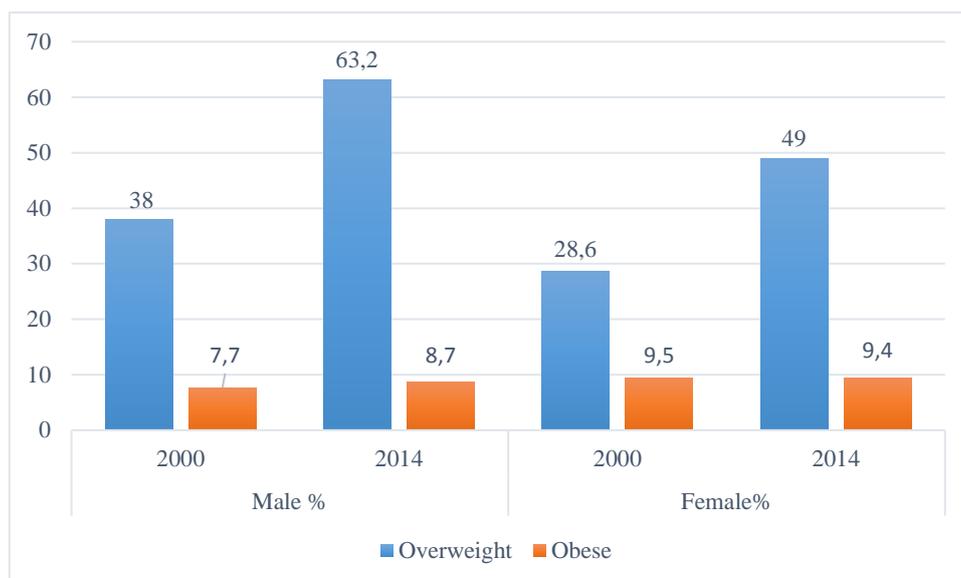


Figure 2. Overweight population in Romania, year 2000 vs. year 2014 (%)
 Source: adapt from EUROSTAT (2017) and Negoescu *et al.*, (2016)

According to the regional public health center in Bucharest, in the year 2000, almost 38% of the male population were overweight while 7.7% were suffering from obesity and 28,6% women were overweight while 9.5% were suffering from obesity.

We can clearly see the differences, from the year 2000 to 2014, the level of overweight men rising from 38% to almost 63% while the obesity percent rising with 1.1% from 7.7 to 8.7%.

The percent of overweight women that live in Romania rose from 28.6% in 2000 to 49% in 2014 while the obesity percent remained almost the same, 9.4% in 2000 and 9.5% in 2014.

6. Conclusions

The globalization process is affecting not only the EU but also Romania directly, and the changes generated by this process are evidenced by people's lifestyle and health problems. We can see clearly that the percent of overweight people that live in Romania has increased significantly since the year 2000 to the year 2014, as a result of the globalization process. Also, the average of overweight people that live in Romania is close to the European average. For now, the level of obese people that live in Romania is not as high as in EU but we all know that after overweightness the next step is obesity, therefore some changes have to be made not only on local but also on European and even global levels in order to dodge the problem of obesity induced by so called artificial causes, others than genetic issues. The EU and Romania have implemented their own strategies regarding the promotion and selling of agro-alimentary products, and other strategies in order to keep the population safe and are constantly trying to fight overweightness and obesity but with no clear results what so ever, the percent of overweight and obese people continuing to rise from a year to another.

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Romania's Vegetables Production in the Context of Globalization and Food Security

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Abstract

Food safety was and remains a permanent concern of all the states, together with food safety, being an important aspect of population living conditions. Globalization brings the advantage of trading goods with better conditions, including a higher variety of non-food and food, vegetables too. In this context, we need to understand our local current situation and to raise the question if local producers achieved their optimal production level or still they have to improve current status for delivering better quality and quantity of vegetables. Romania has a great potential for agriculture, taking into account a balanced relief distribution (33% plains, 37% hills, 30% mountains), the share of cultivated surface from total surface (13.9%), soil and climate, conditions predispose to very good production of many types of crops. Herewith, we aim to evaluate current economic potential of Romania for fresh vegetables production in relation with local consumption needs and agri-food sources. We consider important to assess the import and export balance of Romania for vegetables and to detect new economic opportunities from agribusiness point of view.

Keywords: *food security, fresh vegetables, vegetables consumption, producers, production potential*

JEL Classification: *Q0*

1. Introduction

Romania has a total surface of 23.84 million hectares, out of which 13.9 million hectares are used for agriculture. This surface places Romania on the 6th place among EU countries, after France, Spain or Germany, which have from far even a larger territory of the country.

From this surface of 13.9 million hectares, we distinguish 8.2 million hectares used to cultivate crops like cereals, corn, potatoes, oleaginous and vegetables.

An important mention is that glass houses used for vegetables production have a small surface, 7.5 thousand hectares, which generate difficulties in supplying consumers with fresh vegetables during winter season.

In 2016 Romania has cultivated 228 thousand hectares with fresh vegetables, with a production of 3358.3 thousand tones, with a productivity of 14.7 thousand tonnes per hectare.

Event those figures are important, in 2016 was registered a decrease with -5% in comparison with 2015 for cultivated area, which conducts to a decrease of -9% of the vegetable production.

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Main species cultivated for fresh vegetable production are: tomatoes, onion, cabbage, peppers and potatoes.

2. Problem Statement

Regarding Romania's opportunities through globalization in agribusiness and food security, we can take advantage of the Romanian Statistical yearbook and Eurostat reports, to understand the level of production, productivity and consumption of vegetables, the same the level of imports of some vegetables and consumers' preferences with regard of fresh vegetables, which are the strategies of improvement of Ministry of Agriculture and Rural Development (through National Plan of Rural Development and Agrifood Strategy).

3. Research Questions/Aims of the research

The present research aim is to prove that Romania's opportunity is still high in agribusiness sector and that there is a high potential to explore in the future, mainly in the context of globalization where new markets can be open for new transactions.

4. Research Methods

The topic is treated from quantitative point of view, as per official reports and statistics. We aim to understand and to evaluate, at country level, Romania's actual situation of agribusiness, with focus on vegetables. We will visualise the *status quo* from the general crop production to the specific vegetables production, as per official reports. Analysis will aim production, import and exports activities, taking into account also inhabitants' preferences and consumption data.

Results of these analyses will conduct researchers to a conclusion, based on their evaluation and interpretation of the official statistical data, about Romania's potential of vegetables production.

5. Findings

At the level of 2013 Romania is placed among EU 28 countries on the 6th place in regard with cultivated surface for agricultural production. In this moment, if UK brexit will be in place, Romania will move on the 5th place, which is extremely important for EU community and agricultural transactions.

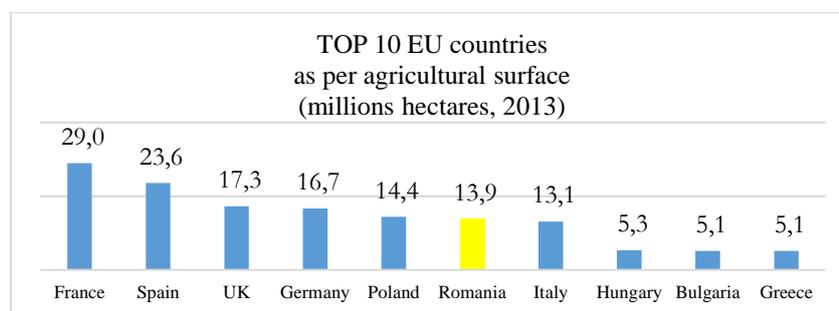


Figure 1. Agricultural surface of EU countries
Source: adapted from Eurostat (2013)

Crops cultivated vary from cereals to fresh vegetables, with different weight, as per *Figure 2*. Wheat it is still the main important, followed by corn. Potatoes and fresh vegetables have a

low level of allocated surface, even those they represent an important element of a balanced nutrition of the population and an important ingredient for cans of other processed food.

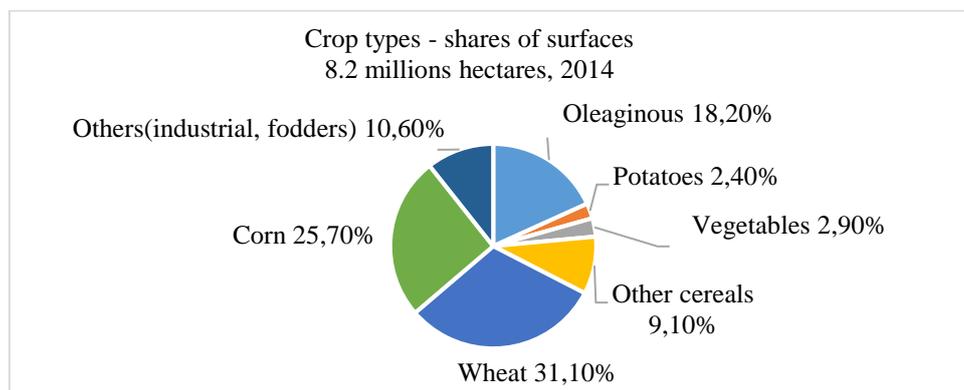


Figure 2. Romania’s agricultural surface split per crop type
 Source: adapted from Romanian Statistical yearbook, 2015

Vegetables cultivated surface, based on climate conditions and geographical position, is distributed to a variety of crops, production which may vary if seasons are too dry or too wet in some elevation phases of the crops.

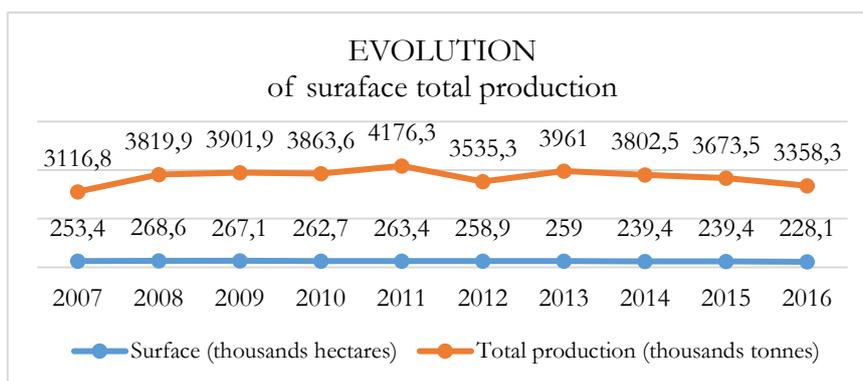


Figure 3. Romania’s vegetables agricultural surface and production evolution
 Source: adapted from Romanian Statistical yearbook, 2016

As you can see in *Figure 3*, variation in cultivated surface it is no too big, but variation of production has significant variation – we can consider 2007 as a weak year of production, with an average of 12.3 thousand tonnes/hectare. In the opposite, production of 2011 and 2014 where very good, with averages of 15.86 thousand tonnes/hectare (2011) and respectively with 15.88 thousand tonnes/hectare (2014).

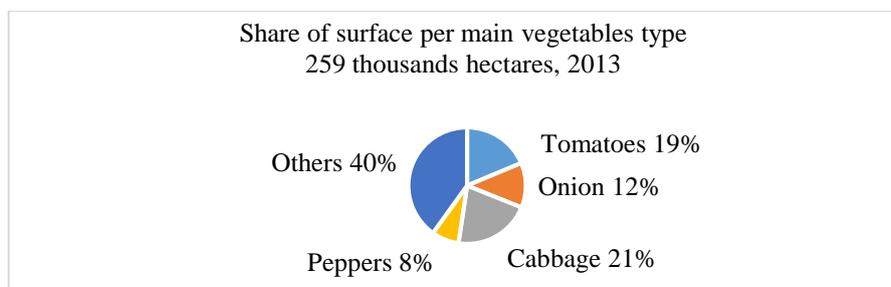


Figure 4. Vegetables’ agricultural surface split per crop type
 Source: adapted from Romanian Statistical yearbook, 2014

In 2013, the total of cultivated surface with vegetables was 259 thousand hectares. On this surface, the main cultivated vegetables, with highest shares of allocated surfaces are cabbage (21%), tomatoes (19%), onion (12%) and peppers (8%) – *Figure 4*.

In terms of production, at the level of 2013, we registered a total of 3961 thousand tonnes.

As per *Figure 5*, we can understand that the main shares of total production are of cabbage (29%), tomatoes (19%), onion (10%) and peppers (6%).

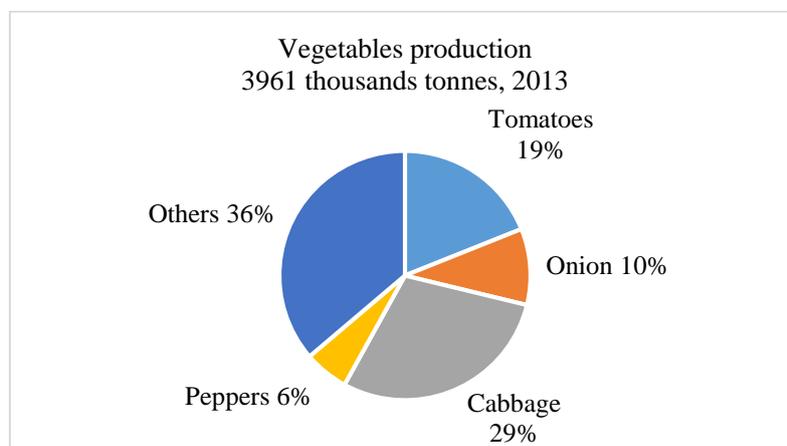


Figure 5. Vegetables' production split per main types
Source: adapted from Romanian Statistical yearbook, 2014

We need to analyse if production level meets the requirements of consumption of the population. In this respect, we took the data of main vegetables to check consumer's preferences and results can be seen in *Figure 6*.

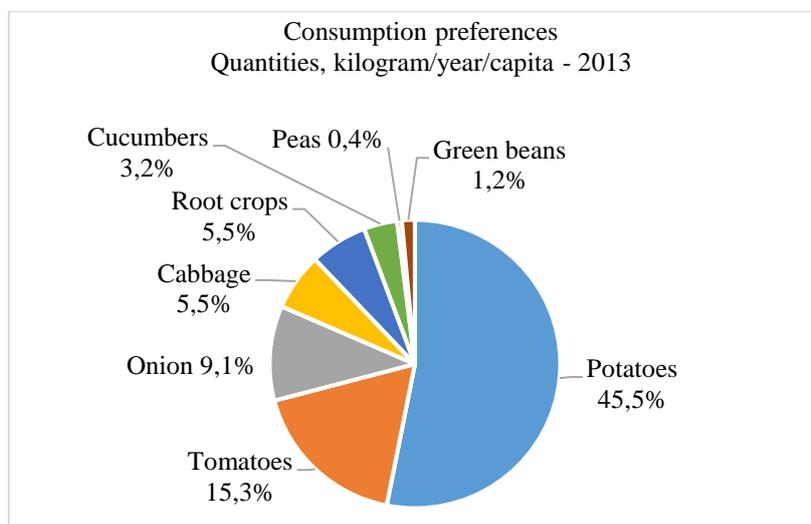


Figure 6. Vegetables' consumption preferences – split per main types
Source: adapted from Eurostat

As preference, potatoes have a huge share, of 45.5%, followed by tomatoes with 15.3% and onion with 9.1%. From culinary point of view, it is easy to understand that those vegetables represent a category of high frequent aliment or ingredient for many dishes.

We need to check also if there is a trend or not and for this reason we look back to year 2000 and we made a comparison with 2013, as per *Figure 7*. Therefore, we can understand that preferences remain similar, just consumption increased over the years. Based on this evidence, we can state that such demand of products needs to be sustained by a good farming productivity and also agricultural factors, from big farmers to small producers need to adapt to new demand.

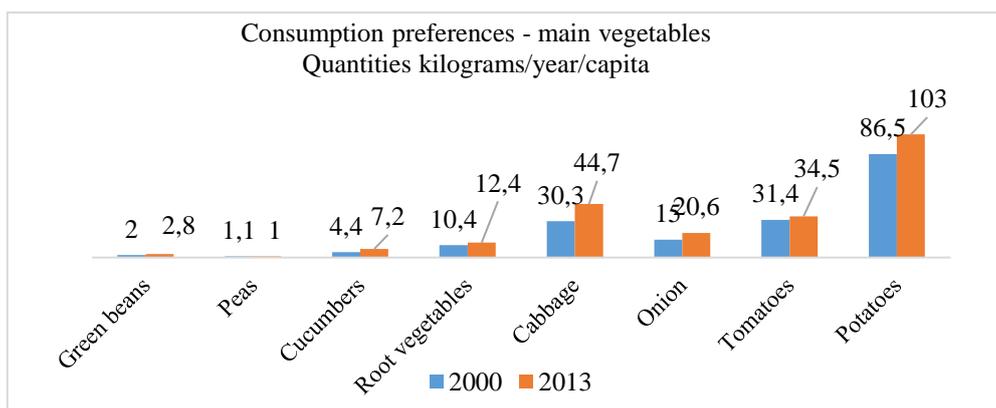


Figure 7. Vegetables’ consumption preferences - split per main types
 Source: adapted from Eurostat

To complete our research from a larger point of view, we consider important to understand the import and export transactions with vegetables of Romania with other countries. For detailed data, we analysed 2012, so we can see per vegetables categories how transactions went.

As an overview, in *Figures 8 and 9* we have the comparison of import and export, in volume and value for vegetables categories.

In both figures for our analyses we considered the same groups of vegetables and categories, like: potatoes (fresh, refrigerated), tomatoes (fresh, refrigerated), onion, garlic, leek, other alliaceous, cabbage, cauliflower, turnip, salads, carrots, kohlrabi, beet, cucumbers (fresh, refrigerated), pods – fresh, other vegetables (fresh/refrigerated), other vegetables (fresh/boiled/steamed/frozen), vegetables temporarily preserved (controlled atmosphere), dried vegetables and pods, roots of manioc, arorut, salep, topinamburi, etc.

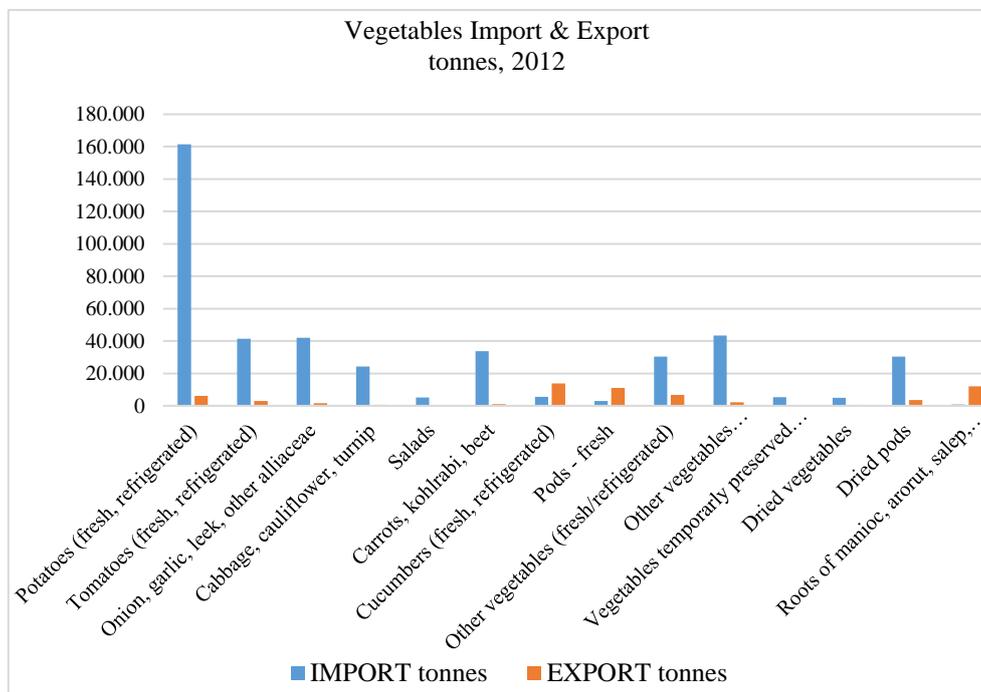


Figure 8. Quantity of vegetables’ import and export of Romania
 Source: adapted from Eurostat (2013)

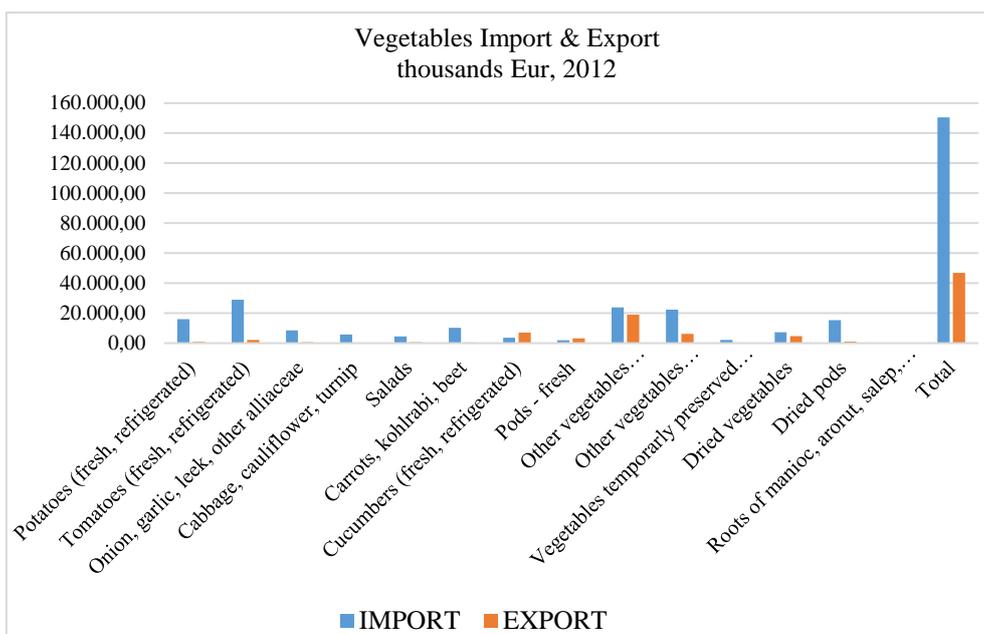


Figure 9. Value of vegetables' import and export of Romania
 Source: adapted from Eurostat

As it is very visible, with no exception, Romania's import is higher than export done with vegetables. This means that budgetary effort is important and for local economy this image is not healthy.

To understand if 2012 was an exception, we check aggregated data for food import/export and for vegetables for some more recent years.



Figure 10. Value of food products import and export of Romania
 Source: adapted from Romanian Statistical yearbook, 2017

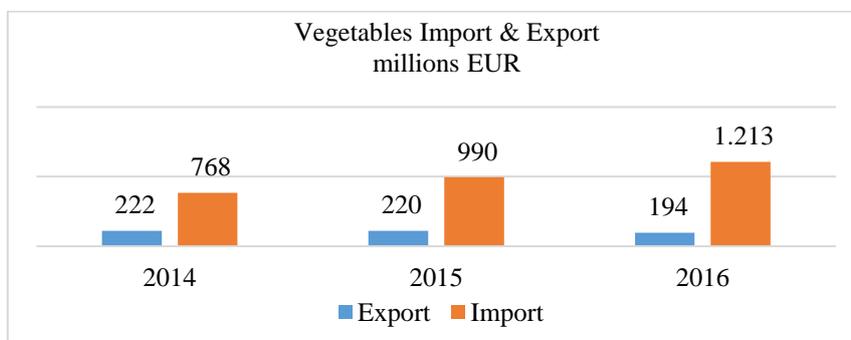


Figure 11. Value of vegetables import and export of Romania
 Source: adapted from Romanian Statistical yearbook, 2017

As trend, we can understand that in the last years, import was higher in comparison with export, both as quantity and as value.

Even more, not only food, as entire category of goods or vegetables were imported, but also fertilizers, which are important for agricultural activities – please see *Figure 12*.

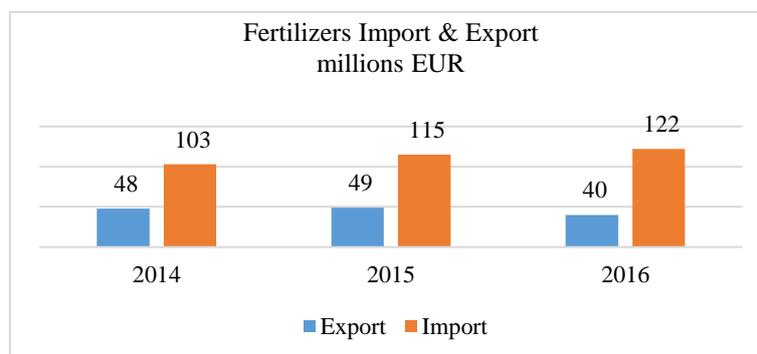


Figure 12. Value of fertilizers import and export of Romania
Source: adapted from Romanian Statistical yearbook, 2017

6. Conclusions

Based on the data exposed above, in the context of globalization, Romania has the opportunity to import necessary vegetables and other food categories, to cover its internal demands. In the same time, export opportunities are not relevant, as they stay low in the registered transactions. But, with an agricultural surface that put Romania in the 6th place among EU countries, even countries like France or Spain etc have a total surface much higher, it means that there are resources that need to be managed in a better manner. In this regard, Ministry of Agriculture and Rural Development through National Plan of Rural Development and Agrifood Strategy established measures to support farmers and small producers to adapt to new production demands and also to support them in development of greenhouses (currently only with 7.5 ha) that will ensure consumers during winter time with fresh vegetables.

Moreover, Romania has to take the opportunity of its potential and in the near future, in the context of globalization too, to reverse current situation of import/export balance, which will bring more advantages to national economy.

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Nutritional Security in Romania

Maria NICA¹, Ionut Laurentiu PETRE^{2*}

Abstract

In this paper we want to investigate the consumption pattern of the Romanian population and the extent to which food safety and, implicitly, nutritional safety is assured. The main research methods under consideration were achieved using the data from the statistical yearbook and from other databases on the nutritional value of foods, which provide the energy necessary to maintain the vital processes of the organism. These data were analysed quantitatively and qualitatively, using the method of calculating the energy value of food products and the coverage of the daily energy and nutrient requirements, that are not found as such in nature but are included, in variable quantities, in the composition of various foods. Starting from the average annual consumption of the main agri-food products and their nutritional value, the energy value accumulated by a daily person was determined. Calculating the amount of nutrients for the main categories of agri-food products, corroborated with the average daily food consumption, it was identified the nutritional value of the main products, which made it possible to calculate the daily weight of these nutrients. At the end of the paper, in order to establish nutritional security in Romania, we have compared the existing values in the daily diet of people, who are concerned about the quality of the products purchased, with those recommended in the ideal diet.

Keywords: *Nutritional security, energy value, nutrients, nutrition, agro-food products*

JEL Classification: *Q01, Q18*

1. Introduction

Food habits have influenced the evolution of mankind in all areas of economics, religion, culture, politics, and civilization, and it is well-known that beyond the common tendencies in the food process throughout the globe, each historical region and every nation is individualized by certain peculiarities. (Graur, 2006).

Nutrition represents the totality of physiological processes by which organisms acquire the necessary nutrition to grow and develop, to obtain energy for the processes of tissue regeneration, that is to say, the processes of food assimilation necessary for the growth, development and activity of living organisms. (Pașca, 2009).

Food can be reflected on health, life span and, of course, the comfort of life, as food intake is a factor in the pleasures of existence. The human body requires a steady supply of energy,

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which is achieved through food principles. In a proper diet, the amount of ingested food is not very important, but a variety of foods and a good mix of food have a main significance. (Bulancea, 2012).

Consumers' knowledge, preferences and behaviour in terms of lifestyle and eating habits are shaped by the environment in which they evolve.

2. Problem Statement

Food habits or traditions vary over time and place, and they assume that if people have access and ability to buy sufficient and varied food, they will meet their nutritional needs, the concept being called "Food Security". (Opopol *et al.*, 2006)

In order to achieve food safety, it is necessary to introduce food quality standards that best meet the objective of protecting and promoting consumer health. (Geicu, 2010)

Nutrition is an important factor in food security and the starting point for achieving food security is to ensure nutritional security (Ion, 2018).

Daily, the human body needs a certain amount of energy to function normally. The energy is supplied by the main nutrients: proteins, fats, carbohydrates and nutrients: vitamins and minerals. It is also possible to add the water that has an extremely high number of essential functions to life, and a particular category are dietary fibre which, although not considered nutritional in the full sense of the word, plays an important role in digestion. (Popescu, 2010).

"Nutrition security is achieved when secure access to adequate nutritious diet is coupled with a sanitary environment, adequate health services and care to ensure a healthy and active life for all household members". (Committee on World Food Security, 2012).

Appropriate and optimal nutrition is an important factor in maintaining the individual's health. If the human body is not assured in the necessary quantitative and qualitative way, there are considerable health consequences, which obviously affect the national economic system.

3. Research Questions/Aims of the research

The main researches considered in this study are channelled around the research question, respectively, is nutritional security ensured in Romania?

According to Ion (2018), one of the conclusions of the study was that "food security is widely ensured in Romania". With this assertion, together with the correlation between food safety and nutrition, we can establish the main hypothesis of this research question that nutritional safety is partially ensured in Romania.

4. Research Methods

In order to meet the objectives of this study, quantitative and qualitative data analysis will be used, either obtained with the statistics from the national databases (National Institute of Statistics), or by processing these data using certain methodologies. (Voinea, 2014).

Table 1. Annual average per capita consumption of main food and beverages

Main food and beverages	2012	2013	2014	2015	2016
Cereals and cereal products -kg	208.5	218.1	207	211.2	208.4
Vegetables and vegetable products -kg	151.4	152	158	158.5	155.9
Fruits and fruit products -kg	71.1	73.7	80.2	87.8	96
Sugar and sugar products -kg	22	21.1	21.1	25.6	25.5
Meat and meat products -kg	55.3	54.4	57.8	63.4	65.5
Vegetable and animal fats -kg	19.8	18.1	20.3	21.5	21.7
Milk and milk products -l	234.1	237.4	244.2	243.4	246.3
Eggs -pcs	245	247	246	262	267

Fish and fish products -kg	4.2	4.3	4.9	5.5	5.9
Wine and wine products -l	21.1	21.7	22.6	19	18
Beer-l	90.2	86.8	82.1	88.3	88.9
Soft drinks -l	150.8	154.4	153.5	179.3	188.6

Source: National Institute of Statistics (www.insse.ro)

Of the above, the following were used:

A. Calculation of energy value of food products

$$Q = (4.1 * P) + (4.1 * GI) + (9.3 * L), \text{ where,} \quad (1)$$

Q – Energy value (kcal), P – Protein, GI – Carbohydrates, L – Lipids

B. Calculation of coverage of daily energy and nutrient requirements

$$Gi = I/Ni * 100, \text{ where,} \quad (2)$$

Gi – coverage degree of daily requirement: proteins (p), carbohydrates (gl), lipids (l); I – total amount of: proteins (p), carbohydrates (gl), lipids (l); Ni – the daily recommended need of: proteins (p), carbohydrates (gl), lipids (l);

Referring to the material, not just the methodology, table 1 shows the average consumption per capita in the period 2012-2016 for the main categories of agri-food products.

The data from Table 2 will also be used, where the average daily consumption can be observed depending on the nutrients of the agri-food products.

Table 2. Average daily dietary intake per inhabitant and nutrients – grams

Consumption expressed in nutrients	2012	2013	2014	2015	2016
Proteins of vegetable origin	54.5	56.2	54.1	55.3	53.9
Protein of animal origin	52.2	52.2	54.5	57	58.4
Lipids of vegetable origin	50	46.3	51.9	54.9	55.1
Lipids of animal origin	53.6	53.3	54.7	56.8	58.5
Carbohydrates of vegetable origin	428.8	439.3	427	446.6	442.6
Carbohydrates of animal origin	32	32.5	33.4	33.3	33.7

Source: National Institute of Statistics (www.insse.ro)

5. Findings

The standard of living of the population can also be represented by the structure or level of consumption of goods and services.

Depending on the financial situation of the population, it will choose among several patterns of consumption, not limited to the strictly necessary goods, even more, sometimes the inhabitants will buy some products out of their comfort, opting for sustainable consumption.

Household patterns are a function of several economic, social, cultural and political forces.

In Romania, the most consumed quantities of food products are dairy products with an average consumption of 241.08 liters per year per inhabitant in the period 2012-2016, followed by cereals and cereal products for which the average consumption was 210.64 kg per inhabitant.

In 2016 compared to 2012, the consumption decreased for cereals by about 0.05%, the wine by about 14.69% and the beer by about 1.44%, and the increased consumed quantities were registered for the following products: vegetables with 2.97%, fruit with 35.02%, sugar with 15.91%, meat with 18.44%, fats with 9.6%, milk with 5.21%, eggs with 8.98%, non-alcoholic beverages of 25.07%, and the highest increase in consumption was in the fish and fish products category of 40.48%.

The beneficial effect on health from the consumption of agri-food products is not determined by the excess quantity but by the nutritional value of the products.

The most consumed nutrients during the analysed period were carbohydrates of vegetal origin with an average of 436.86 grams per inhabitant/day, followed by the consumption of

animal fat with 55.38 grams per inhabitant and the consumption of proteins of animal origin with 54.86 grams.

In 2016 as compared to 2012, the consumption expressed in nutrients has the following variations: the animal proteins increased by 11.88%, followed by the lipids of vegetable origin by 10.2%, followed by the animals with 9.14%, animal and vegetable carbohydrates by 5.31% and 3.22% respectively, and the only category where decreases were registered was the consumption of proteins of vegetable origin by 1.10%.

Knowing these data, the methodology of calculating the energy value of food products was applied, which led to the determination of the energy value assimilated daily by a person:

$$2012: Q = [4.1*(54.5+52.2)] + [4.1*(428.8+32)] + [9.3*(50+53.6)] = 3290.23 \text{ kcal}$$

$$2013: Q = [4.1*(56.2+52.2)] + [4.1*(439.3+32.5)] + [9.3*(46.3+53.3)] = 3305.1 \text{ kcal}$$

$$2014: Q = [4.1*(54.1+54.5)] + [4.1*(427+33.4)] + [9.3*(51.9+54.7)] = 3324.28 \text{ kcal}$$

$$2015: Q = [4.1*(55.3+57)] + [4.1*(446.6+33.3)] + [9.3*(54.9+56.8)] = 3466.83 \text{ kcal}$$

$$2016: Q = [4.1*(53.9+58.4)] + [4.1*(442.6+33.7)] + [9.3*(55.1+58.5)] = 3469.7 \text{ kcal}$$

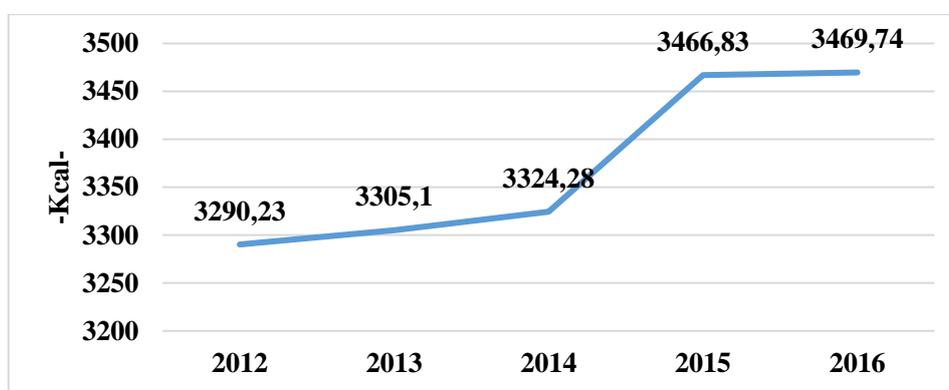


Figure 1. Determining the energy value of agro-food products
Source: own calculations based on the data from Table 2

As can be seen in Figure 1, the energy value of agri-food products grew by 5.46% between 2012 and 2016 as consumers are more concerned day by day about the sustainable consumption, preferring healthy and high-quality products.

Considering the nutritional daily consumption, as outlined above, in Table 2, it was structured on the whole, encompassing all the main agro-food products, and in order to determine more precisely how they are structured, both nutrients and energy value by product categories, we present in the table below the average of the nutrients of the main categories of agro-food products.

Table 3. Assessment of the average of the nutrients for each product category

Products	Protein	Lipids	Carbohydrates	Fiber
Cereals	10.42	5.29	66.59	5.12
Vegetables	4.23	1.24	9.63	2.33
Fruits	2.03	5.30	31.31	3.15
Sugar	0.00	0.00	99.9	0.00
Meat	18.32	13.22	1.89	0.09
Vegetable and animal fats	1.83	74.55	1.60	0.51
Milk and milk products	4.30	7.40	7.03	0.13
Eggs	18.67	11.54	1.48	0.84
Fish	17.91	11.54	2.41	0.07
Wine	0.03	0.00	3.97	0.00
Beer	0.19	0.66	2.63	0.00
Soft drinks	1.10	0.43	13.42	0.48

Source: own calculations based on www.calories.oneden.com data

Using the data from Table 3, using the methodology for calculating the energy value of products, the energy value for each product group that a person accumulates daily from food can be determined.

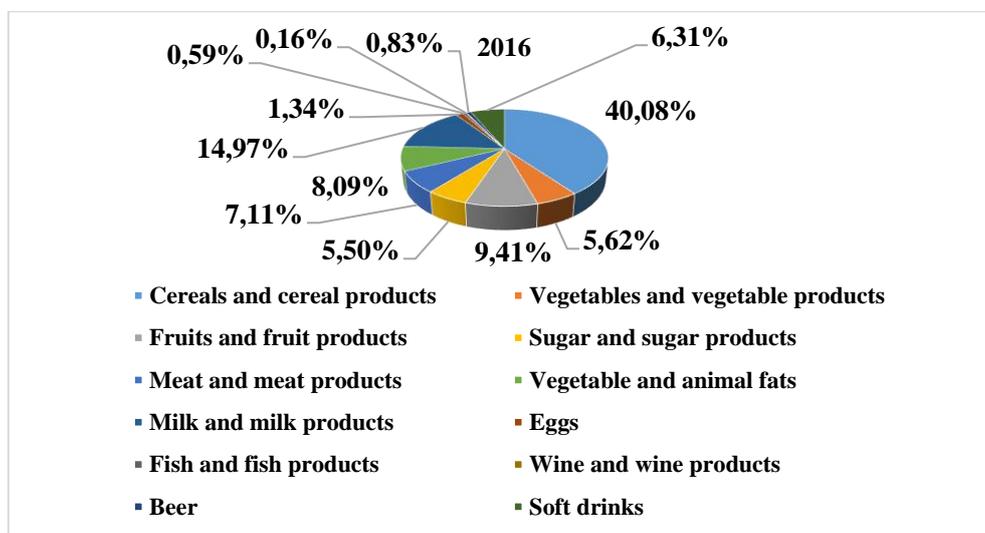


Figure 2. Assessment the structure of energy value accumulated daily by product category
Source: own calculations based on the data from Table 1 and Table 3

As can be seen in Figure 2, the largest share of a category of agri-food product from which people take their energy is that of cereals and cereal products, in 2016, being 40.08%, being 3.22 percentage points lower than in 2012. The next category of food, according to weight, by which the human body provides daily energy is that of milk and dairy products, by 14.97%, being by 0.4 percentage points lower than in the reference year. Fruit and fruit products occupy the third place in this ranking, which one day provides 9.41% of the energy value accumulated by the body, being 1.88 percentage points higher than in the first analysed year. Of the total calorific value which a person accumulates over a day, 8.09% is obtained from vegetable and animal fats, by 0.12 percentage points higher than in 2012. Meat and meat preparations are ranked fifth when their energy input is determined for one day, with a weight of 7.11% but higher by 0.12 percentage points, in descending order, non-alcoholic beverages are placed with 6.31%, vegetable and vegetable preparations with 5.62%, sugar and sugar products with 5.5%, eggs with 1.34%, beer by 0.83%, fish and fish products by 0.59% and wine by 0.16%.

Even if the energy value is very important for the human body, it must be accumulated from nutritionally balanced preparations. To determine this, account was taken of the amount of protein, lipid and carbohydrate that these main categories of products contain in order to determine daily diet and where they come from, but also to be able to calculate, by the method of calculating the coverage levels of the daily nutrient requirement, the ratio between them.

Table 4. Assessment of the protein, lipid and carbohydrate content in the daily diet by categories of agro-food products – 2016

Product categories	Protein	Lipids	Carbohydrates
Cereals and cereal products	59.5	30.2	380.2
Vegetables and vegetable products	18.1	5.3	41.1
Fruit and fruit products	5.3	13.9	82.3
Sugar and sugar products	0.0	0.0	69.8
Meat and meat products	32.9	23.7	3.4
Vegetable and animal fats	1.1	44.3	1.0
Milk and milk products	29.0	50.0	47.5
Eggs	6.8	4.2	0.5
Fish and fish products	2.9	1.9	0.4

Wine and wine products	0.0	0.0	2.0
Beer	0.5	1.6	6.4
Soft drinks	5.7	2.2	69.3
TOTAL	161.8	177.3	703.9

Source: own calculations based on the data from Table 1 and Table 3

These nutrients were calculated based on the amount of daily consumption of the products found in Table 4.

Of the total of 161.8 grams of protein accumulated daily, 36.77% comes from cereals and derivatives. The next product for the protein category is meat and meat products with a weight of 20.32%, followed by milk and dairy products by 17.95%, and vegetables and vegetable products by 11.18%. These four product categories accumulate over 86% of the total protein accumulated daily by the body.

For the lipid category, products that contribute substantially to the 177.3 grams per day are similar to those mentioned above, as follows: 28.17% of the lipids are assimilated from milk and derivatives, 25% from animal and vegetable fats, 17.02% of cereals and cereal products, and 13.38% of meat and meat products, summing up these four products accumulating over 83% of the amount of lipids.

With regard to the last category of nutrients, carbohydrates, out of the 703.9 grams consumed daily, the largest quantity comes from cereals and cereal products with 54.02%, followed by fruit and fruit preparations by 11.7%, the third place according to the carbohydrate intake is sugar and sugar products with 9.92% and the fourth product category, depending on the intake, with 9.85%, is the non-alcoholic beverages, these four products accumulate a contribution of approximately 85.5% of total carbohydrates.

In order to determine the consumption patterns of the population, referring to the structure of the assimilated nutrients in one day, we used the calculation of the degree of coverage of the nutrient requirement, thus calculating the ratio between these elements and making it possible to establish the food safety given by these product categories.

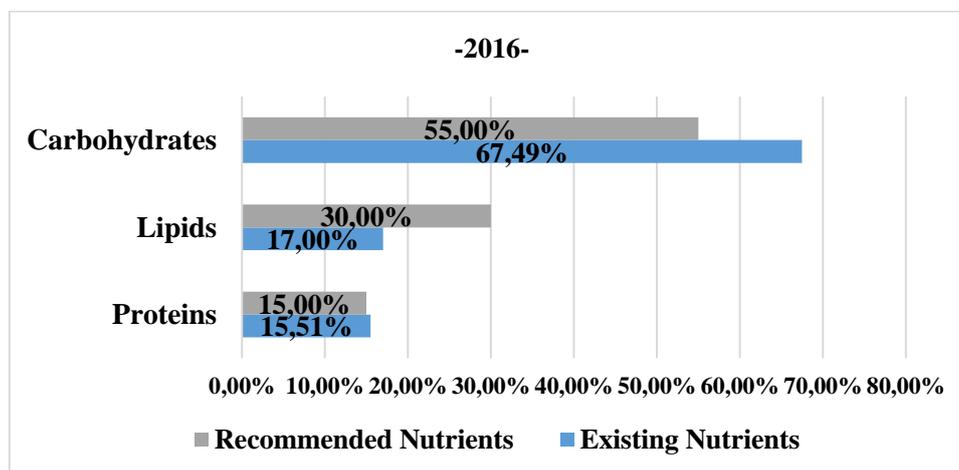


Figure 3. Comparative analyse between diet structure in Romania and nutritional recommendation
Source: own calculations based on the data from Table 1 and Table 4

Considering the total weight of Table 4, depending on the category of nutrients, it can be seen that of the total of 1043 grams, the proteins hold 15.51%, the lipids hold 17% and the carbohydrates hold 67.49%. Compared with the standard recommendations found in nutrition rules and the daily nutrient requirements (nutripedia.ro), the differences can be seen in the following figure.

It can be seen that in 2016 a person consumed adequate protein, exceeding the recommended amount by only 0.51 percentage points, but that person had a lipid deficiency of the recommended 30 percent, consuming only 17%, respectively a deficit of 13 percentage points.

This deficit, previously reported in the lipid category, turned into a surplus for the carbohydrate category, where a person consumed 67.49% of the nutrients, exceeding the recommended 55% limit, registering a surplus of 12.49%.

6. Conclusions

This paper analyses the quality of the diet in Romania. The results show that the energy consumption of the consumed food has risen steadily from year to year as consumers of these products have consumed a larger amount of these foods. This fact can also be noticed by the fact that the biggest contribution to the energy value has the category of cereal products, so the increase of the energy value is not supported by the improvement of the quality of the diet.

In conclusion, we can see that the hypothesis is true, namely the Romanian nutritional security is partially ensured, because although protein consumption corresponds to the recommended amount, however, the carbohydrate consumption is too high that the recommended one and the lipid consumption is insufficient.

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Food Security in the Context of Globalization

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Abstract

Food is an essential element in the lives of all people, whether we are talking about raising children or teenagers to older adults or pregnant women. Worldwide, because of water that is not being treated, and unsafe food for health, more than 2 million people die every year, including many children. The category of unsafe food risks is often substantial, but it can cause difficulties in their quantification. Contaminated food containing harmful parasites, bacteria, viruses, radioactive or chemical substances causes over 200 infectious diseases and cancers. At the moment, food security in the context of globalization is becoming increasingly important, of popularizing catering companies and of food requisition. For a more accurate food safety, when harvesting, transporting, processing and storing, it is necessary to keep in mind that these foods end up on the table of consumers. There is, however, a growing tendency in recent years to consume a lot of frozen, processed, but very unhealthy foods for the human body. Storage of these foods we meet in refrigerators and their preparation in microwave or industrial furnaces. So, shortly after, we realize that ensuring a safe diet becomes very important, with changing eating habits. Our own supply is becoming more and more globalized, which indicates a high degree of security system consolidation. The WHO itself promotes the effort to improve food safety.

Keywords: *Globalization, food safety, global governance, environment, consumption*

JEL Classification: *Q18*

1. Introduction

An important feature of globalization for developing countries is an acceleration of urbanization, with a number of people far exceeding the capacity to absorb. It is currently under discussion the conceptual understanding of the impact of urbanization and global changes on the health of urban people, as well as on domestic food security (Bazin & Selim, 2006). We are facing a major change in food systems around the world, resulting in increased food availability, but also a diverse range of food options. For developing countries, competition for the market share of food purchases results from the entry of different supermarket chains into the market.

Changes in these food systems have a significant impact on the overall food safety of consumers and producers. The impact is felt by changing food production, global food culture and the food commerce environment (Freidberg, 2007).

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With the global population growth, there is a greater increase in food by consumers, which implies a longer, but especially, more complex food chain. Considering these things, the World Health Organization chose April 7, 2015 to focus on food safety. Products that come to consumption have ingredients that come mostly from different countries and farms or factories.

To understand more precisely, beware of the contamination of a food chain in one part of the world, which then generates deafness among the population of the other. Given the possible delayed inputs, as well as the interaction of the different actors separated by a long distance, international and multi-sectorial cooperation is needed. Most countries require food security, but no country can handle it alone without getting help (Alexandru & Alexandru, 2001).

Food security through globalization has also led to a not very decent workforce, namely prisoners and workers can work in inhumane conditions because of standards that are ignored to produce cheap goods. The main “pawn” is the internet that has negative effects, in this way the malicious people communicate more easily and take action faster. The growth of the Western (fast-food) economy, especially in China, is due to an aspect of globalization, thus causing the various negative effects at the company level. Worldwide there is an alarming increase in fast-food stores that will lead to rapid disease among the population (Ritzer, 2010).

In order to consider food security as accurate as possible, it is necessary to consider some of the issues mentioned below (Banu, 2007):

- Keeping clean the surfaces where food is processed and then washing all utensils;
- It is necessary that the cooked foods are stored separately from the raw ones;
- The food should be cooked at the appropriate temperature;
- The temperature should be optimal to keep the food in good condition;
- It is necessary to use the water to clean the raw material before it is processed.

2. Problem Statement – Food quality – Globalization

The quality of the products includes certain positive and negative attributes that influence the final decision of the consumer. On the positive side the factors involved have to prove very good quality: color, aroma, texture, and specific method of processing the products, while the negative side refers to bacterial contamination, visible injuries, odors and unpleasant tastes.

Even so not all unsafe foods can show poor visual impact quality, for example, for dirty meat, use bleach or strong spices to mask. The difference between quality and safety is an impact on public policy and has an influence on food (Manole & colab., 2003).

Food quality is simply evaluated by our sensory organs such as eyes, mouth, nose, or more recently using different instruments. This sensory evaluation is often practiced by regulatory authorities on food products, which consists in judging a group of people. In the analysis sheet we see the interpretation and analysis of food qualities, just as they are perceived by hearing, taste and sight. Careful sampling of food is done for sensory evaluation, as it is not possible to detect pesticides or falsify food. In this case, the objective assessment that includes the various physical analysis methods, as well as the physico-chemical methods, is reported (Bauman, 2002). By chemical methods we identify the nutritional value of the aliments before and after they are cooked, but also for the detection of decomposing products. Volume and food aspect measurements are also very important.

Although the volume of international food trade is quite high, it is noted that there are still few food safety incidents. Even so, a fairly recent example illustrates the potential degree of different risks.

The E. coli strain was first identified in 2011 at the Robert Koch Institute in northern Germany. It was found that this outbreak reported 4321 cases of infection and 854 cases of hemolytic uremic syndrome. There were 14 deaths in European countries, the United States and Canada, until July, when the epidemic was declared. This disease broke out because of the

fenugreek seeds that were imported from Egypt, even though for some time it was thought that the disease was triggered by the Spanish vegetables. This has led to an economic loss for manufacturers in several countries. Also, for a long time, tensions have also been created between consumer and producer countries. Even if the European Union compensated farmers in several countries with over € 22 million, the total losses were considerably higher (Bazin & Selim, 2006).

Manufacturers and the food industry along with the government may require a partnership model on complex food safety issues. This is not an ideal model for designated management or partnership, but several initiatives in the food and fishery are under way, where other structures outside the food sector are being modeled. The new partnership model would include a value proposition for industry hiring and a new, more realistic and more flexible regulatory system.

We have initiated a new approach that coincides with complex and adaptive food safety situations that have an adaptive and common solution taking into account the whole food system. We are talking here about a multiple contribution of several disciplines that intersect at local, national and global level, with the goal of achieving optimal health for humans and the environment. Even so, this approach must be put into practice so that it can see immediate results. What we want is to identify a complex food safety issue that will need a broad range of action through sustained leadership and partnerships (Hirst & Thompson, 2002)

3. Aims of the research

In a world that is dominated by more collective fears, here is the relationship between health and food. Here the concept of hygiene is changing as a result of consumer habits (this technique is mainly used in supermarkets because more emphasis is placed on hygiene). For example, many Romanian citizens avoided shopping in the traditional markets because they are not hygienic and prefer to choose supermarkets and hypermarkets due to higher hygiene conditions.

It is clear that hygiene becomes the main tool of control and power in public space, representing a solid foundation for new urban development policies that change public space (Hirst, & Thompson, 2002). The project of replacing agro-food markets with supermarket sanitary spaces can be discussed here.

Current goals are directed towards food safety, and we need better methods and data to estimate the impact of food illnesses and also to guide prevention and response actions. The World Health Organization released the first estimates covering the global deaths and eating disorders. Here we need more investment in national systems that provide food safety as a priority in public health. The government that has several roles must also intervene. Besides setting policies, being essential for implementing and establishing certain national safety systems, consumers can be informed by reading labels and self-education (Stoian, 2003).

The present moment knows the intensification of agricultural production by mechanizing the flow of planting and harvesting, as well as selective growth of plants and animals, as well as increased attention to the animal nutrition model and, of course, to the costs of food production for them. Once the increase in production is noted, there is a phenomenon of lowering the unit cost of products, which favors food systems.

4. Conclusions

As a conclusion of the above, it is noted that this conception of the quality of agrifood products reflects certain changes at the economic, social and political level of a society.

Therefore, it is very important that when establishing quality, trust must play a major role in analyzing how this is derived from the producer-consumer relationship. Because of the society in which we live insecurity and confidence, even in this food system, the choices we make every

day from shopping to where we manage to sit on the table, as and when we eat, are subjective choices, but also choices that are determined by our will. It is clear that globalization has led to a drop-in access to resources or certain products or ingredients, through exaggerated control and diminishing the number of actors in the food market (Toma, 2005). The health effects of the population have already begun to see and are interested in following their evolution, which does not seem to be a good one.

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The Analyze of Mountain Tourism in Europe Union. Case Study-Sinaia

Carmen Georgiana BADEA¹, Ovidiu BUZOIANU², Florin Octavian MATEI³

Abstract

This article seeks to assess tourism services in the Romanian economy as well as the European Union during the recent period. In this respect, the potential and resources of the major tourist areas in the EU territory and the tourist resort of Sinaia are analyzed as a case study. The main indicators considered in the research are tourist arrivals, the net use index of the accommodation, the arrivals of foreign tourists, the situation of the citizens of the European Union. Tourism is one of the priority areas for Romania through its resources and that they train and through interconnections with other branches of the national economy is an important factor for economic progress. Tourism is totally dependent on the environment, it being the “raw material” tourism. The environment is subject to, the activity and the site of deployment of tourism. The importance of this relationship is reflected in the positive actions of conservation tourism potential or the rehabilitation of the environment but should not be neglected and destructive actions of tourist activities that end, sustainable tourism is and will be in harmony with the environment, population and culture of the place, so that the development of their profit to be made and not to their detriment.

Keywords: *mountain tourism, tourism market, Europe Union, Sinaia, environment*

JEL Classification: *L83, Z32*

1. Introduction

This article aims at presenting the current state of mountain tourism at the level of the European Union, but also within the Romanian territory, in the context of globalization and sustainable development. The evolution of tourism will be quantified using statistical data related to the most important tourism indicators. Travel and tourism is an economic sector stand-alone offering a sum of products (consumption and investment) and the services they take from other branches of economic activity directly or indirectly linked to tourism (Ashley, 2007).

Through them, but also directly from tourism activities are reflected in the GDP and socially by creating jobs. In this context, tourism is identified as markets to offer vast majority of industries producing goods and services and the supply of labor in society is an economic and social phenomenon globally, with major implications for economic world.

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Basically, mountaineering is a very important component of tourism in Romania, with well-defined features and some specific char it apart from mountaineering in Europe and worldwide.

Although weaknesses and limitations that could slow dev mountain tourism, there are great prospects for expansion of this type of tourism, the growing interest Romanian and foreign tourists for the mountains, with improved current supply with dev resorts, spatial others continue and increase efforts to promote effective (Dimanche, 2005).

Romania is part of the international tourist circuit values unique tourist and Eastern European natural tourism resources, human and cultural, whose recovery intelligent could substantially strengthen the role of the tourism industry in the national economy, with positive effects chain at the whole society.

2. Problem Statement

The specialized literature that develops this subject is characterized by the contribution of a large number of authors. The evolution of tourism in Romania has also been analyzed by Anghelache, Anghel and Popovici (2014), but also by Ashley, De Brine, Lehr and Wilde (2007) which consider the role of tourism in exploiting economic opportunities. Sequeira and Macas Nunes (2008) analyze tourism as a factor of influence for economic growth, and Dimanche (2005) projects a general conceptual framework for the competitiveness of tourism in cities.

Applying on-field research methodology and case study, this article brings considerable improvements to recent statistics on tourism indicators, as well as the development of a new point of view regarding the relationship between sustainable development and mountain tourism in Romania.

3. Aims of the research

The research questions will operationalize this problem, showing what part of the problem is solved by contributing this article.

The purpose of this article is both to determine the quantitative and qualitative evolution of tourism at the European and Romanian level, as well as to establish new strategies for the sustainable development of the Sinaia mountain resort. In this respect it is assumed that Romanian mountain resorts offer the appropriate climate for attracting tourists, both indigenous and foreigners, and this economic branch can offer a much higher share than the current GDP in the country.

4. Research Methods

In order to obtain valid results confirming the hypothesis from which this article goes, as well as the full achievement of the goal, a methodology based on quantitative and qualitative aspects was considered.

In this respect, the literature was compared, comparing the basic notions, as well as the importance of the subject described by various Romanian and foreign authors.

The quantitative methodology consisted in gathering the statistical information provided by the National Statistics Institute regarding the flow of foreign and Romanian tourists, the occupancy of the accommodation structures, the inventory of the accommodation structures, etc. For the evaluation and ranking of the territorial-administrative units, based on the component elements of the tourism valences, the method of analysis trees on basic criteria was chosen, the assignment of the levels of appreciation being done by a process of weighing a total of 100 points. The awarding of the scores on different components was carried out in consultation with specialists from different fields (tourism economy, landscaping, geography,

sociology, architecture, geology, medicine etc.), public and private sector tourism operators, central or local public authorities, associations of Romanian tourism, universities, etc.

5. Findings

5.1 Present situation of mountain tourism in Europe

Countries representing the world in the mountain tourism are developed countries economically, which have a natural potential, but probably equally impressed, and have the resources necessary investment planning in mountain areas for the benefit of practicing tourism, very high and with obvious financial return after an agreed period of time. Among these countries, the most significant are grouped around the mountain massifs in Europe (Tigu, 2001).

Mountain tourism includes a wide range of recreational activities, spiritual and economic place in various mountain regions. European countries clustered around the Alps constitute the most important promoters and tenderers of mountain tourism world assertion justified by elements of potential natural and cultural history of their power, joined by the degree of development reached in organizing technical and material tourism mountain following the implementation of large projects and expensive tourist development with constant progress, existing facilities and that launches fashion trends in similar activities. In support of this statement will be presented the largest ski resorts in the world, all European sites, the analysis by size of the ski area, provision of transport and connection possibilities cable routes included.

5.2 Market mountain tourism in Romania

Tourism activity implies a support material consists of a series of functional elements that provide accommodation, meals, leisure tourists (Algieri, 2006). Tourism activity implies a support material consists of a series of functional elements that provide accommodation, meals, leisure tourists.

Table 1. Distribution equipment by type of accommodation establishments of tourist reception with functions of tourist accommodation in resorts in 2016

Types of tourist reception with functions of tourist accommodation	Number of units
Hotels	142
Hostels	5
Motels	15
Villas	165
Chalets	80
Bungalows	14
Tourist stops	12
Urban boarding houses	220
Rural boarding houses	510

Source: National Institute of Statistics (2016-1)

Resorts now operating 1450 accommodation units out of a total country-wide by 5879 units, representing approximately 21% of the total number of devices registered accommodation in Romania in 2016.

Regarding Offer type units, it is characterized by overwhelming share owned tourist pensions, especially rural ones (45%) plus urban boarding (20%). Together, these two types of accommodation make up 60% of the total accommodation equipment operating in the mountains of Romania.

Representative units of accommodation for mountaineering or chalets have a low share of 7% and 13% of total villas offer accommodation mountain tourism area of our country.

Hotels are units that have the largest selection of accommodation in mountain areas (38%), followed by boarding rural tourism (20%), tourist areas (12%), chalets (14%), tourist villas (16%) elements shown in Figure 1.

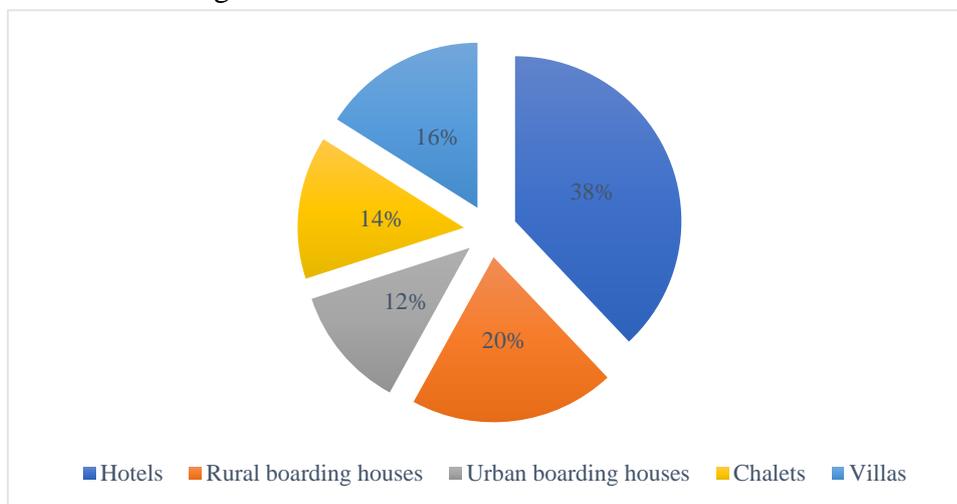


Figure 1. Tourist accommodation capacity in function by type of tourist accommodation, resorts, 2016
Source: National Institute of Statistics (2016-1)

In terms of comfort level, it is noted that prevails unit small comfort, 37% of the total accommodation capacity operating in the mountains of our country is 2 stars, followed by the 3 stars hotel with a share of 32% and the 1-star that share of 9%, together accounting for 78% of the offer operating resorts. Catering establishments, as basic functional elements of a tourist resort, contributes to a great extent to the attractiveness and quality of tourist offer. In mountain resorts unit structure is diverse, ranging from traditional or typical restaurants, the brasseries, bars, cafeterias. In connection with the accommodation capacity, territorial distribution highlights the same concentration units catering resorts in the Prahova Valley and Poiana Brasov, which is also noted for the variety and higher and higher quality of service compared to other mountain resorts.

Low quality supply in the entire country is dependent on insufficient maintenance of existing slopes (correcting faults route, leveling and grassing, organization of water flow, fixation and slope requiring substantial investment). This explains the fact that some slopes not ensure normal conditions of practicing ski, even if weather conditions are favorable and snow, not to mention that there is an acute lack of interest in fixing and maintaining existing snow layer materialized alike in human and technical effort required.

5.3 Case study – Sinaia

5.3.1. The economic profile

In general, the economic profile of Sinaia is conferred range and complexity of economic and social balance between gainful productive sectors and public services and businesses. (Anghelache, 2014)

Customizing the case of Sinaia, it must be said that the fall that typology functional in the category of cities with functions of tourist and advanced industrial countries, the percentage of people employed in tourism activities is increasing (currently about 25%), due to the dynamics requirement labor in this domain. Regarding the industrial sector may be noted that a large proportion of the working population is found in the economic side. One other area notorious

for this region is represented by forestry; its importance resides in the presence of forest areas which account for about 70% of the administration officer. (Moise, 2001).

Finally, attention should be drawn mainly economic sector that focuses this study or tourism.

This section seeks to involve every year increased financial flows, based on natural and human potential that they possess Sinaia.

5.3.2. Analysis of tourist activity in Sinaia

In this area have high tourist traffic due on the one hand the objectives and tourist facilities present in the area and, on the other hand, the myriad forms of tourism that can be practiced and that attract many types of travelers (Catoiu, 2005). The biggest request is recorded in the summer season, between 10 July and 1 September and in the winter season, between December 20 and January 31. Regarding tourist arrivals their evolution is constant, showing significant variations over recent years.

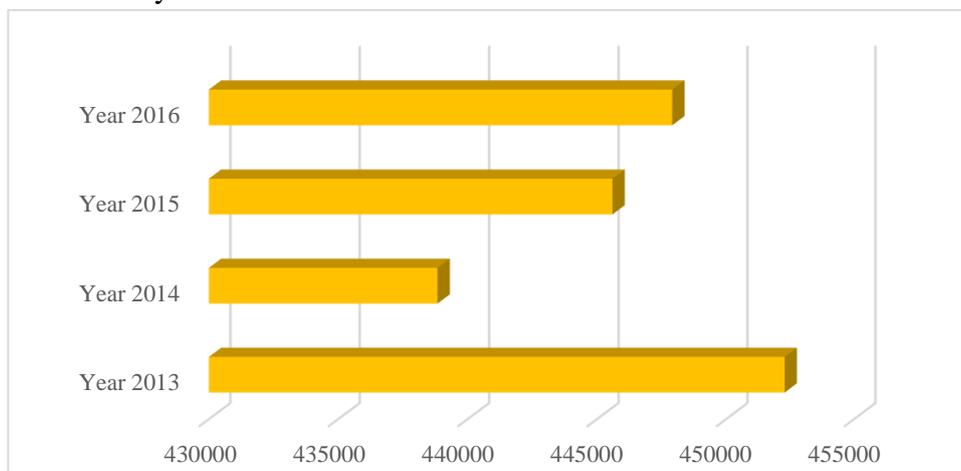


Figure 2. Evolution of tourist arrivals (2013-2016)
 Source: National Institute of Statistics (2016-2)

In terms of tourist arrivals in the period 2013-2016, the highest was recorded in 2016 that 215.690 tourists, and the lowest value in 2014 of 197.813 tourists (*see Figure 2*). This sudden development after the year previously mentioned can be put down to the increasing number of accommodations and tourist activities that attract more and more tourists.

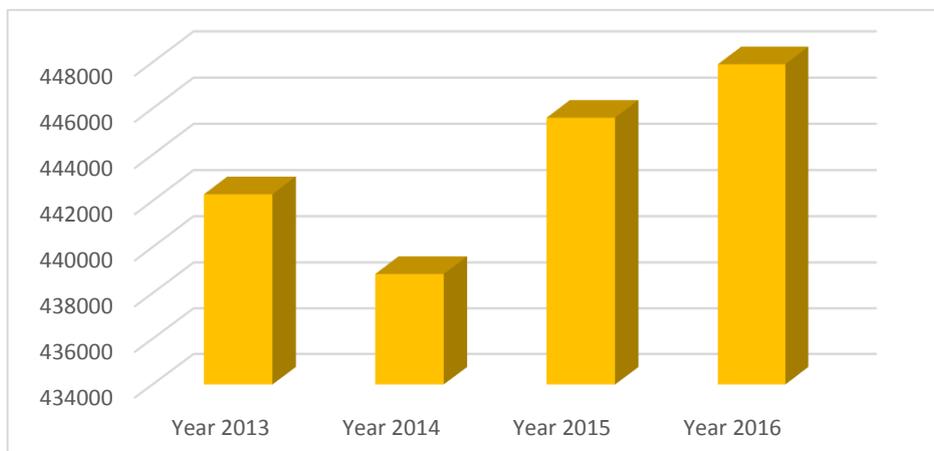


Figure 3. Total overnights in Sinaia (2013-2016)
 Source: National Institute of Statistics (2016-3)

As shown in Figure 3, the total number of overnight stays is directly proportional to the number of tourist arrivals. In other words, the highest value of nights spent in the period 2013-2016 is respectively 447.912 recorded in 2016 and the lowest belongs to 2014 or 438.838. The current trend is growing, as revealed by the 2016, which can be seen a surplus of about 6% over the previous year.

5.4 Strategies for the development of Romanian mountain tourism

Development of mountain tourism in Romania also involves and requires better utilization of all resources in the mountain area. This direction can result in design and follow a long-term program developed nationwide, which include the following strands:

- mapping the entire ski area in the Carpathians, given the lack of information in this field;
- develop and promote pilot projects planning of sites for Nordic skiing (cross-country skiing, biathlon, ski jumping), which meets the best conditions for development in the Romanian mountain;
- supporting the projects of new resorts or dev existing ones in areas highly attractive and with a good potential for development of winter sports such as goat- Balea, Arieseni Cave Padina-Tihuta, Brasov, Semenic, Stana of Vale, etc;
- encouraging the development of tourism activities across the mountains, characterized by great diversity and integrated other economic activities of the inhabitants and local communities in support dev attracting tourism;
- the protection and conservation of environment, by creating protected areas in the mountains and their promotion as problems “ecotourism”, and by developing an infrastructure for ecotourism across the mountains.

6. Conclusions

Following the completion of the article, it was found that tourism in this region is a sector of the economy under development. Un impact on tourism activities will be building the Bucharest-Brasov that will affect the overall appearance of not only the region, but also sustainability and building physical strength important for tourists in the region. Leisure facilities and lift facilities were refurbished or are under refurbishment, and there are also projects for new ones.

In recent years, projects were started aimed at developing rural tourism and mountain tourism and cultural projects that are beneficial for the development of tourism and economic development especially, in the surroundings of Sinaia.

Mountain tourism in Romania has fierce competitor, compete, however, with its ability to adapt to the requirements of Romanian tourists in the first place and those of foreign tourists who arrive tradition in Romania. This conclusion can be extended to the entire tourism sector in our country and much needed revitalization will occur even more rapidly than would be expected.

No desire for cooperation, development strategy consists of wide participation of all those involved and interested, so widely accepted, and the professionalism of a large share of actors, directors and producers who have undertaken to manage potential natural tourism Romania valuable.

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Sustainable Marketing in Economy

Victor-Adrian TROACĂ¹, Alexandru-Gabriel POSTOLACHE²

Abstract

Sustainable marketing is the basic unit of the sustainable development sphere that has grown since 1993. The two areas we are referring to are very complex and difficult to develop, but different knowledge cultures such as economy, philosophy, the environment and business strategies add value. Essentially, sustainable marketing refers to consumer demand by raising the population by more than 50% over the next 50 years. In short, companies wishing to maintain their competitive advantage must be aware of this type of marketing in their economic structures as they may be subject to change.

The sustainability of natural resources around the world needs a fair and clear management to avoid what has happened in Easter Island, where the population has exceeded the resources that have been limited, and the inability of the population to adapt has led to the disappearance of civilization and culture. We need to pay attention to this very important detail for mankind, because the age we live in makes us use much more resources, unfortunately not as quickly regenerated. Globally, population growth leads to widespread globalization. In order to support the population in optimum living conditions, a lot of resources are used, which puts pressure on natural ecosystems. It is not disputed that the world we live in has reached a saturation threshold on how we use resources that are currently unsustainable.

Keywords: *Economic growth, sustainable marketing, environment, product, ecosystem*

JEL Classification: *Q13*

1. Introduction

Sustainable marketing is the main component of sustainable development that has expanded quite a bit over the past two decades. Even the World Bank claimed in 1992 that environmental degradation has the ability to destroy the society we live in, without ever being aware of it. This component of sustainable development is two times higher, because we need sustainable marketing for the population to survive, and secondly, we refer to a model that is consumed by society with a critical interest. Gillett defines sustainable marketing as a “process of planning, implementing, and controlling development, pricing, product promotion and distribution to meet customer needs, organizational goals and compatibility of safety systems”.

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For this research we are pursuing two objectives, namely the meeting of all disciplines that influence sustainable marketing (economy, philosophy, sociology) and how they focus on the population by focusing on development aspects and introducing the new marketing field.

Regarding the natural resource situation, we take the example of fossil fuels that are not very sustainable, and the amount of chemical emissions that result from their use speeds up climate change, most of which leads to biodiversity loss or even human habitat loss happened in some places in the world like Italy or Fuji Island. The economic and ecological groups show that the improvement of poverty and hunger through the intervention of developed countries is necessary in order to develop good practices for sustainable life. Natural resources must be administered by the world's populations and not consumed, this ration being the ethics for a successful sustainability. The Internet is the key to globalization for it to bring benefits from developed or underdeveloped countries, but it can also have negative effects when large corporations put pressure on developing countries to monitor and exploit their resources, thus bringing prosperity to environmental characteristics.

Current science allows for the correct description of living ecosystems. The world in which we live assesses the ecosystem as a living resource, even if the environmental grain is on the rise, we continue to eliminate the total capital. Healthy growth should lead us to equally healthy ecological management, and governmental decisions that are linked to the ecosystem capital through the goods and services offered (shelter, food, etc.), quantify the natural resources provided.

2. Problem Statement

There is currently a divide (division) underlying the resources of the Earth and the demands of contemporary society. In the middle of this debate, we meet two different points of view for sustainable development through sustainable marketing. The main philosophy that is being practiced is represented by classical utilitarianism or an ethic centred on the human being. The philosophical position dictates that the human need has a basis upon its desire. Human progress combines economic development with the growth of Earth's resources. There is great conception that the affection of Western civilizations is a dependence on material consumption (Singer, 2001). In the current society's view, there is no fear that marketing and sustainable development will endanger people's lives, their own identity, and their individual autonomy, by limiting consumer preferences (Beekman, 2004).

Sustainable marketing works alongside growth. The two main economic points of view that have a strong contrast are written in *The Wall Street Journal*. This article recognizes the steam engine for consumption. These particularities are necessary because people damage the planet in their conviction (Melloan, 2002). An economic point of view comes from former President Ronald Reagan, as well as other associates in several areas such as economy, demography and science. These people claim that the technological and economic effects are not negative but positive. Finally, we see positive points for both points of view. Even so, we know that reductions in some natural resources are happening at a very fast pace. Also, the Earth's population is growing exponentially, with concrete figures showing 2000 figures when we were 6.1 billion people, and we expect an increase of up to 9 billion in 2050 (Lawrence, Weber and Post, 2005). This huge increase will affect the biosphere material at an alarming rate if some measures of human consumption are not taken into account in the limited and available resource (Daniels, 2003).

In order for sustainable marketing to remain at this level, a clear record of the current economic system should be kept, since not all systems are equal. Neoclassical theory drives decision makers' skills between companies, maximizing wage gains and technological or beneficial choices (Goldstein, 2002). In 1997 the theory of traditional neo-classical capital with

poor durability was compared by Faucheux, Muir and O'Connor (1997). The conclusion reached by the two was that neoclassical theory is not controversial enough for the development of sustainability indicators, so the choice made is rather weak for a new paradigm such as sustainable growth or development. It is well known that the notion of capitalism for sustainable development does not favour the social environment. Here too, this issue does not eliminate poverty that clearly brings a negative contribution to environmental degradation by determining sustainable development, especially sustainable marketing (Hunt, 1999). The capitalist system also represents the view of the environment in a reduced operating environment.

On the whole, sustainable marketing can also have another economic perspective, more precisely the capability theory. This theory promotes the creation and development of new business opportunities that attract the human, physical and organizational capital. The advantage and capability of a frame worker refers to the promotion of different horizontal flows in the design of marketing products and the specific functions of pollution. Therefore, we can realize that segmentation of data together with individual collection is at the disadvantage of the flow concept, which forms the backbone of this theory. Currently, neither the direction towards which our culture is heading is clear. The company is focused on action when it comes to an emergency. A principle of measuring and developing sustainable marketing comes from Passmore's chains of love. This principle encourages the public system to adopt the value that will ensure that the Earth will face future generations. It is very important to realize that sustainable marketing has to correlate with the parameters of the existing marketing mechanisms (Castro, 2004).

3. Aims of the research

Sustainable marketing takes the form of marketing in a new field and was considered a Kenyon-Business approach. It should be mentioned that sustainable marketing affects three other types of marketing: the merchant product and the target audience. Of all these typologies, the target market will be the most affected by the incomes employed. In sustainable marketing, communication and coordination between external and internal parties is required, and the results will come from here, and the impact of the product on the market will be significant. In modern industry, best practices such as buy-back, reuse, recycling and return-to-production, have a great capacity to reduce the burden while reducing ecosystem stress. Large companies such as HP and Du Pont are leading market leaders in establishing eco-efficiency and sustainability strategies. The cornerstone of sustainable marketing will be conceived by the company's prospects, product lifecycle analysis, and front-end lifecycle. Sustainability must become a strategic imperative for all enterprises in the 21st century. It has become a fundamental market force that affects viability and long-term financial success (Preston, 2000).

Their main purpose is to drive, empower employees by providing new answers to old issues.

All of these things have the ultimate goal of increasing awareness in organizing them using special information systems typical of a learning organization. The marketer is directly affected by the links between the external and internal parties concerned, and also has the leading role in this new change. Once sustainable development has been fully formed, it will overcome the social, organizational and cultural organization of knowledge (Kotler, 1998). Social marketing is essentially "a planned social change". Possibilities where sustainable marketing is involved are responsive to the social one and it includes: communication, pricing, product planning, distribution and, last but not least, market research. The link between sustainable development, marketing and both internal and external stakeholders is incontestable. Therefore, the group will be the area where society is changing. The group or organization level can cause organizational changes by using a hybrid matrix or organization to get a lot of horizontal flow of communication. At a macroeconomic level, society should present policy changes, such as

takeover programs or overturning socio-cultural developments in the development of sustainable marketing.

4. Conclusions

In conclusion, sustainable marketing along with sustainable development are omnipresent concepts, as mentioned by experts in the field, but the multilateral involvement of different business strategies leads to a compact product. All large companies recognize that sustainable development and marketing are not just simple outcomes, they are the long-term business strategies and infrastructure for economic and dynamic change. All these changes will influence innovative development. When these Maore changes meet, the marketer will have a new place in the company, due to links with the external and internal parties. Many companies convert to this chair structure if there is a difficult planning to implement it. Changes in non-economic structures are predicted for the future, but it has not yet been determined how they will be influenced by government policies. Until now, companies have not heard of durable marketing will undoubtedly make it, as it is a powerful combination of forces that are formed between the environment, economy and population growth. It is a clear sign that all big companies will place sustainable marketing at the top of the list for a smooth run.

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**Globalization and Marketing in the Context of the
Romanian Agriculture**

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Abstract

The expansion of the global commodity and capital market, marked in the early 1980s, is considered to be the most representative factor in explaining the many socio-economic mutations occurring mainly in developed countries of the contemporary world. These transformations have also been felt at the level of production technologies, international trade policies, financial mechanisms and monetary instruments. Inevitably, these mutations have forced the political and economic factors from all the countries of the world, above all the developed countries, to adapt their economy to new realities and to take action on their economic and social policies in order to ensure their compatibility with those of other states. As a whole, these transformations have generated multiple economic, social, cultural, ecological and political reconsiderations, currently interpreted by the globalization or globalization term of the world economy.

Keywords: *globalization, agriculture, marketing, economy, market, pollution*

JEL Classification: *Q13*

1. Introduction

The term of globalization was introduced for the first time in 1983 by economist Th. Levitt expressing the convergence of the contemporary world market. Later on, Kenichi Ohmae develops this concept defining it on the one hand by global phenomena and on the other, through global processes viewed from a strategic perspective by an economic agent.

The process of globalization is identified with an economic integration mechanism at different levels: commercially by opening up the goods and services market; financially, with the functioning of the 3D rule (deregulation, disintermediation and opening of markets); productively, with the development of multinational companies.

Concretely, globalization takes place according to a model that exceeds the state one, based on a trans-national network logic. Consequently, globalization involves interactions between different national economies, which is in fact the intensification of interdependencies between consumers, producers, suppliers and public administrations in each country. As a consequence, the process of globalization of national economies is carried out on the basis of a global information infrastructure, on the existence and continuous improvement of information and

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communication technologies. Through this global information infrastructure, economic operators in different countries resort to mechanisms and levers to develop their production, deliver distribution, marketing, financial, etc., in terms of efficiency.

In this context, the current period is increasingly profound and significant in understanding the interactions between the process of globalization of the economies of the world's countries and the assertion of the information and knowledge economy, the implications deriving from this new economic equation.

2. Problem Statement

These processes also involve the fragmentation of production activities, which began to manifest itself since the 1990s. This process has created new opportunities for market opening, financial regulation, increased competition, and new business strategies with immediate effects on improving production activities. If traditional mass production was predominant in the traditional production system, the existence of standardized methods and rigid organizational structures requiring the production of products in a concentrated manner, usually at national level and production activity. Employees and capital reunited in the same physical world, globalization has imprinted an international character by reorganizing processes on a smaller scale, adapting more flexible organizational structures, and generating new management models. (Manole, 2002)

3. Research Questions/Aims of the research

The purpose of this study is to present the phenomenon of globalization and the correct management of a marketing and management plan in vegetable and fruit growing. As this phenomenon is very complex I consider it important to study the marketing specifics in vegetable and fruit growing.

4. Research Methods

In this research, a strategy of the specificity of marketing in vegetable and fruit growing has been analysed which demonstrates the increased importance of such a strategy so that the economic agents in the agro-food sector base their production and valorisation in accordance with the consumers' requirements while also acting to adapt the present and future needs to the new trends in consumer consumption, nationally and internationally.

5. The importance of marketing in agro-food production

Regarding the specificity of agricultural and agro-food production, marketing presents some particularities related to the content of the agricultural market. The marketing branch specialized in the analysis of products for productive or non-productive consumption is known as agricultural marketing. As agriculture is characterized by certain features generated by the dependence of agricultural production on natural-climatic and biological factors, by the seasonal nature of vegetal production and by the low level of information on this branch, they are also reflected in the marketing activity, and certain specificities. These particularities of agricultural management refer to:

- The study of agro-food products in terms of their competitiveness, the way they have to reach the final consumer, the establishment of the beneficiaries of products, market testing, attracting new customers, simplifying or widening the product ranges, presenting them;

- The study of the agro-food market regarding the penetration of the products on the market, the change of the position of the company on the market, the forecast of the demand, knowledge of the factors of market influence, the dynamics and the structure of the agricultural or industrial market through which the product is delivered to the final consumer;
- The study of product distribution, logistics of marketing activity, considering the selling methods, the efficiency of the sale-purchase documents, the analysis of the distribution expenses, the activity of the outlets, the presence of the seasonal fluctuations of the agricultural production. These issues require additional economic transactions concerning transport, storage and conditioning in order to maintain as stable a relationship as possible between demand and supply of the products concerned;
- Establishing promotional actions made through advertising, motivational studies. (Dinu, 2000).

Against the background of these general particularities of the agricultural marketing, the economic agents in the agro-food sector base their production and valorisation in accordance with the requirements of the consumers, while also acting for the adaptation of present and future needs to the new tendencies in the field of consumption, and international. Therefore, agricultural marketing (agro marketing) applicability can be considered as a productive system linked to each other but differentiated by the nature of the processes that take place within them.

Agricultural systems transfer the primary resources provided by nature (solar energy, soil nutritional reserves, etc.) as well as the derived economic resources attributable to the production activity (fixed funds of eco-economic and artificial origin, seed funds, seedlings, biological material, fertilizers, pesticides, water, energy, etc.) in agricultural and/or agro-food products. And the process continues, with the marketing systems transferring the economic assets resulting from agricultural (agro-food) systems into consumer goods distributed over time and space or in resources usable for further processing, in order to finally transfer them to consumers in order to meet their needs. Through these multiple functions, due to the beneficial consequences of marketing activity on the entire chain of agro-food products, marketing embodies the specific valences of a non-polluting production environment, which is required to be used in all structural components of the agro-food system, at all organizational structures, including at the level of production farms. (Dobre, 2003)

5.1 Main activities and marketing actions

The market study looks at:

- Demand and supply analysis, their relationships, price dynamics, sales trends;
- Market size (structure, location, capacity, potential, etc.);
- The activity of competitors;
- Marketing operations.

Producing product policy, focusing on product layout, quality and presentation:

- Specification of product functions, technical characteristics and quality level, cost assessment;
- Presentation analysis and product branding;
- Product lifecycle analysis, development of the new product research and development program;
- Contracting products with beneficiaries;
- Organization of post-sale services.

Develop pricing policy that relates to their analysis and substantiation:

- Analysis of production costs and sales prices;
- Analysis of price elasticity;
- Analysis of rival competition capacity;
- Studying the affordability, psychological and competition price;
- Grounding its own pricing policy.

Developing promotional policy:

- Attracting sponsors and developing advertising budgets;
- Promoting and using public relations;
- Organizing, collecting, preparing and controlling the human factor used in various links of the distribution network;
- Other promotional actions (participation in fairs, exhibitions, presentations and outlets, etc.);
- Elaboration of distribution policy, which targets the physical circuit of the product from producers to traders;
- Choice of outlets and shop design;
- Choice of means of transport and methods of conditioning, preservation, storage and packaging;
- Delivering products to the sales outlet.

Based on these actions organized and executed by competent marketing staff, the manager answers the questions: what to produce, how much to produce, what the cost to produce, where to sell, when and at what price, what will be the expected gain?

For any firm, regardless of its spatial dimension, economic power, and ownership, the market strategy is an important tool for guiding, identifying the exigencies and trends of market evolution. However, establishing such a marketing strategy requires firm efforts by companies to support beneficial activities, forming a unitary set based on concrete action programs and measures. Through them, efforts are being made to achieve the objectives of the marketing strategy, whose ultimate goal is to make economic activity more efficient. (Dragoiu, 2003).

The activity of the economic units is carried out in a dynamic and unstable environment, which requires their permanent circumscription to the requirements of the external environment, above all to the market. Such acceptance requires the carrying out of a specific activity such as: selecting the personnel involved in the marketing activity, developing policies, strategies and marketing tactics, identifying and measuring the interdependencies between the marketing activity and the other activities carried out at the level of the economic organization.

Such a global unified approach to multiple aspects of economic activity synthesized in the phrase “rich businesses do not market for money but have money for marketing” is one of the essential premises for performing. Such a vision is the content of marketing policy, expressed through a multitude of concrete strategies and techniques of action. Each marketing strategy includes a suite of decisions that aim to optimize the business operation over a period of time, being one of the tools the unit will use to ensure the superior capitalization of its results.

Depending on the segment to which it is addressed, the marketing strategy consists of several components, such as: market strategy, product strategy, price strategy, distribution strategy, promotional strategy. Within this system of strategies, the central component of the marketing policy is the market strategy, which meets the requirements of the external environment and makes the most of the available economic resources of the organization. This is the starting point for substantiating and developing the other strategic components of the firm, which, through its content, targets the dynamics and structure of the market, its movement trends, the

requirements and level of competition. The market strategy adopted by the firm must be seen in its dynamics, which is constantly under the influence of endogenous and exogenous factors specific to the organization. Putting marketing policy into practice requires an optimal combination of these categories of factors, the result of which is the marketing mix. By its content the marketing mix is an economic tool of primary importance in the implementation of marketing policy and consists of an optimal combination of the different marketing variables belonging to distinct economic processes and phenomena such as the product placement and promotion their requirements and needs, spending, convenience in acquisition and communication. (Manole, 2002)

Over time, the marketing mix has evolved the action and significance of the four components vary depending on the changes in the market, the new requirements for achieving one or other of these components. As a result of the complexity of these four parameters of the marketing mix, a marketing sub-mix of product, price, distribution or promotion can be developed at each level.

5.2 The agro-marketing system

The agro marketing system takes the form of two distinct but interfering sizes that participate in market activities. The first is represented by the enterprises, organizations and institutions participating in the market activity, the second is embodied by the functions that these participants fulfil within the agro-food system. According to some specialists in the field, agro-food marketing fulfils a number of functions provided in the figure below. (Manole, 2005)

Table 1. Functions of agro-food marketing

Functions of agro-food marketing	
Exchange functions	Buying Selling Storage
Physical Functions	Transport Processing Standardisation
Facilitation features (support)	Funding Taking the risk Collecting and retrieving marketing information - market studies

Source: Manole V. (2002), p. 97

These functions of agro-food marketing are carried out within the fruit and vegetable sector, taking into account the particularities of this economic subsystem. These particularities are generated both by the specificity of the activity in the production of vegetables and fruit, as well as by the nature of the processes and phenomena related to the transition periods and the consolidation of the market economy in our country. Among these features are the following:

- The pluralism of property embodied in different organizational structures of vegetable culture and exploitation of fruit plantations, each with their characteristics that imposed and imposed specific solutions for the application of marketing in the field of product, price, distribution and promotion;
- The marginal relationships with the market of family farms, which are devoid of the possibility to apply the principles of marketing in their activity, the leadership relying more on experience;
- Inappropriate organization of the take-over of the resulting products and intended for their industrial processing, especially at the level of the households, whose primary

processing is extremely low, which affects the quality of the products and the efficiency of the activity of the pig farmers;

- Supply of inputs and prices influence the choice of vegetable and fruit producers to increase or decrease crop cultivation;
- Poor infrastructural endowment of agricultural holdings in the sector (construction, roads, transport, consultancy, credit, etc.), some of these elements affecting even the large vegetable crops, a situation that negatively affects the structure and costs of marketing activity;
- The existence of a large number of intermediaries involved in the process of negotiating quantities and prices on the market, the poor organization of family farms in associations, which diminishes their capacity to impose conditions on the product market, plus the reduced possibility of to inform themselves about the evolution of market phenomena, supply and demand on the domestic and foreign markets, product quality conditions, which affects the interests of producers in relation to the other players in the industry;
- High degree of heterogeneity of the products obtained in terms of the biological and economic quality of the products, their processing and their destination, which include fresh vegetables and fruits or processed under different products, which generates a great diversity of prices used in the valorization of these products, but also of their beneficiaries;
- Marketing activities concerning packing, transport, storage, presentation operations do not have the infrastructure necessary to carry them out; (Draghici, 2004).

On the basis of these particularities, in theory and less practically, the main marketing activities and actions concern pre-action.

6. Conclusions

The realities in our country reveal important difficulties in the distribution of products.

Therefore, in the transformation of family households in the fruit and vegetable sector into active subjects of commercial act, there is a need for an efficient sales network. In this respect, the efficiency of the production and exploitation activity requires a radical improvement of the distribution mix, by improving the activity of marketing associations, successful institutions in the EU, but which in our country still does not function at normal parameters. The attempt to create such an institution as Gross Market in Bucharest only for vegetables and fruits, was more a failure, due to and lack of involvement of competent actors from central institutions, but also managers of economic organizations in the proper organization and functioning of this market.

Some economic organizations seem to be interested in selling their products to other merchants or directly on the peasant market, which is motivated by non-stimulus prices for these products, which are much higher in the institution. Also, in order to ensure fair prices for autochthon producers of vegetables and fruits, great importance would be the establishment of commodity commodities exchanges, such as those operating on the world market.

These macroeconomic measures, however, require a radical improvement of marketing activity at the level of economic organizations by organizing within them a marketing compartment whose size, structure and resources depend on the type of organization and the distribution channels selected. The activity of this marketing department intersects with the other organizational structures of the possible structures created to manage this segment, on research, production, distribution, personnel, economic and financial, etc., through which the marketing strategies and tactics are based.

The chapter of conclusions should answer the research questions, discuss the issue of validity, credibility, limits of the study, generalizing the data, etc. In cases of hypotheses, it should be whether they were validated or not.

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Environmental Accounting Management

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Abstract

Starting from the ecological calamities that are accentuating in the last period, and the fact that they are leading to the natural resources disappearance, and also to some vegetal and animal species disappearance, economical entities should introduce the natural environment management into their policies by having two different approaches: strategic and operational. The accounting professional, irrespective of the fact he is an accounting expert, a management controller, a financial auditor or normalized, he should be concerned about the inclusion in the content of his mission in practice, of the green accounting concept. Into the green accounting is also included, as a part of it, the managerial accounting, which must be orientated on providing the necessary information for the economic decisions regarding the investments, the new products launch, the production level and the structure. Any economical entity in the actual development stage of the new economy, ecological economy, should regard, in the preparation of the decisions related to development, to the environmental costs. The impact of the organization activity to the environment, is subject of the green accounting at the entity level, and also at national level, green accounting has the subject, “the national economy impact to the environment”.

Keywords: *Managerial accounting, green accounting, benefit (added value), new economy, environmental costs, decision*

JEL Classification: *F00, F60, F63*

1. Introduction

Most countries are concerned about the development of the new green economy following the devastating ecological crisis in the whole current ecosphere. Events such as environmental catastrophes, extinction of the certain species of animals and plants, more pronounced reduction of the natural resources have led the decision to introduce environment management in the two plans of the economic entity level: operational and strategic.

Socio-economic subsystem, as a part of the Ecosphere requires efforts to maintain or increase economic and material efforts to grow disorder in the Ecosphere.

Condition for sustainability is that no material consumption and no waste production should not be larger than Ecosphere production capacity of goods and assimilation of sewage.

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Entities that make investments in environment protection lead to increases in value added from year to year instead of one who neglects environmental investments whom are penalized by the social partners and investors. (Antheaume, 2003)

Starting from the interests of each entity to increase value-added strategy is interest for environmental management. This is the interest of all entities regardless of the size and economic sector in which they operate.

The issues presented above had led to the need for the environmental accounting, meaning the green accounting.

Green Accounting users are both internal and external ones. Information on green accounting for the external users is in the financial statements, developing reports on information on environmental policy. Internal users (management entity) receive information from the internal green accounting part whose objective is, to provide useful information in decision making on environmental costs.

2. Problem Statement

Environmental activity is part of the social production process, generating important economic value, its cost is reflected in the price of goods and services.

The purpose of environment protection activity, either if it is outsourced to specialized units, whether it is internalized, is to bring profits.

Starting from the competition in the market economy the profit of the entities acting on environmental protection is required motivation, imposed. Deepening contradiction between the natural environment requires that profit and growth to become a lever important values, a source for the formation of budget for environmental activities. It follows that the profit that highlights environmental protection work on one hand must be perceived mainly as activity retention of environmental quality, protection of its resources and, on the other hand, as a source of development.

Merchandise value structure must be considered when computing work and living expenses for the environmental protection to be materialized.

Each entity needs to rethink new management tools, an important aside the Environmental Management System (EMS), the purpose being to protect the environment in which the entity operates. (Bartolomeo *et al.*, 2000)

3. Research Questions/Aims of the research

The two directions of the system costs, the economic and the ecological, from the purpose of calculating the cost and system are order to obtain information about the allocation of the total cost of production and have brought improvements in cost calculations. From the economic point of view highlight material costs, value and places it appears, and the ecological, reducing costs and energy used materials lead to positive ecological effects embodied in reducing waste and emissions.

4. Research Methods

Research methodology is based on a multidisciplinary approach of generating advanced environmental, economic, social issues. (Mathews, 1997) Materials for study are drawn from the professional literature and national and international practice. All the results and conclusions will be unique for each studied case but may be applied by all entities. Also, the results will be analysed and discussed with experts in the field, in order to validate research methods and results.

5. Findings

5.1 Structure

Green accounting has different meanings in different contexts starting as follows:

- In the context of the national accounting, green accounting is accounting called natural resources and has a macroeconomic dimension. It provides information on consumption, the quantity and quality of natural resources, renewable or non-renewable;
- In the context of the financial accounting, green accounting refers to estimating and financial reporting of environmental costs and liabilities in accordance with accounting standards;
- In the context of the managerial accounting, green accounting is oriented towards providing information needed in order to underlie the economic decisions on investment, and the structure of production from the environmental costs perspective, associated with an organization/department/production line/system.

Management entities to green accounting need a brief of information about natural hazards and environmental costs. For the sustainable development, management should know strategies when developing action plans, whose cost will be borne by the entity because of outsourcing activities related to the environment. (Legea nr. 2001-420/2001)

Macroeconomic management accounting in the new ecological economy must bring changes in the definition of the environmental costs.

Moreover, negative economic evolution is coming from medium, therefore, is required additional capital expenditure both at the macroeconomic level but especially at the microeconomic level. They would involve:

- transition to the exploitation of ores with low content of useful substances;
- reusable resource recovery;
- ensuring the protection of natural environment;
- improving the natural environment.

Because of human involvement in the natural environment, is resulting an indissoluble link between economic growth and environment.

In terms of economic approach, environmental consequences are:

- environmental pollution;
- depletion of the natural resources;
- raise of the environmental entropy. (Paugam, 2003)

In terms of environmental influence on the economic environment imposes restrictions such as: creation of the clean economic structures.

Economic growth now is conditioned by recent activities such as:

- used water protection activities in industry, agriculture and household consumption;
- air purification activities;
- soil and forest protection activities;
- the collection of waste and industrial residues;
- flora and fauna protection activities.

Environmental policy actions are reflected in environmental costs, but component costs should not be neglected. The latter has now led to the development of environmental costs

Managerial Accounting (EMA-Environmental Management Accounting). The Environmental management accounting is applicable in the following areas:

- Assessment of the annual environmental costs;
- Products and services pricing;
- Evaluation of the environmental investments;
- Drawing up the environment;
- Computation of the cost savings and benefits resulting from environmental projects;
- Designing and implementing the environmental management systems;
- Evaluation of the environmental performance indicators and benchmarking;
- Obtaining clean production, pollution prevention;
- Developing the environmental projects;
- Promotion outside spending, investment and environmental obligations;
- Environmental Reporting (including the statistical agencies and local authorities). (Depoers, 2004)

Environmental costs can be classified as:

- costs related to the downloading and storage of waste, emissions and their treatment;
- insurance costs and provisions for environmental liabilities;
- cost forecasting and environmental management including research and development costs related to the environmental projects;
- materials and processing costs of the non-value supply products containing materials that are present in waste;
- processing costs of non-product outputs;
- external costs generated by the public entity or the relevant costs for suppliers and customers.

When discussing about the Environmental costs in terms of management, there is a new approach to Cost Calculation based on the objective of organizing production and losses considering the technological flow, information structure that makes it more efficient. (Arnaud, 2003)

Entities to implement the system of environmental management costs, must apply a methodology that should take the following steps:

- identification of the environmental aspects of the entity;
- development of material and monetary company flows.

Green accounting so far met four stages of development:

- 1970s: developing descriptive models of regulatory action;
- 1980-1990: debates on the role of accounting in the reporting of information on activities related to environmental conservation;
- 1991-1995: shaping environmental accounting and financial disclosures designed to launch the concept of environmental auditing;
- 1995-present: VC role orientation to assess environmental performance and develop an accounting framework for reporting performance in correlation with environmental requirements, aiming: increased impact of environmental factors in the activity of companies, guidance in order to identify environmental issues, their assessment and reporting, providing interdisciplinary educational programs focusing on environmental issues and accounting treatment, specific accounting practices development environment.

5.2 Construction of references

International Federation of Accounting in August 2005 published a guide on applied management accounting environment, in which they summarize the best practices observed worldwide, based on which to comment.

The guide is not that of standard or regulation he aimed to propose an analytical approach, a conceptual framework and definitions to terminate errors are made in terms of applied environmental management.

There is currently no definition generally accepted, the applied management accounting environment and the guide do not attempt to give a definition. (ONU, 2004)

Management accounting should collect reliable data on consumption of raw materials, water, energy, waste generated by activities of the entity, monetary data on the costs of protection and restoration of natural environment, earnings acquired from the environment protection policy and reducing consumption of the natural resources.

6. Conclusions

Any training professional accountants and their role should be interested in the new concept of green accounting in general and in particular in green accounting management of the environment, each bringing out their content revisions in practice and responsibility. (Boje, 1999)

Green accounting objective is to consider environmental protection and restoration, by fulfilling the traditional role of accounting, which is to take account of flows and risks of the natural environment and to communicate with internal and external users, “fairly entity”.

The relationship between the entity, its economic activity and the environment is complex.

Green accounting should not only consider the consequences of centralization of activity on the environment, which is already produced, but also to consider the actions related to prevention of harmful effects, adverse environment.

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**Sale of Agricultural Land to Non-Residents – An Attempt on
National Security**

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Abstract

Nowadays, the land grabbing phenomenon in the European Union has grown, increasing the number of land transactions on a large scale, causing the loss of national identity over time. The present study examines the phenomena that have taken place in land capture and their influence on food security. Although the Romanian people have been endowed with the sense of property since ancient times, the moment of joining the European Union was a conscious attack on the way through the loss of national land dowry. The problem was underestimated, and the implications that followed were not estimated. Many of the EU Member States did not directly restrict the right of landowners to land, but by imposing standard criteria to be replicated because national interests and laws were superstitious to European ones. The temptation of the Romanian land lower price should not be neglected as in some cases is up to ten times smaller than in the developed European countries. This was an attraction factor for foreigners eager to invest in land. At the same time, the lack of high performance equipment has been an impediment to Romanian landowners against foreign investors, and they have the advantage of high possibility of investments. The research is based on European Union Reports and Eurostat Database and Romanian National Institute of Statistics.

Keywords: *land market, foreigners, land grabbing, food safety, Romania*

JEL Classification: *F16, F62, Q13, Q15, Q17*

1. Introduction

Agricultural land market is an important aspect to be studied and emphasized. Current research is based on the history of land sale regulation in Romania and the need to change, avoiding the idea of being slaves on our lands. Laws such as Law 54/1998 on Free Movement of Land will be dealt with, which was subsequently abolished by Law 247/2005 and Law 17/2014 providing for the freedom of aliens to buy agricultural land, enjoying the same conditions and benefits as Romanian citizens. The emergence of this law can be defined as the opening moment of the national agricultural land market. However, there is a remarkable difference in the seizure of Romanian land by non-resident citizens before the 17/2014 law,

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knowing that from 2010 to 2013, foreigners' ownership of Romanian land increased by 57%. (P. Ciaian, D. Drabik, J. Falkowski, D. A. Kancs, Market Impact of New Land Market)

Regulations in Eastern EU States, JRC Technical Reports, 2016, p. 10). The turn-by-turn has brought to the agricultural land acquisitions a new class of financial investors, not traditionally involved in the agricultural sector, made up of banking groups, investment funds, individual traders and private equity companies. There are concrete effects on food security, employment, welfare and biodiversity, as with the disappearance and marginalization of small-scale agriculture in Europe, the multiple benefits of this type of farming system and lifestyle are compromised.

2. Problem Statement

Romania is far from resembling Europe developed countries situations in terms of food security. It is more or less desirable, or history does not allow us to align ourselves, being always accounted by individual interests and less by those of national security, in all respects, military, social, but especially from the point of view of food security.

Most of the Romania land is for agriculture suitable. If in 2010 the total area was 15695027.41 hectares, and in 2013 14677672.11 hectares in 2016 this area represented only 88% compared to 2010, respectively 13878641, 20 hectares. Approximately 64% of the agricultural area is represented by arable crops, 22% pastures and 6% grassland, and the rest is made up of potatoes and orchards (Romanian Ministry of Agriculture). The dynamics of agricultural land is the result of urbanization and the need to individualize a part of the population. (A.J. Vasile, *et al.*, 2015).

3. Research Questions/Aims of the research

Romania finds herself in a situation where, although coordinated by the law on sales of agricultural land outside the country, namely Law 17/2014, we do not have a good regulation of the land sale business, which led us to the alienation of 45% of its total, implicitly in diminishing Romania's agricultural area. Without the necessary measures, Romania's national security is threatened every day.

Law 54/1998, repealed by Law no. 247/2005, on free movement of land, opened the way for the national failure regarding their alienation, but was amplified by the accession of the country to the European Union. However, paragraph 4 of this Law provided that the provisions of the legislation in force at that time, namely Article 44, paragraph 2 of the Romanian Constitution, were applicable to purchases of land making investments by foreign natural or legal persons: "Foreign citizens and stateless persons may acquire the right private property on land only in the conditions resulting from the accession of Romania to the European Union and other international treaties to which Romania is a party, on the basis of reciprocity, under the conditions provided by organic law, as well as through legal inheritance". The year 2014 took the national security by simplifying the acquisition of agricultural land for non-residents, cultivating land with lower amounts than other countries and technologies superior to those that Romanian farmers allow. According to art. 5 of the Law no. 312/2005, the citizen of a non-resident Member State in Romania, the non-resident stateless person in Romania domiciled in a Member State, as well as the non-resident legal person, constituted in accordance with the legislation of a Member State, may acquire the ownership of the agricultural land at the fulfilment a period of 7 years from the date of Romania's accession to the European Union (1 January 2007). By Member State is meant any Member State of the European Union or the European Economic Area. This deadline was met on January 1, 2012.

Foreign citizens from any of the EU Member States can buy ground and third-country nationals (non-EU/EEA countries) can acquire land in Romania only on the basis of a reciprocal international agreement between the Romanian state and their country of affiliation.

Considering the above it possible to solve this problem, but in the long run, through a better economic evaluation of the land market, the existence of more drastic conditions for the acquisition of the land.

4. Research Methods

This paper provides a historical and thematic overview of the field of land sale. There are many studies based on the present subject, both international and national as the ones cited in this article, like Ecoruralis study that was used by the authors to describe the initial situation and the evolution of agricultural land in Romania, as well as the areas affected most by this phenomenon called “land grabbing”. The study also presents the top foreign companies that bought agricultural land, even before entering the European Union and their spilling on the national map. The authors got the details about the top companies mentioned above, as well as details about cultivated land, total land in the property, year of acquisition, main cultures, main markets and the investment.

There are many studies based on the present subject, both international and national as the ones cited in this article. Chapter 5 is the result of the study, using in particular data from the Agricultural Structure Survey of 2016, on the basis of which the graphs and tables were established. Also based on the survey, we have highlighted the total and agricultural areas since 2016, with a remarkable decrease compared to 2010. The object of this study highlights the fact that land grabbing is a critical issue in most regions of Europe, but especially in Romania. The analysis shows that through land grabbing, more than 50% of Romania’s surface was occupied by foreigners. The term “land grabbing” is commonly used to describe large land acquisitions or concessions, long-term lease of land from private or public entities.

The organization of the six round tables on agricultural policy issues also discussed the subject of the land global market, agriculture property relations, from where ideas of leading figures from agriculture and economics were cited. These meetings were very useful in exploring more ideas and attitudes, ideas of people with different social status, from academics and politicians to farmers.

5. Findings

The abovementioned laws were an abuse on Romanian territory, national identity, attacking food security, by the inability to buy its own production, highlighting the foreign traders who have an arable land of about 5.3 million hectares (Ministry of Agriculture).

In 2012, the area owned by foreigners was only 700,000 hectares, estimated at 10% of the total agricultural area, compared to about 40% of the present.

In this chapter we will address the main land grabbing situations, the phenomenon based on land grabbing in our country. The largest cases that have developed this phenomenon will be mentioned and explained, installing in Romania and finding refuge among the national land wealth. According to the Land Matrix database, the most significant investments in Romanian land plots are held by the Italian companies Generali and Riso Scotti and Bardeau, an Austrian company, and a significant part of the forest is owned by the Finnish company Tornator. These will be studied and exemplified in the following.

Table 1. The main companies that own land in Romania

Company name	Cultivated Land (ha)	Land in the property (ha)	Year of acquisition	Main county	Main markets	Investment (mil. Euro)
Bardeau	21	12	2000	Arad Timis Mehedinti	Austria	36
Generali	5.5	4.85	2001	Arad	Rusia Eastern Europe	50
Tornator	12	12	2002	Braşov Buzau Mehedinti	Finland	40
Riso Scotti	15	11	2005	Olţ Ialomiţa Brăila Dolj	Greece Serbia Hungary Bulgaria Italy	40

Source: Land grabbing in Romania, Eco Ruralis

Generali, originally an insurance company, owns 4850 hectares of agricultural land in Romania in the western part of our country. The main crops on the agricultural lands owned by Generali are wheat, soybean, sunflower, and are subsequently sold to Eastern European and Russian markets. It is specified that the Italians own more than 220,000 hectares in Romania.

The Austrian company Bardeau bears the name of the Austrian Count Andreas von Bardeau.

It arrived in Romania in 1999, and in 2000 started the purchase of agricultural land, being among the top 5 foreign companies holding agricultural land in Romania and among the first 10 large farms. Currently, Bardeau owns 12,000 hectares, but cultivates another 5800 hectares of the State Domain Agency and another 3000 hectares of private owners. In total, this company cultivates land over 20,000 hectares.

The second Italian company studied is Riso Scottish, the largest rice company in Europe, finding its fertile soil according to this culture on Romanian soil since 2005, predicting it will become the European country with the largest rice crop. Riso Scotti currently has about 11,000 hectares, a factory in Ialomita, and wants to invest in a rice processing system.

The Finnish company Tornator appeared in 2002 with the intention to buy 100,000 hectares of forest on the Romanian territory. This company owns a total of 640,000 hectares, most of which are in Finland of 595,000 hectares, another 41,000 hectares are held in Estonia, and 12,000 hectares in Romania. (S.B.M. Attila, R.M. Beperet, S. Alzbeta (2015). Land grabbing in Romania, Eco Ruralis).

The main cases presented in the above table show the increase in the activity of seizing agricultural land and forests. These are just some examples of everything that happened in Romania. In particular, large companies that have purchased agricultural land focus on growing cereals and marketing the raw product to their countries of origin. We can see that the number of hectares cultivated and owned is not a measure of investment.

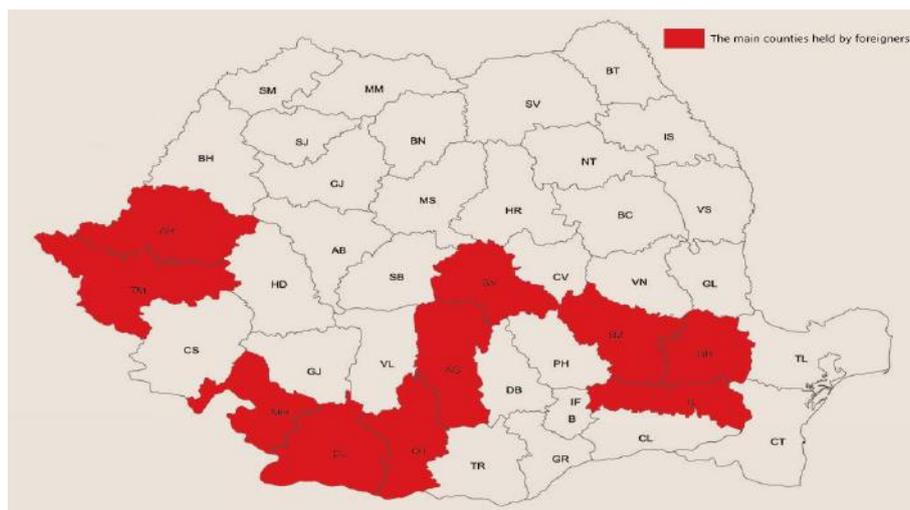


Figure 1. The main counties held by foreigners

Source: adapted from the article above Land Grabbing in Romania

It can be seen a large extent of buying land in areas with high agricultural potential, especially in the south and west. Also, Romania has been remarked by not very high prices and fertile land, attracting strangers.

5.2 Influence of Globalization on agricultural land market

Agricultural land is a special asset that needs particular attention. The acquisition of agricultural land on the market is often a subject of restrictions and conditions. (European Commission, 2017). Due to the fact that each area has particularities, agricultural market is a complex one where government regulations should prevail. European Union law recognize the specific nature of agricultural land and the Treaties allow restriction on the internal markets for foreigners in order to prevent speculation.

In order to protect countries agricultural land, several directions were given by the European Union (2017) such as prior authorization before the transfer of ownership; favour of certain category of buyers (local farmers), price regulations that allows internal authorities to prevent the selling if the price is considered too low; self-farming obligation; qualification if farming for the potential buyer; residence requirements. This type of regulation is to be transformed at the country level by each government.

Considering the phenomena of globalization that is spreading all around the world with a high speed agricultural land market becomes more and more vulnerable (Raiu, 2011).

According to League of Associations of Agricultural Producers in Romania (2017), Romanians are in a situation of unfair competition with foreigners for the purchase of arable land because they benefit from loans with subsidized interest or no interest, while Romanian farmers have no access to bank credits or European funds. Limiting the access to credit and the impossibility of accessing European funds by most Romanian farmers, puts them in a serious situation of unfair competition towards foreigners, thus having unhindered access to the land market in Romania, where prices are still practiced very small at the rise of land, compared to prices in the rest of Europe. The problem of selling land to foreigners or residents is a strictly national matter and not a community one, as the Ministry of Agriculture claims, the decision to alienate the land being left by the European Union at the discretion of each Member State. This is how many countries in the EU have imposed clear bans on the purchase of arable land, while the Romanian government imposes restrictions on its own citizens.

Another challenge that arise from the selling of agricultural land to foreigners is the fact that all the production might be exported to other countries and processed there and the outcome

imported back by Romania at higher prices and paying the import taxes as well. Romania must overcome this challenge now since the arable land is 40% (LAPAR, 2017) in foreigner's ownership.

Globalization and agricultural land market – Swot analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> -free movement of persons and capital; -free access to information that facilitates technological and informational development; -access on international markets; -competition on the food market; -access to new technologies; -infusion of investments in regards to the agricultural businesses; -enhancement of knowledge transfer in development areas. 	<ul style="list-style-type: none"> -industrial foods became best sellers on the market; -agriculture became intensive and more dependent on artificial fertilizers in order to increase the exports and decrease the selling prices; -small producers are overcome by multinational companies; -organic and traditional foods selling price increase; - agricultural land can be bought by foreigners where governments regulations allows; -unfair competition on the agricultural land market between local buyers and foreigners investors from more developed countries;
Opportunities	Threats
<ul style="list-style-type: none"> -improvements in living standard especially in rural areas; -increase in food security for the countries that can't insure it with the internal resources; -international partnerships in agriculture and food businesses; -increase on foreign investments; 	<ul style="list-style-type: none"> -threat that agricultural land from low developed countries can be bought by the foreign and the production exported; -supermarket increase on imports where the price is lower; -decrease in food safety as the disease can spread more easily; -low government control on land usage for the land in foreigner's ownership.

6. Conclusions

The solution to the issue is complicated because the land purchased by foreigners cannot be taken back without violating ownership, provided that the purchase method was a legal one.

The difference in approach between Romania and the other European countries in relation to the issue in question is that they respect first the interests and the national legislation, and then the European ones, the difference which leads to Romania's impossibility to control one of the state's greatest wealth. Most EU Member States did not directly restrict the right of foreign landowners (Germany, France, Luxembourg, Portugal, UK), but imposed some standard criteria that those who would like to purchase land in these states had to respect. This model should also be implemented in the national legislation on the alienation of land to non-residents, especially agricultural ones.

In the event of a future food crisis, the question is: can the agricultural land in Romania continue to ensure the food survival of this country? Because at this moment the goods produced on the Romanian agricultural land take other destinations than the domestic market.

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The Role of Financial Governance in Achieving Development

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Abstract

The present research aims to determine the governance and financial mechanisms, to identify possibilities and necessities of strategic and financial governance in Malaysia and to propose ways of employing them to accelerate the economic development. The subject of financial governance has arisen and given more attention after the Asian financial crisis in the late last century. This concern has been reiterated in the context of the global financial crisis in 2008, after the failure of traditional methods in preventing the causes of those financial meltdowns. The research concludes set of conclusions, the most important one being the fact that Malaysia has benefited from the application of the system of governance in getting out of two global crises and took lessons from this experience in improving the performance of its organizations and the development of protective measures for its financial and economic system. Recommendations focus on the necessity of taking advantage from the Malaysian experience in the application of financial governance mechanisms to address the challenges facing the development in Iraq.

Keywords: *Financial Governance, Economic Development, Malaysian Governance, Strategic Necessities*

JEL Classification: *E60*

1. Introduction

There was strong interest in the issue of governance after the Asian financial crisis at the end of the last century and this interest was repeated after the global financial crisis in 2008 when traditional methods failed to prevent the causes of financial collapses and the accompanying scandals and repercussions, which had a serious impact and consequences. In this context, in-depth studies have been conducted in order to determine the main reasons behind the crises.

Studies have shown that these financial crises and collapses, included all developed capitalist societies and even developing ones, for several financial and administrative reasons. This is a dangerous phenomenon facing economic development in general and developing countries especially, including Malaysia, the case study, which pushed to adopt financial governance in all state institutions.

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2. Problem Statement

The problem of research in the area of the economies of many countries in general and of Malaysia in particular is the phenomenon of financial and administrative corruption, which is a major challenge. The spread of this phenomenon is enabled by the incomplete institution-building and the lack of laws, creating an environment suitable for corruption. To address this threat, which is one of the most important threats and challenges facing countries, including Malaysia in the process of economic development, the use of governance is required.

By implementing governance, a fight against corruption is started in Malaysia. Corruption is regarded as one of the most important challenges facing development in developing countries who can benefit from the Malaysian experience.

3. Research aims, importance and hypothesis

The research aims to achieve the relationship between governance and economic development and to identify the potential and the strategic necessities of financial governance and its employment in accelerating the economic development in the Malaysian experience and the possibilities of implementing it in other developing countries.

The importance of the research is that it details the framework of governance by means of mechanisms and procedures as a tool or strategic policy through which countries could attempt to eliminate financial and administrative corruption and thus accelerate economic development and reduce the consequences of crises, through an analytical study of the Malaysian experience as a model for developing countries in the application of governance. The research is based on the premise that financial governance adopted by Malaysia does not play a clear role in economic development.

4. Research Methodology and Style

The researcher adopted the deductive methodology as well as the inductive methodology, to test the hypothesis of research in order to reach its objectives. The researcher relied on the theoretical descriptive analytical method in studying the role of governance in achieving development by referring to Malaysia as an advanced country in the field of applying governance.

4.1 Structure

Concept of governance

Kaufman defines governance as “a set of verses used by many international institutions as a means of measuring performance and judging the practice of politics in the management of community affairs in a developmental direction” (Kaufman, 2002).

Financial governance was defined by the World Bank as “a means by which power is exercised in the management of economic and social resources for development” (Majali, 2013).

Concept of development

Development is defined as “a conscious and community-oriented process aimed at creating structural transformations that lead to the formation of a base, and the launching of self-production capacity, whereby a regular increase in the average productivity of the individual

and the capabilities of the community within the framework of social relations confirms the correlation between reward and effort, social and national security” (Kawarmy, 1984).

Analytical framework of the Malaysian experience in applying financial governance

Malaysia’s experience in governance is rich, especially as it has been a pilot since the establishment of the Malaysian Institute of Governance. The report of the Malaysia Finance Committee on Governance has defined the meaning of corporate governance as processes and structures used to guide and manage corporate affairs to improve business prosperity and corporate responsibility and achieve ultimate goals. On long term it aims to maximize shareholder value (Ali, 2009). This experience will be addressed through the following aspects.

Overview of the Malaysian economy

During the 1960s and 1970s, Malaysian governance focused on promoting economic growth through rural development and infrastructure projects and achieved many successes in this area.

The Malaysian government has not allowed adverse developments and events in other countries to affect their economic growth and to halt their efforts. They have built an advanced economy and society.

When the ethnic conflict broke out in the late 1960s, in 1969, the Malaysian government adopted a long-term plan for long-term development during the years 1971-1990, which included a broad strategy of national integration by promoting growth and striving to eliminate economic deficits and underdevelopment and reduce gender and regional disparities.

The plan was known as the New Economic Policy (NEP), which consisted of an integrated set of liberal trade policies that led to a competitive exchange rate growth and a balanced mix of fiscal discipline and monetary policy. This policy resulted in positive results in the decade of the currencies, when Malaysia was exposed to the conditions of ethnic sectarian conflict, the unfavorable international conditions in the 1980s, the result of the international recession, and the low price of oil, one of the factors on which it built its ambition (Ismail, 1997).

Economic reforms in Malaysia

Malaysia’s economic reforms have gone through the following stages:

The first stage ranged from independence to 1990. Before applying governance, the capitalist system was dominant in Malaysia in the period from its independence in 1957 to the end of the sixties of the last century, through the Federation of Malaysia in 1963, the occurrence of ethnic problems and disorders in 1969, the emergence of the new economic policy laws in 1970, and the establishment of the Islamic Bank of Malaysia in 1983. This stage is called “crossroads” (Husri, 2009).

The second stage: the reform plan from 1990/2020 and the role of governance in these reforms. The Malaysian economy has regained momentum since 1987, and reformist policies have enabled the Malaysian economy to take advantage of transformations in international competition and to initiate a new plan based on the principles of governance, its application and attention to Islamic principles (1990/2020). During this time, Prime Minister Mahathir laid the foundations of the Malaysian experience as it adopted a method of progress in the country based on the following basic pillars:

- National unity among the people;
- Strong leadership in the application of governance to move the whole country in the direction of one goal and work in accordance with a system in which all groups are united;
- Adopting the Japanese experience approach for its experience of governance and development, (Husri, 2009);
- Justification of governance in Malaysia;
- There are many justifications for implementing governance in Malaysia;

- There are many cases of corruption.

Malaysia ranked quite low according to the Corruption Perceptions Index. Malaysia's unsatisfactory ranking was a result of the global bribery index. As a result of Malaysia's ranking and achievement of unsatisfactory positions, the Malaysian government applied the financial governance mechanisms of Malaysian financial institutions to fight corruption.

- Economic reforms in Malaysia between 1970 and 1990;
- The two major financial crises of 1997 and the 2008 global financial crisis have motivated or justified Malaysia to apply financial governance mechanisms in state institutions;
- Accelerate comprehensive development and meet its challenges.

Financial Governance and Malaysian Financial System

The Islamic financial and banking system is the driving force behind the Malaysian economy. The main features of this sector are highlighted below.

- The Islamic Bank is one of the most important financial institutions in the banking system in Malaysia, founded in accordance with the Islamic Banks Charter of 1983. The federal government, through its various financial institutions, contributed 65% of the pre-paid capital, while local governments contributed the rest of the capital. The bank has been very successful, so many of its clients are non-Muslims. For example, according to the 1995 banking reports, about 40% of the Islamic Bank's public investment account holders are non-Muslims. The importance of this activity, although limited in comparison to other projects, is that it is also nurtured and managed by the federal government (Abu Ghazaleh, 2008).
- The Islamic financial system, which originated from Malaysia, has international channels competing in its products and services, the traditional system. The Islamic financial system has been able to influence the traditional system in Islamic transactions and surpass it in terms of validity and safety in light of the financial crisis.
- The Islamic financial system competes with its traditional counterpart in light of the current economic crisis, as it managed to influence the traditional banks of Islamic transactions. The Central Bank of Malaysia is seeking to develop the Islamic financial system since the nineties of the last century, as this system is an integral part of the international financial system, which led to establishment of the International Center for Financial Leadership and the Center for Education in Islamic Finance.
- The importance of social justice in the distribution of economic returns, which led to a decline in the rate of poverty in Malaysia significantly from 47% in 1970 to 3.6% in 2007. The government seeks to reduce it by next years to 2.6% with financial government support aimed to strengthen the economic stimulus for the state budget in light of the current financial crisis (Mekhemar, 2009).
- The Malaysian economic system is characterized by some applications and financial institutions such as Takaful system as an Islamic approach for insurance companies, Zakat Fund, as well as Hajj Fund.
- Shariah governance is unique to financial management in the Islamic system, which is taken into consideration by bank owners to serve as another level of corporate governance for banking financial institutions. Malaysia is the most developed country in the field of infrastructure and architecture of Islamic governance, according to a comprehensive regulatory approach, with high discipline (Parker, 2009).

Evaluation of the Malaysian experience

By reviewing the experience of financial governance in Malaysia the following are notable: improved efficiency of the workforce and strengthened intellectual property programs by applying financial governance mechanisms in Malaysian institutions through transforming the ideas of innovators into departments to build the Malaysian development experience. The advantages of the Malaysian experience will be discussed, accompanied by proposal of avoiding the challenged during application and development of governance mechanisms in Iraq Agencies:

A - Positives

The most important advantages of the Malaysian experience in the role of financial governance in achieving development are:

- The economic reform plan (1970-2020) has helped as a new and effective mechanism for promoting the expansion and upgrading of governance in Malaysian institutions, through which development and upgrading of the industrial sector can be achieved by 2020 under Malaysia's payment and settlement system.
- Contribution in creating a productive environment and increasing employment opportunities and sustainability of the human and financial potential through governmental support. All this was achieved only as a result of the governance of corruption, bribery and other obstacles of the development process.
- The strengthening of national efforts has increased its defense against corruption in all its forms when it appeared in Malaysian financial institutions according to Transparency International's Corruption Perceptions and Bribery Report, through which Malaysia emerged in a low ranking, prompting the Malaysian government to apply the principles of corporate governance.
- The rapid expansion of Malaysian banking groups within the ASEAN region through the Central Bank of Malaysia's relationship with regional banks by consolidating of bilateral relations and cooperating with central banks across the ASEAN region.
- Malaysia's position as a global center for Islamic finance has been helped by the advancement of its Islamic banking system with the support of global capital through improved quality of assets and sustainable profitability. Shariah governance has contributed to the equation of profit through Islamic banks towards effective management of commercial risks and re-pricing the risks of the emerging gap of the fixed exchange rate.

B - Difficulties

The most important difficulties encountered in the Malaysian experience in governance are as follows:

- Increasing the investment portfolio. The most volatile in the ASEAN region, including Malaysia, were forced to raise the level of surveillance from the accumulation of risks in the financial system and asset markets.
- Risks arising from foreign developments. Foreign developments remained greater than the financial and banking developments in Europe. The geopolitical tensions in the Middle East, had an impact on the financial sector in Malaysia because of the low exposure to indirect effects.
- The risks facing industrial development and the risks due to the conditions of great uncertainty because of keeping pace with the rapid development of technology and modern knowledge. Industrial development must be based on an effective information system and this system should be able to avoid losses and guide industry on the correct path enabling reaching the set goals.

5. Conclusions

Malaysia's response to the impact of its governance system on the way out of two successive global crises, is to take lessons to improve the performance of its organizations and to develop preventive measures for its financial and economic systems.

Through its efforts to strengthen governance in its financial system, Malaysia has sought to prove the credibility, strength and stability of the Islamic financial system.

In addition to financial governance and bank governance, Malaysia's Islamic banking system (Islamic governance), which has a high Shariah control element, is practiced in Malaysia. The existence of governance and theoretical knowledge in its literature, as well as its knowledge of its standards and principles, are not sufficient to inform the governance of the desired role.

Rather, it must be accompanied by firm application and enlightened scrutiny of the work of its standards and adherence to its principles. The spread of corruption undermines development efforts and weakens welfare rates.

The insufficient empirical evidence to support theoretical assertions is main limit of the study; therefore, as directions for future work, it is recommended to test the proposed hypotheses using sufficient evidences.

Recommendations

1. Develop training programs to practice different types of governance.
2. The need for Iraq to benefit from the Malaysian experience in implementing governance mechanisms and standards in all its forms to solve the economic development crisis in Iraq and face its challenges, foremost of which is financial and administrative corruption.
3. Use the Malaysian authorities specialized in identifying the causes of the crises faced by States.
4. The Malaysian experience in this field should be added to the curricula related to finance and banking in all Arab countries in particular.

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1. Author 1: makes substantial contributions in analyzing the theoretical body of the paper, studying the content of the literature review, and forming the arguments of the paper.
2. Author 2 participates in providing the necessary data that helps in supporting the theoretical content of the paper and revising the paper critically for enhancing the content and assure the integrity of the arguments.
3. Author 3 revised the whole works starting from definition the purpose and key points of the paper, revised the paper during the steps of elaborations, and gives final approval of the version to be submitted.
4. Author 4: makes substantial contributions in analyzing the theoretical body of the paper, studying the content of the literature review, and forming the arguments of the paper with pay fee of conference and delivering the presentation.

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A Study on the Correlation between Personality Typologies and Informational Risk in the Field of Financial Reports

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Abstract

We consider that one of the most important components of an informational system for processing and producing the financial reports is the human component. This component is currently very difficult to replace in this specifically type of system, but it may also be very subjective and emotionally driven. Therefore, we consider it important to research the different types of psychological and personality typologies of those involved in the previously mentioned process. The purpose of this research is to identify the informational risks that different typologies of human personality can involve and to develop suitable proposals that will help the individuals that have a role in the above-mentioned system and which identify themselves with the personality typology considered by this study, in order to bring a new contribution to the risk management approach.

Keywords: *Risk Management; Informational Risk; Informational System; Personality Types; Personality Traits*

JEL Classification: *M12 Personnel Management, Executive Management; M41 Accounting; M51 Firm employment Decision; G32 Financial Risk and Risk Management.*

1. Introduction

The current study brings a new approach to risk management, with the purpose of helping the management identify who are the best potential candidates for an accounting position or for an accounting enterprise, so that they can keep the informational risk at a low level. But also, how can they identify what kind of informational risk is most likely to manifest with the current staff of the accounting department and how this risk can be eliminated or reduced. In order to achieve the main purpose of our work it was necessary to conduct an interdisciplinary research so that correlation between informational risk and human personality could be made.

In some papers risk is considered to be an uncertain outcome that can threaten the current situation of an enterprise (HM Treasury, 2004) other studies consider risk to be the variability of an outcome due to an environmental factor (Jianu, 2007). Risk is present in an enterprise in many forms and the literature categorizes it as hazard risk, financial risk, strategic risk and operational risk (Vedpuriswar, 2009). The informational risk is part of this last category, operational risk. This risk is related to any operational elements like systems, humans, technology and regulations.

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The personality may be considered to be a behaviour pattern only if the behaviour is a result of decision, choice making or instinct (Tutu, 2007). The most know model and taken in consideration is the Carl Jung model and presents four traits of personality (Jung, 1971).

Another model of personal typology classification is the Allport model. At present times there exists another model which as we could observe, has combined the Jung model and the Allport model, this model is today used and put to the enterprises disposal by Insides Discovery.

2. Research Methods

In the scope of achieving the objective of our research we analysed the two distinct disciplines that imply the correlation between the informational risk regarding the financial reports and the personality types of accounting professionals. This was followed by a meticulous documentation process of the consecrated literature in this two fields of research and a compilation of the existing theories so that we could choose the best personality analysis model for our current research. The present study was realized by conducting a public questioner sent to a sample of 12.375 subjects from all over Romania, through an online community for accounting professionals. The data resulted was analysed with the help of MBI SPSS (19), using the following analysing methods: descriptive statistics, the Cronbach alpha test, one-way anova test, bivariate correlations and other that were meant to strengthen our final conclusions.

3. Personality types and traits

On conducting our study we considered most relevant the use of the Briggs Myers model for identifying the personality types of our subjects. This model includes all the Jung models trait and adds two more. Therefore there were taken in consideration all the eight personality traits that this model identifies and all the sixteen personality types that are basset on those traits, as can be seen in Table 1.

Table 1. Personality types as presented by Isabel Briggs model

	Sensation		Intuition	
Judgement	ISTJ	ISFJ	INFJ	INTJ
	ESTJ	ESFJ	ENFJ	ENTJ
Perception	ISTP	ISFP	INFP	INTP
	ESTP	ESFP	ENFP	ENTP

Source: Isabel Briggs, [1980] 2013

The Jung model divides the personality traits in to categories general and functional traits, so in Figure 1 we have introverts and extrovert in each combination of the four functional traits presented by Jung, this functional traits can take the shape of any general typology, and are the following:

- Thinking – is the function of rational thinking, perception, and judgement;
- Feeling – is the function that concerns herself with value;
- Sensation – is the function of experience;
- Intuition – is the function of seeing possibility, meaning, and potentiality (Crellin, 2014).

The Briggs Myers model bring forward two more traits that refer to perception versus judgement (Ewen, 2003). Based on all the traits our sample was divided in two and then in other six different categories, taking over the following structure presented in Fig. 2.

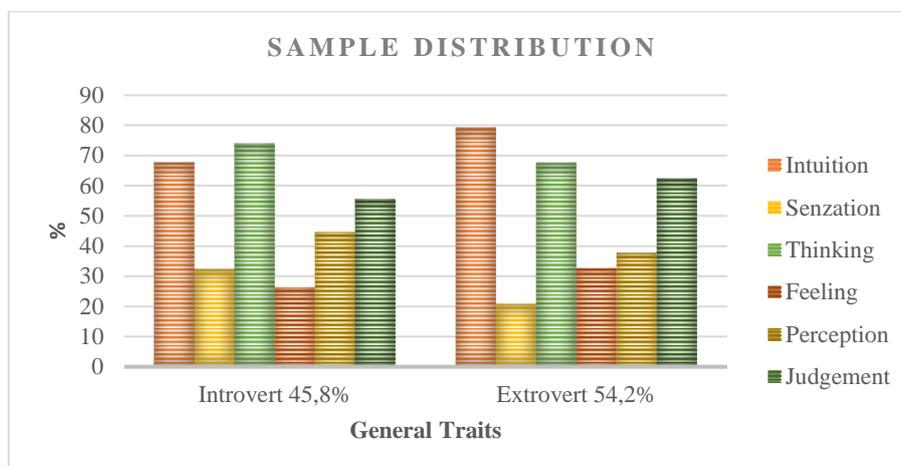


Figure 1. Sample distribution based on the eight personality traits

In Isabel's Briggs occupation graphic (Briggs, [1980] 2013), based on another study (MacKinon, 1962 and Laney, 1949) she shows that the accounting profession is mostly occupied by the sensorial personalities, concluding that the other traits are not suited for this occupation and giving concrete examples of study cases that prove this to be true. So we took in consideration that if this hypothesis is to be true that the personalities with the intuition trait should not be part of our current study. After the sample distribution we observed a peculiar tendency of the group (see Figure 2) that is in contradiction with the following null hypothesis:

H₀ – The accountant profession is more suitable for the persons with the sensation trait more developed than the persons with the intuition trait. (Briggs, [1980] 2013)

Observing that in our sample the intuition personality trait is more present (see Figure 2), we formulated the following alternative hypothesis:

H_a – The accountant profession is more suitable for the persons with the intuition trait more developed if this trait is followed by a thinking trait.

We tested the null hypothesis using the one way Anova test. Assuming that we reject the null hypothesis based on the data specified previously, the test resulted with a 0,00 level of significance. Based on our results and the fact that 51,5% of our subject had the NT trait, we consider that the evidence shows that for the currently data that we have the null hypothesis is false. In this case we consider that the personality with the intuition trait more dominant presents no general risk in the accounting profession.

4. Informational risk

We believe that in our study it is important to clarify what are the characteristics of a safe informational system. We found the following characteristics that determine the safety of an informational system as a whole: confidentiality, availability, integrity (Horga, 2011) and added to them the following characteristic that we consider from our professional expertise that are also of importance for the safety of the informational system: stability, clarity in information presentation, conformity, functionality, performance, adaptability.

Based on the information presented above we defined informational risk as any uncertain element that can occur and exposes as an result the financial and non-financial information to a threat, causing a financial or non-financial loos for the enterprise.

Taking into account the three distinct plans on which the information is stored or processed we made the following classification of the information risk subcategories represented in Table 1.

Table 2. Classification of risk according to the plan on which the information is stored or processed

Risks specific to physical plane	Specific risks specific to digital plane	Risks specific to factual plane
Risk of non-disclosure of information	Risk of non-disclosure of information	Communication risk
The risk of operating/recording error		Risk of misinterpretation
The risk of not updating the information		Decision risk/Noncompliance risk
The risk of unauthorized access		
Risk of loss of information		

The risk of non-disclosure refers to the failure to provide physical information, which may have an impact on financial reporting. The risk of distorted information refers to the likelihood that information stored in a digital format is affected by program errors or certain people who have unauthorized access to the information. The communication risk is represented by both the lack of total transfer of information between the staff of the entity and the unavailability of management, as well as the use of communication channels inappropriate to the information transmitted. The risk of operating or recording error is often found on the digital area but may also occur when registering real transactions in registers or supporting documents, on either cases human action is involved. The risk of misinterpretation refers strictly to the human factor that is subjective in interpreting the information received from others but also presented by the software systems. The risk of non-updating the information refers to the risk of omitting the registration of subsequent changes in transactions. This is mainly due to the digital component that allows the user to change the records at any desired time. Decision risk refers to the decision of a person to make certain action or to take certain risk in the financial reporting process, we added here the noncompliance risk as an extra considering the fact that noncompliance implies the decision to oversee or overpass certain regulation. The risk of unauthorized access can occur at all levels. On a factual basis, it refers to information transmitted by the personnel of the entity to unauthorized persons. The risk of loss of information occurs especially during the process of information transfer, with essential factors being those specific to the plan in which it is found.

5. Identified risks correlated with the accounting professionals’ personality type

Taking into consideration the types of risks involved, we selected only those types of informational risk that are caused by the human component of the informational system. Using the data we collected we analyzed which of the traits are more vulnerable to each type of risk and tried to uphold our theories with information from other scientific researches.

5.1 *Communication Risk*

In our questionnaire we had two items regarding this risk, which referred to the way of communication preferred by each subject and frequency they communicate with the management and stockholders when preparing the financial reports.

Using the one way anova test for the first item of the questionnaire regarding the way of communication, we observed that introverts are more susceptible to communicate by writhing

than extroverts, this is a well-known fact and did not surprise us at all but when analyzing the full personality types and taking in consideration the full trait composure we also observed two types of extroverts to prefer communication by writing the. Based on our findings the following types prefer more frequent communication by writing and are susceptible to communication risk: ISTJ, ISTP, ENFJ and ENTP.

Before coming to a conclusion we consider testing the four types for direct correlation with the communication risk. But when testing for correlation, there was one found only in the case of the IT traits, and not for the specific type of ISTJ or ISTP personality. Taking this in consideration we concluded that the accountants that poses the IT trait are more susceptible to communication risk but in some cases can overcome this disadvantage with the help of the other two functional traits. Regarding the extroverts' type there was no significant correlation found neither for the two extroverts types neither for the traits combination of EN that was present in both types of personality. Therefor we concluded that even if the ENFJ and ENTP, the correlation was no significant so cannot prove a pattern of behavior.

According to other studies the INFJ and INTJ type encounter communication problems (Isabel Briggs, [1980] 20013), so we tested this theory on our sample to see if it can be confirmed on our data. And the test showed a strong correlation between the INTJ type and the communication risk, and a lower correlation level for the INFJ type, but also significant.

For the second item there was a significant correlation level for the ESFP, meaning that this type does not have private meeting and slightly any communication whit the management before and after the financial reports are drafted. We appreciate that the extrovert side of this type of personality is more pronounced and has a bigger probability to take risks without precautionary measures.

5.2 Decision risk and Noncompliance risk

H₁ – The personality with the feeling trait more developed are more probably to make subjective decision and risk noncomplying to regulation;

H₂ – The Thinking traits personalities like facts better in comparison with human relation, which makes them objective in their decision making so they are les perceptible to risk of noncompliance;

H₃ – The judgement train personality like to plan and organize, they are very attentive with regulations, so they are less perceptible to the noncompliance risk.

Taking this three hypothesis in consideration analyzed first witch of the two general personality traits are more susceptible to make subjective decision when regarding the financial reporting. For this item the subject responded on two question regarding the relation with the enterprise management. We consider that a relationship based on many years of elaboration may make the accounting professional more subjective when analyzing the accounting information that stands at the base on financial reporting. On the other side we wanted to test this theory by verifying if this type of relationship results in not communicating with the management before and after the financial reports were drafted. So our first step was to search for a correlation between this to risk, subjectivity and communication risk, and we found that there is a significant correlation between this to, the significance level being of 0.05, meaning that the level of high communication risk rises with the subjectivity risk in case of long term business relations.

Based on this discovery we tested H₁ hypothesis by searching for a correlation between the extravert trait and the level of high risk in subjectivity. We discovered that there was a high level of significance in the correlation between the extraverts and the risk of subjectivity, meaning that extraverts are more likely to overlook regulation in the clients or management benefit.

The second hypothesis was tested in correlation with the lowest level of risk, and was confirmed by a level of correlation of 0.07 (over the minimum significance limit of 0.05). This means that the number of subject caring the T trait is direct correlated with the low level risk answers. We pursued this hypothesis further on by analyzing each personality type which has the T trait in competence to see what the results are. And we discovered that when taking the personality types the rest of the traits have a different influence, so that the personality which carried the T trait were no longer correlated with the low level of risk only in the cases of the ENTJ and ISTP personalities, but we consider this to be the cause of our wide spread sample.

We have concluded that for the extraverts it is needed for objective decision making and compliance that the general trait to be accompanied by the three more calculated and organized functional traits NTJ and that the introverts needs the SP traits so that he can support the cold rationalized thinking with real situations and perception.

For the last hypothesis we studied the result of correlation on the whole sample of personalities which contained a J trait, and found no correlation between the J trait and low risk level, so we analyzed if there is any correlation between the J trait and medium or high risk level of compliance. Our findings in this perspective cannot be considered relevant because the significance level of the correlation was very low so we rejected the null hypothesis regarding the data that we collected.

5.3 The risk of recording errors

H₄ – Extroverts are quicker in action and do not like complicated processes so they are more likely to skip the verification process and to be the subjects of recording errors;

H₅ – The ISTJ and ISFJ are the personality types with the most inclination in systematic and elaborated work, so they must have the lowest risk level for this particular risk type.

Regarding the first hypothesis there was no relevant result found so we did not accept this hypothesis regarding our data collected and tried to analyze the traits that we concluded to be relevant after a one way anova test, and this were: Perception, Judgement, Feeling and Thinking. After further analyzing this four traits correlation to the high level risk of error recording, we concluded that only the P trait presented a direct correlation with the increasing risk level. We consider this to be a consequence of the fact that P personalities are not inclined to analytic work, being more opened to more physical work processes.

For the second hypothesis we discovered after the correlation analysis that only the ISFJ has a direct correlation with the low risk level in error recording from the tow type that we found of being highly systematic in the earlier consecrated studies. There was no other correlation found between the personality types and the error recording risk, the sample being spread out and distanced from the general mean.

Analyzing the results of the favorite operation by personality type we observed a correlation between the TJ trait and the recording of operation and verification tasks. So based on this discovery we tried analyzing only the TJ trait in correlation with the low level of error recording risk. The result was a high correlation of 0, 15 (which is over the significance level of 0.05).

This means that even if the ISTJ personality type does not a direct correlation with this low level type of risk, the TJ traits prove that this kind of personality is more likely to avoid such risks.

5.4 The risk of unauthorized access and the risk of loss of information

H₆ – Introverts with the TJ and FJ trait will take more safety measures because of their judgement and introvert personality that are orientated to protect the insight information of an enterprise.

According to our analyze there is in truth a great level of correlation between the number of safety measures taken for avoiding authorized access and the ITJ traits, but regarding that our data is so spread out from the mean of the sample there was only one type of personality found in direct correlation with the low risk level of unauthorized access and that was the ISTJ type.

6. Conclusions

We conclude at the end of this research that in our risk analysis the personality traits that present the lowest informational risk level in the financial reporting process are the introverts which poses the thinking and judgement traits, but it is to take in consideration that this traits also imply that the persons that carries them is more inclined to communicate by indirect methods, from this category the ISTJ type of personality are more likely to focus on safety measures in case of informational risk and the ISFJ persons invest more attention in the recording process during the entire time required for this action, not afterwards. At the same times the INTJ personality will do all those things at an above average level.

The only type of extravert personality that was with a low informational risk level was the ENTJ type, the three traits, thinking, judgement and intuition balancing the adventure, risk taking general trait.

The last three personality types which have the FJ traits as dominant are more likely to empties with the management, or other parties involved, problems and wishes and try to allude the regulation system in the benefit of the first mentioned party. We strongly recommend that this type of personality is not put in recording or decision-making position or are supervised by a NTJ dominant personality. We would also like to mention that we don't encourage the disregard or misjudge of the human character based on our results.

Especially because of the feedback that we received at the ICESS 2018 conference, in the future we will review this topic and submit our data to new tests and analysis processes.

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Risk Measures Used by Insurance Regulatory Frameworks

Aurora Dina (MANOLACHE)¹

Abstract

The goal of this paper is to research if Expected Shortfall is a suitable risk measure for the most European insurance companies in the context of the Solvency II standard formula. The paper presents a risk measures analysis based on the properties which should be fulfilled by a risk measure in order to be considered suitable to forecast the potential loss of the future results in the context of the regulation and capital requirements. The paper focuses on the assessment of the advantages and disadvantages of Value-at-Risk (used in Solvency II insurance regulatory regime) and Expected Shortfall (applied in the Swiss Solvency Test insurance regulatory systems). Expected Shortfall presents two important theoretical advantages: it is a coherent risk measure and gives information both the frequency of insolvency losses and the severity of losses threshold of the quantile. Value-at-Risk does not give credit for diversification (is not a coherent risk measures due to the lack of subadditivity property) and does not capture the tail risk. The main advantage of the Value-at-Risk is represented by its simplicity in implementation and understanding by third parties compared to Expected Shortfall, which it is difficult to apply in practice. When selecting the risk measure that ensures a good fit for majority of insurers in the context of regulatory frameworks, an important criterion is geographical application: the Swiss Solvency Test has a limited geographical application (only Switzerland), by contrast, Solvency II covers all the entire European Union (28 Member States).

Keywords: *Risk measure, Value-at-Risk, Expected Shortfall, Solvency II, Swiss Solvency Test*

JEL Classification: *G22, G32, G28*

1. Introduction

A major contribution in the risk measures research was brought by Markowitz (1952) with the modern portfolio theory. After the pioneering research of Markovitz, the variance and standard deviation had become traditional risk measures applied in finance. In 1990 years, the leading bank J.P. Morgan has introduced the probabilistic measure Value-at-Risk. Originally, Value-at-Risk was conceived to measure the market risk, but in short time it was used as a tool to quantify all kinds of risks such as credit risk or operational risk. Recently, since the Solvency II implementation in 2016-year, Value-at-Risk has become an important risk measure applied in the most sophisticated regime, which integrates all the risks into a single regulatory framework. An important step in the risk measures research was the introduction of coherent risk measures concept by Artzner *et al.*, (1999).

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The coherence properties have been complemented by additional properties like: elicibility, comonotonic additivity and robustness. Whereas the Value-at-Risk is not coherent risk measure and Expected Shortfall is not elicibility, the expectiles can be potential candidate risk measures to use in the risk management because they are coherent and elicitable.

Considering that the expectiles are not practically applied by regulatory framework, the paper focuses on the analysis of Value at Risk and Expected Shortfall risk measures.

The remainder of the article is structured as follows. Section 2 provides an overview of the literature in the risk measures researches followed by the main goal of this paper illustrated in Section 3. Section 4 contains a theoretical comparative assessment of three risk measures: Value-at-Risk, Expected Shortfall and Expectiles based on their properties. The advantages and disadvantages of Value-at-Risk and Expected Shortfall with respect to their suitability in the context of the Solvency II standard formula are presented in Section 5. The main conclusions of the paper are outlined in Section 6.

2. Problem Statement

Risk measures properties have been analysed in numerous studies. Emmer *et al.*, (2015) note that the Value-at-Risk subadditivity property is satisfied in three standard cases in which the random variables have: positively as well as identically and independent distributed, an elliptical distribution and an Archimedean survival dependence structure. Acerbi and Tasche (2002) demonstrate that in the case of the continuous loss distributions, the expected shortfall leads to very close result that if obtained based on the Value-at-Risk method, significant differences may appear in the case of the discontinuities loss distributions. Acerbi and Szekely (2014) show that the backtesting of the Value-at-Risk is relatively straightforward in comparison with Expected Shortfall back testing. Kellner and Rösch (2016) reveal that the Expected Shortfall is more sensitive to model risk compared to Value-at-Risk. Bellini *et al.*, (2014), Chen (2013) and Ziegel (2014) have been proposing expectiles like an elicitable and coherent alternatives to the Expected Shortfall risk measure. Stahl *et al.* (2012) note that the mean, Value-at-Risk and Expected Shortfall represent continuous risk measures according to the Wasserstein distance. As well, Cont *et al.*, (2010) demonstrate that the Value-at-Risk is much less sensitive than the historical Expected Shortfall to a change in the set of data, especially when there are added large observations. Bellini *et al.*, (2014) show that the Expectiles represent Lipschitz-continuous risk measures according to the Wasserstein distance.

3. Research Questions/Aims of the research

The article is focused on the evaluation of the most popular risk measures which are currently applied by European insurance regulators in assessing of the solvency capital requirements in the context of standard formula. This paper contributes to the financial and actuarial literature by providing a theoretical overview and comparison of two main risk measures applied in insurance solvency regimes based on the properties which should be fulfilled by a risk measure in order to be considered suitable to forecast the potential loss of the future results in the context of the regulation and capital requirements.

The goal of this paper is not to confirm or validate that the Expected Shortfall can be considered a better risk measure than Value-at-Risk. The main aim is to research if Expected Shortfall is a suitable risk measure for the majority of the European insurance companies in the context of the Solvency II standard formula.

4. Research Methods

The comparative risk measures analysis of three risk measures: Value-at-Risk, Expected Shortfall and Expectiles was building on the four axioms of coherence provided by Artzner *et al.*, (1999): translation invariance, positive homogeneity, monotonicity and subadditivity complemented by three additional properties like the: elicibility, comonotonic additivity and robustness.

In general terms, a risk measure is a function which assigns to a probability distribution an amount of capital. In financial sector, Value-at-Risk represents one of the most applied risk measures, especially in financial reporting and risk management. Value-at-Risk corresponds to the maximum potential loss of a portfolio over a given confidence level. Based on the theory of probability, Value-at-Risk is expressed as a quantile of the loss distribution function.

Let X the loss distribution with $\alpha \in \mathbb{R}$, the VaR for the α quantile of the X loss distribution is given by:

$$VaR_{\alpha}(X) = \inf\{x \in \mathbb{R} : P(X > x) \leq 1 - \alpha\} \quad (1)$$

In practice, Value-at-Risk “it allows company managers to say that they are $X\%$ certain that they will not lose more than V dollars in the next N days” [Sharma *et al.*, 2015, p.174.].

Coherent property of risk measures

Artzner *et al.* (1999) proposed a set of four axioms that should be fulfilled by a risk measure to be considered coherent. Let ρ a risk measure over a time horizon given and X and Y , two loss distributions function, the risk measure ρ can be called coherent if all the following properties are satisfied simultaneously: (1) Translation invariance: $\rho(X+\alpha r) = \rho(X) - \alpha$, for all $\alpha \in \mathbb{R}$; (2) Positive homogeneity: $\rho(\lambda X) = \lambda \rho(X)$, for all $\lambda \geq 0$; (3) Monotonicity: $X \leq Y \leftrightarrow \rho(X) \leq \rho(Y)$; (4) Subadditivity: $\rho(X+Y) \leq \rho(X) + \rho(Y)$.

Value-at-Risk (VaR) as a risk measure fulfills only three axioms: translation invariance, positive homogeneity and monotonicity. The Value-at-Risk in general is not a coherent risk measure because it violates one of the most important axioms (the subadditivity property). The problem of the failure of the VaR subadditivity is due to the fact that it is only a percentage quantile of the profit and loss distribution that provides an insight of the frequency of the worst events and does not measure the size of losses in the worst events that exceed or equal the quantile.

As a remedy for the VaR deficiencies, which is not a coherent risk measure in general, an alternative called Tail Value-at-Risk (TVaR) has been proposed by Artzner *et al.*, (1999) known more as the expected shortfall (ES) that provides information regarding the size of loss, in the situation in which the Value-at-Risk is exceeded. The most used formula for Expected Shortfall is related to VaR, the ES associated to the average to the $\alpha\%$ largest expected of the X loss distribution over a time horizon is given by:

$$ES_{\alpha}(X) = \frac{1}{1-\alpha} \int_{\alpha}^1 VaR_u(X) du, \text{ for all } \alpha \in [0; 1] \quad (2)$$

Expected Shortfall as a risk measure is criticized for not being elicitable, which indicates that the ES backtesting complicates strongly the model selection than the VAR back testing.

Elicibility property of risk measures

A risk measure is considered elicitable if “it can be defined as the minimizer of a suitable, strictly convex scoring function”. [Embrechts *et al.*, 2014, p. 17]. To perform the back testing

and to compare the competing forecasts of the certain risk measure, the scoring functions must be applied.

Comonotonic additivity property of risk measures

For an adequate image of diversification effects, the comonotonic additivity and subadditivity represent two important properties that can be fulfilled by a risk measure.

Comonotonic additivity property of a risk measure is considered a complementary property to the subadditivity property.

Let X_1 and X_2 two comonotonic random variables, a risk measure ρ can be called comonotonic additivity if:

$$\rho(X_1 + X_2) = \rho(X_1) + \rho(X_2) \tag{3}$$

Value-at-Risk and Expected Shortfall fulfill the comonotonic additivity property, but the expectiles do not comply, which implies that in practice this represents a real issue because can fail in the concentrations risk detecting due to non-linear dependencies.

Robustness property of risk measures

A risk measure can be called robust if “it is quite insensible to measurement errors” [Roccioletti, 2016, p. 23]. Bellini (2014) consider helpful in the investigation of the risk measures robustness the Wasserstein distance. Let P and Q two probability measures, the Wasserstein distance between P and Q is defined by the following formula:

$$d_W(P, Q) = \inf\{E(|X - Y|) : X \sim P, Y \sim Q\} \tag{4}$$

Let P and $P_n, n \geq 1$ probability measures, and $P \sim X$ and $X_n \sim P_n, n \geq 1$. A risk measure noted with ρ is continuous at X according to the Wasserstein distance if:

$$d_W(P, Q) = \inf\{E(|X - Y|) : X \sim P, Y \sim Q\} \tag{5}$$

Table 1 summarizes the result of the analysis of the risk measures properties presented in this section of the paper.

Table 1. Risk measures properties

Property	Value-at-Risk	Expected Shortfall	Expectiles
Coherence	No	Yes	Yes
Elicitability	Yes	No	Yes
Comonotonic additivity	Yes	Yes	No
Robustness	Yes	Yes	Yes

Source: adapted from Emmer *et al.*, (2015), p. 9

5. Findings

In the context of the regulatory frameworks, Value-at-Risk and Expected Shortfall are the most known risk measures applied to calculate the solvency capital requirements in the context of the insurance and the banking regulation.

The Value-at-Risk is used in the calculation of the solvency capital requirements in the Basel II banking regulatory regime and Solvency II insurance regulatory regime and Expected Shortfall is applied in the calculation of the solvency capital requirements in the Basel III banking regulatory regime and Swiss Solvency Test insurance regulatory regime.

The solvency capital requirements under the Solvency II standard formula “it shall correspond to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 99,5% over a one-year period” [European Commission, 2009, p. 113]. “This corresponds to a one-year ruin probability of 0.5 percent, assumed equivalent to a BBB financial strength rating” [European Commission, 2004, p. 35].

The solvency capital requirements, in compliance with the Swiss Solvency Test, are “based on the expected shortfall of change of risk bearing capital over a 1-year time horizon on a 99% confidence level. This corresponds to approximately 99.6% to 99.8% Value-at-Risk or a strong BBB rating” [Federal Office of Private Insurance, 2006, p. 8].

From a technical point of view, Expected Shortfall is an accurate risk measure to evaluate the risk profile of an insurance company. Choosing the Expected Shortfall as a risk measure to quantify the risks could lead to an improvement in the policyholder protection by a more suitable reflection of extreme events. In some lines of business, insurance company can be subject to losses with high impact (for example catastrophe risk characterized by a high severity and low frequency).

The most significant disadvantage of Value-at-Risk is represented by the focusing only on the probability of insolvency loss to a specified quantile of the loss distribution function and the fact that it does not take into consideration the consequences of a potential insolvency.

Expected Shortfall measures both the frequency of insolvency losses and the severity of losses threshold of the quantile. It may happen in practice that the Value-at-Risk of two probability loss distribution functions are equal at different risk levels of confidence but one is riskier than the other and has a fatter tail to the same Value-at-Risk values. The figure below presents an example of how the Value-at-Risk and the Expected Shortfall are derived from a loss distribution function in the Solvency II context.

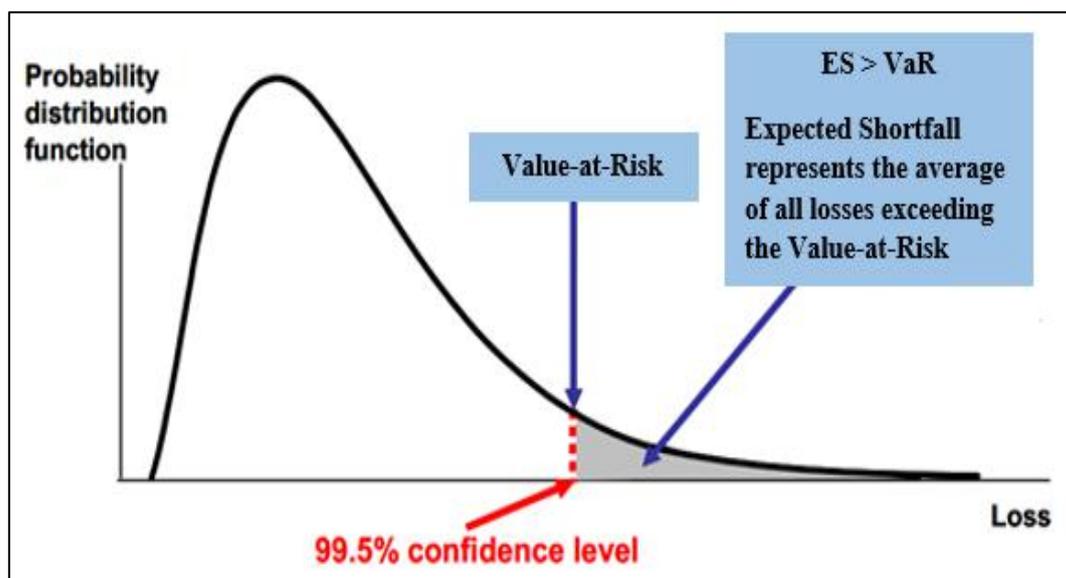


Figure 1. Illustration of Value-at-Risk and Expected Shortfall

Source: adapted from CEA (2006), p. 7

In the table below are presented the calibrations required to generate equivalent capital levels for Value-at-Risk and Expected Shortfall under the Normal distribution. In insurance industry, the differences shown in the table below can be more significant than those provided by Normal distribution due to the risk distribution with fatter tail which are more common in insurance.

Table 2. Percentiles calibrated to generate equivalent capital

Value-at-Risk	Expected Shortfall
99.0%	97.2%
99.5%	98.7%
99.62%	99.0%
99.81%	99.5%
99.9%	99.7%
99.96%	99.9%

Source: adapted from CEA (2006), p. 4

On the choice of the accurately risk measure for Solvency II framework, CEIOPS (2006) acknowledged the theoretical benefits of using the Expected Shortfall as a risk measure.

However, the main concerns were based on the practicality application of the capital requirements of Solvency II regulatory regime if Expected Shortfall is chosen as a risk measure.

The most sensible disadvantage on the choice of Expected Shortfall as a measure of risk, it is considered to be the lack of data regarding the tails of the certain distributions used in non-life and life insurance that could determine an increasing in the modeling errors and could lead to a difficult calibration of the consistent solvency capital requirements estimates. The capital requirements under the Expected Shortfall are more difficult to measure because it should apply full information about the tails of the loss distributions functions which in general are not available and supposes to make additional assumptions based on the expert judgment, which often are subjective. All this additional information on the tails of the loss distributions will lead to an increase of the complexity level without making the Solvency II more robust. Also, insurers from United Kingdom have commented about the potential difficulty of the Expected Shortfall application in scenario and stress tests, which could complicate the control processes (CEIOPS, 2006).

The obvious advantage of Value-at-Risk is represented by its simplicity of implementation and understanding even by non-specialists. The lack of subadditivity property due to which it is not a coherent risk measure, does not imply that Value-at-Risk is not a suitable tool in risk management. The benefit of a straightforward risk method application as Value-at-Risk should not be underestimated. Conceptually Value-at-Risk is easier to communicate and explain to third parties. Applying much more complex and accurate method which is not very well understood by the decision makers may have severe consequences for that insurance company or for the third party in the case of insolvency.

Based on these concerns, especially on practical advantage of applying the Value-at-Risk, it has been agreed on the choice of the Value-at-Risk for the standard approach for an initial Solvency II implementation, with the possibility of moving to Expected Shortfall at a later date.

6. Conclusions

The comparison between the Value-at-Risk and the Expected Shortfall does not lead to an obvious answer related to the question of which risk measure is superior. Expected Shortfall presents two important theoretical advantages: is a coherent risk measure and gives information about both the frequency of insolvency losses and the severity of losses threshold of the quantile. While, Value-at-Risk does not give credit for diversification (is not a coherent risk measure due to the due the lack of subadditivity property) and does not capture the tail risk.

The main advantage of the Value-at-Risk is represented by its simplicity in implementation and understanding by the third parties compared to Expected Shortfall, which is difficult to apply in practice.

In the Solvency II context, the choice between Expected Shortfall and Value-at-Risk does not have significant impact for large insurance companies because they may apply their internal models in which they can use alternative risk measures, as Expected Shortfall, if they think

these are more adequate for their businesses. Developing own internal model requires in most cases a large investment of financial resources and time. The impact is important especially for small and medium insurers that usually apply standard approach to calculate the solvency capital requirements. The principle-based approach under Solvency II and Swiss Solvency Test encourage the (re)insurers to develop their own internal models to manage and measure their exposure, which leads to a decrease of the potential systemic risk by applying a variety of risk measure models. In the choice of a risk measure that ensures a good fit for majority of insurers in the context of regulatory frameworks, an important criterion is geographical application: the Swiss Solvency Test has a limited geographical application (only Switzerland), by with contrast, Solvency II which covers all the entire European Union (28 Member States).

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Corruption in Europe

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Abstract

Corruption is a major problem in the world and in the entire Europe. It represents a widespread phenomenon and a problem faced by all countries of the world, and the low number of cases in which corruption was eradicated leads to the conclusion that this scourge is a persistent one, once installed being hard to be eliminated.

The paper sought to determine how the Corruption Perception Index (CPI) has evolved in Europe and to carry out an analysis of the corruption level in relation to the development level of a country, and in relation to the level of poverty, inequality and social exclusion recorded in 2010-2016.

The research aims at detecting how the Corruption Perceptions Index (CPI) evolved during 2010-2016 in the countries of Europe as well as the analysis of the Corruption Perceptions Index in relation to GDP per capita and social exclusion as a predictor of corruption.

The objective of this paper is to show the close link between the Corruption Perceptions Index and the level of poverty or social exclusion, in order to confirm the hypothesis that the poverty or social exclusion it is a much stronger predictor of corruption level than GDP per capita as the measurement of a country's level of development.

Keywords: *corruption, Europe, Corruption Perception Index, Gross Domestic Product, inequality*

JEL Classification: *C40, D12, O12*

1. Introduction

Corruption is the abuse of power entrusted for private interest. As Johnston (2007) points out, there are many types of corruption, depending on the political, economic and local cultural contexts of different states, and this phenomenon not only that it affects the state's efforts to recover the financial status and their poverty countermeasures, but it erodes democracy and leads to society degradation and to contrasting wealth or power distributions.

In the European Union “corruption continues to be one of the biggest challenges, a phenomenon which costs the EU economy approximately 120 billion euros annually”, is shown in a European Commission release (European Commission, 2014).

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The definition of corruption from an economic perspective gives us an explanation for the much higher incidence and the much higher level of rules regarding public integrity violation in poor or transition countries towards democracy and market economy, where the resources are fewer, public official salaries are lower and law enforcement systems are less effective, the likelihood of the offender being punished being less likely. (Radu, L. and Gyula, G., 2010)

Defining and establishing the magnitude of this phenomenon is in the attention of Transparency International, which conducts researches and periodical surveys elaborating reports with comparative results in order to identify the dynamics of the Corruption Perceptions Index in the countries included in the research.

The research starts from the premise that analysing the evolution of corruption perceptions in Europe is important in the present context for understanding and combating the phenomenon.

It is relevant to relate the Corruption Perceptions Index to the poverty level of the population or social exclusion, as we have started from the hypothesis that this indicator is a stronger predictor of corruption level than GDP per capita as the measurement of a country's level of development. In this respect we have analysed how the Corruption Perceptions Index (CPI) evolved during 2010-2016 in the countries of Europe as well as the analysis of the Corruption Perceptions Index in relation to GDP per capita and social exclusion as a predictor of corruption.

2. Problem Statement

Democratic countries are characterized by reduced degrees of intensity and extensity in the exercise of power. In education, for example, the civil society and the private sector have important roles, just as there are areas such as culture or religion where state control is minimal (Wrong, 2002, pp. 14-16). Countries in transition are facing lack of resources and inappropriate wages for officials involved in fighting corruption, which can bring difficulties in attracting and retaining competent people or motivating the ones that exist to be immune to temptation. At the moment, the literature on integrity in the public sector takes into consideration the aspects that create a favourable context for appearances of unethical behaviours, identifying different causes that favour the corruption phenomenon and explaining the differences that exist between different states from this point of view.

Cultural and traditional issues have a very important impact on the corruption phenomenon.

Society develops its own rules and practices that govern relations between people when legislation is not well developed and the state does not regulate or exercise its authority firmly.

Also, the political regime strongly influences the corruption phenomenon, with presidential regimes being more affected by corruption than parliamentary ones. Presidential regimes are less compatible with what we call consolidated democracy, meaning the stable, long-term functioning of democratic institutions. In this regard, Fred Riggs found that all presidential regimes, except for the United States, suffered major crises (coup d'état, civil wars) between 1900-1985. On the other hand, only 13 of the parliamentary regimes experienced similar events during this period, most of which took place in the interwar period (Germany, Italy, Spain, etc.) (Riggs, 1997).

According to Friedrich's definition: "the pattern of corruption may be said to exist whenever a power holder who is charged with doing certain things, that is, a responsible functionary or office holder, is by monetary or other rewards, such as the expectation of a job in the future, induced to take actions which favour whoever provides the reward, and thereby damages the group or organization to which the functionary belongs (more specifically, the government and, other socio-economic Institutions)" (Friedrich, 1999, p. 15). Transparency International is investigating the concept of corruption as a social phenomenon. Polls used to elaborate the index include questions about abusive use of public power and focuses on: bribery of public officials, bribery in public procurement, public funds embezzlement, as well as on questions

that assesses the strength and effectiveness of anti-corruption efforts in the public sector. The Corruption Perceptions Index (CPI), an instrument launched in 1995 by Transparency International, is analysed annually in 178 monitored countries, indicating their position regarding the perception of corruption. The latest Transparency International report, 2016, underlines the perception that Denmark and New Zealand have recorded the best performances with 90 points scores, followed closely by Finland (89 points), Sweden (88 points) and Norway (87 points). These top-ranking countries are sharing features such as: an open government, press freedom, civil liberties and an independent judicial system.

Among the EU countries, the best scores, more than 80 points, were scored by the Netherlands (83 points), Germany, Luxembourg and the UK, with 81 points each. Countries in northern Europe are considered to be the least corrupt, but specialists in the field foresee the possibility that they may experience an increase in acts in conflict with moral norms, confirming theories that corruption affects all states of the world and reinforcing arguments in favour of identifying effective means to control and maintain this phenomenon within as little as possible.

As you can see into below Table no. 1, no country approaches a perfect score regarding the Corruption Perception Index 2016. Over two-thirds of the 178 countries and territories are below the average of the interval from 0 (very corrupt) o 100 (no corruption). The average global score is a modest 43, and in Europe 64 points.

3. Aims of the research

The research aims at detecting how the Corruption Perceptions Index (CPI) evolved during 2010-2016 in the countries of Europe as well as the analysis of the Corruption Perceptions Index in relation to GDP per capita and social exclusion as a predictor of corruption.

Table 1. CPI, GDP and People at risk of poverty or social exclusion – 2016

Country	CPI	GDP per capita Nominal (\$)	People at risk of poverty or social exclusion
Denmark	90	53,243.0	18%
Finland	89	43,492.0	17%
Sweden	88	51,604.0	16%
Norway	85	71,497.0	15%
Iceland	78	57,889.0	13%
Average Northern Europe	86	55,545.0	16%
Switzerland	86	79,578.0	18%
Netherlands	83	45,210.0	16%
Luxembourg	81	105,829.0	19%
United Kingdom	81	40,412.0	24%
Belgium	77	41,491.0	21%
Ireland	73	65,871.0	26%
France	69	38,537.0	18%
Average Western Europe	79	59,561.1	20%
Germany	81	42,326.0	20%
Austria	75	44,561.0	18%
Poland	62	12,309.0	23%
Czech Republic	55	18,326.0	14%
Slovakia	51	16,648.0	18%
Hungary	48	11,903.0	28%
Average Central Europe	62	24,345.5	20%

Cyprus	55	23,425.0	29%
Romania	48	9,439.0	37%
Greece	44	18,078.0	36%
Serbia	42	5,294.0	41%
Turkey	41	9,317.0	na
Bulgaria	41	7,091.0	41%
Estonia	70	17,896.0	24%
Lithuania	59	14,899.0	29%
Latvia	57	14,141.0	31%
Average Eastern Europe	51	13,286.7	34%
Portugal	62	19,759.0	27%
Slovenia	61	21,370.0	19%
Spain	58	27,012.0	29%
Malta	55	24,298.0	22%
Croatia	49	11,858.0	29%
Italy	47	30,294.0	29%
The FYR of Macedonia	37	5,060.0	42%
Average Southern Europe	53	19,950.1	28%

Source: Eurostat, World Bank, Transparency International

4. Research Methods

The methodology of scientific research is predominantly qualitative, theoretical. In order to achieve the proposed objectives, we have used specific methods of content analysis regarding reports and studies, statistic records, analysis and publications of various organizations and institutions such as Transparency International, World Bank, Europe Counsel Fight Against Fraud Department (DLAF – the Institute for Public Policies, the Fight Against Fraud Department, as national contact institution with OLAF).

In this regard, we have collected data from Transparency International Global Corruption Barometer, Global Integrity and the European Commission, Eurostat – the statistical office of the European Union, European Anti-Fraud Office and World Bank, with the aim of conducting a quantitative analysis of corruption-related variables in Europe. Variables were used regarding the dynamics of the corruption phenomenon, such as the Corruption Perceptions Index, GDP per capita and social exclusion as a predictor of corruption.

5. Findings

As shown in the latest Transparency International report, the results of 2016 highlight the link between corruption and inequality, creating a vicious circle between corruption, uneven distribution of power in society, and unequal distribution of wealth.

Rich countries have the capacity and can devote more resources to preventive measures and, in general, to anti-corruption systems. Thus, the analysis reveals a strong link between corruption and the development level of a country, as can be seen in Chart no. 1, which highlights the connection between the Corruption Perceptions Index and the GDP per capita for the countries in Europe.

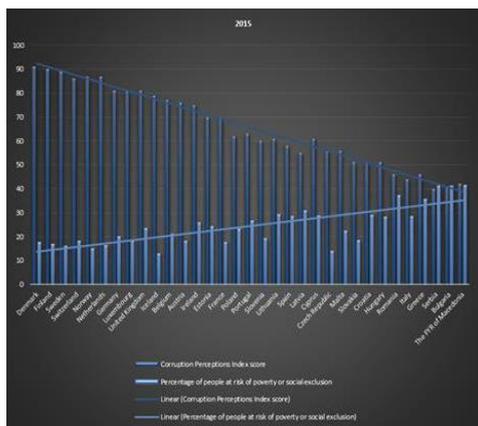


Chart. no. 1 – Corruption Perceptions Index evolution in Europa in relation to GDP per capita

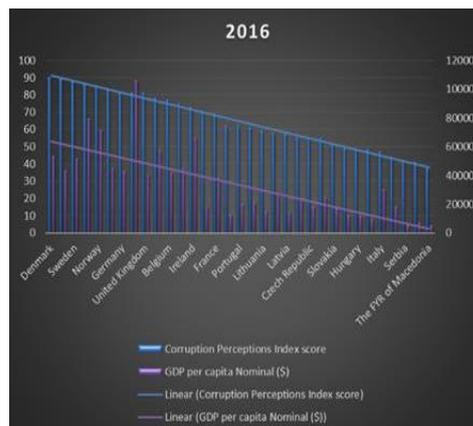


Chart. no. 1 – Corruption Perceptions Index Vs. The poverty level of the population or social exclusion

Source: Made by the authors, data sources: World Bank, Transparency International – CPI 2016

It is relevant to relate the Corruption Perceptions Index to the poverty level of the population or social exclusion. From the carried-out analysis at the level of 2015, according to Chart no. 2, it can easily be noticed that the Corruption Perceptions Index (CPI) decreases linearly as the percentages of poverty or social exclusion increases.

Social inclusion is a “Multidimensional set of measures and actions in the areas of social protection, employment, housing, education, health, information and communication, mobility, security, justice and culture, designed to combat social exclusion”. (INSERT, 2014)

As can be seen from graphs 1 and 2 above, and also from Finn Heinrich’s analysis, “a multivariate regression with both GDP per capita (the measurement of a country’s level of development) and social exclusion as a predictor for corruption, shows that social inclusion is a much stronger predictor than GDP per capita”.

In the case of poorer countries, “for each 10-point increase of the social inclusion index, Corruption Perceptions Index (CPI) score improves by up to 5.5 points on a scale from 1 to 100.” (Heinrich, 2017)

The rankings describing the corruption status and the analysis carried out in this paper, relating the Corruption Perceptions Index to GDP per capita, as well as to the poverty level of the population or social exclusion, highlight a higher degree of corruption in poor countries and lower in rich ones.

6. Conclusions

There are no significant changes in Europe in terms of the Corruption Perceptions Index in 2016. Stagnation does not indicate that the region is immune to corruption or that the fight against corruption has improved, but rather the opposite. However, although at the publication of the 2014 report the European Commission issued a statement stating that, in order to be able to follow-up the results of the efforts, in a letter sent to the Committee on Civil Liberties in the European Parliament, the first Vice-President of the European Commission stated that in 2016 “no further reports are needed”, because “the first report was good enough and laid the foundation for future work”.

As shown in the table Appendix no. 1, the only countries in Europe that achieve a score close to the maximum of 100 points in each of the 6 years surveyed are those in the northern region: Denmark, Finland and Sweden. All of these countries have managed to position themselves in

the top three places in the 2010-2016 ranking, which means that Denmark, Finland and Sweden are estimated to have the lowest level of corruption across Europe.

In Europe, the most corrupt countries are Macedonia, Bulgaria, Serbia, Greece, Italy, Portugal, Spain, and the most integrating countries are Denmark, Finland and Sweden.

Since the publication of the first anti-corruption report of the European Commission in January 2014, three demarcation lines have emerged north-south, Protestantism-Catholicism/orthodoxy and liberal democracy-post communism. (Deutsche Welle, 2014).

The north-south demarcation line remains obvious, with the Nordic countries positioning the top 3 places between 2010 and 2016, which means that Denmark, Finland and Sweden are estimated to have the lowest level of corruption across Europe. Macedonia, Bulgaria, Serbia, Greece, Italy, Portugal, Spain are at the opposite, registering the lowest scores of the corruption perception index. It can be said that the same trend is associated with the traditional line that once separated the Catholic Church from the reformed churches of the North.

The third line of demarcation, liberal democracy – post-communism, is evident, considering, for example, the former Soviet Republic – Estonia, which, although having a similar cultural tradition to Sweden and Finland, does not achieve a similar score in terms of the perceptions of corruption, respectively, recorded 70 points in 2016, compared to 87 points Sweden and 89 points Finland. Also, given the fact that among the Baltic countries the lowest level of corruption is registered, however, in Estonia, this is an additional argument in support of the second demarcation line, considering that this country, unlike Latvia and Lithuania has a Lutheran majority.

High values of more than 80 points were recorded for Switzerland, Norway, the Netherlands and Luxembourg, and in this second division in the last two years (2015-2016) we can also find Germany.

The bottom 7 ranking countries were Macedonia, Bulgaria, Turkey, Serbia, Greece, Italy and Romania for each of the 6 years. The maximum magnitude recorded for northern European countries was 94 points in 2011 (reached by Denmark and Finland), while the minimum was 33 points for the sample of countries in Eastern European post-communist countries, also in 2011 (Serbia and Bulgaria).

In 2016, Macedonia is on the last position with a 37-point score, a significant drop from 44 points reached in 2013.

Thus, considering a geographic regionalization of Europe, according to chart no. 3 below, it is noted that the Nordic countries systematically record a high degree of integrity, setting a multiannual average of the Corruption Perceptions Index of 88 points (for the 2010-2016 period under analysis), while for the Southern Europe countries the average is 53 points, Eastern Europe being the lowest ranking with just 49 points.

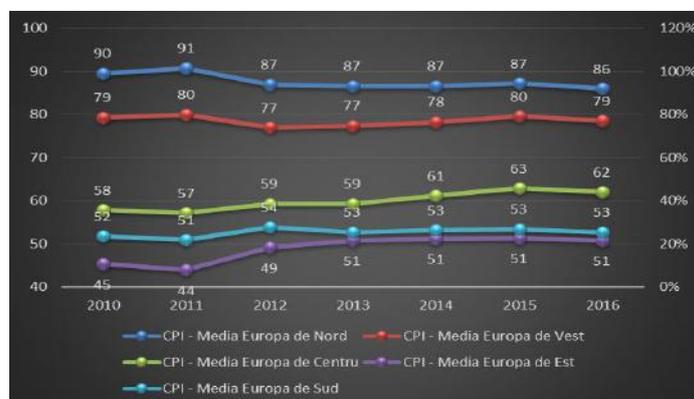


Chart no. 3 – Corruption Perceptions Index in Europe

Source: Made by the authors, data source Transparency International – GDP evolution in Europe, Transparency International – CPI 2016

Analysing how the level of poverty or social exclusion influences the level of corruption, as shown in chart no. 4, we found that the Nordic countries are constantly recording a minimum level of 16%, while Southern European countries average is 29% and Eastern Europe is at the highest level of 37%.

In graphs no. 3 and 4 it is worth noting that for the countries of Eastern Europe the corruption perception index has a favourable trend depending on the rising evolution of the Gross Domestic Product.

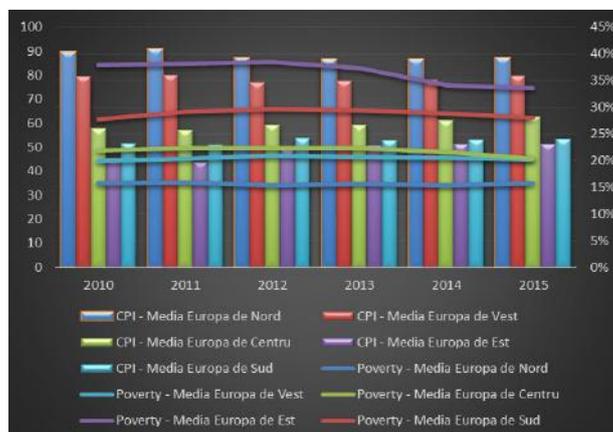


Chart no. 4 – Poverty and social exclusion level vs the corruption level in Europe
Source: Made by the authors, data sources: World Bank, Transparency International

The results of this analysis reveal a close link between the Corruption Perceptions Index and the level of poverty or social exclusion, confirming the hypothesis that, this last indicator it is a much stronger predictor of corruption level than GDP per capita.

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Insolvency Risk. Application of Altman Z-score to the Auto Parts Sector in Romania

Rodica BACIU (BOANTA)¹, Petre BREZEANU²

Abstract

This paper intends to apply the Altman Z-score model to all the companies active in the wholesale of motor vehicle parts and accessories (NACE 4531), with extended financial statements. Using the panel data model over the time series for 2008-2016 on the companies of this sector, we conclude that 99% of the Z-score is explained by the independent variables (working capital, capital structure, turnover, earnings before interest and tax), with estimated parameters very close to the model's classical values. The sample description of the paper and the corresponding results highlights the Z-score evolution by turnover groups and determinant factors, with the largest companies performing the best (the only group with Z-score median above 3). We notice a tendency for decreasing high risk companies and increase in the medium risk companies, whereas the low risk companies are relatively stable. This improvement is mostly due to increasing capitalization rate and less external debt, despite the deteriorating working capital and operating margin. We believe that future research to evaluate Z-score sensitivity under stress test scenarios would be very useful to provide an insight of company's insolvency risk amid increasing interest rates and different fiscal tax on dividend.

Keywords: *Altman Z-score, panel data regression, working capital, retained earnings, EBIT*

JEL Classification: *G3*

1. Introduction

The current paper aims to evaluate the insolvency risk of companies active in the wholesale of motor vehicle parts and accessories (NACE 4531) in Romania. According to the literature review presented in the following section, the research focused on Altman-Z score by different turnover groups of the companies is very limited, without any research on the specific sector appraised in the current paper. Methodology and sample description are presented in the third section, providing further details on the panel data model over the time series for 2008-2016 and further companies description. The results are presented in the fourth section. According to the multifactor regression equation on the data panel in E-Views, we conclude that 99% of the Z-score is explained by the independent variables (working capital, capital structure, turnover, earnings before interest and tax), with estimated parameters very close to the models classical values.

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2. Problem Statement

New York University Finance Professor Edward Altman, developed the Altman Z-score formula in 1967, later published in 1968. The model is a quantitative balance-sheet and income statement method of determining a company's financial health. A Z-score can be calculated for all non-financial companies and the lower the score, the greater the risk of the company falling into financial distress. The original research was based on data from publicly held manufacturers (66 firms, half of which had filed for bankruptcy). The Altman Z-score model is a multiple regression analysis with the following variables (the exact model regression, variables and results interpretation are explained further in the next section, methodology):

- X1 = Working Capital/Assets
- X2 = Retained Earnings/Assets
- X3 = Earnings Before Interest and Tax/Assets
- X4 = Shareholders' equity/Debt
- X5 = Turnover/Assets

Several shortcomings of the Altman Z-score model have been documented in the recent literature review. According to Chouhan *et al.*, 2014, the payment defaults are caused by liquidity issues and cash flow shortages which are not directly reflected by the classical Altman Z-score model, recommending hence to include variables like debt coverage through operating cash flow. Machek, 2014, challenges the structure and quality of operating margin, and further recommends model enhancement with restatement of profits by excluding the one-off revenue events (examples: sales of assets, indemnifications, exceptional dividends). Moreover, Lepetit and Strobel, 2015, focus on the non-monetary expenses deduced from the profit margins, that should be added back to better reflect the monetary base of the profit margins used in the Altman-Z score.

Although the Altman Z-score limitations previously mentioned related to missing direct indicators about cash flow, profit structure and exceptional revenues or non-monetary expenses, several researches have documented that principal Altman Z-score model variables strongly indicate risk of insolvency. For example, a very low proportion of the working capital (especially negative values for more than 3 consecutive years) in total assets may raise funding problems for the company (Chouhan *et al.*, 2014). Lower or decreasing values of reported results (figure on balance, the equity component) may indicate a decreasing trend of the profits, reserves erosion due to recent year's losses or increasing dividend distribution (Koussis *et al.*, 2017). According to Wu *et al.*, 2017, modest levels of assets rotation (turnover/assets) may indicate that too much capital is locked in assets, increasing financial burden due to poor return on assets. Nevertheless, we find no research focused on the insolvency risk assessment for the companies active in the wholesale of motor vehicle parts and accessories (NACE 4531) in Romania, and neither the evolution of the insolvency risk by group of companies depending on turnover. Basically, this is the principal novelty brought by the current research paper.

3. Research Questions/Aims of the research

This research intends to apply the Altman Z-score model in all the companies active in the wholesale of motor vehicle parts and accessories (NACE 4531).

Because of a very unpredictable fiscal environment in Romania, we believe that future research to evaluate Z-score sensitivity under stress test scenarios would be very useful to provide an insight of company's insolvency risk amid increasing interest rates and different fiscal tax on dividend.

4. Research Methods

The application of Altman Z-score over the selected sample of data, the followings steps were followed:

- all companies from the appraised sector (wholesale of motor vehicle parts and accessories, NACE 4531) with extended financial statements submitted for the entire appraised period were taken into consideration (to eliminate the survivorship effect). Since we need extended format of the financial statements, only companies with turnover above 1 mil EUR have been included, resulting a total number of 168 companies;
- the resulting companies were divided into four cross-sectional groups, depending on the turnover level: 1-2 mil EUR, 2-3 mil EUR, 3-5 mil EUR and +5 mil EUR;
- The 5 variables of the Altman Z-score model have been computed for each cross-sectional group and year during the appraised period.

Since the regression equation contains both time series and cross-sectional data, **a model with panel data** was used, with 36 observations in total (9-time series and 4 cross-section data).

The model used is a multifactorial regression equation with fixed effects, to highlight the different profile of companies according to their turnover range. According to Gujarati (page 637), dummy variables that do not vary in time, but are different for each cross-sectional category (the 4 classes of companies according to the registered business figure) are to be used.

Thus, the multifactorial regression equation becomes:

$$Z_{it} = \alpha_1 + \alpha_2 * D_{2i} + \alpha_3 * D_{3i} + \alpha_4 * D_{4i} + \beta_2 * X1_{it} + \beta_3 * X2_{it} + \beta_4 * X3_{it} + \beta_5 * X4_{it} + \beta_6 * X5_{it} + \mu_{it} \quad (1)$$

5. Findings

5.1 Results

The sample is reflecting a general challenge of the business environment in Romania, related to the increasing polarization of revenues. As observed in right table, the largest 1.000 companies active in Romania weight almost 50% from the total revenues generated by all companies during 2016, as compared to a 35% concentration during 2008. This is narrowing the middle layer business and lowering the overall competitiveness of companies.

Tabel 3. Revenues of top 1.000 companies in Romania

Year	Turnover (bn RON)	Weight in total
2008	323	35%
2009	295	34%
2010	355	39%
2011	438	44%
2012	478	45%
2013	501	48%
2014	532	48%
2015	567	49%
2016	623	50%

Source: Ministry of finance, data processed by the author

Given the overall concentration of revenues among the largest companies in the overall business environment and the selected list of companies, the sample is divided in four different

groups by turnover level, that will further represent the cross-sectional series in the panel data model described in the methodology.

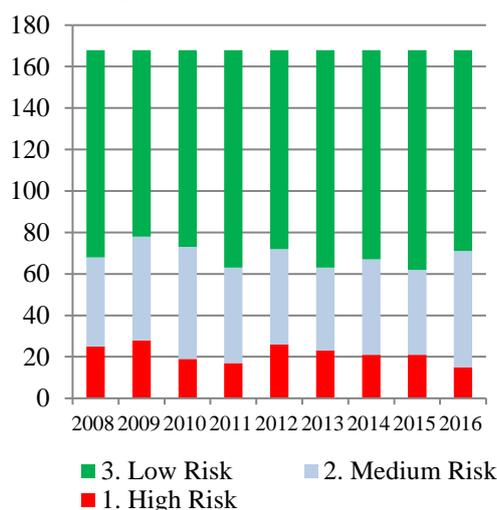
The following table and graph illustrate the results of Altman Z-score applied to the sample of companies active in the wholesale of motor vehicle parts and accessories (NACE 4531). The Z-score for the 168 companies is computed for the entire appraised period (2008-2016) and the evolution illustrates a tendency for decreasing high risk companies (from 25 in 2008 down to 15 in 2016) and increase in the medium risk companies (from 43 in 2008 to 56 in 2016), whereas the low risk companies are relatively stable.

Table 4. Altman Z-score distribution

Year	High Risk	Medium Risk	Low Risk
2008	25	43	100
2009	28	50	90
2010	19	54	95
2011	17	46	105
2012	26	46	96
2013	23	40	105
2014	21	46	101
2015	21	41	106
2016	15	56	97

Source: data processed by the author

Graph 1. Risk distribution by Z-score



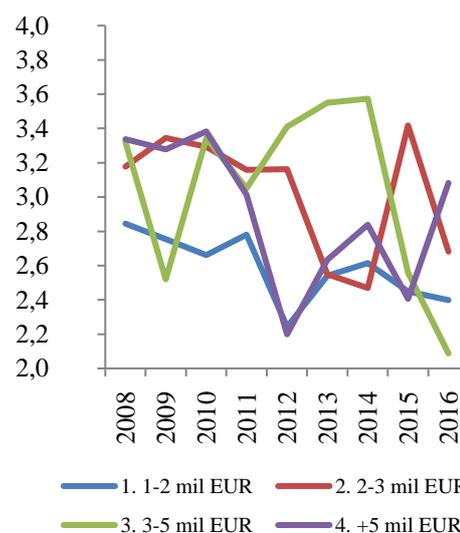
Next, the Z-score median is computed for all the selected companies by different groups. As illustrated in the next table and graph, the overall Z-score has marginally decreased for most of the groups, with the largest companies (+5 mil EUR turnover) performing the best according to the Altman Z-score (median value above 3).

Table 5. Z-score distribution by turnover

Year/ Z- Median Value	1-2 mil EUR	2-3 mil EUR	3-5 mil EUR	+5 mil EUR	Total
2008	2.84	3.18	3.32	3.34	3.28
2009	2.76	3.34	2.52	3.28	3.17
2010	2.66	3.29	3.34	3.38	3.28
2011	2.78	3.16	3.05	3.01	2.99
2012	2.24	3.16	3.41	2.20	2.35
2013	2.54	2.55	3.55	2.63	2.66
2014	2.62	2.47	3.57	2.84	2.82
2015	2.45	3.42	2.56	2.41	2.45
2016	2.40	2.68	2.09	3.08	2.89

Source: Ministry of finance, data processed by the author

Graph 2. Z-score median values



If we compare 2016 with the previous year, we observe a marginal improvement of the median Z-score value for all the companies in the appraised sector, from 2,45 (2015) to 2,89 (2016). This improvement is mostly due to increasing capitalization rate and less external debt,

despite the deteriorating working capital (the current rate lowering from 1,76 in 2015 down to 1,43 in 2016) and operating margin (from 3% in 2015 down to 1,2% in 2016). If we consider the evolution for the entire appraised period and compare 2016 with 2008, we observe a gradual deteriorating of the Z-score, mainly caused by lower operating margin, the latter decreasing from 7,8% in 2008 down to only 1,2% in 2016. The Altman Z-score components are computed for each year and illustrated for all 168 appraised companies in the next two tables.

Table 6. Altman Z-score variables for all the appraised companies

Year	X1	X2	X3	X4	X5	Z-score Median
2008	0.16	0.20	0.15	0.52	1.98	3.28
2009	0.22	0.26	0.11	0.63	1.78	3.17
2010	0.24	0.30	0.08	0.67	1.88	3.28
2011	0.18	0.27	0.07	0.59	1.79	2.99
2012	0.08	0.26	0.03	0.45	1.52	2.35
2013	0.21	0.25	0.04	0.44	1.67	2.66
2014	0.24	0.22	0.09	0.51	1.61	2.82
2015	0.32	0.22	0.04	0.41	1.38	2.45
2016	0.22	0.36	0.02	0.70	1.63	2.89

Source: Ministry of finance, data processed by the author

Table 7. Financial ratios for all appraised companies

Year	Current Rate (Current Assets/Short Term Debt)	Equity Rate (Equity/Assets)	Debt Rate (Total Debt/Assets)	Turnover (bn RON)	EBIT: Sales	EAT: Sales
2008	1.29	0.34	0.64	5.16	7.8%	4.8%
2009	1.43	0.38	0.62	4.79	6.3%	4.2%
2010	1.49	0.40	0.60	5.18	4.5%	2.9%
2011	1.33	0.37	0.63	5.81	4.0%	2.6%
2012	1.14	0.31	0.69	5.88	1.9%	0.2%
2013	1.45	0.31	0.69	6.40	2.1%	0.2%
2014	1.52	0.34	0.66	6.69	5.7%	4.0%
2015	1.76	0.29	0.71	6.82	3.0%	1.5%
2016	1.43	0.41	0.59	6.98	1.2%	-0.4%

Source: Ministry of finance, data processed by the author

Applying the multifactor regression equation previously described on the data panel in E-Views, we obtain the following result.

Table 8. Altman Z-score

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.018217	0.018809	-0.968492	0.3414
X1	1.250620	0.033260	37.60083	0.0000
X2	1.428381	0.099343	14.37833	0.0000
X3	3.499164	0.103421	33.83422	0.0000
X4	0.602213	0.026592	22.64598	0.0000
X5	0.984795	0.012015	81.96551	0.0000
D1	-0.007623	0.005730	-1.330496	0.1945
D2	0.001160	0.008571	0.13561	0.8933
D3	0.018321	0.010286	1.781130	0.0861
R-squared	0.999488	Mean dependent var		2.892222
Adjusted R-squared	0.999336	S.D dependent var		0.422043
S.E of regression	0.010873	Akaike info criterion		-5.992709
Sum squared resid	0.003192	Schwarz criterion		-5.596829
Log likelihood	116.8688	F-statistic		6587.992
Durbin-Watson stat	2.453542	Prob (F-statistic)		0.000000

This way the equation becomes:

$$Z_{it} = -0,0182 - 0,0258 * D_{2i} - 0,0170 * D_{3i} - 0,0001 * D_{4i} + 1,25 * X1_{it} + 1,42 * X2_{it} + 3,49 * X3_{it} + 0,60 * X4_{it} + 0,98 * X5_{it} + \mu_{it}; \text{ Where:}$$

$$\alpha_2 = \alpha_1 - 0,0076 = -0,0182 - 0,0076 = -0,0258 \quad (2)$$

$$\alpha_3 = \alpha_1 + 0,0011 = -0,0182 + 0,0011 = 0,0170 \quad (3)$$

$$\alpha_4 = \alpha_1 - 0,0183 = 0,0182 - 0,0183 = -0,0001 \quad (4)$$

5.2 Interpretation

- if X1 raises with 100bp, then the Z score raises with 125bp
- if X2 raises with 100bp, then the Z score raises with 142bp
- if X3 raises with 100bp, then the Z score raises with 349bp
- if X4 raises with 100bp, then the Z score raises with 60bp
- if X5 raises with 100bp, then the Z score raises with 98bp

A very important indicator that shows if the model is well-specified is R-squared. This indicates how many percent of the total dependent variable variance is explained by the independent variables using the following formula:

$$R\text{-squared} = (TSS-SSE)/TSS = RSS/TSS = 0,9994$$

The higher the value of this indicator aims to 1, the better the model. In our case, 99.94% of the Z-score is explained by the five independent variables of the model. **The E-Views** results indicate a value of 99.93% for the adjusted R-squared coefficient, very close to that of the R-squared coefficient.

6. Conclusions

Given the overall concentration of revenues among the largest companies in the overall business environment and the selected list of companies, the sample is divided in four different groups by turnover level, that represent the cross-sectional series in the panel data model

described in the methodology. The Z-score for the selected companies is computed for the entire appraised period (2008-2016) and the evolution illustrates a tendency for decreasing high risk companies (from 25 in 2008 down to 15 in 2016) and increase in the medium risk companies (from 43 in 2008 to 56 in 2016), whereas the low risk companies are relatively stable. The overall Z-score has marginally decreased for most of the groups, with the largest companies (+5 mil EUR turnover) performing the best according the Altman Z-score (median value above 3). If we compare 2016 with the previous year, we observe a marginal improvement of the median Z-score value for all the companies in the appraised sector, from 2,45 (2015) to 2,89 (2016). This improvement is mostly due to increasing capitalization rate and less external debt, despite the deteriorating working capital (the current rate lowering from 1,76 in 2015 down to 1,43 in 2016) and operating margin (from 3% in 2015 down to 1,2% in 2016). If we consider the evolution for the entire appraised period and compare 2016 with 2008, we observe a gradual deteriorating of the Z-score, mainly caused by lower operating margin, the latter decreasing from 7,8% in 2008 down to only 1,2% in 2016.

Future research to evaluate Z-score sensitivity under stress test scenarios would be very useful to provide an insight of companies' insolvency risk amid increasing interest rates and different fiscal tax on dividend. This is very necessary especially given the very unpredictable fiscal environment in Romania. The pro-cyclical fiscal measures cause GDP growth to reach 7% during 2017 in Romania, significantly above the potential level of 3%-3,5%. This is fueling increasing inflationary pressure, steaming to almost 5% during the first semester of 2018 and 3,2% Central Bank of Romania latest estimate for 2018 full year. That will force the Central Bank to launch a restrictive pace of the monetary policy, already visible with monetary rate hike from 1,75% to 2% during January 2018. Under this context, increasing financial burden of companies with translate in lower operating margins. Moreover, the proposal of dividend tax cut down to zero starting 2019 (according to the latest government plan) would motivate shareholders to distribute profits as dividends and lower the retained earnings, both factors will negatively impact the Z-score results for the companies active in Romania.

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**Non-Financial Information Reported by Companies Listed on
Bucharest Stock Exchange**

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Abstract

This paper analyses the relationship between the Corporate Social Responsibility (CSR) and the Corporate Financial Performance (CFP) for the companies listed on the BSE from a multidimensional perspective. The six types of Stakeholders (employees, clients, environment, local communities, education and health) are considered in this paper as being CSR determining factors. Understanding and developing these CSR key factors may result in increasing the company competitiveness and sustainable development in the society where the companies perform their activities. We therefore analyse herein which policies led by the companies as CSR actions influence the CFP.

Keywords: *Corporate social responsibility, financial performance, stakeholder*

JEL Classification: *M14, L 25*

1. Introduction

In recent years, the Corporate Social Responsibility has become an increasingly debated topic in the academic community given the effects the activities performed in the business environment have on the employees, clients, authorities, society, business partners, investors, environment and local communities. In this respect, an increasingly high number of companies intend to include, through continued endeavours, the corporate social responsibility practices in their business strategies. The companies have voluntarily started adopting these practices.

The costs of the social responsibility practices are borne by the companies. The companies are increasingly aware that they must take responsibility for the impact their business activity has on all the

Stakeholders and support the communities where they perform their economic activity, through voluntary actions (McWilliams and Siegel, 2001). The Corporate Social Responsibility (CSR) has been present in the business practices for a long time. Nevertheless, only some companies chose to play a more active role in promoting the corporate social responsibility policies. Such social responsibility practices are adopted either subject to pressure from the government and society, or thanks to the benefits of these practices on the companies. Thus, the social responsibility encourages the companies to balance their social and environment-related responsibilities and their profits. Therefore, the profit or market share maximisation

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continues to be the main objective for companies, but many more start to be joined to it, leading to synergies. These objectives must also consider the effects the business decisions have on the Stakeholders. The development of the relationship between the companies, the state and the society, in the past two decades, has led to an increased pressure on the business environment to make serious efforts to adopt and/or implement a wide range of socially-responsible activities (Edenkamp, 2002). This paper thus analyses the relationship between CSR and corporate performance, namely the CSR practices leading to an increased company performance.

The paper is structured as follows: Chapter 1 - presentation of the specialised literature, Chapter 2 - details concerning the research method, Chapter 3 - description of the research results, and it ends with a presentation of the paper conclusions.

2. Literature Review

The main objective companies have is to maximise the profits. In this respect, Friedman (1970) mentioned that the biggest responsibility the company has is to maximise the wealth of its Shareholders. Garriga and Melé, supported Friedman's argument and also highlighted in their studies, in 2004, the CSR benefits if the companies invest in the social requirements of the community, mentioning that "investing in philanthropic activities may be a way to improve the context of competitive advantage for a firm" (Garriga and Melé, 2004, p. 54). Moreover, considering the Stakeholder theory, the CSR can also be evaluated from the perspective where a company complies with the Stakeholders' multiple demands. In this sense, Ruf *et al.*, (2001) suggested that there may be different approaches to respond to the Stakeholders' demands, which vary from cutting or minimising the costs to maximising the social satisfaction. Or, in the case of strategic investments, following the "Stakeholders' demand, firms gain a competitive advantage by developing additional, complementary skills that competitors find nearly impossible to imitate" (Ruf *et al.*, 2001, p. 143).

Campbell (2007) underlines that organisations have two reasons for engaging in CSR activities. Firstly, the companies must knowingly not do anything which might harm the Stakeholders, especially the company Stakeholders: investors, employees, clients, suppliers or local communities where they operate. Secondly, if the company activity harms the Stakeholders, they (the companies) must "revise their behaviour on the market whenever any damage is discovered and they [the companies] are made aware of the respective problem affecting them" (Campbell, 2007, p. 951). The previous CSR studies mainly focused on the two wide approaches.

The previous studies examined the level of involvement and the effects of the CSR on the company performance (Matten and Moon, 2005; David *et al.*, 2005; Tsang *et al.*, 1998; Simionescu si Gherghina, 2015 Tyagi, 2012), or on identifying the key determinants of the CSR, and its benefits and theoretical developments (Hemingway and MacLagan, 2004; Porter and Kramer 2006; Welford and Frost 2006; McWilliams and Siegel, 2000; Aupperle *et al.*, 1985; Carroll, 1991; 1999; 2001; Friedman 1984; Freeman 1984; Clarkson 1995). The various CSR studies focused most of their attention on the development of the CSR concept. In the specialised literature, many studies analysed the CSR in order to identify its elements, including the extent to which it relates to increasing the competitive advantage of the companies. For instance, the theorists in the field tried to identify the impact that social responsibility has on various Stakeholders, such as: employees, clients and society. Some studies investigated how the CSR activities affect the company profit (Waddock and Graves, 1997; Luo and Bhattacharya, 2006; Simionescu & Dumitrescu, 2014) mentioning that the CSR practices increase the sales and decrease the company costs (Cruz and Wakolbinger, 2008; Maloni and Brown, 2006). Another research segment highlights the fact that improving the CSR practices

should lead to a higher company performance, regardless of whether their cause or effect is or not the cost reduction or the income increase (Ruf *et al.*, 2001; Griffin and Mahon 1997).

3. Research Method

This paper analyses the relationship between CSR and CFP over a shorter period of time, namely for a year. For this method, the questionnaire was used as a research instrument. A questionnaire was thus developed as a means to gather the data to seize the policies on social responsibility practices of the companies listed on the BSE and to understand which ones of the CSR activities influence the CFP. The questionnaire was sent to all the companies listed on the BSE via e-mail in the period from November 2014 to July 2015. The questionnaire was addressed to all the companies, regardless of whether they implemented or not any CSR activities. The questionnaire data were then processed using two different techniques, as follows:

1. a CSR global score was created (CSRGS), as well as CSR specific scores, then
2. a CSR global index (CSRGI), as well as CSR specific indexes.

The establishment of the CSRGS and CSRGI was designed to compare the results of the estimates whose regression models were only different in terms of how the CSR score and index were obtained.

This paper examines the CSR-CFP relationship while taking into account the Romanian economic context. The influences of the CSR policies were thus analysed, namely, insofar as the employees, clients, environment, local communities and education and health social activities were concerned related to the CFP. The CSR policies make up a global index (CSRGI) and a global score (CSRGS) of the CSR, and every individual policy represents an index, namely a specific score of the CSR.

Therefore, this paper studies the relationship between CFP and CSR in the companies listed on the BSE in the period from 2003 to 2014. The collection of financial data for these companies was made using the reports they published on the BSE website, and on Bloomberg and Thomson Reuters Eikon. The data for the CSR were collected both from the Company Sustainability Reports published on their websites, and through the questionnaire method. In order to measure the CFP this paper used both market indicators, and indicators calculated based on the accounting information, since they can indicate the use of several relationship sources, thus leading to a complete matrix of the CSR concept. Or, in order to analyse the CSR-CFP relationship, the following variables were used in the regression models:

Dependent variables: ROA, ROE, ROIC, EPS, PBV, RLC.

Independent variables: CSR (dummy variable, CSRGS and CSRGI), and the CSR scores and specific indexes.

4. Research Results

For this paper, a questionnaire including 44 questions was developed and implemented (in the regression models, 78 questions will result by considering the sub-points of the 44 questions). Each individual question was parametrically tested related to the CFP variables used in the regression models. In other words, by using the T-Student test, we tested whether there are any differences between the financial performance averages of the companies having answered “NO” and of the ones having answered “YES” to the same questions, as well as between the companies having stronger CSR policies compared to the ones having no such policies or having merely just adopted the CSR practices. The T-student test was applied to 74 questions in the questionnaire, since out of the 78 questions, 4 questions were excluded because

the companies answering the questionnaire all answered the respective questions by either YES or NO. Therefore, as there was no variation, no difference could be made, in average, for 4 of the questionnaire questions. According to the results, the average results showed superior EPS values in the case of companies implementing CSR activities related to the environment, education, culture and local communities, compared to the companies performing no such activities. Moreover, differences regarding the RLC average appeared also between the companies aware of the CSR concept and the rest of the companies. The existence of a coherent and consistent legislative framework, the compliance with the legal regulations, the creation of sets of rules and regulation for the CSR implementation, and the involvement and support of the authorities in the implementation of the social responsibility activities highlight a superior average performance for the RLC, PBV, ROIC and ROA. Concurrently, superior ROA and PBV values are also recorded in the companies considering employee health policies.

5. Conclusions

The empirical records show a positive and statistically significant relationship between the CSR practices and the CFP. The companies listed on the BSE should develop or continue to develop their understanding of and capacity to integrate the CSR practise in their business strategies, since such activities can lead to long-term profits, competitive advantages, strengthening the company position of the product and/or service market they address. The CSR policies for employees, environment protection and clients are the most important activities adopted/implemented by the companies.

The competitiveness of a company is nowadays determined, amongst other factors, by a socially responsible management of the company, highlighted by the use of environmentally friendly technologies in the company production process, the observance of the environment protection regulations, philanthropic and charity initiatives, supporting the access of young professionals to the labour market through various educational programmes, supporting and communicating with the local community members, implementing ethics and conduct codes, and company transparency.

The companies having social responsibility practices to their employees, to the local communities, considering implementing various international product and service quality standards in their business strategy, and caring for the environment, improve their CFP.

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Money Laundering and Terrorism in the Context of Globalization

Maria NIȚU^{1*}

Abstract

In this article, are presented the negative effects of globalization, such as terrorism and money laundering, effects that sometimes overcome the true purpose of globalization: the development and improvement of human life. As it will be mentioned, these are harmful for the society in all respects, because of their fast developing to the modern world. The phenomena of money laundering and terrorism have managed to develop in all the countries with a complicated financial system. These complex organizations lead to poor legislation, a permissive and insufficient infrastructure that doesn't combat and prevent such crimes. This research, in addition, shows that the fight against money laundering and terrorism is intensifying at international level through the already established organizations against the regarded crimes. However, in the context of globalization, it is very difficult to identify whether countermeasures and prevention measures implementation is higher or at least equal to the rate of crime rise. As a result, therefore the only way to combat money laundering and terrorism at national and international level lies in the cooperation between states. This should be based on a mechanism designed to reduce or, at best, eliminate the economical differences between states, on one hand, and coordinate internal and external regulation, on the other hand.

Keywords: *Terrorism, Money Laundering, FATF, ONPCSB, Globalization*

JEL Classification: *F69, F53*

1. Introduction

In nowadays socio-economic and political context, the phenomenon of organized crime has undergone mutations in expanding its sphere of activity, seeking to weaken the democracy of states and the entire construction of the rule of law. The majority of specialists in the field consider that the true motivation of the actions is the poor perpetuation of the economic, political, legislative structures, the continuation and the increase of the social and economic discrepancies among the citizens and groups, such as the strengthening of conflicts and tensions, both social and ethnic and religious.

As a result of the global events, the violent and aggressive character of organized crime can be observed thru their ability to influence authorities to achieve their goals. It should be noted that their involvement with the institutions may expose the security and stability of a states.

Thus, all these actions are a threat to a controlled development of economic and political institutions and to the society. A further reason for the expansion of organized crime is due to

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their well develop logistics, which tend to be supported by occult financial forces, that have strong roots in the world's underground economy. All these negative phenomena have developed amid the expansion of the globalization process.

2. Problem Statement

The central idea of the article is understanding the phenomena of money laundering, terrorism, on the basis of which premises have been developed, how they operate and what the authorities can do. Money laundering is an expression of cross-border economic crime (Popa, 2012) characterized by structures with exponential human and financial capacities, demonstrating a high degree of adaptability to the new economic, political, social and normative realities, showing professionalism and creativity in achieving the proposed objectives against the backdrop of a society. The offenders are in a permanent action to hide illegally acquired profits, especially if these earnings reach colossal sums. These activities generated a stream of income which needs to be legalized and integrated into the economy (FATF).

The practice of hiding the origin of illegal income originates about 3000 years ago, a period when Chinese merchants tried to conceal wealth from the authorities through ways similar to the current ones, namely: the cash was converted into real estate or was transferred over local borders and invested in different businesses, over-valuation of the goods traded for the outsourcing of funds, etc. All these are principles of money laundering, so hiding, transferring, investing or purchasing on behalf of someone else is the basis of the mechanism, which, depending on circumstances, is changed or adapted to achieve objectives. The notion of money laundering has been used for the first time by the US authorities in view of the process of laundering mafia property, so as well as the well-known washing process of clothes, the same is the case when the change of money acquired illegally.

The meaning of the phrase “money laundering” hinges on the component “laundering” and it is alleged that the phrase derives from the habit of the gangster Al Capone of funneling his ill-gotten gains through laundrettes to construct the pretense of a legitimate income (Duyne van O. C., 2003) from gambling, prostitution, extortion and smuggling. Thus, the offenders found that once the nature of the profits was legitimate, they no longer accounted for the authorities and could use the money. Following Al Capone’s arrest, new methods and means of concealing money were sought, the most relevant being the service provided by Swiss banks: the numeric accounts. In the 1980s, “money laundering” was associated with drug trafficking as a result of the huge profits generated by this action, so governments took legislative action.

Another observation, which is currently valid, is that criminal organizations have the ability to corrupt the structures of the rule of law at all hierarchical levels, as a result of the revenues from drug trafficking. Money laundering affects all the countries (developed or developing) which can lead to a total collapse because of their reliance on the financial aspects (IMF, 2006).

The money laundering operation involves a process in which the numeral or other assets obtained by illegal means acquire legal preference and must fulfill three conditions (Hasan and Abd Murad, 2010):

- Illicit earnings are converted without suspicion (placement);
- The origin of profits is not known (stratification);
- Inclusion in the legal economic circuit of “washed” profits (integration).

According to GAFI money laundering represent “a process of criminal profit in order to conceal their illegal origin” (FATF, Money Laundering FAQ, what is Money laundering? www.fatf-gafi.org). As stipulated in the report of UNODC and FMI, money laundering is “the process by which a person hides or conceals the identity or the illegal origin of income so that it appears to have come from other sources” (Report IMF, UNODC, 2005)

The operation of ML(Raweh, Erbao, Shihadeh, 2017) and financing terrorism can be similar and interdependent Reference guide to Anti-money Laundering and Combating the Financing of Terrorism, Second) Also, according to some authors (Masciandaro, 2017), the approach of organizational crime, money laundering and terrorist financing should address the following common issue: 1. Use of rapid money transfers or electronic payment systems to drive illicit funds through multiple jurisdictions, 2. Engaging a wide variety of criminal activities and criminals (from simple traffickers to criminal syndicates). Who are the authors? It is difficult to answer because the people in question are in all areas of activity from accountants, lawyers, bankers, car dealers, etc. The motivation of these actions is determined by the feeling of power, the possibility of committing the crime without being caught, or the ease with which to obtain these unlawful, unjustified and undeclared profits.

Among the most popular and used money laundering methods we find: cash deposits, quick transfers or e-banking, gambling, insurance policies, auto loan, financial instruments, business management (hotels, restaurants).

During the money laundering operation, offenders have to take into account some basic rules which would lead them to complete the operation: anonymity (the illegal origin of funds must be lost), the speed of the operation (rapid movement of funds to avoid detection), complexity (division of funds into more transactions) and secrecy. When these revenues are made, offenders have three options: reinvesting in a new offense, hide or spend immediately. The real problem arising from these facts is precisely reinvestment in support of terrorist acts.

In addition, another phenomenon in full swing and closely related to money laundering is terrorism. The UN Convention for the Suppression of Terrorist Financing describes the main objective of the terrorist acts is “intimidating the population and obliging states or an international body to put into practice or not a particular action” (The UN Convention for the Suppression of Terrorism Financing, ART 2).

The Art. 2 Law No. 535/2004, In Romania, on the prevention and combating of terrorism (Parlamentul României, 2004), terrorism affects national security and endangers society as a result of unlawful acts and threats to the public space. In essence, the main objective is to manipulate or intimidate the divisions, the population, or to force a person, government or institution to act or refrain from undertaking activities or actions. Funding can be done through institutions/individuals/states, as well as indirect earnings through income-generating activities.

For example, in the case of criminal organizations, sources of income may be created as a result of criminal offenses or illegal activities. Main causes: underground economy, religious or ethical conflicts and social conflicts and current economic instability.

In both activities of money laundering and terrorism, it can be noted the same transaction mechanism, consisting in hiding or concealing funds. For example, in the case of money laundering, illegal gain is sent through legal channels so as to hide its original origin, and those who support terrorist financing move funds to hide the nature and end use, that is, to support terrorist acts. To a greater extent, illegally obtained funds are the sources of income for terrorists in their pursuit of taking certain actions to manipulate or influence a small group of people or the whole nation. Terrorist organization are constantly seeking new ways and engaging advanced means of recycling financial resources from illicit activities in order to adapt to the contemporary society transformation.

3. Research Questions/Aims of the research

The principal objectives of the research target the purpose and direction of the money laundering offense, which were the main premises that allowed the creation of space for the development of money laundering phenomena, the financing of terrorism and the fight of the authorities in order to fight crimes.

The main purpose of money laundering, as we have already said, involves a procedure designed to change the state of funds so as to lose the illegal nature and become “the most honorable and the purest” (Bari, 2001). All crimes that have been committed today have managed to adapt and develop in the context of the globalization process. Of course, globalization has created new opportunities for both economic and social manifestation, with a direct relationship between this phenomenon and economic activities, as well as their evolution over time. At the same time, in practice, against the backdrop of an economically, socially, socially changing society, the perpetrators of the crimes have found the opportunity to manifest themselves and to take advantage of the current syncope. Therefore, the proper space was created for the conduct of money laundering and terrorist financing crimes, allowing offenders to “bypass” the laws already outdated as a field of activity and scope.

At the same time, the authorities sought ways to counteract this phenomenon at international level and was formed the Financial Action Task Force (FATF), known as the Money Laundering Authority, defining this term as a process of hiding the illegal source of earnings in order to justify them. Initially, the money laundering offense was not mentioned in the Vienna Convention, but the rapidity with which this illegal action has developed, even surpassing drug trafficking, has prompted authorities to incorporate this offense technically and legally, developing “the 40 principles on money laundering” (FATF/GAFI).

At European level, the fight against money laundering and terrorist financing is underway, so that after the terrorist attacks in 2015, the EU Council and the European Council expressed the need to strengthen and adapt the rules to the current realities. Directive 2015/849 (The European Commission, 2015) has been amended to:

- improving transparency in ownership of companies and trusts;
- tightening controls on high-risk third countries;
- address the risks associated with prepaid cards and virtual coins;
- strengthening cooperation between national financial intelligence units.

Internally, the National Office for the Prevention and Combating of Money Laundering, the ONPCSB, has created the relevant legal framework (ONPCSB, 2002, 2008):

- Law no. 656/2002 on the prevention and sanctioning of money laundering, as well as for the establishment of measures for preventing and combating the financing of acts of terrorism, republished;
- Government Decision no. 594/2008 regarding the approval of the Regulation for the application of the provisions of Law no. 656/2002 on the prevention and sanctioning of money laundering, as well as for the establishment of measures to prevent and combat the financing of acts of terrorism;
- Government Decision no. 1.599/2008 for the approval of the Regulation on the organization and functioning of the National Office for Prevention and Control of Money Laundering.

Currently, as can be seen, the authorities are working globally to combat and mitigate the effects of money laundering crimes, especially those aimed at financing terrorism.

4. Research Methods

The research methodology used in the article is quantitative because I wanted to understand the concepts of money laundering and terrorism financing. Thus, I used the historical method of the events showing, from genesis, money laundering’s first purpose: to spend the money obtained from illicit activities; to the present, in which it is also used to finance terrorism in the context of the globalization process. The existing gaps or the lack of legislation in the field

together with the adaptability of the criminal methods leads the development of the phenomenon of money laundering and terrorism.

I also used the method of comparison to find the similarities (both offenses are constantly adapting and evolving to the current economic realities) and the differences, so that the money laundering process has to fulfill three conditions of placement, stratification and integration while the financing of terrorism can be done from external or internal sources, regardless of whether they are physical persons, companies.

The last research method used was the synthesis through which I managed to present both phenomena and methods to counteract and combat the spread of these offenses worldwide.

5. Findings

Money laundering is an illegal activity that dates back to the oldest times and has gained a colossal rise in the era of globalization. Against the backdrop of a changing society and adaptation to new realities, offenders benefit from permissive or outdated legislation to make profit at the expense of human well-being. Thus, money laundering may, in some cases, also support terrorist operations by occult funding of groups without the knowledge of the authorities, through the money circulation information system known as Hawala (FAFT, Report October 2013).

With the development of the globalization process of the free movement of capital, goods, individuals, information, criminal networks have been taught to refine their mechanisms, operating modes, attracting funds or taking them through different processes so that the authorities do not discover the nature of the profits or the mode of action. Also, terrorism has grown as a result of the gap between the poor and the rich, the ideologies of individuals who, in their opinion, want to do justice.

There is a direct link between money laundering and terrorism, since illegally earning funds have three directions: reinvestment, spending or hiding (Isa, Sanusi, Haniff, Barnes, 2015), but because the money laundering process is very difficult to detect, the authorities cannot find out exactly where the money is redirected. Also, the harmful effects of this operation against the economy are potentially devastating such as: undermining the legitimate private sector and the integrity of financial markets, loss of control of Economic Policy and the loss of revenue, reputation risk and economic instability and distortion (John McDowell, Gary Novis, 2001).

These funds can be used to buy weapons for terrorist groups or to bribe people in key positions. The eradication of terrorism cannot be accomplished without interruption and irradiation of the main power supplies, action taken worldwide, especially because this phenomenon is generated and sustained by the technological progress of modern era.

Although these phenomena seem unstoppable, the international and domestic authorities are in continuous collaboration for a legislative improvement, seeking to cover all the gaps that allow the expansion of these crimes.

6. Conclusions

Globalization can be responsible for producing and creating the right space for the emergence of the main threats: money laundering, terrorism, drug and people trafficking, crime, environmental disasters, climate change, pollution, etc. These unknown trends cannot be controlled, leading to both a global disorder that is virtually unpredictable and a new world order.

Because of this, money laundering and terrorist financing have begun to defend in almost every country, against the background of insufficient or permissive legislation, as a major lack in preventing money laundering and terrorist financing.

Consequently, in order to counteract these phenomena and antiterrorist struggle, it is necessary to understand what constitutes the money laundering offense, the purpose and direction of “freshly washed” money. The combination of money laundering and terrorist financing has now become the biggest threat to society, fundamental human rights and democracy.

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**The 1st International Conference on Economics and Social Sciences
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Contemporary Data Science for Finance Students Evidence from the Global Steelmaking Leader

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Abstract

This paper is a comparative study of currently used software instruments for modeling as this area is under constant development. This study inventories features of the software tools for modeling currently used by researchers or students in Finance, such as R language/ RStudio in order to fill the gap in the Romanian literature and help Finance students in choosing the software tools for their research.

In order to understand the program features and define a model for the enterprise value, I have considered the data available on the enterprise value and share price of a leading steel producer, ArcelorMittal from the year 2007 – present. Enterprise value is central in business transactions such as mergers and acquisitions or privatizations; it is usually referred to as a theoretical takeover price. Based on the author's previous research on the factors of an econometric model for the enterprise value, in this paper is presented the analysis of the time series of the enterprise value (EV) of ArcelorMittal.

This comparative study aims at bringing a fresh, useful perspective in the financial literature and will be continued. Based on the author's previous research on the factors of an econometric model for the enterprise value, this paper shows the steps to be followed before the modelling stage, i.e. importing the data, cleaning it, data visualization and transformation, then model.

Keywords: *data science, R, RStudio, Matlab, programming language*

JEL Classification: *C40 Econometric and Statistical Methods: Special Topics: General; C50 Econometric Modeling: General*

1. Introduction

This qualitative research is based on discussions and inputs from PhD students², with respect to the advantages of using R system – a statistics system or, in other opinions, an environment with both classical and modern statistical techniques (R 2009).

This paper inventories essential traits of the software preferred by researchers, students and professors, such as R or RStudio, in order to fill the gap in the Romanian literature and help Finance students in choosing proper tools according to the research purpose. In Romania, the use of R was the focus of several international conferences on official statistics held in Bucharest, and others having business excellence, innovation and sustainability as purpose,

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² Participating in EUNIT2017 conference, <http://asecib.ase.ro/simpozion/2017/simpozion.htm>.

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while at global scale, R programming language is considered the *lingua franca* of data science, as common statistical software, used both in corporations and academia.

This study inventories particularities of the software tools for modeling currently used by researchers or students in Finance, such as R language/RStudio, in order to understand some of the advantages and disadvantages of using them in financial applications, depending on the scope and bring a fresh, useful perspective in the academic literature.

Comparisons of finance problem solving using MATLAB, R or Eviews³ represent an area of research that is not yet developed in Romania (Simionescu 2014); the use of such software in applications in Romania is behind the current researches. In Romania, several international conferences on official statistics have been organized by R-omania Team in Bucharest⁴ since 2013 (R Project R-omania Team n.d.).

This paper also shows the steps to be followed before the modeling stage, i.e. importing the data, cleaning it, data visualization and transformation, then model.

2. Problem Statement

2.1 Overview of the scientific literature

Contemporary data science requires integrative knowledge from statistics, finance, etc. as we can see the representation in figure 1 (Baumer *et al.*, 2017)

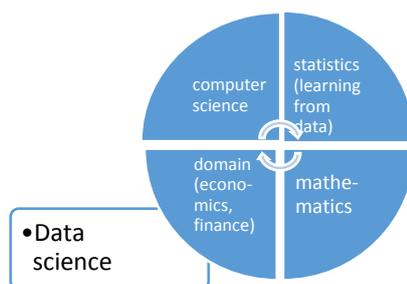


Figure 1. Contemporary data science
Source: author's representation

Statistics allow the analyst to fit and assess models, which help analyze and mine large datasets and other model techniques are important⁵. In MATLAB, for example, quantitative methods can be applied across risks (credit, market, operational, etc.) (The MathWorks, Inc. 2018).

In the TIOBE index⁶ for February 2018, R programming language is in ascension, ranking 13 in the popularity of programming languages, while MATLAB programming language is falling, ranking the 19th, after reaching its highest position in 2001, when it was #10 (TIOBE 2018). R is an integrated suite of software facilities for data manipulation, calculation and graphical display and a programming language called 'S', a vehicle for developing methods of interactive data analysis with the help of useful packages; however, most programs written in 'R' are written for a single piece of data analysis. If we consider the output from a regression

³ EViews 6 Student Version is a forecasting and analysis package for Windows-based computers, with statistical and graphical techniques (Quantitative Micro Software 2007).

⁴ <http://www.r-project.ro/conference2017/>

⁵ For risk evaluation and scenario testing, e.g. Monte Carlo methods.

⁶ The TIOBE Programming Community index is an indicator of the popularity of programming languages that is updated monthly. Popular search engines such as Google, Bing, Yahoo!, Wikipedia, Amazon, YouTube and Baidu are used to calculate the ratings (TIOBE 2018).

or discriminant analysis, R gives minimal output and stores the results in a fit object for subsequent interrogation by further R functions (Venables, Smith and Team 2016).

In Excel, the LINEST function calculates the statistics for a line by using the “least squares” method: it calculates a straight line that best fits the data, then returns an array that describes the line; however, the accuracy of the line depends on the data’ degree of scatter (i.e. the more linear the data, the more accurate the LINEST model).

3. Research Questions/Aims of the research

3.1 The objectives of the research

Usually referred to as a theoretical takeover price, enterprise value takes into account all of ArcelorMittal existing debt, minus cash. Enterprise value is a measure of the value of a business as a whole, based on Market Capitalization plus Total Debt USD minus Cash and Equivalents USD. Considering the tight connection between the market capitalization, share price and enterprise value, this paper aims to identify the relation between these indices (trend) in order to build a model for the enterprise value.

4. Research Methods

The market capitalization is calculated by the company as weighted average common shares outstanding multiplied by share price⁷, and EV takes into account the debt:

$$EV = M.Cap. + ND + i - I \quad (1)$$

Where ND= net financial debt, i= minority interest, I= investments/others.

For one independent x-variable, the calculations for m and b are based on the sample means formulas⁸ and the regression analysis returns the equation for the line:

$$y = mx + b \quad (2)$$

If we consider the market capitalization range of values, the function⁹ returns:

$$y = m_1x_1 + m_2x_2 + \dots + b \quad (3)$$

I have analyzed the graphical representation of the quote history for the period 2009-2018 (figure 2) and the time series of the enterprise value¹⁰ and market capitalization of the world’s leading steel producer¹¹.

⁷ \$34.16B at NYSE or \$2.38 B for the 1st of March 2018 for ArcelorMittal.

⁸ $x = \text{AVERAGE}(\text{known } x\text{'s})$ and $y = \text{AVERAGE}(\text{known } y\text{'s})$.

⁹ $\text{LINEST}(y\text{values}, x\text{values COLUMN}(\$A:\$C))$.

¹⁰ Aprox. \$45.04B for the 1st of March 2018 for ArcelorMittal (MT).

¹¹ ArcelorMittal is present in all major markets including automotive, construction, household appliances and packaging, in 60 countries (ArcelorMittal, 2018).

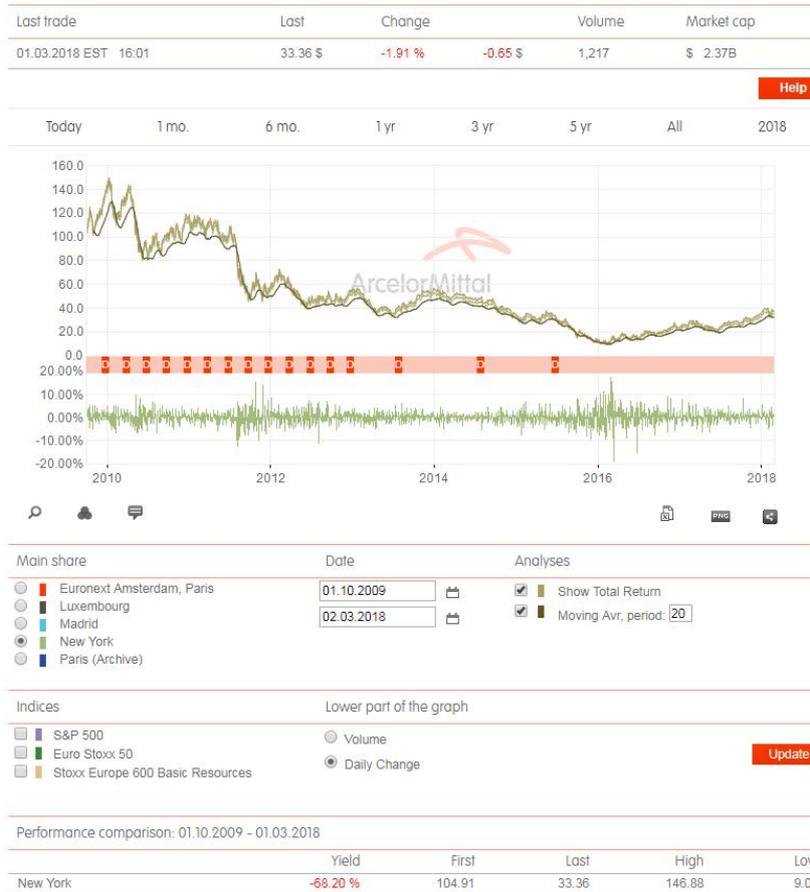


Figure 2. Company’ share price history, between 2009-2018
 Source: (ArcelorMittal 2018)

The moving average also shows a decreasing trend in the share price, which will probably be reflected by the enterprise value.

The company’s Quote History for the period 2007-2018 is then imported in R RStudio (Figure 3).

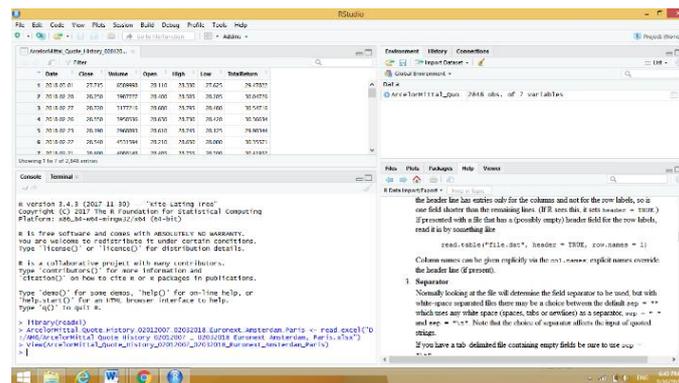


Figure 3. the dataset imported in R
 Source: author’s representation

After the dataset is imported, the testing for normality is equally important, after loading the packages ‘moments’¹² and ‘validate’¹³. The main 3 steps in the linear data processing considered are described below (Loo 2017):

¹² Moments, cumulants, skewness, kurtosis and related tests.

¹³ Data Validation Infrastructure.

1. Data management and data cleaning are critically important steps in any data analysis and help avoid mistakes (Huber 2017).
 - 1.1. Raw data – Extract and coerce
 - 1.1. Input data – Impute and adjust

Validation is the checking whether a combination of values comes from a predefined set of allowed value combinations (,ESS Handbook on methodology of data validation’ 2015) and can be represented as having 5 levels shown in figure 4.

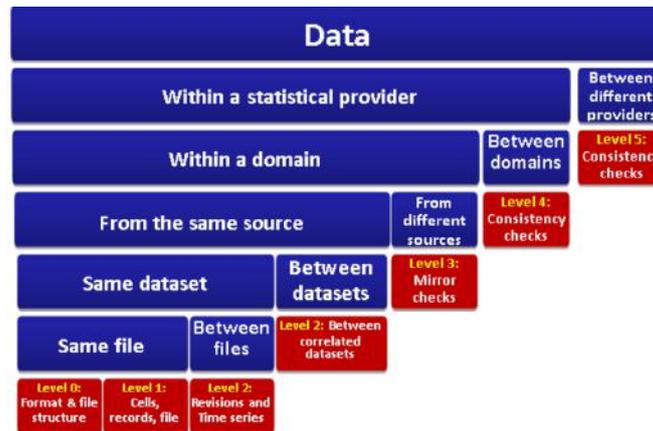


Figure 4. Validation levels

Source: (Essnet Validat Foundation 2016)

Data validation can be done with the *validate* package with R, first, by defining the validation rules¹⁴ and confronting data with rule set¹⁵ (Loo 2017).

For using the validation results, the functions described in Table 1 below can be used.

Table 1. Functions for using the validation results

Function	Description
summary	Short by-rule summary
aggregate	by rule/or record
sort	Aggregate and sort
values	Get raw output values
as.data.frame	Cast results into data frame
compare	Compare datasets wrt a rule set
cells	Compare cell values

Source: (Loo 2017)

2. Statistics – Format;
3. Output – for each step, is a numbered folder (i.e. 01Raw) that contains R (Rmd) files that pull in the data from the previous folder, process it, and write the output. A readme.md describes the output in that folder (Loo 2017).

5. Findings

For the EV dataset, the Slope (m) is (3,588,449,067) and the intercept (b) is 34,523,127,747. Other statistics are:

¹⁴ rules <- validator(

¹⁵ cf <- confront(

Summary (cf).

Barplot (cf).

The Arithmetic Mean (of 49,724,433,497) is higher than the Median (of 49,614,716,642), higher than the Geometric Mean (of 46,092,382,364). Coefficient of Variation 40.32

Mean Deviation 14,609,895,886

Standard Deviation 20,046,820,134

Range 69,963,850,199

R Value (0.70)

R Squared 0.49

Significance 0.008089

The values for 2018, have been calculated with the function GROWTH (known_y's, known_x's) for an exponential curve.

6. Conclusions

R is a free statistical and programming language that is considered a must in data science, being “developed explicitly for data analysis by statisticians”; R is a procedural programming language, because: “it works by breaking down a programming task into a series of steps, procedures, and subroutines.”

RStudio is recommended for beginners as no prior knowledge/experience with R/RStudio are required.

On the other hand, Microsoft Excel is still very popular, although it “cannot handle datasets above a certain size and does not easily allow for reproducing previously conducted analyses on new datasets.” (IE 2017)

This theoretical study is still very limited and will be carried on with the steps of data processing described above.

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The Link Between Emigration and Financial Transactions

Simona-Andreea APOSTU¹

Abstract

Lately, migration has registered a growing trend, reaching massive values. Numerous studies have analysed the phenomenon of migration, its trend, the advantages and disadvantages, as well as the factors of influence. This article comes as a complement to existing studies, analysing migration from economic and financial perspective, focusing on the emigration and economic growth. The binder between emigration and economic growth is represented by remittances, money sent by emigrants in the country of origin. The purpose of this study is to determine whether the number of emigrants influences the economic growth, given that money sent to the country of origin contributes to economic development, so the study analyses the number of emigrants and the financial transactions. For this, is established the link between number of emigrants and financial transactions for the countries of Europe during 2008-2015. The results of this study show that the variable emigrants have a significant influence on financial transactions, being statistically significant. Lot of emigrants send remittances and this is reflected in the financial transactions from the origin country. So, emigrants emigrate for a limited period of time, not forever. The reason they emigrate is higher incomes and a part of incomes is sent in the origin country, helping the economies of less developed and developing countries and leading to economic growth.

Keywords: *Migration, emigrants, financial transactions, economic growth, panel regression, link*

JEL Classification: *E44, F22, J61, O15.*

1. Introduction

There are mutual relations between countries or regions regarding helping, communication, trade, foreign investment, transport and migration, but migration has the most significant and lasting impact. Migration transforms migrants, as well as areas of origin and destination areas.

Migration analysis should focus both on immigration and emigration, with a significant impact, especially in developing countries.

The current society faces a massive migration phenomenon. Numerous studies have analysed the phenomenon of migration, its trend, the advantages and disadvantages, as well as the factors of influence.

The phenomenon of migration will not decrease as long as citizens find better conditions outside the borders, and developed European countries encourage migration in order not to change the population structure, as they are experiencing a demographic decline.

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Migration has advantages, but also disadvantages and involves many factors, both social, cultural and economic.

Migration is most influenced by incomes, both in the country of destination and in the country of origin. Emigrants transfer money to the people in the country of origin, representing remittances. Remittances lead us to the idea that mainly emigrants emigrate for a determined period of time, not forever and with the goal of helping the persons left at home. In fact, this emigration is temporary and is caused by the lack of satisfactory remuneration in the country of origin. So, the emigrants incomes can influence the financial transactions in the country of origin, leading to economic growth, so emigration can be seen as a positive phenomenon, as an advantage, also for the countries people emigrate.

2. Problem Statement

The exchanges between regions have increased both in intensity, speed and scale. These exchanges are exchanges of goods and services, but also the efforts needed to meet these challenges and to cooperate internationally (Faist, 2006).

Migration is a growing phenomenon and has the role of transferring tacit knowledge, skills and capital (Williams, 2006).

Mayda (2008) studied the phenomenon of migration using data from 14 OECD countries during 1980-1995. The analysed factors are economic, geographic, cultural and demographic, but the study's results show that the country's destination has the greatest influence, followed by the distance between the country of origin and the country of destination.

Beine showed that the most important factors influencing migration are economic (credit constraints, expectations, general immigration policies, unemployment rate) and environmental (Beine *et al.*, 2015).

Daily, migrants working in developed countries send money to their families in developing countries. Remittances have increased since the 1990s, with the help of these money, nations have exceeded the poverty line, international policy has shifted and immigration policy has reformed (Kapur and McHale, 2003).

Migrants set up economic relations with their country of origin. The study of Guarnizo presents transnational migration, highlighting the link between labor mobility and capital mobility (Guarnizo, 2003).

There is a link between migration and development and is used to research and develop policies. International migrants contribute to their country of origin in the form of remittances, investments and philanthropic donations, which are important resources for development.

Upadhy and Rutten analyse migration and development using data on migrants to India and argues that there are transnational connections and flows at regional level that have social and economic implications (Upadhy and Rutten, 2012).

Migration, especially emigrants, leads us to the disadvantages of this phenomenon. Ratha (2003) studied migration and demonstrates that although a country is experiencing migration losses, these losses are counterbalanced by remittances.

Orozco (2002) proceeds from the link between migration and globalization and highlights the importance of remittances in Latin America economies, especially in Mexico, Central America and the Caribbean. He analyses the actors involved in the transfer of remittances and suggests that migrant labor has a distinct dynamic in the economies of Latin America.

Frankel (2010) analyses the remittances of emigrants and explains that remittances are counter-cyclical with respect to income in the worker's country of origin while the income of the migrant's host country is pro-cyclical. The econometric results confirm this hypothesis, suggesting that remittances should be a criterion for an optimal currency area.

Remittances have a large and positive impact on macroeconomic stability in poor countries, contributing to financing the country's large and growing trade deficit and to fiscal consolidation and supporting the value of the currency. For labor-exporting countries migrant remittances have begun to be considered development mechanisms, representing external sources of private funds. Since remittances are sent directly to the families of the country of destination, they are used for private purposes. (Anghelache *et al.*, 2016).

The World Bank's estimates of remittances show an ascending trend. Sander and Mainbo study the situation and show that FDI is the largest source of financial flows, followed by remittances flows, and in many countries, remittances exceed FDI flows (Sander and Mainbo, 2005).

Remittances that emigrants send home to relatives record an interest that has grown in the past three decades among authors and politicians. Hernandez and Coutin (2006) focused on remittances sent from the United States to El Salvador. The money that migrants send home is a national resource, but also a foreign currency. Central banks and international financial institutions define remittances as a source of "no cost" revenue. Remittances have a social and economic impact, and the study has established a link between migrants' money, states and migrants.

Edison and Levine used new econometric techniques to investigate the impact of international financial integration on economic growth, assessing whether this link depends on the level of economic development, financial development, legal system development, government corruption, and macroeconomic policies. Using international financial integration measures for 57 countries and a number of statistical methodologies, it concludes that international financial integration accelerates economic growth even when controlling certain economic, financial, institutional and political policies (Edison *et al.*, 2002).

3. Research Questions/Aims of the research

Migration is a phenomenon seen as a disadvantage for the country of origin, because it records a loss of human capital. This phenomenon should be seen, also as bringing added value, both in the country of origin and in the country of destination. Given that the main reason why people emigrate is the possibility of higher incomes, we can deduce that the biggest advantage in the country of origin is the financial one. This is evidenced by the amounts of money sent home to relatives by the emigrants, called remittances. These amounts help people left home financially, so we expect to lead to economic growth at national level, implicitly to the growth of financial transactions. The purpose of this study is to determine whether there is a link between remittances and financial transactions in the home country. Because we cannot quantify the real number of remittances, the number of emigrants is analysed, considering that many of them send money home. The nule hypothesis is that there is no link between remittances and financial transactions, and the alternative one that there is a link. For this purpose, the research analyses the countries of Europe throughout the period 2008-2015.

4. Data Description/Research Methods

According to the dictionary, the transaction is a convention between two or more parties, through which certain rights are transferred and a trade is exchanged.

The analysed variables are financial transactions and number of emigrants in Europe for the period 2008-2015 and the data source is Eurostat online database.

Financial transactions are calculated as the ratio between the Net Acquisition of Financial Assets and the Net Debt Growth, and the number of emigrants is calculated as absolute value.

The method used is panel regression. Models for panel data are regression equations in which longitudinal data and cross-sectional data are used. (Manole *et al.*, 2014).

Panel data analysis has been used in social sciences in many contexts, and over time it has been established that panel analysis is recommended instead of cross-section (Kessler and Greenberg, 1981).

Bauer studied the wage effects of inadequate education in Germany using panel data between 1984-1998. The results showed that there are differences between properly trained and inadequately trained workers (Bauer, 2002).

Carstensen and Toubal (2004) studied the factors that influence foreign direct investment (FDI) in Central and Eastern European countries. The empirical model, built using panel data, shows that foreign direct investment is influenced by the potential market, low labor costs, skilled workforce and relative facilities.

For China, Korea, Taiwan, Hong Kong, Singapore, Malaysia, the Philippines and Thailand and Southeast Asia, Granger's causality between GDP, exports and FDI (foreign direct investment) was studied using panel data for the period 1986-2004. The results related that causality relations are different for each country, but as a general rule it is established that there is a direct link between FDI and GDP and a backward link between exports and FDI and between exports and GDP (Hsiao and Hsiao, 2006).

This article comes as a complement to existing studies, analysing migration from economic and financial perspective, focusing on the link between emigration and financial transactions.

The paper aims to establish a link between number of emigrants and financial transactions within the countries of Europe during 2008-2015, considering that money sent to the country of origin contributes to economic development.

For panel analysis, the variation of a resultant variable depending on the determinants is estimated considering the following model:

$$y_{it} = b_{0it} + b_{1it}x_{1it} + \dots + b_{kit}x_{kit} + w_{it} \quad (1)$$

with $i = 1, \dots, n$ and $t = 1, \dots, T$.

Y_{it} represent the values for the depending variable, x_{kit} are the values for the independent variables, X_k , b_{0it} is a constant, b_{kit} represent the estimates of the coefficients of the variables X_k , recorded for a country at the time t , and w_{it} is the estimated error (Sevestre, 2005).

In case b_{kit} coefficients are equal, the variables X_k influence the dependent variable constantly over time and the model is homogeneous and if not, the model is heterogeneous.

The study considers the model with fixed effects. In order to determine the impact of emigrants on financial transactions in the European countries, yearly, for the period 2008-2015, is proposed the following model with fixed effects:

$$FT_{it} = b_0 + a_i + d_t + b_{1EMit} + w_{it} \quad (2)$$

The model equation is estimated using the values recorded for the two indicators in the 26 countries of the EU during 2008-2015. Therefore, two indices are used: $t =$ time generic index, $t = 2008, 2009, \dots, K, \dots, 2015$ and $i =$ generic index for the region, $i = 1, 2, \dots, K, \dots, 26$.

To obtain the results of the research, the collected data using Eurostat online database was analysed with the SAS statistical software.

5. Findings

To establish the link between emigrants and financial transactions, it is estimated that financial transactions from a cross-sectional and longitudinal perspective, based on the fixed-effect model, are influenced by the number of emigrants. The main statistical results obtained in SAS 9.4 for the fixed-effects model show whether the estimated model explains the variation

of the resulting variable (financial transactions) and the validity of the use of this model. The main statistics for the fixed-effect model are summarized in Table 1.

Table 1. Statistics on Fixed Asset Model Assessment

Regression model statistics			
Sum of squares of errors	1.894866E12	Degrees of freedom	174
Mean squares of errors	10890033349	Root MSE	104355.3226
R square (R ²)	0.6656		6

Source: Own Projection using SAS 9,4

Table 1 shows that Sum of squares of errors (SSE) is 1.894866E12 and Mean squares of errors (MSE) is 10890033349, obtained by dividing the SSE to 174 (number of degrees of freedom: 26 countries × 8 years - 34 model parameters with fixed effects). Based on R-Square determination, it can be seen that the fixed-effect model obtained by the panel data analysis explains 66.56% of the variation in financial transactions and is defined by the number of emigrants.

The study also examines the hypothesis of homogeneity. The results obtained support the estimation of financial transactions based on number of emigrations in case of fixed effects models.

Since the probability of having a calculated F (Fisher) test statistic higher than its theoretical value is below the theoretical threshold of 0.0001, the assumption of null homogeneity is accepted at the sample level. This shows that the pattern of financial transactions and the number of emigrants is unique and representative across all European countries included in the study (Jaba *et al.*, 2013).

The results obtained from the FT_{it} estimation through the fixed-effect model are presented in Table 3. The estimated values of the regression model, presented in Table 3, show that the number of emigrants significantly influences the level of financial transactions (for Pr of 10%).

Therefore, the regression equation is presented as follows:

$$FT_{it} = 186895.1 + a_i + d_t - 0,9458 * EM_{it} \quad (3)$$

where a_i are the fixed effects determined by the individual size of the countries from Europe (differences between countries) and d_t are the fixed effects determined by the temporal dimension (the differences between years in a country).

From the estimates of the regression parameters, CS represents the 25 fixed cross-sectional effects of α, determined by the individual size of the country, and TS represents the 7 fixed longitudinal effects d_t, determined by the temporal dimension. The impact of emigrants on financial transactions is not the same for all countries, depending on time (2008, ..., 2015).

For the model obtained, there are 25 (=26-1) fixed cross-effects, i.e. the individual differences between the countries included in the sample (a_i), two are insignificant, i.e. Spain and Germany. This indicates a homogeneity of countries from the individual (transversal) perspective.

According to the results of the estimates of the regression parameters, there can be noticed significant individual effects in Spain and Germany. These countries have individual effects significantly different from other countries. Spain recorded 265763.5 more financial transactions than the other countries in the sample, and Germany 527452.8 more. For countries with insignificant fixed effects it can be noticed that there are no large differences regarding the number of emigrants.

In case of fixed temporal effects estimated for the regression model, i.e. the longitudinal differences in the period of time included in the study (d_t), there are not significant differences

for each year. It can be concluded that over time, the time factor has not a significant influence on the financial transactions, given the number of emigrants.

For the variable number of emigrants estimated in the regression model, there are significant differences. The variable emigrants have a significant influence on financial transactions, is statistically significant.

6. Conclusions

Lately, migration has recorded very high values. For this reason, many authors have studied this phenomenon, its evolution, the advantages and disadvantages and the factors that influence it.

Although migration also has advantages, for the country of origin, from where people emigrates, migration is seen as a loss, both micro and macro. At the micro level, we are referring to losing a family member, at home remaining an incomplete family, and this have implications financially, socially, psychologically. At the national level, emigration has the disadvantage of losing human capital, labor force, and these have multiple implications.

The most important factor that influences migration is the financial one, emigrants emigrate for having a higher income.

Analysing the remittances, the amounts of money sent by emigrants to the families left behind, it is obvious that a part of the emigrant's incomes returns to the country of origin, thus helping the economy, leading to economic growth. Because the number and amount of remittances cannot be accurately determined, we have analysed the number of emigrants and financial transactions in the country of origin.

The variable emigrants have a significant influence on financial transactions, being statistically significant. Lot of emigrants send remittances and this is reflected in the financial transactions from the origin country.

The conclusion is that emigrants emigrate for a limited period of time, not forever. The reason they emigrate is the higher level of incomes and a part of incomes is sent in the origin country and reflected in the financial transactions, helping the economy of developing and less developed countries, leading to economic growth.

Acknowledgment

The conclusion of the study is that the number of emigrants influences financial transactions in the origin country. This means that most emigrants send home money in the form of remittances, thus helping the economies of less developed or developing countries.

These conclusions come as a confirmation of studies, according to which remittances are reflected in economic growth in the origin country.

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**The 1st International Conference on Economics and Social Sciences
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**Progressive Taxation and Economic Growth.
Case Study on France**

Andrei Ionuț HUȘMAN^{1*}, Petre BREZEANU²

Abstract

“Liberté, égalité, fiscalité” was and is still considered a motto of the conception of the economic and fiscal environment in France. This was also the subtitle of Michael Kwass’s book “Privilege and the politics of taxation in eighteenth-century France”, which offers a lucid interpretation of the most ambitious plan of the 18th century French monarchy, namely the attempt to impose direct taxes to the privileged elites which were formerly exempt. It is well known that France has a rich history that extends to the level of taxation. Being a country with a rather tumultuous fiscal stance throughout its history, France offers a wide range of study themes in this field. This paper aims to analyse the fiscal framework in France and to identify the links between certain fiscal variables and the economic growth of the country. Thus, the impact of certain fiscal components on the economic growth of France (highlighted by the GDP growth rate) is analysed by elaborating descriptive graphical analyses, as well as by elaborating an econometric model (using the multiple regression analysis). The analyses will show the importance and the significant influence of the fiscal variables included on the French economy and the results of the econometric model will highlight the negative relations between GDP growth rate and taxes on wages and VAT, respectively the positive relationship between GDP growth rate and taxes on corporates. In this sense, the analyses performed provide an overview of the relationships between the mentioned fiscal variables in case of France and may also constitute points of interest in the event of expanding and elaborating a more advanced statistical/econometric model.

Keywords: *Taxation, progressive tax system, economic growth, income, France*

JEL Classification: *H20, H30, C32*

1. Introduction

Given the fact that the global economy is in a continuous process of expansion and diversification, taxation and its effects have been a subject of maximum interest lately among practitioners (public or private) and academics.

Each country, whether we refer to EU countries or non-EU countries, has the possibility to build its own fiscal system. But, given the fact that many countries are currently facing budgetary instability mainly due to the fiscal policy, they have to find a way to establish tax

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systems so as to generate optimal economic development and, at the same time, to generate budgetary stability.

As already mentioned, France is a landmark in the field of taxation and with all adjustments and updates to the economic realities of the times, the French tax system is an historical survival. In its more recent form, the French model was adopted in most developed countries.

Through an extensive and critical description of income taxation history in France from the early 18th century to the end of the 19th century, Willis (1895) demonstrates that this history is “*almost unique*”, showing the strange fact that France was somehow conservative in taxation, since radical political changes adopted on fast forward are not in the benefit of fiscal and economic progress.

Therefore, one can easily deduct that France is one of the most advanced state in the field of taxation and may represent a study base for many researchers.

This paper aims to achieve three main objectives. Firstly, a relevant and precise synthesis of the specialized literature will be performed followed by a brief graphical analysis of the fiscal/economic components below. Further, we aim to elaborate a basic econometric model using as dependent variable the GDP growth rate (reflecting the general economic growth) and as independent variables corporate taxes, taxes on payroll and workforce and VAT registered by the French Government during the period 1965-2015 based on the data provided by the OECD public database.

2. Problem Statement

The French tax system was by no means a uniform one, and throughout history there was diversity in terms of collection and collectors (the church, the lords or the state), taxable base or related rates.

Starting from the oldest tax imposed by the French monarchy “*taille*” from the “*Ancien Régime*” (French Old Regime from the 14th century), advancing to “*dixième*”, “*vingtième*” and to the French Revolution of 1789, the major experiments of the French tax system stop by the 20th century, when the current system began to be drawn. As regards the old types of taxation, Willis (1895) stated: “*For a long time anterior to the Revolution of 1789, the impost called the dixième which by a later evolution became the vingtième, had clearly recognized the income tax as a legitimate fiscal resource*”.

Analysing the origins of the French Revolution, Kwass (2000) examines the biggest change envisaged by the French monarchy in the 18th century to extend the application of direct taxes on privileged classes as well. He describes how the monarchy has redefined its institutions and ideology to impose new forms of taxation on privileged classes and demonstrates that this move not only changed the relationship between the monarchy and society at that time, but also transformed the political thinking into the period before the French Revolution.

Another very important element to mention is that Value Added Tax (“VAT”) is a genuine French idea. Therefore, we can observe the major impact of fiscal policy in the history of France. This brief review of the long history of the French tax system is needed to better understand the bases and experience behind the creation of the current system.

The effects of fiscal components on economic growth or on various economic/financial indicators are a predominant subject for researchers lately. Below we made a selection of several studies relevant to the chosen topic.

Cardia *et al.*, (2003) examined the empirical effects of discretionary taxation on labour supply in several countries and found in the United States (“US”) that a 10 percentage points (“p.p.”) decrease in tax rates could lead to an increase 18% in weekly working hours. Through certain regression analysis, Çela (2017) demonstrates that in Albania (a country with weak legal infrastructures) the profit tax has a strong negative correlation and impact with FDI inflows.

As for the relationships between taxation and economic growth, several authors have turned their attention to this issue, a lot of analyses being conducted for several countries. Since the 1950s, authors such as Bloom (1955), Thompson and Mattila (1959) have not identified any link between taxes and economic growth, these results have extended to the late 1980s – Carlton (1979). But, after this period, the analyses began to show different results. Thus, Helms (1985) examined the effects of state and local taxes on economic growth using time series for the period 1965-1979 of cross sections of 48 countries and found a significant negative impact of these taxes on economic growth. Burgess and Stern (1993) found that between tax rate and GDP per capita is a certain correlation in case of developing countries, but not in case of industrial countries.

By applying the regression technique for the period 1990-2007, Braşoveanu and Obreja (2008) concluded that in Romania the distortionary taxes (containing personal income taxes, corporate income taxes, social security contributions, property taxes) and nondistortionary taxes (VAT and excise duties) have negative effects on economic growth.

Romer and Romer (2010) investigated the impact of tax changes on economic activity. The obtained results showed that 1% increase in the tax burden in GDP has the effect of decreasing the real GDP by about 3%.

Kalaš *et al.*, (2017) highlight that tax revenue growth and social security contributions have a significant impact on the economic growth. The results of their analysis for the United States shows that 1% increase in tax revenue growth and social security contributions leads to an increase of GDP of 0.3% and 2.05%.

Many related studies were performed at the level of Nigeria. Thus, Chikezie *et al.*, (2017) have recently shown that tax revenue, external borrowings, government domestic debt and government capital expenditure have not contributed significantly to economic growth and poverty reduction in Nigeria, while Arowoshegbe *et al.*, (2017) indicated that tax revenue from Petroleum Profit and Company Income have a positive and significant effect on economic growth, while revenues from Value Added tax and Education tax have no significant effect on economic growth of Nigeria. Nálepová (2017) also shows that mainly income taxes have negative impact on economic growth at the level of OECD countries.

However, in the case of France, studies in this field are relatively old, an updated analysis to the current economic realities is needed to provide an overview of what represents the fiscal dimension in the economic environment in France and perhaps even to extend this dimension to other states. Thus, this article highlights the overall picture of French taxation and can be a solid basis for possible further analysis in this field.

3. Research Questions/Aims of the research

Given the objectives mentioned above, through this paper, we contribute to the existent literature/knowledge by performing several analyses, based on latest statistical data available, for a country which is perceived as a model in the field of taxation. Further, our contribution complements a series of similar analyses (for other countries) and the results allow a comparison with other tax systems.

4. Research Methods

4.1 Descriptive statistics and econometric model

In order to achieve a brief graphical analysis of the evolution of certain fiscal indicators, as well as the economic growth, but also for the elaboration of an econometric model, we used the

data provided on the OECD website through its statistical tool. Thus, the analyses were based on the following indicators registered for the period 1965-2015:

- GDP growth rate (defined in the following as “GDPgr”): expressed in annual growth rates in percentage and based on the calculation of GDP through the expenditure approach;
- Tax on profits of corporates (defined in the following as “CIT”): in millions EUR and which includes mainly corporations’ tax (excluding tax credits or remove the taxation), tax on dividends, tax on financial assets and other related components;
- Taxes on payroll and workforce (defined in the following as “TPW”): in millions EUR and including in principal tax on wages;
- VAT: in millions EUR.

Further, the econometric tools were used through the Eviews 7 software and a multiple regression model was analysed using the data mentioned above.

4.2 Data on the current tax system in France

In order to highlight an overview on current methodologies and rates of taxation in France, we used various reports issued by the consultancy firm EY (available on its website).

5. Findings

In the following, we present the related results in a structured manner.

5.1 The current tax system in France

In this chapter, starting from the data provided by the reports issued by EY (2017), we will review the current fiscal system in terms of personal income tax, corporate income tax and VAT.

Personal income tax: Taxable income is represented by annual disposable income from all sources (e.g. taxable salary income, self-employment and business income etc.). After identifying the income, certain allowances, deductions and treaty provisions are applied in order to establish the net taxable income, which is further subject to progressive tax rates (EY, 2017).

For 2016, the following table provides the annual taxable income intervals and related tax rates applicable.

Table 1. Taxable income thresholds and related tax rates in 2016

Annual taxable income (EUR)		Tax rate applicable
Exceeding	Not exceeding	(%)
0	9.710	0
9.170	26.818	14
26.818	71.898	30
71.898	152.260	41
152.260	-	45

Source: EY (2017)

Exceptional 3% and 4% tax on high income taxpayers (for the portion exceeding 250.000 EUR, respectively 500.000 EUR).

Corporate income tax: The standard corporate tax rate in France is 33.33%. A social security surtax of 3.3% is assessed on the portion of corporate tax due exceeding 763.000 after offsetting the tax credits (EY, 2017).

VAT: The VAT standard rate in France is of 20% and there are certain VAT reduced rates: 2.1% (for pharmaceuticals), 5.5% (for foodstuffs) and 10% (for accommodation). There is no threshold for VAT registration in France (EY, 2017).

5.2 Evolution of the taxation and economic growth in France

In the following we will observe the evolution of the indicators subject to this paper and what were the possible causes that led to these results.

Thus, in Figure 1 below, we notice a continuously positive evolution only in case of TPW, while CIT and VAT have much more pronounced evolutions, but with decrease periods. A drastic decrease is observed for CIT in 2009. Moreover, in the same year, VAT also registered a decrease, but at a lower level. Therefore, we can deduce that consumption decreased in a more moderate manner compared to profits registered by the French companies.

One fact may be unusual: that TPW growth has continued even in time of crisis.

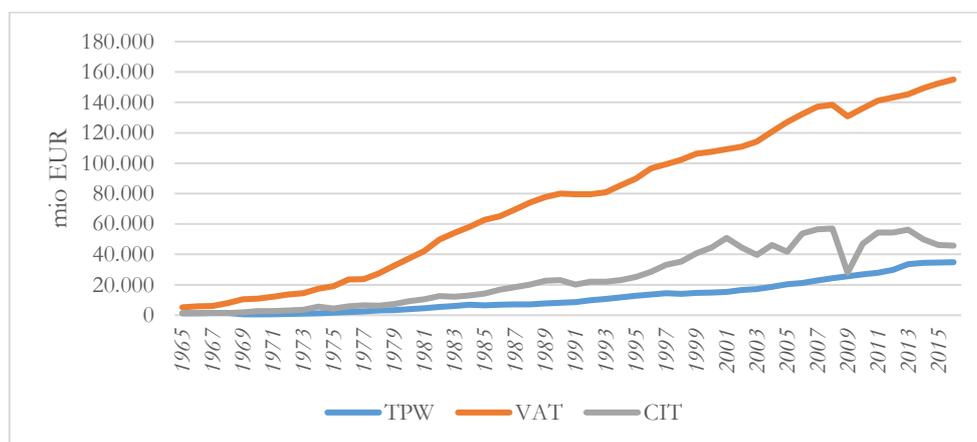


Figure 1. Evolution of taxation in France (1965-2015)

Source: own representations based on OECD data

Figure 2 below outlines the evolution of economic growth through the GDP growth rate.

Thus, we can see three dropping peaks: 1975, 1993 and 2009.

It can be argued that the fall of 1975 is based on the oil crisis of the 1970s and the fall of Bretton Woods system, during which France recorded a major fall in industrial production and fiscal and budgetary measures of that period created a considerable budget deficit. As for the 1993 fall, this period meant an economic contraction for France when unemployment reached historical levels. An anomaly for this period is represented by the fact that, although unemployment was on the rise, the TPW did not fall.

Evolutions of fiscal indicators (excepting the TPW) and GDP growth have the same trend during the crisis period started in 2008.

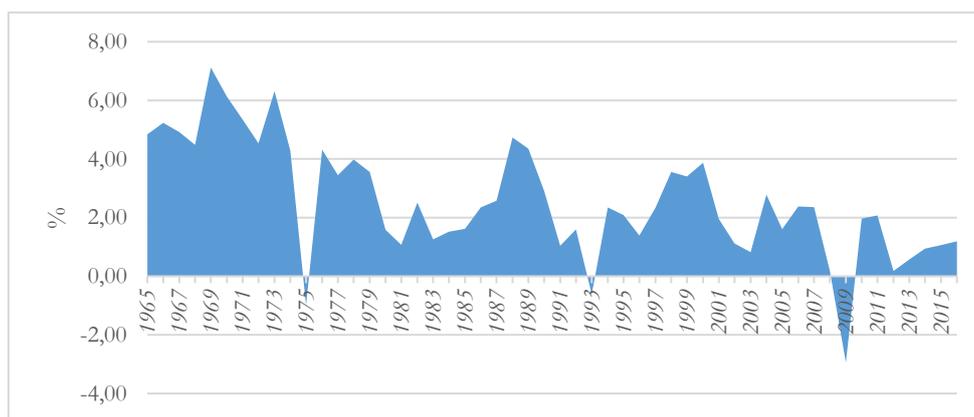


Figure 2. Evolution of GDP growth in France (1965-2015)
 Source: own representations based on OECD data

5.3 Econometric analysis

For testing the impact of fiscal policy on economic growth, Barro and Sala-i-Martin (1995) suggest that a better analysis may be performed by separating the categories of budgetary revenues. In this regard, in the composition of the econometric model we chose the variables mentioned above and we proceeded to logarithm independent variables in order to obtain a more relevant output. Thus, the equation of the model from which we started is presented below:

$$GDPgr = \beta_0 + \beta_1 \times \log(CIT) + \beta_2 \times \log(TPW) + \beta_3 \times \log(VAT) \quad (1)$$

The output of the equation (1) is shown in Table 2 below

Table 2. Econometric results

Dependent Variable: GDPgr				
Method: Least Squares				
Sample: 1965-2015				
Number of observations: 51				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Log(CIT)	3.808812	1.115392	3.414773	0.0013
Log(TPW)	-1.547968	0.502127	-3.082820	0.0034
Log(VAT)	-3.893594	1.280947	-3.039621	0.0039
C	21.89335	3.929027	5.572207	0.0000
R-squared	0.589379	Mean dependent var		2.591282
Adjusted R-squared	0.563169	S.D. dependent var		1.969301
S.E. of regression	1.301574	Akaike info criterion		3.440211
Sum squared resid	79.62250	Schwarz criterion		3.591727
Log likelihood	-83.72538	Hannan-Quinn criter.		3.498110
F-statistic	22.48688	Durbin-Watson stat		1.495808
Prob(F-statistic)	0.000000			

Source: own calculations using Eviews 7 and based on OECD data

We note that the output records R-squared and Adjusted R-squared values of 0.58 and 0.56.

This shows that the independent variables included in the model explain in proportion of over 50% the dependent variable GDPgr.

In terms of parameter testing, we note that all variables included record values of Prob. lower than 0.05 (5%), so we can argue that all the variables included in the model significantly influence the dependent variable (GDPgr).

Furthermore, in order to test the model as a whole, since Prob (F-statistic) is 0, lower than 5% (0.05) and F-statistic is 22.48, higher than F critical, we have the arguments to sustain that the regression model is valid.

Based on the above results, the equation of the model becomes:

$$\text{GDPgr} = 21.89 + 3.80 \times \text{CIT} - 1.54 \times \text{TPW} - 3.89 \times \text{VAT} \quad (2)$$

In terms of economic interpretation, the econometric model obtained tells us that, in terms of direct taxation, an increase of 1% of CIT determines an increase of 3.80 p.p. of GDPgr, while an increase of 1% of TPW determines a decrease of 1.54 p.p. of GDPgr. In terms of indirect taxation, an increase of 1% of VAT leads to a decrease of 3.89 p.p. of GDPgr. For each variable, the interpretation is valid given that all other variables included remain constant.

The positive relation between CIT and GDPgr can be explained economically by the fact that French companies with higher profits contribute to the economic growth of the country.

The relation between TPW and GDPgr could be interpreted in the light of the fact that when labor supply experiences higher fiscal pressure, the economy is affected in a negative manner.

The negative influence of VAT increase on economic growth may indicate that the economy of France is not necessarily based on consumption. More specifically, in case of France, the idea that when consumption increases, the economy follows the same trend is not necessary valid. Thus, we can say that, according to the results, the economy of France is not consumption-based, which can reveal at first glance a greater economic stability compared to economies that are strongly influenced by consumption.

6. Conclusions

The analyses performed within this paper showed us that the fiscal elements such as CIT, TPW and VAT have a significant influence on the economic growth in France, a country that has a unique history in terms of taxation.

Throughout the econometric analysis, we have concluded that TPW and VAT have a negative influence on GDPgr, while the CIT has a positive influence on GDPgr.

Even though the R-squared and Adjusted R-squared indicators may be interpreted by some specialists as not having sufficient values so that the model is considered 100% viable, this relatively low value can be justified by the fact that the evolution of a country's GDP is influenced by a multitude of variables that can be hardly integrated into an econometric model.

The model performed in this paper has strictly targeted the influence of taxation on economic growth and the economic interpretation mentioned above confirms that the results of the model are based on economic reasoning.

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We All Speak English, but do We Write in the Same Language?

Maria NEDELICU PASCU^{1*}, Laura BRAD^{2*}

Abstract

This study aims to identify a series of differences between International and Romanian publications by running a linguistic analysis on a corpus of research articles coming from both Romanian and International journals. The outcomes of this paper can help researchers to improve their writing skills for their future publications, by providing them a guideline for raising the quality of their research articles by expanding the Discussion & Conclusion section. We identify a phrase bank that can be used afterwards by Romanian researchers in their attempts to publish their articles in International journals. The research question we are trying to answer in this study is: How is the low level of confidence in our researchers' ability to communicate in English influencing the quality of Romanian journals?

This study is structured into two main parts: the first one is drawing a picture for the theoretical background in the research domain of linguistic analysis and it is identifying the niche among the latest studies conducted in the field, and the second section represents the empirical study, the actual linguistic comparison between discussion & conclusion sections of articles published in Romanian and International journals. The last part of the paper is a conclusion and limitation section for this study, providing discussion about the outcomes of this research and directions for future studies.

Keywords: *corpus analysis, genre analysis, textual practices, research discourse organization*

JEL Classification: *B40, D83, G32, Z13*

1. Introduction

The academic community in Romania makes efforts to align its scientific communication standards to those abroad. There is a diversity of practices used in conducting and reporting research, but when it comes to publication of research results in international peer-reviewed journals, our researchers and practitioners meet some obstacles related firstly to the linguistic challenge of writing in English and secondly to other types of barriers like structural, methodological or system-related challenges (Bardi and Mureşan, 2014).

Latest studies (Mureşan and Pérez-Llantada, 2014 or Bardi and Mureşan, 2014) highlight the fact that Romanian researchers and practitioners are making big efforts to familiarize themselves with internationally-accepted research practices and to develop their writing in English skills.

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This study aims to show that even if there were so many efforts made to disseminate Romanian research in high-profile publications, there are still rules that need to be followed in order to achieve international recognition.

2. Problem Statement and Literature review

In order to be able to conduct a research using corpus & genre analysis, firstly, we need to define what genre and corpus mean.

Bathia (1994) established a definition for academic and professional genres, in which genre “is a recognizable communicative event characterized by a set of communicative purpose(s) identified and mutually understood by the members of the professional or academic community in which it regularly occurs.”

Swales (2004) says that in each section of an article, the macro-structure is realized through “moves”, which are “discoursal or rhetorical” units insuring “a coherent communicative function”.

This study tries to find the gaps of Romanian journals in publishing articles that cannot achieve international standards for academic writing. Gender analysis is the basis for achieving international research and publishing standards.

Because in our study we are interested in the attitude of the writer/researcher towards his findings and the way in which he is claiming the usefulness of his work, together with limitations and future research, we chose the Discussions & Conclusion section, as being the most relevant. We follow Paltridge and Starfield (2007) work and we use their pattern for this section’s structure.

Based on a detailed analysis, the “moves” usually noticed by researchers (Mureşan, 2011) in the Discussion & Conclusion section are: restating the research aims, discussing the main outcomes (summarizing, interpreting, highlighting usefulness), referring to the applied methodology, drawing conclusions, stating the limitations/referring to constraints, suggesting improvements for the research and recommending future research interests/suggesting future research questions.

Corpus (plural corpora) is defined as a systematic computerized collection of spoken and/or written language data, used for linguistic analysis and description (Romer, 2012). The analysis finds key words for non-native speakers who want to publish their research in international standardized journals.

Many studies showed the fact that non-native speakers are confronted with various barriers when attempting to publish their articles in English. This is the consequence of having to write in other language than their mother tongue (Bardi & Mureşan, 2014 and Vazquez Orta, 2010) and also of not being familiar with publication in high-profile journals with high academic writing standards.

Many authors identified several clusters or bundles that are helping writers to build their academic writings on a fixed structure, coping with International journals standards (Cortes, 2004, Biber & Barbieri, 2007, Hyland, 2008). Chen and Baker (2010) consider these high-frequency expressions are mainly used by native speakers and rarely by non-native one. Spanish and Romanian researchers, when writing research articles in English, identified a series of difficulties causing them to quit trying to publish in high-rated international journals (Mur-Duenas, 2014 and Bardi and Mureşan, 2014). Such difficulties are: accurate communication of ideas, coherence in expressing ideas, metaphoric and subtle expression, avoiding redundant writing, repetition or need for training in the specific language of the field, writing straight into English. For non-native speakers, in Discussions & Conclusion section, as they have to state their position in the research field and to discuss their findings, some “moves” are missing or others are poor in expression.

3. Research Questions/Aims of the research

This study aims to draw a comparison between writing the Discussions & Conclusion sections of articles in Romanian journals versus International journals. We choose to refer our study and to create our corpus in evaluating the cost of equity subfield of finance, because there are no other similar studies in this specific domain and because Romanian appraisals feel the need to achieve international writing standards. Choosing Discussions & Conclusion section of various articles is not arbitrary. According to Mureşan (2011), conclusions are usually less addressed by the literature in the field, possibly due to their less standardized structure.

4. Research Methods

This study tries to compare Discussions & Conclusion sections from prestigious Romanian journals to similar sections published in International high-standardized journals. In order to draw this comparison, we compiled a corpus of 49 articles, both Romanian and from abroad.

17 articles are published in Romanian journals (*ex.* The Valuation Journal) and 32 articles are published in high-profiled International journals like The European Journal of Finance, Financial Analysts Journal or The Appraisal Journal, The European Journal of Finance or International Business & Economics Research Journal.

We extracted Discussions & Conclusion sections and similar to Bardi and Mureşan (2014) we decided to analyze the communicative functions and the language used. We separated the corpus into two sub-corpora: first one for Romanian publications and the second one for International journals. We tried to identify their move-structure for seeing to what extent they are comparable.

The discussions & conclusion sections constitute a corpus of 77,805 words. The texts were anonymised and all reference to the authors' institutional affiliation was removed. For analyzing various textual practices, all the sections were transformed into separate text documents, each one with a specific code.

All text documents were then processed and analyzed with the help of AntConc 3.3.5.0, version 2012 for Windows O.S, while the thematic area of the selected articles belongs to finance' subfield: estimation of the cost of equity.

The articles in the corpus were published in 16 journals, both in Romania and other countries. Several aspects of textual practices are highlighted, such as:

- Explore the move-structure;
- Identify and compare the existence of limitations;
- Identify and compare the existence of author contributions;
- Identification of implications of the findings to practitioners;
- Identification of clusters or bundles that help creating a phrase-bank useful for non-native speakers to build their academic research writings on a fixed structure.

Moreover, together with the help of the concordance software, we used manual extraction of relevant lexis for achieving our goals.

5. Findings

Before starting the actual analysis, there are some aspects to be mentioned:

- The Romanian sub-corpus is much smaller than the international one. During the manual extraction, we observed that in Romanian publications there is no extended and significant section of discussing research results.
- While in international publications we usually found a separate section for discussions, with a significant amount of text, in Romanian publications the discussions section is

integrated in the results section or in the conclusions section, covering a small portion of the text.

- When speaking about specific words of the research domain, in both sub-corpora, we found words like “risk”, “market”, “return” or “premium”.
- In terms of clusters, after a simple selection of 4-Grams expressions, we observed important differences. In the Romanian sub-corpus frequently, used expressions are collocations like “in the case of”, “the fact that the”, “due to the fact” or “the level of the”. In the International sub-corpus, we found expressions containing specific language for the research sub-field like “private benefits of control”, “changes in investor recognition”, “implied equity risk premium” or “lowest cost of equity”. There are also specific used expressions in both sub-corpora: “the cost of equity” or “the risk-free rate”.

According to Swales (2004) or Paltridge & Starfield (2007), in the discussions & conclusion section, our analysis should reveal typical moves like:

- Reiteration of the initial aims of the research, highlighting the niche in research field and the usefulness of the study. We can also find here a consolidation of the research space (Bardi and Muresan, 2014);
- Restating of the research results, in relation with the instruments used;
- Suggestions for the applicability of research findings;
- Identification of constraints and limitations of the study;
- Suggestions for future research.

Firstly, the move regarding the restatement of the research demarche and the review of the findings can be found in both types of publications. In Romanian journals, many analyzed articles illustrate studies that rely on statistical models, and in such case the discussions & conclusion section include strong references to methodology, and also comparisons with previously existing models. The findings are presented in relationship with previous research results. In the International sub-corpus, the findings are more clearly stated, highlighting the niche in the research field that they are filling, together with the contextualization of the study and the implications brought by these findings.

The existence of suggestions for practical applications move was found in both sub-corpora, showing a strong correlation to practice (Swales and Feak, 2008).

For the limitations and constraints move, we observed that it is a commonly met characteristic for International publications, but for the Romanian sub-corpus we found almost none such examples. We found only one example, but it refers to limitations, nothing about constraints, and also nothing about possible ways of improving the results through a future research and overcoming the identified limitations. In International publications we found a different approach of presenting limitations and constraints. Usually, authors have previously identified the limitations and they have tried different complementary research demarches to overcome those limits.

In case of suggesting further research in the sub-field, all articles have this move in the discussions & conclusion section. Things are similar in terms of text length, specific expressions and authors ‘urge’ for continuing their studies.

5.1 Limitations and constraints feature

For identifying the explicit reference of this aspect, we used the concordancing software AntConc, searching after the criterion “limit*”, with no exception. Limitations & constraints were identified in all International journals publications and only one Romanian article that has a reference to limitations.

An explanation for this lack can be the parochialism that defines non-native researchers. Parochialism is the “failure to show the relevance of the study to the international community” (Flowerdew, 2001). Bardi and Mureşan (2014) reveal that these researchers’ contributions “tend to be too localized and often deal with obscure topics, irrelevant to a wider audience”.

In International publications, limitations and constraints are not simply identified. They come together with reasons why they were encountered and with suggestions for further research that overcome these constraints, or with developed analysis that tried to eliminate some of the identified limitations.

5.2 Specification of author’s contributions

Statements of contributions of the authors tend to appear in sections like Introduction, within the move referring to occupation of a niche in the research field, and also in Conclusions, when the authors are restating the value of their research (Mur Duenas, 2014). In terms of the present comparison we found statements of contribution in both sub-corpora. For Romanian journals, statements of contribution are not appearing in every analyzed journal.

It is very important to state own contribution to the research field. This is the main cause why some International publications refuse to publish some research articles. Statements of contribution can influence the decision to accept or reject a paper. According to Mur Duenas (2014) there are many ways of introducing the move for stating the contributions such as: an **attitudinal verb** (to contribute to; to add to; to provide insights etc.); an **attitudinal noun** (contribution etc.); an **attitudinal adjective** (first, unique etc.); a **comparison with previous research** by means of the conjunction (whereas, therefore etc.).

Thus, it is mandatory for Romanian publication to ask, as a clear writing standard, for the writers to comply with this rule.

5.3 Implications of the results for practitioners

To state the relevance of a study, in the Discussions & Conclusion section, the author/authors explain the implications of their findings for practitioners, highlighting both the usefulness of their results both for research and practice. Both sub-corpora contain the move reflecting the connection to real world.

The aim of this paper is **to shed light on the cost of equity estimation in practice**. For this purpose, we examined the cost of equity estimation techniques used by valuation experts in the Czech Republic. (code article IES1)

This may be the first feature that is similar in both types of publications. However, this may be the case of valuation journals. These journals, no matter they are Romanian or International, they are addressed to the appraisals and they have to have strong connections to the actual work of evaluating an asset.

5.4 Finding clusters or bundles that help creating a specific phrase-bank

Following previous studies (Cortes, 2004; Hyland, 2005; Biber and Bardieri, 2007 or Bardi and Mureşan, 2014, we try to identify and to create a phrase-bank containing clusters that can help non-native speakers of English to write their research articles coping with International publishing standards.

Firstly, we analyzed the International publications sub-corpus, we created a list of bundles using the taxonomy of Biber (Biber *et al.*, 1999) and we considered this list as being a benchmark. Secondly, we analyzed the Romanian sub-corpus by comparing and by identifying the shortcomings in Romanian publications.

The information in Table 1-2 shows the variety of expressions and typical academic vocabulary used in International publications, in discussions and conclusion sections. The data is structured using Biber's taxonomy, according to referential and discourse analyzing functions that the bundles fulfill.

Table 1. Word specific expressions – referential clusters

Subcategory	Expression	Ro. sub-corpus	Int. sub-corpus
Framing	In this paper we/I...	5 studies	4 studies
	In this study we/I...		
	In the case of...	7 studies	6 studies
	In the context of...	2 studies	3 studies
	In accordance with the...	-	3 studies
	A positive relationship between...	7 studies	11 studies
	Is consistent with the...	-	6 studies
Quantifying	A large number of...	2 studies	-
	A small fraction of...	-	3 studies
	A high level of...	-	10 studies
	A shorter sample of...	-	4 studies
	An increase in the...	-	4 studies
Time markers	At the end of...	-	5 studies
	At the same time...	1 study	3 studies
	In the short term...	-	4 studies
Place markers	In the opposite direction...	-	3 studies
	In the same risk class...	-	2 studies
	In the table below...	9 studies	12 studies
Methodology related	In the same way...	-	2 studies
	We also tested whether...	-	5 studies
Subject specific	The cost of capital...	8 studies	8 studies
	The risk-free rate...	5 studies	5 studies
	The equity risk premium...	6 studies	4 studies
	The volatility of the...	6 studies	10 studies

Source: author's computation, Note Ro- is Romania, and Int is international

Table 2. Word specific expressions – discourse organizing bundles

Subcategory	Expression	Ro sub-corpus	Int. sub-corpus
Introduction of a topic	Taking into account...	5 studies	1 article
	The results of the...	2 studies	4 studies
Topic clarification	In the sense of/that...	-	3 studies
	On the other hand, ...	1 study	7 studies
	With respect to the...	-	2 studies
Contrast/ comparison	As well as the...	3 studies	5 studies
	Much higher than the...	4 studies	2 studies
Inferential	As a result of...	2 studies	3 studies
	From the fact that...	1 study	6 studies
Causality	Due to the fact...	4 studies	7 studies
	The results of the...	2 studies	4 studies

Source: author's computation, Note Ro- is Romania, and Int is international

No matter the efforts made by non-native speakers to achieve International writing standards (Bardi and Mureşan, 2014), there is still a big gap to fulfill until reaching this. Our findings are comparable to previous research (Cortes, 2004; Hyland, 2008), but at a smaller scale, analyzing only Discussions & Conclusion sections from articles in estimating the cost of equity sub-field.

Because the two corpora contain specific data and because the corpora are small sized we are not in the position of arriving to generalizations. The only general conclusion we can come to is that efforts are made for achieving International standards and these efforts are starting to generate results.

6. Conclusions

The aim of this study is to identify if the low level of confidence of our researchers' ability to communicate in English is affecting the writing standards of Romanian journals, comparing with International publications. We tried to study various aspects by presenting the difference between Romanian and International writing standards.

Firstly, we compared the amount of text written in Discussions & Conclusion sections and we observed that in Romanian journals the discussions section is usually missing or is small and it is included in findings or conclusion section.

Secondly, we studied the move-structure and we ended finding that there are some differences, at least for specific moves like contextualization of findings, limitations and constraints or suggesting further research.

Thirdly, we examined separately the move regarding limitations and constraints and we found that this move is missing from most Romanian publications, probably because of the fear of non-native writers to admit their research cannot be generalized. Then we studied the move related to authors' contribution and we found similar aspects in both sub-corpora, with possible improvements to be made in Romanian journals.

The most similar situation was found for the move reflecting implications of the findings for practitioners, but this can be related with analyzed field.

In the last part we tried to compare the two sub-corpus as respects clusters and bundles used in the academic discourse and also specific language used for writing research articles in this sub-field. We found several similarities, but also many situations requiring improvements.

The final conclusion is that efforts made already are creating positive effects, but some aspects can be improved for reaching International writing standards.

The findings of this study are useful both for linguistic researchers, academics interested in corpus analysis or genre analysis and for non-native writers in English. They can find keys to write a reliable Discussions & Conclusion section. They can also find a phrase-bank containing clusters and specific expressions that help creating a written academic discourse on a fixed structure.

We are fully aware of the specificity and small size of corpora and therefore we avoided any generalizations. For generalizing some of our conclusions, we intend to continue this study with a bigger corpus, including all the sections of an article and also including more articles, from various sub-fields of finance.

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**Testing the Applicability of the Fama-French Three Factors
Model on the Bucharest Stock Exchange**

Alexandra HOROBET¹, Violeta DUTA^{2*}

Abstract

This paper tests the relationship between the excess returns obtained by stocks traded on the Bucharest Stock Exchange and the market return, the capitalization (size) of the listed issuers, and the book-to-market ratio, in an attempt to identify the elements that influence these returns. The study aims to support the substantiation of those investment strategies that diminish (or sterilize) the exposure to certain dimensions of the risk involved in the investment on the stock exchange. The model we use is tested on six portfolios based on two criteria: size (capitalization) and value book-to-market) between 2011 and 2013. We identify the presence of all the three risk factors included in the Fama-French model, with a greater importance of the size factor, in agreement with the previous studies. Our results are relevant for individual and institutional investors on the Romanian stock exchange, that are able to build their strategies on size and value as investment factors, besides the systematic risk of the stocks.

Keywords: *Three-factor model, market premium, size premium, value premium, multiple linear regression*

JEL Classification: *G11, G12, C22*

1. Introduction

The importance of the research theme is given by the detailed theoretical knowledge of equity securities performance and its practical utility for investors (natural and legal persons), fund managers (mutual funds, pension funds, etc.), insurance companies or any other entities that make investments on the Romanian capital market (and emerging markets in general). The originality of our paper is given by the study period (2011-2013), which captures the reality of the Romanian capital market after the global financial crisis) and the frequency of the data. At the same time, it adds to existing research on the Romanian market. In terms of data frequency, weekly returns were not studied for companies listed on the Romanian stock market, as studies focused on daily, monthly or annual returns. The Capital Asset Pricing Model (CAPM), developed by Sharpe (1964) links the expected return on an asset over the risk-free interest rate, or the asset risk premium, to the systematic risk of the asset in a proportional manner, i.e. assets with higher levels of systematic risk will have higher risk premiums. Fama and Macbeth (1973) found a positive relationship between the expected gain of one stock and its beta (in line with the CAPM) in the US capital market before 1969. Fama and French (1993) argue that the link

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between the expected gain of stock and its beta tends to disappear in the recent period (1963-1990). Heshmat (2012) test the CAPM on the Saudi Arabia capital market and finds a positive relationship between beta and return, but weak in line with Fama and French remarks. It took time to improve this model and this was done by Fama and French who proposed the three-factor model in 1993, including the size (capitalization) and value factor (book-to-market ratio) alongside the market factor (or the systematic risk). The results of applying this model to the US market have shown that small market capitalization firms (with high book-to-market ratio) tend to offer higher returns than large stock market capitalization firms (with a low book-to-market ratio).

2. Problem Statement

The overall market outlook in the 80s has shown that there was a need for an improvement in the CAPM and this was done by Eugen Fama and Kenneth French. They proposed the three-factor model in 1993, including the size (capitalization) and value factor (book-to-market ratio) along with the market factor. Nowadays, this is perhaps the most famous multifactor model in asset pricing. In the first phase after its appearance in the literature, the model managed to explain some of the variations in returns recorded on the US market between 1963 and 1990.

Liew and Vassalou (2000) find that SMB and HML predict future GDP growth in many developed countries including Australia. The high returns offered by size and value portfolios are followed by strong GDP growth. Griffin and Lemon (2002) have shown that a problematic financial situation (which is included in the Fama-French model in the form of a high book-to-market ratio) can also be revealed by calculating the Ohlsen score, indicating the likelihood of bankruptcy. This score is calculated on the basis of accounting variables including current debts, total indebtedness, total current assets, operating income, net income, etc. The result of the test was surprising, the high risk of bankruptcy had the firms with a low book-to-market ratio and with high past returns. Because these firms come from strong industries, market participants tend to offer rising prices for their purchase (ignoring poor performance) and relying on the other companies in the industry to catch up. As the firms in question do not perform, investors are disappointed, penalizing these firms so returns are low. Statman (1980) and then Rosenberg *et al.*, (1985) found a positive relationship between US stock market returns and the book-to-market ratio (known as B/M). The same results were obtained by Fama and French (1991) on the American market and by Chan *et al.*, (1991) on the Japanese market. At that time, they indicated that the book-to-market ratio had a greater influence on profitability than the size effect (capitalization). Horowitz *et al.*, (2000) also suggested that the size effect (capitalization) might have disappeared since 1982.

3. Aim of the research

The present study analyzes whether there may be a company size effect (stock market capitalization) and/or a book-to-market effect (value) on returns recorded by stocks traded on the Romanian stock exchange between January 2011 and March 2013.

4. Research Methods

Below we will briefly present the Three Factor Model proposed by Eugen Fama and Kenneth French (1993). They noticed that there are two types of assets (shares issued by low-capitalization companies and shares with a high book-to-market ratio) that performed better than the market average and yielded better returns than the ones expected from CAPM.

Following this observation, the model resulted, having the following equation:

$$(R_{i,t}-R_{f,t})= a_i + b_i(R_{m,t}-R_{f,t}) + s_i(\text{SMB}_t) + h_i(\text{HML}_t)+e_i \quad (1)$$

Where:

- b, s, h - represent the sensitivities of the asset i return to the risk factors
- SMB – is the difference between the average return of small-capitalization shares and those with high stock market capitalization
- HML – is the difference between the average return of shares with a high B/M ratio (undervalued shares) and shares with a low B/M ratio (overvalued shares)
- e_i – represent the contribution of individual factors

The study includes 37 companies. Unlike Fama French, we have also included in our sample the financial companies. Although excluded by Fama and French from the initial samples used in the three factors model study³, further studies have revealed that the model results are maintained for this type of company (Panta *et al.*, 2016). The weekly prices for the period 1 January 2011–20 March 2013 were provided by the Bucharest Stock Exchange. We used the weekly BET-C index as a benchmark for market performance, given its relevance by including all listed shares on the Romanian stock exchange. The price series were subsequently transformed into series of logarithmic returns. A database consisting of the companies plus the BET-C index resulted, each with a maximum of 112 weekly records. The dependent variable is given by the excess returns of the formed portfolios, while the independent variables are represented by the excess market return (market premium) and the returns of the SMB (size premium) and HML (value premium) portfolios. The last two premiums are given by the risk factors estimated by the two characteristics of the portfolios, namely the size and the value. We built 6 portfolios that combined the two above-mentioned features. At each beginning of the year (T) we formed portfolios based on stock market capitalization and the book value of the share price at the end of the previous year ($T-1$). For each year, we calculated the stock market capitalization of each company by multiplying the reference price recorded on the last trading day of December of the previous year and the number of shares on the same date. For the six portfolios, the allocation after capitalization in the Small (S) and Big (B) categories was based on median. In order to achieve the ranking of the companies analyzed in the categories High (H), Medium (M) and Low (L) we have calculated the B/M ratio and sorted the analyzed issuers by the value of this ratio. The allocation of these companies to one of the H, M, L categories was done by attributing these qualifiers to the first 30%, then the next 40% and the last 30%.

For the B/M ratio we used the book value at the end of the previous year ($t-1$) and the reference price recorded at the last trading session in December of the same year ($t-1$).

Subsequently, for each year we formed the 6 portfolios required by the Fama-French model, namely: S/H (comprising companies meeting the two conditions: small stock market capitalization and high B/M ratio), S/M (small stock market capitalization and medium B/M ratio), S/L (small market capitalization and low value of the B/M ratio), B/H (large stock market capitalization and high B/M ratio), B/M (large stock market capitalization and medium B/M ratio) and B/L (large BSE capitalization and low B/M ratio). The above procedure was implemented for each year, 2011, 2012 and 2013 respectively. So, to select the issuers and to fit in the above portfolios, we used the number of shares, the reference price and the value of the equity registered in the end of the previous years. We used the end-of-year ($T-1$) data to build portfolios for the current year (T) in order to capture the effect that B/M ratio has on the performance of the next period. It should be noted that in the case of the initial methodology of the Fama-French model, returns were calculated using capitalization of the month of June to form the next year portfolios, leaving the information time to circulate and produce effects.

³ The reason being that they have a high level of indebtedness and due to this particularity, the B/M ratio would have a different connotation than for non-financial companies.

In our case, the many changes in capital made during the year would make it harder to calculate stock market capitalization for June. Within each portfolio, the weekly returns for the period from January 2011 to March 2013 were calculated on the basis of the weights of the stocks included each week in the respective portfolio. Table 1 shows statistical descriptive of the formed portfolios.

Table 1. Statistical description of the formed portfolios

	S/L	S/M	S/H	B/L	B/M	B/H
Mean	-0.001795	-0.000103	0.002499	-0.002919	-0.005280	0.006556
Std. Dev.	0.027173	0.038565	0.025935	0.031512	0.047012	0.068441

Source: Authors' calculations

Although the model argues that the S/H portfolio should achieve the highest performance, it is noticeable that the B/H portfolio was the most performing this time, with an excess return 0.6556% (validating only partly the Fama-French model, according to which a high B/M ratio leads to higher returns).

The Romanian capital market is a small market, dependent on big foreign investors, who know that they prefer the shares issued by big companies, known and with high liquidity, to allow them both fast investing and disinvestment. As such, it can be seen that in the case of small portfolios (Small Portfolios), the risk premium (excess rate over the risk-free rate) increases with the B/M ratio, from -0.1795% for the S/L portfolio to 0.2499% for the S/H portfolio. More precisely, with the increase in the B/M ratio, the losses are reduced until the shares included in the portfolio pass on the plus. Analyzing the situation of large portfolios (Big Portfolios), we can observe the same upward trend for B/L and B/H portfolios (from -0.2919% to + 0.6556%) except for the B/M portfolio. The evolution does not differ from of the one identified in the Fama-French studies (although their analysis is more laborious, using over 25 portfolios, which did not find a perfect relationship with these effects). Regarding the capitalization effect in excess portfolios (size effect) portfolios, analyzing the Big and Small portfolios, we noticed the first deviation from the Fama-French model. It is noted that for the same B/M ratio (and we refer to S/H and B/H portfolios), higher returns the Big Portfolio (+0.6556%) compared to the Small portfolio (+0.2499%) contrary to what the Fama-French model predicts, namely that companies with lower capitalization would provide higher returns.

It is worth mentioning that the following two portfolios of the same B/M ratio follow the Fama-French model in the sense that the Small portfolios offer lower returns than the Big portfolios. With regard to excess returns, they range between -0.528% recorded by the B/M portfolio and 0.6556% recorded by the B/H portfolio. However, we have only six portfolios, unlike those used by Fama-French, starting at 25 and reaching some 100 portfolios. We can conclude that at the BSE, the B/M effect (value effect) is stronger than the size (capitalization) effect. The capitalization (size effect) determines a return difference between Big and Small ranging from 0.112% to 0.405% while the B/M ratio (value effect) reveals a difference between High and Low portfolios ranging from 0.429% to 0.947%. Based on this observation we proceed to the calculation of the last two terms of the Fama-French model (SMB and HML).

SMB captures the effect of size (capitalization) as the difference between the returns of small and large portfolios, under the influence of the B/M ratio. Basically, for low-capitalization companies, the risk perceived by investors is higher than for those with high stock market capitalization and as such they should expect a higher return to offset the assumed risk. For the SML factor we used the following formula:

$$\text{SMB} = 1/3(\text{S/H} + \text{S/M} + \text{S/L}) - 1/3(\text{B/H} + \text{B/M} + \text{B/L}) \quad (2)$$

The HML factor captures the value effect (calculated as the difference between the returns of high B/M ratio portfolios and those with a low B/M ratio).

$$\text{HML} = \frac{1}{2}(\text{S}/\text{H} + \text{B}/\text{H}) - \frac{1}{2}(\text{S}/\text{L} + \text{B}/\text{L}) \quad (3)$$

A low B/M ratio (specific to over-rated market shares) is interpreted by some investors as a feature of solid companies that will perform in the future, while a large B/M ratio (specific to undervalued shares) denotes a future development modestly, companies being viewed operationally and financially vulnerable. Table 2 shows the statistical descriptive of SMB and HML factors determined based on stocks included in our analysis. HML is noticeable with a 0.684% premium, reinforcing the Fama-French model hypothesis, as shares with a high B/M ratio provide investors with higher returns.

Table 2. Statistical descriptive of model factors

	RM_RF	SMB	HML
Mean	-0.001438	0.000748	0.006884
Std. Dev.	0.024057	0.032459	0.035012
Skewness	-0.634359	0.954467	0.093035
Kurtosis	4.203150	5.115189	4.181321

Source: Authors' calculations

We applied the Fama-French model using the multiple linear regression method, the equation including the three factors we have previously calculated and analyzed. Our regressions use excess returns above risk-free return, which in the present case was approximated by interbank interest rate (the average of the two ROBID and ROBOR weekly rates). Market returns was approximated using the BET-C index, which we considered the closest to the market portfolio concept for the Bucharest Stock Exchange. We ran 6 multiple regression equations for the 6 portfolios included in the study (using EViews).

5. Findings

The results of the regressions only with the market risk premium (Rm-Rf) factor (for all 6 portfolios) showed that the explanatory power of the market factor is relatively small (but exists), except for the B/L portfolio, where a R² with a value of 0.58609 is recorded. Otherwise, the determination coefficient ranges between 0.12 and 0.32, indicating that other factors should be sought to explain portfolios premium and capture the common variation in returns.

The results of the Rm-Rf and SMB we record values of R² ranging from 0.16 to 0.677 which demonstrate that factor inclusion has increased the explanatory power of the model. It should be noted that the SMB coefficients (except the S/L portfolio) are statistically significant. In the case of regressions with Rm-Rf and HML, in only four of the six portfolios the coefficient of HML is statistically significant. The value of R² is between 0.21 and 0.78 (the latter in the case of the B/H portfolio, whose R² increased strongly after the introduction of this factor). These regressions highlight which of the two factors (SMB and HML) contributes more to the increase of explanatory power of returns for the six portfolios. However, the results showed that for two of the portfolios, the R² value increases after the inclusion of the SMB factor (in the S/M and B/M portfolios), and for the others after the inclusion of HML (respectively S/H, B/L and B/H). As we have shown above, the coefficients for the SMB factor are statistically significant for 5 of the 6 portfolios, while the HML coefficient is statistically significant for only four of these (except S/M and B/M). We also ran regressions only with SMB and HML. The coefficients are statistically significant with exception of the S/L portfolio (for SMB and HML is statistically

insignificant, their introduction in the regression equation leads to decreases in adjusted R^2). In the B/M portfolio, the HML factor is statistically insignificant, but we have seen from the results of the previous regressions that the SMB is the factor that contributes to the increase of the explanatory power of the model. On the whole, by analyzing the coefficients of determination for the regressions with all three factors, we can see that they are higher than those of the previous regressions. We have the confirmation that all three factors included in the model have an independent effect on returns and capture parts of return variance that are not explained by the other two factors of the model (except for the S/L and B/M portfolios). Regression equations with all factors record an R^2 ranging between 0.41 (for S/H) and 0.82 (for B/H) high values for BVB. Interpretation of regression results should also be done from a sectional perspective, analyzing the extent to which the SMB and HML awards explain not only the time variation in returns and the return differences between portfolios. Fama-French analyzes the free terms resulting from regressions, claiming they should be 0 if the two factors (SMB and HML) are able to absorb the capitalization and value effects. In the regressions of this study it is observed that for all six portfolios, the intercept is insignificant, the coefficients being very small. We can conclude that the study confirms the Fama-French results, which claim that a value of free terms is close to 0, confirm the contribution of model factors to the explanation of sectional differences. It is interesting to note that statistical tests do not reject any of the regression variants in this study, the existence of the market factor. In conclusion, the market risk premium is present in all 6 analyzed portfolios.

The size premium is found in each of the six portfolios, except for the S/L portfolio (as shown above). It is noted that the size factor (SMB) sign for the studied portfolios falls within the specifications of the Fama-French model. Thus, SMBs are positive for Small and Negative portfolios for Big Portfolios. Also, the existence of the value premium is identified in four portfolios, except for the S/L and B/M portfolios. The B/M ratio signs are consistent with the requirements of the Fama-French model: positive for portfolios with big B/M ratio (S/H and B/H) and negative portfolios with small B/M ratio (S/L and B/L). The values registered by R^2 show that the model has explicative power for the Romanian stock exchange, but the interpretation of the results must also be done taking into account the BSE specifics that were mentioned during the study. Additionally, the Durbin-Watson test, verifying the pattern, is around 2 for all six portfolios. The very high values of the F-statistic come to support once more the predictive power of the three-factor model.

6. Conclusions

If the Fama-French model points out that low-capitalization portfolios and high book-to-market ratio record the highest returns, in the case of the Romanian stock market, we notice that the highest returns are recorded by the B/H portfolio, followed by the S/H. For this latter portfolio, the factors are statistically significant, the R^2 value is 0.4146 (we could positively appreciate this value, even if it does not approach the 0.9 of the Fama-French model).

Regarding the B/H portfolio (which recorded the highest return), the R^2 value is 0.824 (much higher S/H). We may conclude that one of the factors that is taken into account in selecting the portfolio is the size of the companies (which contradicts the basic observation of the studied model, according to which the Small shares record a higher yield than the Big ones). As such, we cannot speak of an invalidation of the Fama-French model on the Romanian stock exchange, and rather of a peculiarity of this market and a certain behavior of the investors acting on this market. However, the situation observed on the BSE is not a single one and it is also found on other small-size capital markets, an example being the Thailand stock market – see, in this respect, Srimarksuk (2007) which, although having a longer history, is confronted with the same behavior of the investors. Markets are characterized by small domestic investors and

dependence on foreign important investors, which usually target large-value, well-capitalized companies with high liquidity. The conclusion of this study should be interpreted carefully and should not be used as the only method of selecting the actions included in a portfolio, given the particularities and vulnerabilities of the Romanian capital market.

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The Evolution of Change Management Approaches – How Nudging and Behavioral Economics Can Help Organizations’ Transformations

Marius Constantin PROFIROIU¹, Aron Emil TĂTARU²

Abstract

Although Change Management represents a rather new body of knowledge, being developed in the second half of the 20th Century, its importance is constantly growing for both private and public-sector organizations. Various change theories have shaped the conceptual landscape and currently, there is no such thing as a universally accepted change management method. Nevertheless, the vast majority of transformations still fail to achieve their goals. The main purpose of the current paper is to explore how behavioral economics, and especially the Nudging Theory, could help create new approaches for organizations to increase the effectiveness of their change efforts.

Keywords: *change, transformation, nudge, management, behavior*

JEL Classification: *O10, O35; O38*

1. Introduction

Out of the many economic theories that shaped modern management styles, leadership and the general functioning of the 21st Century organizations, only a few have witnessed such a fast evolution during only several decades, as the change management discipline did. Of course, part of the evolution of the change management discipline can be attributed to its close relationship with project management, since the latter is merely the vehicle for introducing change in organizations.

Nowadays, organizations’ perception of change management can vary greatly, from being seen as a ubiquitous requirement for the evolution and growth of the organization, to the more conservative approach of considering it as an exotic accessory to implementation, nice to have, but not really essential. However, the approach of introducing change into an organization has shifted in the last couple of decades from a top-down, principal-agent, imperative approach, towards a more participative, “bottom-up” design. Also, this new paradigm became more and more popular amongst public sector organizations.

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But, what is organizational change?

One of the earliest definitions of organizational change was provided by Kurt Lewin, back in 1947, who described a change as a transformation of a dynamic equilibrium of an organization, into a new dynamic equilibrium, different from the initial state¹⁴. Lewin's research is mainly aimed at representing the change process of various social systems. One of its main virtues relies in defining the opposing fields of forces, which either support or oppose change and who have the tendency to arrive at a state of equilibrium. However, change management, as self-contained discipline, emerged much later than the works of the German-America psychologist.

The Austrian professor Roland Gareis, defines organizational change as “*a chain of processes which have the objective to change several or all dimensions of an organization (its services, markets, organizational structures, processes, culture, personnel, infrastructure, finance, stakeholder relationships)*”¹⁶. The work of Gareis is closely related to the concepts of project and business processes management.

The well-known change management research and training organization Prosci, based in the United States, defines change management as “*the discipline that guides how we prepare, equip and support individuals to successfully adopt change in order to drive organizational success and outcomes*”²².

Prosci's founder, Jeff Hiatt is an engineer who started his work in the area of social sciences after noticing that two similar projects, who share common technical solutions and similar project management practices, can achieve different outcomes: one could be a big success and the other might fail. The explanation for this counter-intuitive situation was found in *the people side* of a change initiative.

The current research paper is aimed at undertaking a brief review of the evolution of change management theories during the past decades and on assessing new ways and possibilities to support the success of change implementation in organizations. We will use recent theories in the area of behavioral economics, especially Richard Thaler's Nudging Theory, and psychology to highlight new possible approaches to change management, providing increased effectiveness.

2. Problem Statement and Research Questions

The first formal project management methodologies were developed during the first half of the 20th Century, mainly in the area of engineering. Pioneers in this area were the US military organizations (i.e. the Polaris Missile Submarine Program), but also American Space Agency (NASA). They reflected the rigorous attitude regarding the implementation and the highly structured approach of the organizations from which they emerged.

Change management loomed a couple of decades later, during the 1960s. Early research in the area of was aimed at analyzing the suffering of medical patients faced with severe illness.

Later, the scope of this research was extended to capture the similitudes between the psychological effects of health problems and the destabilization state of employees losing their jobs or having severe job-related problems. All these studies resulted in a slight change of the approach used by organizations to implement change, from focusing exclusively on the cost – time – budget triad, towards the importance of the human factor involved in the process.

The approach to change management evolved a lot during the last decades. Today, most organizations use change management as part of their implementation strategies. However, the pace and magnitude of change is not similar in all organizations. For example, traditional

organizations of the public sector are having a hard time to become as lean and agile as their private sector counterparts.

One of the main factors behind this state of affairs, apart from the bureaucratic culture, resides in the principal-agent environment, characterized by the lack of trust and the prevalence of controls, inhibiting creativity, innovation and initiative. Nevertheless, all organizations change, willingly or not, by consciously controlling the change process or not, in order to evolve or to survive.

In his article “Changes of organizations by projects”, published in 2010 ⁷, Roland Gareis, presents a classification of changes occurring in modern organizations. Gareis makes a clear distinction between what he calls 1st order changes (organizational learning and further development) and 2nd order changes (transformation and radical new positioning). Figure 1, below presents this approach.

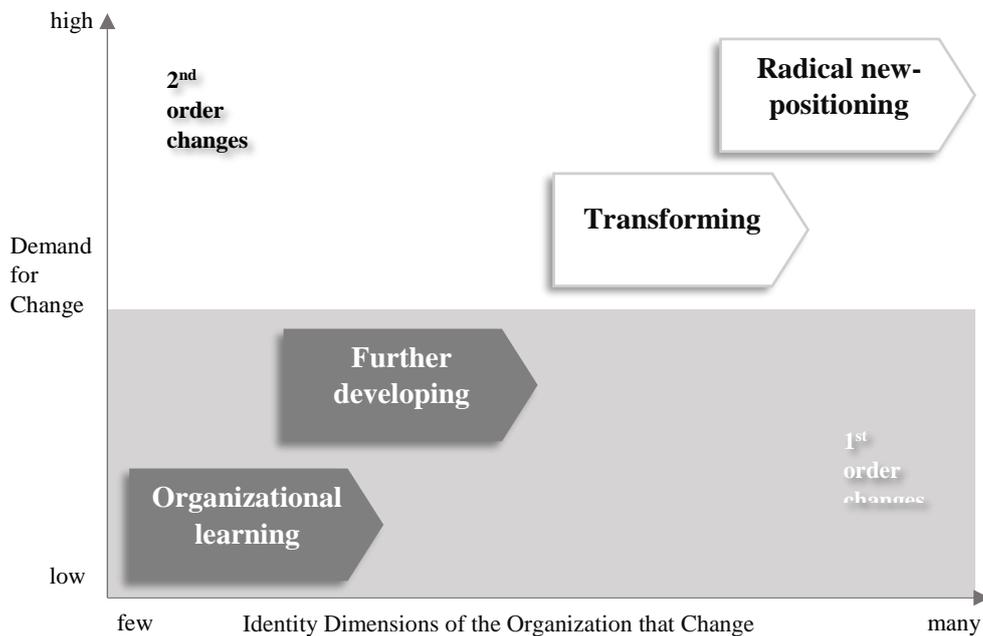


Figure 1. Change Types
 Source: Gareis (2010)

This paper focuses mostly on the second order changes of organizations, considering organizational learning and further developing as mandatory attributes of any sustainable organization.

All social systems change, one way or the other. The accelerated dynamics of change in today’s environment has put a lot of pressure on the classical structures and processes. Currently, one could hardly find organizations for whom the static equilibrium, or the conservation of the present status-quo is a real option, even for a short-term strategy. Change it’s a matter of competition, evolution and ultimately, sustainability. Continuous change became one of the main coordinates of today’s organizational life, defining a new state of equilibrium of the corporate culture, a dynamic equilibrium. The term “learning organization” became more and more wide-spread and the ability to quickly adapt and change is seen today as one of the most important and desired capabilities of a company.

But what drives this urge to change, which characterizes these first decades of the 21st Century?

There are various factors that push organizations towards constant change orientation. These factors can reside in the external environment or can stream from within the organization itself. Table 1, below, presents a non-exhaustive list of the main external and internal drivers of change.

Table 1. The main drivers of organizational change in the 21st Century

Internal factors	External factors
Development gaps (benchmarking)	Technological innovation (manly IT&C, interactive systems, social media, AI, Big Data, IoT, energy and transportation)
Audit reports	Globalization and increased competition
New strategic direction	Exponential growth of information (Moore’s Law)
Stakeholders’ expectations	Customers’ demands and expectations
Marketing channel integration and product diversification	Laws and Regulations (national, EU, international)
Mergers & acquisitions	Outsourcing / insourcing / delocalization opportunities
Employees & unions	New, more agile, entrepreneurial business models
Budget cuts or the continuous pressure to reduce expenses	New threats (terrorism, cybercrime etc.)
Adoption of new management approaches (Business & process reengineering, Lean management or Total Quality Management (TQM).	Increased complexity (knowledge, structures, institutional systems, available options etc.)
	Pressure from the media
	Demographic changes

As stated above, the change management discipline is a fairly new one, which gradually evolved since it’s early beginnings. Although there is no single change theory widely agreed and accepted as the single reference point in the area, the emerging approaches are not substituting or correcting one-another, but rather complementing each other. Thus, the knowledge creation process in this area is a cumulative one, every approach building on top of the previous one.

In order to build a better image of how organizational change approaches evolved and of the palette of tools that organizations currently have at their disposal to facilitate transformation initiatives, the section below presents a brief review of the main theories in this area of knowledge. The scope of the present paper is not to analyze the strengths and weaknesses of each model, nor to decide on the most effective approach, but purely to create a more detailed image of the theoretical landscape of the area.

a. Lewin’s ice block analogy – a constant search for equilibrium

Probably the best-known change model is Kurt Lewin’s unfreeze – change – refreeze process. Lewin’s change theory was published in the 1940s but the concepts presented are still actual. Lewin sees change as a 3-stages process, with underlying sub-stages¹⁴.

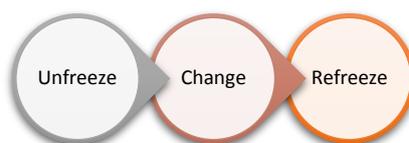


Figure 2. Lewin's 3 stages change process
Source: Lewin (1947)

Lewin's change process starts with a thorough analysis of why and how things must change.

This is the beginning of the unfreezing stage. The analysis must also cover the actual values, beliefs, attitudes and behaviors that underpin the current organizational culture and defining how these should change in order to reach the desired state. This a fairly difficult step since it challenges the institutionalized way of doing things in the organization. A strong business case in necessary for the acceptance of change.

In **the unfreeze stage**, the guiding coalition is acting upon the two opposing fields of forces that generate the current equilibrium. The aim is to increase the driving forces that support behavior change and to decrease resisting forces, which favor the status-quo. This stage is necessary to overcome individual or collective blocking behavior. This is the time when concerns will arise, and doubts will surface among the members of the organization and its external stakeholders. The guiding coalition should be prepared to tackle and clear all these aspects.

The change stage represents the actual implementation of the change. People now start to experiment the new ways of doing things. For this, everyone involved should believe in and support the new direction. This involves a change in people's behavior, which is underpinned by thoughts, values, feelings, motivations, knowledge and skills. This cannot be an abrupt step, sometimes adopting the new tools/behaviors requiring substantial amount of time.

Once the "technical" aspects of the implementation are complete, **the refreeze stage** can begin. In this stage a new state of equilibrium is established. Change will now become business as usual. Formal documentation is introduced, describing the new organizational and operational model(s). In this stage, changes are institutionalized, and the management makes sure that everyone follows the new behaviors and no opportunities for regressing to the old ones are provided.

Although developed more than half a Century ago, Kurt Lewin's 3 stages model still provides for a very good foundation for the change management practitioners of today.

b. McKinsey's 7S model¹⁶ – a network of interrelated dimensions

Rather than being a classical change management method, McKinsey's 7S model is first of all a tool designed to define the right development and change strategy for an organization, taking into account all the important dimensions of the organizational and operational models.

The 7S approach looks at the following seven aspects of a company and analyses how they interact with and affect each-other.

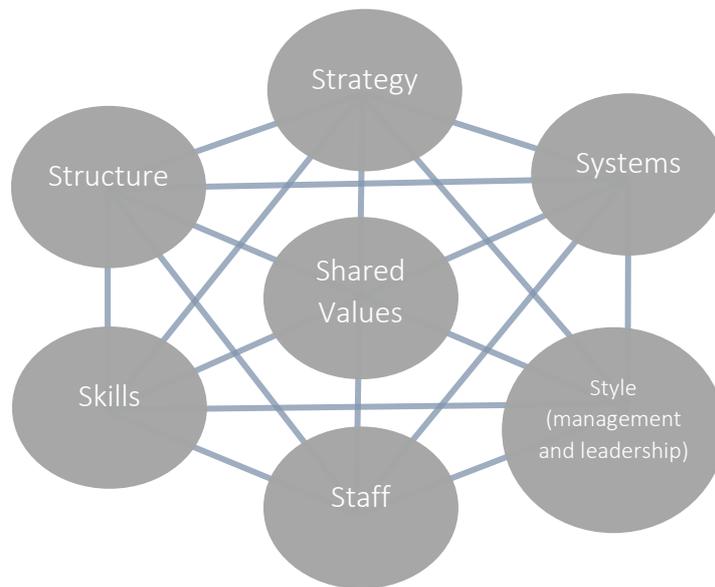


Figure 3. McKinsey's 7S framework
Source: Peters & Waterman (1982)

The results of the analysis include the necessary changes that the organization must perform in each of the seven areas in order to improve organizational effectiveness and efficiency.

McKinsey's 7S method proposes the adoption of bite-size, incremental changes in order to achieve the desired future state of the organization.

c. Kotter's organizational journey consisting of 8 iterative steps

John Kotter's change theory¹² is one of the most widely used approaches in the area of change management. If Lewin was mainly focusing on the dynamics of social systems and the McKinsey model was targeted at the organizational dimensions, Kotter's 8 steps process' primordial focus is on the people. The process encompasses eight steps that organizations must perform in order to move people throughout the change journey.



Figure 4. John Kotter's 8 steps process
Source: Kotter (1996)

According to Kotter, the first step of the process should result in motivating people, especially decision-makers, to accept the idea of change. **A sense of urgency** can be created by presenting potential threats, actual weaknesses of the organization or opportunities that can be exploited.

Once the change idea starts to gain traction within the organization, the guiding, **core coalition** must be created. The most important stakeholders need to be convinced of the need for change and assume ownership of the change process. The project/change sponsor role is assigned and assumed at the highest levels of strategic managers and the project manager is assigned. An adequately resourced project team is created.

A simple, clear and motivating **vision** is needed right now to present the main benefits of the change program and to motivate people. The vision should be presented in no more than 2 simple and inspiring sentences and must be easy to understand and to act upon.

The purpose of the 4th step, is to make sure that absolutely everyone is presented with and understands the idea of change. Effective communication activities, workshops and feed-back mechanisms must be put in place to ensure that **everyone is on board**.

Removing barriers is the next logical step of the sequence. Now, that people are willing to adhere to the change, they should also be able to do so. Lack of knowledge, shortage of skills, inappropriate procedures, obsolete organizational structure or simply, human opposition can all be blocking the change effort.

Change requires both time and effort. **Generating short-term quick wins** ensures people's sustained motivation during the entire process. Quick wins can consist of: seeing the process or the new tools working in practice, improved performance indicators or distinct project milestones achieved.

Once momentum has been created, change managers must **sustain acceleration** and prepare the delivery of the major outputs of the project. This step of the process is where the most important change happens and most effort is required.

Implementing change is not the final destination. Change managers must make sure that the *new ways* will not be abandoned, by **instituting change**, and transposing it into the company culture and the formal rules and regulations. The efforts of the people involved are now formally recognized and rewarded.

d. The individual journey: Prosci's ADKAR model

Prosci ADKAR model's²³ primordial focus is on the people that are subject to change. ADKAR presents a bottom-up approach of change in organizations, starting from the individual employee's journey, thus making a clear-cut separation between the technical aspects of the implementation (project implementation cycle) and the change side, focusing on the people side of the process. Prosci asserts that focusing on the individual change will allow companies to achieve organizational change.

According to Prosci *"The best project management, vision or solution will not result in successful change. The secret to successful change is rooted in something much simpler: how to facilitate change with one person."* There are 5 stages of the ADKAR process, as described in Figure 5, below. The steps of the model are synchronized with the typical change management/project activities.

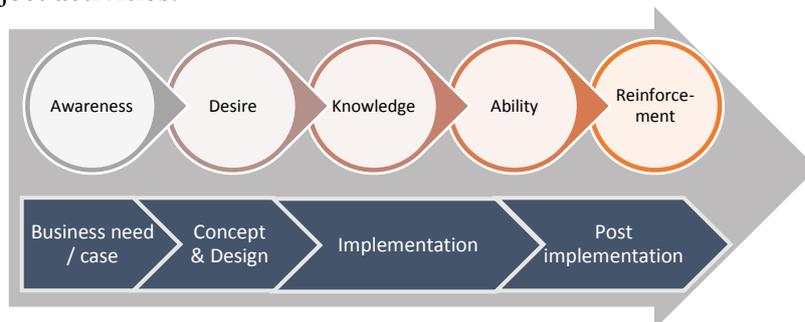


Figure 5. People vs. business side of change
Source: based on Prosci's ADKAR model

The ADKAR method must be used in conjunction with another formal change management model to drive implementation.

Out of the many more other theories with applicability in the area of change management, we found of interest for the topics discussed in this paper, the following specific aspects:

- **Everett Rogers’ diffusion of innovation**, which identifies 5 categories of people, according to their attitudes towards change¹⁷: innovators (2.5% of the population), early adopters (13.5% of the population), early majority (34% of the population), late majority (34% of the population) and laggards (16% of the population). This statistical distribution can be attributed to every change initiative, each category of employees needing a specific approach during the transformational process.
- **Elisabeth Kubler-Ross’ change curve**¹³, presents the emotional states people go through when faced with an important change: Shock, Denial, Frustration, Depression, Experiment, Decision and Integration. The findings of Kubler-Ross were produced during her work with patients who were terminally ill and applies to the vast majority of cases relating to transformational change.
- **William Bridges’ analysis of individual performance during transitions**³, provides a more detailed approach of Elisabeth Kubler-Ross’ change curve. Bridges states that there are 3 stages of transition that employees go through when faced with change:
 - Ending, Losing and Letting Go, which triggers the following emotions: fear, denial, anger, sadness, disorientation, frustration, uncertainty and a sense of loss.
 - The Neutral Zone: resentment towards the change initiative, low morale and low productivity, anxiety about the role, status or identity and skepticism about the change initiative.
 - New Beginning: excitement, high energy, openness to learning and engagement towards the personal role and objectives.
- **Daryl Conner’s burning platform**⁴, accentuates the importance of the expected future negative outcomes, in the decision of people to change. Conner’s analogy with the tragic fire on the oil platform Piper Alpha, which determined one of the workers to jump into the cold waters of the North Sea from a height of almost 15 meters, provides a strong visual image about the motivators of top managers, engaged in the change process.
- **Linda Ackerman Anderson’s insights from beyond change management**¹, emphasizes on an alternative definition of change management, the one of change leadership. The scope of change leadership is to: create a change strategy to cover the entire organization (both process-wide and people-wide), transforming the mindsets of both leaders and employees in order to support the shift towards the new culture and designing, implementing and adjusting the change process.

Although, as illustrated above, there is a reach theoretical ground regarding change management and a vast array of practitioners and international consultants in the area of individual and organizational change, **most of the transformational processes of today’s organizations are lacking effectiveness and fail to succeed.**

In April 2013, the publication Harvard Business Review was publishing in its online edition an article headed “Change Management Needs to Change”, by Ron Ashkenas². In this article, the author affirms that the organizational change projects failure rate is situated at 60-70%, and that this figure has remained constant since the 1970s.

In a study performed by the consulting group McKinsey¹¹, among 1546 business executives worldwide, **only 30% of the respondents considered that their change programs were mostly or completely successful.** The same figures are supported by similar studies performed

by Miller in 2002¹⁵ and by Higgs and Rowland in 2005, reporting that “**Only one in four or five change programs actually succeed**”⁹.

While, the authors of the studies present their own perspective on the reasons for such a low success rate and they propose various solutions for increased effectiveness, these are not the subject of the present paper. The purpose of this paper is to explore the usefulness of the new developments in the area of psychology and behavioral economics, in helping transformation projects succeed. We will, for the moment, retain the information regarding the very low success rate of transformation initiatives.

The present article is not providing a comprehensive research on this topic, but merely sets the grounds for further research to be performed as part of a doctoral program to follow, within the Academy of Economic Studies, Faculty of Administration and Public Management.

The new kid on the block: why and how nudging can be a good approach to change management?

Richard Thaler’s Nudging Theory is mostly about how people make decisions. Its foundations lie on the principles of behavioral economics, political theory and psychology. Thaler defines the *Nudge* as “any aspect of choice architecture that alters people’s behavior in a predictable way, without removing any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not¹⁹.”

While traditional economics define the human behavior as completely rational when making economic decisions, Thaler’s theory is grounded on the work of another Nobel Prize laureate, the psychologist, Daniel Kahneman. In his book (*Thinking Fast and Slow*), Kahneman demonstrates the co-existence of two distinct systems of thinking and making decisions in human beings: the automatic system (System 1) and the reflective System (System 2)¹⁰.

System 1 is fast, associative, affective and requires very low energy consumption to operate. It is unconsciously started and operated, controlling the daily routines and intuitive responses.

In contrast, System 2 is slow and conscious. Its analytic capabilities require a lot of energy (cognitive effort) to operate. System 2 is not able to perform efficiently multiple tasks in parallel and has more of an iterative approach.

The two systems were anthropologically developed and work very well together. There is an issue, however, regarding the operation of System 1: due to his automatic functioning and his intuitive-cognitive answers, it is especially prone to bias, rendering our entire decision-making process biased. Kahneman proves his theories through a series of experiments, conducted among students in North American Universities. When confronted with basic questions of logic, mathematics or statistics, 50% of the top-tier Universities’ students (MIT, Harvard and Stanford), provide wrong answers. When the experiments were conducted within line Universities, the rate of wrong responses increased to roughly 80%.

Kahneman’s work proves that people don’t always make perfect decisions (in fact, that most of the decisions we make tend to be biased). So, what’s that has to do with change management?

Thaler asserts that people’s behavior could be guided towards the desired direction, using nudges that address our intuitive System 1. This approach is not new to marketing specialists, which are continuously trying to understand the factors behind a customer’s decision to buy a product. Colors used for the environment, temperature of the room, the way products are displayed on the shelf, lighting, smell, i.a., are all nudges intended at directing an individual’s decision to buy.

Using the findings in the works of Kahneman and Thaler, the main research question of this paper is: **would nudging people towards the desired state bring more efficiency to the change management process, than trying to enforce change in a traditional top-down way?**

Remember, Thaler’s nudging does not impose a direction to be followed and the freedom of choice remains with the individual. Nudges are meant to be indirect, subtle, open-ended, educational, backed-up by evidence, optional and open to discussion (Businessballs, 2014²¹).

3. Findings

Starting from the research question above, this section will briefly list the specific types of nudges that can be used to generate and foster change. The section will also present a couple of examples of successful nudges, applied to both private and public-sector organizations.

Nudging can take various forms and target various aspects of the organizational life: from internal policies to small changes in behavior. The 10 most important nudges that stem from Thaler’s theory and that could be applied to organizational change efforts are listed and explained in Table 2, below.

Table 2. The 10 most important nudges (adapted from Sunstein, 2014¹⁸)

	Nudge	Description/example(s)
1	Default rules	Automatic enrollment in a specific program (e.g. health plan, pension scheme etc.), which offer subjects the freedom to manually opt-out.
2	Use of social norms	Inform people that the majority of other people are adopting a certain behavior. What most people do, or think?
3	Increased ease and convenience	Reducing the barriers (including the time it takes to understand how to act) associated with difficulty and ambiguity (e.g. placing the healthy food on the most accessible and visible shelves).
4	Disclosure	Presenting consumers/users relevant, accessible and comprehensible information (e.g. the economic or environmental costs associated with energy use).
5	Warnings & Graphs	Public warnings posted using large fonts, bold letters and bright colors highlighting the preferred behavior (e.g. warning people of the risks of smoking and on ways to mitigate these risks).
6	Pre-commitment	If people pre-commit to engage in certain action (e.g. stop smoking), they are more likely to act on it, providing motivation and reducing procrastination.
7	Reminders	Sometimes, people do not act in a certain way simply because of forgetfulness, procrastination or inertia. In this case, reminders are a good way of securing the right response (e.g. overdue bills, incoming obligations or appointments).
8	Eliciting intentions	Research has shown that if future intentions about a certain behavior are elicited, people are more likely to engage in that behavior. (e.g. <i>do you plan to vote?</i> or <i>you are a voter, as your history suggests, do you intend to vote?</i>).
9	Informing	Informing people of their past behaviors and on the consequences of their previous choices can induce a desired behavior in the future (e.g. <i>late payment of your tax obligations during the previous years resulted in a 15% increase of your overall tax obligations</i>).
10	Simplification	Aims to reduce complexity and confusion. Promotes easy and intuitive use of forms and regulations, stimulating compliance.

How nudging can help organizations?

There are already plenty of examples of successful applications of the nudging theory both in the public and in the private sector.

In an effort to improve employees' eating habits, which on the long run lead to various health disorders (obesity, diabetes, coronary heart diseases, a.o.), increase medical expenses and sick leave days, the tech giant Google, introduced a new health strategy in its omnipresent micro-kitchens and cafeterias. Instead of forbidding sugary sweets, fats and carbonated drinks, Google's *choice architects* decided to place healthy food, fruits and vegetables, in front of the customers and in all central locations. The less-healthy food and beverage products are still to be found, but now they are located in the less accessible locations and in opaque containers. Google's nudge, reduces accessibility and increases choice effort, and is based on the hypothesis that humans have the tendency to choose the path that offers less effort and resistance. A couple of months after the kitchen's redesign, the consumption of calories among Google's employees dropped significantly⁸.

A different nudge was put in practice by Google to increase effectiveness of its policy: the food stands were equipped with smaller-size plates. The old, big-size plates were not eliminated but now, employees had a choice. In the initial stages, almost 20% of the clients started to use the small-size plates. This percentage increased to more than 80% when Google communicated to their employees that research has shown that people have the tendency to eat less when using smaller plates.

Another nudge, this time from the public-sector environment, is provided by the UK Government, which introduced the automatic enrolment of employees in pension and savings plans. Consequently, all employers are obliged to enroll employees into a pension scheme, and every employee may opt to leave the scheme if he pleases so. The program started in 2012 and ever since, the participation of employees in such pension schemes increased by 37%, reaching to 88% of the population by 2015⁵.

4. Conclusions

Change is ubiquitous in today's organization and change management slowly became a necessary part of the leadership act. But what is the best way to implement change management in the organization? Currently, there is no straight-forward answer to this question. The sobering fact is that a more than half of the change initiatives fail, and this is an issue that haunts managers from decades. New approaches need to be developed and practice needs to be strengthened. Psychology and behavior economics provide additional leads to be explored by today's leaders and the nudging theory can offer concrete answers to both private and public-sector organizations transformations. For the public sector, this approach seems even more alluring, since it doesn't involve large investments and important policy changes.

We assert that the importance of the change architecture will gain more and more appeal among public policy makers in the future. Already, USA and UK governments have created special structures to analyze, propose and implement nudging initiatives at the national level (the White House Social and Behavioral Sciences Team, respectively, UK's Behavioral Insights Team, also called the Nudge Unit).

However, nudging today cannot be regarded as a self-contained change management strategy and needs to be complemented by a structured method of implementation.

Opportunities appear promising and we believe that this is merely the eve of nudging in change management. Research on this topic should be continued and additional evidence is necessary to ascertain on the effectiveness of this approach. Also, adjustments in this area are still in sight. After all, as Charles Darwin pointed out, the future belongs to the most adaptable to change.

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Strategic Management Process in Romania's Central Public Administration

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Abstract

The role of strategic management is uncontestable in literature and in practice. Strategic management practices have been widely undertaken in all developed countries, and its benefits have been shown in all the cases. In Romania, under EU and other international donors' pressure, strategic management and planning was mentioned as successful conditions for the public administration reform process since 2001.

The aim of this paper is to explore the strategic management process in Romanian public administration and to investigate reform initiatives of the Romanian Government in order to enhance its strategic management capacity. The methodology of this research consists in literature review, content analysis of legal framework and reform strategies between 1999-2020. An analysis of General Secretariat of Romania's Government, Central Unit for Public Administration Reform and EU and World Bank 'studies and reports were also carried out. The empirical data of this research are also collected through a series of discussions with top – decision-makers of public administration reform during the time.

In this reserarch we find out that there are several regulations, guides and methodological norms for the strategic planning and management process in Romania at national and ministers' level but, although the legal framework and institutions are largely in place in Romania to support effective policy management, the execution of strategic and policies documents remains inadequately. This is the reason that consolidation of strategic planning process has yet figured as reform objective of the curent strategy of consolidation of Public Administration Capacity 2014-2020. In the end, we drew some reccomendations to enhance strategic management capacity of Central Public Administration.

Keywords: *strategic management process, strategic capacity, central public administration*

JEL Classification: *L38, L39, M38*

1. Introduction

From the early 1990s, there is increasing awareness that strategic management capacity of the public organizations plays a key role in determining the governance's performance. (Poister, Pitts and Edwards 2010).

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Strategic management has emerged in a changing environment which has induced new way of solving problems. In this context, public managers have to anticipate the trends and to adapt to change by assessing and understanding their internal and external environment. The importance of strategic management in the public sector has been widely recognized in the literature (Bryson 2010; Bryson, Berry and Yang 2010; Hinteá 2008, Poister 2010, Poister and Streib 2005) and as Poister, Pitts and Edwards, (2010) highlighted “strategic management has become more important in public organizations because increased emphasis has been placed on attaining higher level of performance”. (Walker R.M, 2013)

2. Problem Statement

Strategic management practices have been widely undertaken in all developed countries, and its benefits have been shown in all the cases.

For example, since 2003, the strategic management practice of UK Government has been focused on five years strategic plans. The Prime Minister’Strategy Unit worked with departments to consider future priorities and strategic choices across departmental boundaries.

The process included analysis of long-run trends and benchmarking the UK against other countries.

“Successful delivery of the UK Government’s model of public service reform have depended not only on putting in place the right mix of challenge from top down, horizontal and bottom up pressures but on ensuring central and local government capabilities and civil and other public servants the capacity (leadership, motivation, skills and support) to deliver it”. (PMSU, 2006)

The main idea was to create “*a strategic and empowered state*”, as response to internal and global trends (PMSU, 2007). Strategic planning was based on a coherent setting of governmental priorities, not on strategic plans developed by executive agencies, and the leaders, ministers and especially, prime-minister were the key actor in this process. These five years plans of British Government were substantially different of those set by GRPA (“*Government Performance and Results Act*”: 1993) in USA requesting a down-top strategic planning. The Federal Agencies had to set five years strategic plans until 1996, guided by Annual Performance Plan established by GRPA and more focused on results and less on resources and process issues. (Bryson, 2002:33).

As Joyce (2011, p. 13) have illustrated there are “two very different approaches to strategic planning in Government: the US case was an example of the politician-oversight approach and the UK was an example of a politician-led approach. In the politician-oversight approach the agency leaders seek political support to secure resources and authorisation. In the politician-led approach politicians require civil service leadership to have capabilities to ‘front’ and deliver Minister’s strategies.”

Moreover, Joyce (2004, p. 107-110) pointed out some factors for succesfull strategic management process in public sector in a changing environment, characterized by political influence, constraints, limited authority and public responsibility: (1) creativity development and encouraging of learning and inovating processes, (2) need of strategic leadership, (3) promoting and improving lucrative partnerships, (4) permanent consultation and involvement of stakeholders and (5) consensus between stakeholders need and interests and those of political leaders and public managers.

In literature, different authors such as Bryson (2004, p. 28-44), Berry and Wechsler (1995), Frances Berry (2007, p. 333-341), Kaufman and Jacobs (1987:25), Osborne and Gaebler (1992, p. 82), Olsen and Eadie (1982, p. 38), Thomas Plant (2009:38-43), Poister, Pitts and Edwards (2010, p. 525-528) have noticed different stages of strategic management process. By analyzing, we could easily identify some common elements such as: (1) clarifying mission and values, (2) establishing a vision for the future, (3) analyzing challenges and external

opportunities, (4) assessing internal weaknesses and strengths, (5) establishing strategic purpose and objectives, (6) identifying strategic issues, (7) developing alternative strategies, developing and implementing strategic plans. These two examples could serve as best practices for Romania that tries to improve the strategic process in central public administration.

Poister and Streib, (2005, p. 46) presented several key factors for a successful strategic planning process: (1) clarifying the scope of planning effort, (2) involving and participation of stakeholders to this processes, (3) existing linkage between strategic planning or management process and performance measurement and assessment, (4) establishing a closed relationship between strategic planning process and resources allocation process and multiannual budgetary planning of public institutions. For transition countries, we could add other specific elements.

Thus, some authors have proposed to take into consideration the context variables before undertaking NPM reforms initiatives in transitional countries (Cepiku, Mititelu, 2010), however others (Mora, Ticlau, 2012) have agreed that organizational elements such as: strategic planning capacity, organizational readiness (read openness) to change, leadership capacity to inspire and to create commitment for reform, availability of resources needed for a successful change process are important conditions for any public administration reform. Also, Pucek and Spacek (2014, p. 151) highlighted the role of legislation that “sets the framework and procedures of approval of plans, the basic values of the activities of public institutions (public sector), and it may require the elements of strategic management in some areas.”

Related to the term “capacity”, UNPD (1998) defined it as “ability of individuals and organizations or organizational units to perform functions effectively, efficiently and sustainably”. Although public administration wasn’t an explicit negotiation chapter, enhancing administrative capacity of state was one of the criteria for Romania’s accession in EU (Madrid European Council Criteria, 1995). Administrative capacity of each candidate state was assessed using SIGMA Baseline Assessment Indicators (Verheijen (2000) and SIGMA Assessments 2003), based on six core capacities: Policy-making and coordination, Civil Service, Public Expenditure Management Systems, Public Procurements, Internal Financial Control and External Audit. In that context, there was necessary a structural and functional reform of whole public administration. (NISPAcee, 200, p. 27)

In this respect, we have considered that strategic management capacity of public administration could contribute to the development capacity of each country.

3. Research Questions/Aims of the research

This paper have a descriptive aim (to explore the strategic management process in Romania’s central public administration) and a normative aim (to evaluate reform initiatives of the Romanian Government) in order to enhance its strategic management capacity.

The research questions are described below:

- What are the approaches existing the strategic management literature and practices in developed countries that should be taken into consideration in strategic process in transitional countries such Romania?
- What are reform initiatives of Romania’s Government aiming to enhance its strategic management capacity?
- How is strategic process in Romanian central public administration? what are its progresses?

In the end, our objective was to draw some recommendations in order to enhance strategic management capacity to implement these strategies.

4. Research Methods

The methodology of this research consists in literature review, content analysis of legal framework and reform strategies between 1999-2020. An analysis based on General Secretariat of Romania's Government, Central Unit for Public Administration Reform and EU and World Bank studies and reports were also carried out. The empirical data of this research are also collected through a series of discussions with top – decision-makers of public administration reform during 2001-2013.

5. Findings

5.1 Reform Initiatives to enhance Strategic Management Capacity in Romania

Under EU pressure and other international donors such as International Monetary Funds and World Bank, the Romanian Government's Strategy for Acceleration of Public Administration Reform was set up in 2001. The preview changing process was undertaken on four levels: strategic, legal, organizational and cultural and strategic management and planning was mentioned as successful conditions for the reform process such as (2001, p. 3): setting of realistic and measurable objectives; enhancing public administration's strategic capacity to develop project and to define its priorities; articulating, in an integrator vision on medium and long term, of all public administration changing process; need to better representation of citizens interests in the decisional process; project management development; consolidation of organizational infrastructure for strategic management of economic and social processes; need of enhancing consultancy and monitoring functions in public administration.

The reform process continued also during the next electoral Cycle 2005-2008 and it was focused on improvement of public policy and strategy formulation and planning system³ at central and local level, by creating of Strategic Planning Council and taking into consideration of strategic management principles. This concern was focused on developing of legal framework by the Public Policy Directorate (PPD) of the General Secretariat of Government (GSG), such as: Government Decision no 1807/2006, Government Decision no 870/2006, Government Decision no 158/2008.

Since 2006, GSG has undertaken strategic planning reform process, by imposing 3 years strategic planning (2007-2009) for all line ministers in order to enhance the linkages between policy and financial planning and raising of efficiency of public funds spending. Additionally, PPD and Minister of Finance, with technical assistance offered by SIGMA Programs, initiated the elaboration of budgetary planning component in order to establish linkages between public policies, priorities and ministers tasks and their budgetary programs (GD 158/2008, p. 3).

According to GD 1807/2006, the strategic plans (PSI) set by institutions of central public administration had to include relevant aspects of strategic planning process, such as mandate, vision, common values, analysis of internal and external framework, medium-term priorities and strategic directions (GD 1807/2006, p. 2). Hence, strategic planning became the key aspect of Romanian public administration reform 2005-2009.

Nevertheless, strategic planning in Romania had a long history during communist regime, beginning in the late 1970s and 1980s, by setting five years plans ("planuri cincinale").

However, after Revolution (1989), the first strategic document was the Romania's Strategy for passing to market economy (1990) and the National Strategy for Romania's preparing to

³ These reforms were undertaken within a EU-financed Twinning Project with Letonia Republik State Cancelarie "Strengthening Romanian Government Institutional Capacity of public policies management and decision-making process", materialized into a Strategy for Improvement of Public Policies Formulation, Coordination and Planning System at Central Public Administration Level.

accession to European Union (1995-2004), followed by the Medium-term National Strategy of Economic Development (2004-2007).

Also, the *Treaty of Romania's Accession* (Brussels, 31 March 2005) stipulated “major changes that must be undertaken and finalized by Romania within the next 10 years. Included in the requirements for EU integration are also a set of transitional measures to apply in the first accession stage.” (Neesham & all, 2007, p. 37). As EU member state, Romania has set strategic documents to implement EU Lisbon Strategy and Europe 2020 Strategy.

5.2 The model of strategic management and planning in Romania's Central Public Administration

Several regulations, guides and methodological norms are the foundation of the strategic planning and management process in Romania at national and ministers' level, such as: the Methodology regarding Central Public institutions' strategic plans elaboration, approved by GD1807/2006, the Manual of Methods for Public Policy Planning and Impact Evaluation (2006), Government Strategy for improvement of public policy formulation, coordination and planning at central public administration level (G.D no 870/2006), the Strategic Planning Manual (2009) and the Guide for public policies monitoring and evaluation (2009). All these documents were the results of European funding projects for public administration reform.

Thus, beyond of specific aspects of management and bugetary planning components, the Manual for Strategic Planing, published by PPD from GSG, identifies seven key stages defining the strategic planning cycle in Romania (2009, p. 10-11), such as: (1) actual context analysis, (2) strategic plans, (3) budgeting, (4) actions planning, (5) implementation, (6) monitoring and evaluation and (7) reporting. Also, there were established different planning, monitoring and evaluation levels and frameworks that guided and oriented the strategy formulation and implementation process (2009, p. 11-12):

- *National Strategy on long term planning horizons* (Vision) that have to set the Romania's evolution for 20-25 years and to guide the setting of long-term targets and objectives and public policies formulation;
- *National Development Plan* – consists in a long-term plan (7-10 years) needed to implement strategic vision;
- *Strategic Plan on medium-term planning horizons*, composed of two components – management and bugetary planning-covers 4 years planing horizons , and it has been implemented since 2007 in all line ministeries. The mandats, vision and values are common elements that have to be included in all strategic plans and must take into consideration decentralization and deconcentration principles. The components of strategic plan had to be included in Medium – term Public Spending Framework (MTPSF);
- *Sectorial Policies, plans and Strategies* – that it usually have an inter-institutional feature and consists in strategies, plans and public policy proposals;
- *Intersectorial Policies* – facilitates the different sectors interaction and it might be outlined that majority of public policies could be included in such category.

An important document should be also the *National Programs of Reforms*, setting objectives and targets for majority of sectors. To all these, it could be added the *National Strategic Reference Frameworks* on 7 years, as condition for European Funds Absorption and approved by European Commission, that contributes to development of Sectorial Operational Programs (SOP) co-funded by EU. The SOP has got a crucial role in strategic management process of a member state because its set targets, objectives and priorities for different sectors that orient strategic plans of public institutions, purposing European Funds absortion.

Also, in order to revise the 4 years strategic plans and MTPSF, others instruments were developed such as *annual planning and budgeting guides*, containing instructions and guidance for socio-economic policies transposition into feasible plans and programs and their implementation in the budgeting process (Government Decision no 158/2008).

Beyond their role in bugetary planning, this framework offers guiding lines orienting public and privat sectors regarding national priorities of socio-economic development. As consequence, we could say that there are a regulated strategic planning process based on two main compulsory components-management and bugetary planning.

Regarding to the implementation term, strategic plans' reviewing and updating processes, even if the methodology has imposed a horizons of 3 years, it is recommended a 4 years period, corresponding with implementation period of MTPSF. Thus, in the first year (referential year), it should be analyzed the present situation, followed by intensive planning session finalised into a complex and comprehensive strategic plan. In the next three years, in order to include relevant changes emerged during strategic planning process, this initial strategic plan will be revised and updated. In the case of unpreviewed events, it is recommended an in-time updating whatever the stage of planning process is.

Also, the main stages of strategic planning process were established by Strategic Planning Manual (2009, p. 29-52), such as: preparing, current situation analysis, clarifying mission and establishing vision, formulating objectives, targets and setting priorities and performance indicators, documenting strategic planning. At institutional level, the entities involved in strategic planning process are the Group of Management, Sectorial Subgroups, Public Policy Unit, Economic Directorate and Sectorial Departments. At the government level, the strategic planning coordination is assumed by Public Policy Directorate of GSG, Ministry of Public Finance, Strategic Planning Council, Preparing meeting of Government Meetings.

6. Conclusions

In this context, using Joyce's typology, we could conclude that Romania has shared UK "politician led-approach" because "ministers need civil servants to deliver Ministries' strategies and strategic plans will change with the arrival of new politicians in charge of the executive function of government...but if leading politicians are re-elected then strategic plans could live on beyond an election and will (continue to) be implemented on their return to office in government" (Joyce, 2011, p. 14-15). Regarding political conflicts, the cooperation between Minister of Finance (or Budget) and the Prime-Minister or others Ministers is presumed and depends on their political or friendliness relationship. Additionally, it might be outlined that strategic reform process was initiated by the influence of EU or international donors such as World Bank and International Monetary Funds.

Finally, we have to stress that even if since 2007 ministries and other institutions of public administration have set theirs strategic plans and have developed various public policies on these bases, at the moment there aren't any assessment of results and progress of strategic planning and management process in Romanian central public administration. However, such concern has occurred at government level and other international institutions. Thus, between 2010-2011, an in-depth functional review of Center of Government (General Secretariat of Romania's Government) has been drawn by the World Bank in behalf of European Commission. This report⁴ applies two assessment frameworks (World Bank2007; OECD/SIGMA) to examine Romania's current policy management practices. In both cases, the

⁴ WB, 2010-Functional Review of Center of Government Sector within Project: Functional Review of the Central Public Administration in Romania, code SMIS 19881, Co-financed by the European Social Fund, through the Operational Program Development Administrative Capacity, during the period July 5th, 2010 – July 4th, 2011.

assessments conclude⁵ that, although the legal framework and institutions are largely in place to support effective policy management, execution in Romania remains inadequately. Five critical issues affecting the quality of policy management in Romania were identified (WB, 2010:9): linkages between policy and financial planning; quality of policy deliberations; prevalence of ad hoc decision making; availability of performance information; organization of the policy function and Center of Government.

In the context of new budgetary programming period 2014-2020, in November 2014, a new Strategy for Consolidation of Public Administration Capacity was approved by Romanian Government. This strategic process was initiated by Ministry of Regional Development and Public Administration, in cooperation with the Prime-minister Cancellary and consolidation of Strategic planning process has yet figured as reform objective.

At the micro level, we could draw some recommendations to enhance Central Public Administration capacity to implement its strategies:

Firstly, each ministry (department) has to ensure the necessary support and resources for success of strategy implementation. In this respect, the strategic management committee of each ministry has to identify the support coalitions for the new strategy. For this reason, public managers must to assess political environment for decision-making by using a wide variety of tools of mapping, diagnosis and analysis and to convince all stakeholders of the value of its strategic objectives in order to obtain resources for implementation. “In a democracy or democratizing political system, public officials need to operate in ways that respond to citizens’ needs and desires, balance special interest against equity and distributional considerations” (Brinkerhoff & Crosby, 2002, p. 163).

Secondly, the strategy should not be regarded as a simple bureaucratic document, but as a useful tool to guide our future actions. All affected parties have to participate at workshops that could contribute to economic efficiency gains by improving coordination across implementing agencies and sector, elaborating jointly understood of operational roles and rules and disseminating information “about objectives and measures that will be implemented” in order to get understanding of outputs to be produced.

Thirdly, the ministries have to focus on the key process, human capabilities, technologies and organizational changes needed to put in practice strategies and on the risks that could appear during implementation.

Fourthly, ministries have to translate strategic vision and objectives into operational objectives and measures at the level of executive agency and territorial services. For each strategic objective, operational and functional units have to be able to identify the primary risks events that could affect the objectives’ achievement and to determine warning indicators for each of them.

Fifthly, they have to identify strategic initiatives (projects) and measures and to accord more importance to planning operations, that consists in improving daily activities by identifying critical success factors and targets that public servants should focus on.

Finally, ministries should be able of monitoring the strategy implementation in order to reconsidering the map and strategic options and of organizational learning.

⁵ *The assessment of World Bank “draws two fundamental conclusions: although the legal framework and institutions are largely in place to support effective policy management, execution is poor; and the policy process operates in isolation from the budget process”.* (WB, 2011, p. 7)

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Privatization of Electricity Supply and Distribution Services

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Abstract

The Romanian electricity distribution and supply services have been substantially affected by the transition of moving from state-owned to privately-owned companies. We analyzed how important elements of sustainability of electricity distribution and generation companies in Romania have been affected by this privatization process. The key finding is that little progress toward sustainability in Romanian energy sector after privatization has been achieved. The analyses included aspects like legal framework, evolution of prices, competitiveness, advantages and disadvantages of privatization process of state-owned companies in energy sector, and the level of services quality. As a research method we used personal interviews, which help us gain deeper insight into the actual meanings of how the privatization of electricity distribution services is perceived by different stakeholders. In the end of the paper, we can conclude that there remains much for government institutions, policymakers, private companies and other important stakeholders to do in order to establish a sustainable market structure that could generate economic growth and welfare for population.

Keywords: *electricity, privatization, regulation, quality, competitiveness*

JEL Classification: *Q4, O13, P18*

1. Introduction

This paper analyzes the influence of the privatization of the Electrica Muntenia Sud subsidiary on the power supply and distribution service, the subsidiary currently owned by ENEL.

In the case of Romania, we studied and documented on the privatization of electricity distribution and generation companies. So, we found out that the privatization process in Romania serve as an effective example of the challenges involved in moving from state-owned to privately-owned companies (Georgiou and Rocco, 2017; Campbell, Ross, and Thomson, 2017; Letang, 2017; Popescu, 2017). Privatizing a distribution company represents more than the selling of industrial infrastructure; it is the movement towards a market based-economy where indirect state support for heavy industries is reduced (Popescu Ljungholm, 2017; Enderstein, 2017; Esty, 2017; Fox *et al.*, 2017). For households, social support is shifted to specially designed programs sometimes involving the energy regulators. In Romania the regulatory framework takes on significant importance in maintaining state involvement, as

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quality of service and investments are balanced with electricity prices. (La Belle & Jankauskas, 2009)

According to Androniceanu (2017), managers need to appeal to modern methods and techniques that would help them cope with the competition and offer their customers new, attractive, good quality services, and at competitive prices. In this context, the author recommends the use of total quality management as a viable and sustainable option that can systematically contribute to the consolidation of the capacity of organizations, in this particular case – the energy companies. Also, Androniceanu & Popescu (2017) documented that many countries in the world approved and implemented their national legislative framework to facilitate the privatization process in the energy sector in order to facilitate a sustainable development.

Popescu *et al.*, (2018) analysed the effects and the determinants of the energy paradigm and how changes are influencing the economic growth in European Union. They started from the assumption that the economy is highly dependent of energy consumption in achieving the economic growth and welfare for population. Consequently, the changes in the energy paradigm imply significant transformations in the production structures and their evolution.

Vlahinić-Dizdarević (2011) investigated and demonstrated in her work that the privatization in electricity sector does not necessarily generate economic gains, and that its success depends on the regulatory framework, which in turn is affected by political and social norms and standards.

2. Problem Statement

In the current context, energy is the engine of the economy and of society, playing an essential role for the community and a strategic character for the economy. Energy contributes to generating industrial, commercial and social well-being (Gandolfi *et al.*, 2018; Menéndez, 2017; Mengoli, Odorici, and Gudjonsson, 2017; Holzer, 2017), ensuring both personal comfort and mobility. Thus, there was a need for strict governmental control. All of this due to consumers' dissatisfactions regarding the fact that they do not participate in decision making in any of the phases of operating the energy system and that the government-energy industry relationship is rigid have led to a reorientation of the system towards customer and competition (IER, 2003).

The customer-oriented and competitive energy system is characterized by “separating activities to allow competition, freedom to invest in competitive activities, freedom to contract at competitive rates, access to network and infrastructure, and adaptation to information technology” (IER, 2003, pp. 4-5). Considering all these elements, the European Union has set out a number of directives, including Directive 03/54/EC, which laid the foundations for electricity sector reforms in all member states. The Directive reinforced the requirements for separating the electricity transmission and distribution system from the electricity supply system (Pollitt, 2009). The separation of electricity generation, transmission, supply and distribution activities has taken place in almost all member states along with the liberalization and privatization of electricity companies (Ernest & Young, 2006).

The report by Ernest & Young (2006) states that privatization results in the acquisition by private entities of proprietary rights in public property. Fiorio & Fiorio (2011) consider that “privatization consists of selling state-owned firms and licensing private investors.” On the other hand, Hermann & Verhoest (2008) argue that privatization does not always include a full transfer of ownership rights, and so the state often owns a majority or minority stake in the privatized companies. However, according to Fusea and Ciuncan (2008), “the lack of a clear ownership has favored the expansion of corruption.” As a first remark, we can say that the full privatization of fully state-owned companies is more appropriate than privatization by minority

sale of a stock package, as state-owned companies are increasing the risk of the phenomenon of corruption (Agarwal, Kwan, and Paul, 2018; McBee, 2017; Thiel, 2017; Acosta Price, 2017).

According to Pollitt (2009), the electricity reform can be achieved by privatizing the sector, taking into account the following four elements: the privatization of public property assets, the opening of the market to competition, the vertical separation of transport and production distribution, as well as the introduction of the independent regulatory authority.

The process of privatizing state-owned companies in the energy sector began in the UK with the liberalization of the markets. UK was followed by Sweden, where public sector reforms were radical, and Poland where the privatization process was slow (Hermann & Verhoest, 2008). Over time, many countries have undergone energy sector reforms (Finland, Austria, Sweden, Denmark, Italy, Spain), where the mixed property has emerged. There were also countries like Greece, France and Ireland, where the reform did not take place due to the involvement of the political factor, and especially of the government through its power of intervention and regulation (Fiorio & Florio, 2011).

In the literature there are numerous studies conducted in different countries of the European Union, from which it appears that the privatization process was a slow one, except for UK and Germany, where an open and competitive market was created. It should be remembered that countries such as France, Italy and Spain, where the state monopoly prevails, the introduction of competition and the creation of a customer – and competition – oriented market have been more difficult to achieve (Haar & Jones, 2008).

The privatization of state-owned companies in the energy sector aimed to reduce the government's role in the economy, the emergence of foreign investors in the private sector, the change of ownership, the stimulation of managers and the increase in performance, and profit maximization (Boubakri *et al.*, 2009). In developed economies, issues of access to electricity or quality of service are minor, so only the price can make a difference between public and private ownership (Fiorio & Florio, 2011).

The privatization should not be seen as a lifeline or as an easy-to-implement method, as many problems can arise especially at the management level of the organization (Fanelli and Ryden, 2018; Machan, 2017; Tcherneva, 2017; Reimann, 2017). The privatization of UK electricity companies led to their organizational redesign, impacting on organization management, performance and efficient management (Vinh Sum Chau, 2009).

Silvestre *et al.*, (2011) analyze the evolution of five electricity distribution companies in the Northeast of Brazil using technical and financial indicators and they observed that privatized firms had their financial indicators improved after privatization, increasing the value of the firm for shareholders, but the results didn't show any evidence that privatization has affected the quality of service provided to consumers (Bratu, 2017; Chapman, 2017; Popescu, Ciurlău, and Alpopi, 2017; Shaefer, Wu, and Edin, 2017).

This article contributes to the understanding of the main problems of privatization and recent debates undertaken by policy makers, scholars, investors and consumers about the advantages and disadvantages of electricity distribution privatization.

3. Research Questions/Aims of the research

Considering that the object of the qualitative research is the influence of the privatization on the services provided by the Electrica Muntenia Sud subsidiary, the research aimed to investigate the following directions:

- Identifying the views and information that various energy specialists have on the phenomenon of privatization;
- Identification of the positive and negative aspects resulting from the privatization of Muntenia Sud subsidiary;

- Identifying experts' opinions on the legal framework in the energy sector in Romania;
- Identifying experts' opinions on the level of competition in the Romanian energy sector.

The assumptions of the research will be as follows:

- I1: The privatization process of the Muntenia Sud subsidiary had the effect of increasing the tariff;
- I2: With the privatization of the Muntenia Sud branch, the quality of the services rendered increased;
- I3: The privatization process of the Muntenia South subsidiary involved the increase in investments;
- I4: The level of competition on the electricity market influenced the privatization process of the Muntenia Sud subsidiary;
- I5: The legal framework in the energy sector has influenced the privatization process of Muntenia Sud.

4. Research Methods

Taking into account that this research involves analyzing the influence of privatization on the services provided by Electrica Muntenia Sud, we considered it necessary to use the interview as a method of data collection, since it offers a broader view of the analyzed field, being useful in identifying the negative and positive aspects of privatization, as well as in formulating solutions.

Using personal interviews, we were able to collect information about what individuals know and how they feel regarding the topic researched. This approach is more direct than the use of questionnaires and helps us lend deeper insight into the actual meanings of how privatization of electricity distribution services is perceived by different stakeholders. The face-to-face interviews provided a greater flexibility than other survey methods and helped us clarify casual relationships. Within the interview we used ten standard and relatively open-ended types of question. There were 3 in-person interviews and two telephone interviews conducted. These were all conducted between November 2017 and February 2018. All interviewees were granted anonymity in order to facilitate a more open assessment of the privatization process. Each interviewee is identified by the sector they represent. We obtained the responses during a period of three months (until February 2018) from five persons. Individuals were selected according to occupational status, each person working within companies or institutions in the energy sector and having an overview of the privatization process of Electrica Muntenia Sud subsidiary. Thus, five people were interviewed with the following occupational status:

- Respondent no. 1 – ENEL Public Affairs Specialist;
- Respondent no. 2 – expert in energy policy;
- Respondent no. 3 – Candole Partners consultant (economic and regulatory consulting firm);
- Respondent no. 4 – representative of the Office of State Participation and Privatization in Industry (O.S.P.P.I);
- Respondent no. 5 – Representative of the National Regulatory Authority for Energy (N.R.A.E).

In table 1 we present the interview guide, where you can view the questions addressed to the 5 respondents.

Table 1. Interview Guide

No.	Questions
1	First of all, I would ask you to say in a few words what do you think about the privatization of state-owned companies in the energy sector?
2	In your opinion, has ENEL made sufficient investments after privatization?
3	Do you think the price of electricity supplied by ENEL has been increased significantly after privatization?
4	As regards the quality of the services provided by ENEL, do you think it has been increased after privatization?
5	What can you tell us about the relationship between ENEL and ELECTRICA S.A.?
6	In your opinion, is the Romanian legal framework in the energy industry well structured?
7	At what level do you think competition is in the Romanian energy industry?
8	In your opinion, what are the positive effects of the privatization of state-owned companies in the energy sector?
9	But the negative effects?
10	Do you consider it appropriate that the privatization process in the energy sector continue?

Source: Authors, 2018

5. Findings

Following the interviews, there were centralized views and different data from the five selected specialists to participate in this study, giving us an overview of the positive and negative effects of the privatization process within the Muntenia Sud subsidiary. Further, this information is summarized in table no. 2, where, depending on the questions in the interview, a comparative analysis of all aspects of the present research is carried out. We compared the five respondents' answers according to each question used in the interview guide.

Table 2. Comparative analysis of the 5 stakeholders' responses

Questions	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5
Issues concerning the privatization of state-owned companies in the energy sector	Privatization has the effect of increasing efficiency and service quality in conditions of fair competition and regulation	The privatizations that are successful are the majority, with a competitive and international bid	Privatization is successful when it is done in a transparent way at its true value, respecting the contractual clauses	Privatization is aimed at increasing investment, liberalizing markets and attracting competition	Privatization is about opening up the market to competition, increasing investment and service quality
Investments made by ENEL after the privatization of the Muntenia Sud subsidiary	The investments are based on a plan developed in cooperation with ANRE. ENEL invested RON 1,769 billion in South Muntenia during 2009-2011, significantly exceeding the	The problem with investments in ENEL was in Muntenia South, where the ownership transfer was made about two years later than the date of the privatization bid by ENEL. ANRE recognizes	ENEL did not realize the investments they made under the privatization contract. A problem that has led to the total realization of the investments is the regulation made by ANRE	The investments made by ENEL compared to the initial investments were 52% in 2009	ENEL Muntenia Distributie has made very low investments compared to the program, but ANRE has established the procedure for the revision of the pricing methodology for the electricity

	obligations assumed under the privatization contract for this period	that ENEL has made investments that have not yet been recovered at higher rates			distribution service
The price of services provided by ENEL after the privatization of the Muntenia Sud subsidiary	Distribution and supply tariffs on the regulated market are set by ANRE	The electricity price provided by ENEL is 100% regulated. The increased price may be due to the understanding between ANRE and ENEL at unjustified tariffs, the recognition of excessive costs in tariffs	The distribution tariff has increased largely due to alleged investments made in the infrastructure network	The consumer pays an energy price including the distribution tariff and the tariff regulated by ANRE	Electricity tariff is regulated by ANRE for a period of 5 years
The quality of services provided by ENEL after the privatization of Muntenia Sud subsidiary	Service quality indicators have seen significant improvement after privatization	Quality has not changed significantly	The level of current tariffs does not justify the quality of the services	It is necessary to improve the quality of the intervention service and the customer service	With increased investment, the quality of services provided by ENEL will increase
ENEL-Electrica S.A. relationship	Electrica S.A is one of the minority shareholders of ENEL Distribuție Muntenia	It's very bad. "Electrica is a minority shareholder at ENEL and hates this"	There is a poor communication	Electrica S.A. has filed numerous complaints about ENEL, such as the non-publication of the decisions of the AGM. in the Official Gazette and the absence of documents	The two companies collaborate as Electrica S.A. is a minority shareholder at ENEL Distribuție Muntenia
Competition level on the Romanian energy market	The competition issue is that most of the companies in the market are controlled by the state. In the supply area, the competition is on a good road	Poorly on the "wholesale market, because 85% of the electricity production is controlled by the state. On the retail market is competition, there are some	Distribution operators have divided their geographic areas and it is very difficult for domestic consumers (easier for industrial ones) to change their supplier, so the	Competition is only present in the area of supply and distribution of electricity	Competition is more or less present in the energy sector, depending on what market it is

		60 companies”	energy sector is a poorly competitive one		
Positive effects of the privatization of state-owned companies in the energy sector	Companies need investments and reforms, privatization has the effect of improving transparency and corporate governance	We need privatization because investment is needed as “the state has no investment money”	Improving service quality, fierce competition would lead to lower tariffs, inefficiency, and profitability leakage due to the interests of the political environment would be eliminated	Increased investment, promoting competition and supporting development	Developing the energy sector by investing and improving service quality
Negative effects of privatization of state-owned companies in the energy sector	Privatization processes can be managed better or worse, but in the case of Romanian energy companies, it is difficult to see any negative aspects of privatization	There is a risk that after privatization there will continue to be preferential relations with the state.	Poor contract negotiation may be a problem, non-monitoring compliance with contract clauses, rising tariffs to a declining quality of service	Privatization must be accompanied by clear and stable regulations for success	Privatization involves making investments, increasing quality, but doing so can be difficult
Continue the privatization process in the energy sector	A fair privatization process, minority or majority, is in the benefit of all, “the resumption of the privatization process is indeed appropriate”	Continuing the privatization process is timely, private companies have made larger investments than those of the state	Privatization should continue, but transparently, away from the influence of the political environment	In order to ensure the development of the energy sector, privatization is opportune	Privatization is appropriate given the need to increase investment in the energy sector

Source: centralized data by authors, 2018

After analyzing the information in table no. 2, we identified the main negative effects of the privatization process within the Muntenia Sud subsidiary. Thus, among the negative effects of the privatization of the Muntenia Sud subsidiary are:

- Low level of investments made after privatization;
- Increasing electricity tariff;
- The quality of the services rendered did not increase significantly;
- The poor relationship between ENEL and ELECTRICA S.A.

One of the negative effects of privatization is the low level of investments made after privatization. Regarding the investments made by ENEL as a result of the privatization, it was

found that they did not increase significantly, but it cannot be said that investments were not made at all. Respondent no. 1 stated that “all distribution operators make investments in the network according to a plan approved by ANRE,” so ANRE has an important role to play in achieving a high level of investment. He said that “ENEL invested RON 1,769 billion in Muntenia South between 2009 and 2011, significantly exceeding the obligations assumed by the privatization contract for this period.”

However, it is assumed that ENEL did not invest enough, respondent no. 2 considering that “the problem with ENEL was in Muntenia Sud, where the actual transfer of property was made about two years later than the date of the privatization bid by ENEL. In the past two years no one (neither Electrica, nor ENEL) made any investments that it was unclear who owns, but Electrica was not going to be, ENEL was not yet.” Thus, until 2011 investments were minor, but after 2011 they have increased.

Also, respondent no. 4 states that “the investments made by ENEL compared to the initial investments were 52% in 2009.” According to the information we received, we found that ENEL invested after privatization, but not as much as was foreseen in the privatization contract.

Another negative effect of privatization is the increase in the electricity tariff. According to the respondents, this problem is caused by the fact that “the distribution and supply tariffs on the regulated market are set by ANRE.” It is also considered that the distribution tariff has increased largely due to alleged investments made in the infrastructure network. Thus, following the interview of the five people, we noticed that the increased energy tariff is not only due to the company providing the service, because the tariff is regulated by ANRE for a period of 5 years, according to the respondent no. 5.

According to the information received from respondent no. 2, the ANRE regulator sets the price, and this problem of the high electricity tariff was also due to an understanding between ANRE and ENEL.

A third problem is that of increasing the quality of the service provided. In this respect the respondent no. 3 considers that “the level of current tariffs does not justify the quality of services.” However, respondent no. 1 states that “service quality indicators have experienced significant improvement after privatization, the average duration of interruptions decreased from 569 minutes/year in 2010 to 439 minutes/year in 2011, 347 minutes/year in 2012, respectively 290 minutes/year in 2016 (ACUE, 2016). All these are the results of investments in the modernization of distribution networks.” The quality of the services provided by ENEL is below the quality of the services provided by Electrica S.A., according to respondent no. 2, who states that there is an ANRE report on the quality where this difference can be proved.

Also, respondent no. 4 considers that “the quality of the intervention service and the customer service should be improved.”

Following the analysis of the information received from the respondents, we identified some issues regarding the legal framework and the level of competition in the energy sector, which are of major importance for the successful completion of the privatization process. These are: the legal framework is unpredictable, non-transparent, influenced by the political environment; the legal framework is characterized by a lack of stability and predictability; the energy sector is poorly competitive; there are administrative, regulatory and political barriers in the energy market.

Also, the privatization process must be carried out in a competitive environment. According to the respondents, there is competition in the Romanian energy sector only in the electricity sector, respondent no. 2 stating that there is competition on the retail market, with about 60 suppliers here. In contrast, in the electricity sector, competition is affected by the fact that the vast majority of the companies on the market are controlled by a single player, namely by the state.

Although there is low competition in the distribution and supply sector, respondent no. 3 believes that with the “implementation of the 3rd liberalization package, consumers will be able to change their supplier. At present, distribution operators have divided their geographic areas in Romania and it is very difficult for home consumers (easier for industrial users) to switch to their supplier,” therefore considers that “the energy sector is generally weak, more competitive far, put enough barriers to new entrants (administrative, regulatory, political barriers).”

Regarding the relationship between ENEL and Electrica S.A., this study shows that these two companies are in collaborative realities due to the fact that “Electrica S.A is one of the minority shareholders of ENEL Distribuție Muntenia.” Unfortunately, between the two companies “there is a poor communication. Electrica has often complained that ENEL did not provide documents certifying compliance with contractual clauses,” according to respondent no. 4.

As we can see, in the process of privatization of Muntenia Sud, the negative effects outweigh the positive effects, as ENEL failed to fulfill the stipulations in the privatization contract, the investments being minor, the tariff having an increasing trend the quality remaining constant.

The negative effects of this privatization process were largely influenced by the legal framework in the energy sector and the level of competition on the energy market. However, the phenomenon of privatization may have positive effects if it is accompanied by appropriate regulations and if there is competition in the energy market.

Next, table no. 3 presents briefly the positive aspects and the negative aspects of the privatization process, resulting from the analysis of the information received from the respondents.

Table 3. Privatization. Positive and negative aspects

Positive aspects of privatization	Negative aspects of privatization
Market liberalization	Raising tariffs to constant or declining service quality
Increasing service quality	Reducing state control
Increased investment	It assumes a high level of competition
Improving transparency	Poor negotiation of privatization contracts
Promoting competition	Poor monitoring of contract performance
The interests of the political environment eliminated	The possibility of corruption

Source: centralized data by authors, 2018

The above table highlights the positive aspects of privatization, which highlight the liberalization of markets and their orientation towards customers, and the privatization process also involves investing. Although in the case of ENEL insufficient investment has been made in infrastructure, we must take into account that with the privatization, investments have been increasing in comparison with other state-owned companies where investment is minor.

At the same time, the quality of the services has increased, even if not to a certain extent.

Also, the privatization process encourages market competition and has the effect of diminishing political interests and promoting transparency (Ren and Ren, 2018; Havu, 2017; De Gregorio Hurtado, 2017; Popescu, Comănescu, and Manole, 2017), and in terms of lowering tariffs this is possible if there is fierce competition in the energy market and a stable legal framework.

On the other hand, the privatization process also has negative aspects, such as the increase in the electricity tariff. The price does not reflect the quality of the service. In the case of ENEL, the tariff has increased, however, investments have been minor, although it is assumed that the tariff includes investments. This problem is mainly due to bad regulation from ANRE, as can be seen from the analysis made on the basis of the data received.

Another problem faced by the privatization process is the poor negotiation of contracts by the parties involved and inappropriate monitoring of the way the contractual clauses are fulfilled. This problem arose also in the case of the privatization contract concluded between Electrica S.A. and ENEL.

6. Conclusions

In conclusion, the privatization process can have positive effects as well as negative effects.

This study showed that the privatization process of the Muntenia Sud branch had a negative influence on the services rendered. ENEL, following the privatization, increased the tariff for electricity, offering services of the same quality or insignificant improvement, and the investments made did not correspond to those provided in the privatization contract.

Thus, the privatization process is difficult and requires market analysis to establish the level of competition, analyzing the existing legal framework and determining the demand for consumption existing in the energy sector. All this influences the success or failure of the privatization process.

At the end of the research we can say that the assumptions I1, I4 and I5 are confirmed. The hypotheses I2 and I3 were partially confirmed, as the quality of the provided services increased, but to a small extent, and the investments in this sector had a reduced share compared to the provisions stipulated in the privatization contract.

The privatization of Electrica Muntenia Sud relied on ENEL entering lengthy and difficult negotiations with ANRE and the Government over asset values and the rate of return. In the end with the participation of the World Bank, a Partial Risk Guarantee was provided. The lack of mentionable post-privatization regulatory issues indicates that this facility may have played a role in reducing disputes between distributors and regulators. Another important conclusion regarding the privatization process is that if there is sufficient consultation between regulators, government institutions and investors, privatization can be effectively done.

The limits of the study refer to the methodology we used, that obviously reflects the subjective judgments and perceptions, but perceptions are important because the respondents (in their quality of actors in the energy sector) base their actions on their experience, knowledge, perceptions, impression, and views. Despite above mentioned limitations, this article contributes to the literature review by identifying the main problems after the privatization of Electrica Muntenia Sud, and also by presenting in a centralized way the main advantages and disadvantages of the privatization process.

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**The 1st International Conference on Economics and Social Sciences
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New Management Practices for Obtaining Increased Organizational Performance

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Abstract

To discover the correct path to obtain and maintain an appropriate and challenging level of performance in an organization, we must first point out which are the possible directives available for the choice. Therefore, organizational behaviour needs to be studied, and the creation of a full proof database which includes managerial know-how, best practices, learned lessons, and so forth, to guide the management of the company towards the best path that needs to be followed to achieve organizational objectives. That is exactly what the aim of the paper is, to contour a set of potential alternatives, in terms of management practices, which have the potential to determine an increase in organizational performance. Moreover, it suggests that the road you take is as important as the destination you want to get to, and that by using the invaluable management experience and good practices of others, as well as our own, organizations can finally stop wandering off into the maze of objectives and obtain the performance they desire. However, we do not mean to state, in terms of intended contribution of research, that we have discovered the perfect one-size-fits-all solution, just that by continuously learning we can create our own custom path to success, and that we consider relevant to underline the importance that certain management practices can have in obtaining increased organizational performance.

Keywords: *continuous learning, management practices, managerial know-how, organizational performance*

JEL Classification: *D23, D83, L21, L25*

1. Introduction

In the current century, economic development has been increasingly based on the IT field, sometimes to the detriment of other areas (such as manufacturing, industrial, and so on), which now, in turn, also depend on it. In successful economies, research and innovation are stimulated and capitalized to the fullest, helping to achieve outstanding performance across many organizations.

It is already well known that the performance of an organization is influenced by a multitude of internal and external factors, but perhaps the most important of them is largely the management system of the organization, followed in our opinion by the ability to adapt managerial strategies to the specifics of the organization as a whole. Moreover, the art of

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management can influence the course of the organization, and the variety of ways in which the different managerial practices are used in the specific context of each enterprise, requires, in our opinion, a special attention and represents an interesting subject of research.

Managerial practices need to be continually adapted to the dynamics of organizations.

Prioritizing investments in re-engineering, using artificial intelligence and innovation in the organization's field of activity can be a first step towards performance. Its long-term consolidation is done through the implementation of innovative/successful technological information through both foreign and domestic capital. Progress recording is based on programs able to combine certain activities/services from other areas that have been successful in others, with highly skilled human potential. There are many examples of success, but the contribution cannot only be related to the managerial vision that can develop and modernize one area or another. Using this global development opportunity can show the degree of economic maturity of each country involved in the current global race. This globalization phenomenon has had and has complex and sometimes irreversible effects on entire different correlation from world-wide.

Today, more than ever, the activities of organizations are influenced by the wide range of phenomena and processes that are taking place at economic level. Current trends would not allow for a relaxation of economic globalization and not only, but the near future or more distant future can bring a change of air to the leaders in the field. Therefore, a broad knowledge, of the characteristics and tendencies of the various international economic environments that are manifested in the world economy, the level of competition, the methods, techniques and procedures practiced on the global market, is mandatory for all economic specialists.

2. Problem Statement

“Organizational performance is a complex and far from agreed-upon concept, yet one that is becoming critical for organizational survival” (Sluyter, 1998).

The organization must, besides have a solid capital and a stable innovative potential, develop and maintain itself among the fierce global competition. Another feature of the current century is that of developing new technologies (mainly related to information, communication), which opened perspectives for organizations (both large ones that can expand even more and small ones (SMEs) that have easy access to the broad market). The costs of this “facility” have not been delayed, so competitive and supremacy attempts are increasingly present. Through efficient management, the five management functions, forecasting, organization, coordination, training and the control-evaluation (Burdus & Popa, 2013) are exercised successfully to achieve the proposed objectives of the organization. At the basis of these phases is its correlation (managements’) with the specifics of the socio-economic and political context of the working environment, thus being able to improve the activity of the organization, as well as enhance its performance.

Lusthaus Charles, and his colleagues from the International Development Research Centre in Canada, proposed an approach, based on the framework constructed by IDRC and Universal Management Group, for assessing and improving organizational performance. In their framework, “the capacity of an organization is considered in terms of seven main, interrelated areas that we believe are the foundation of the organization’s performance: strategic leadership, human resources, financial management, infrastructure, program management, process management, and interinstitutional linkages” (Lusthaus, Adrien, Anderson, & Carden, 1999).

Another interesting approach is presented by Tim Baker, in his book “Performance Management for Agile Organizations: Overthrowing The Eight...”, who believes that “agility and its characteristics of speed, manoeuvrability, and flexibility in an open system model is the

driver of performance... Yet many of the people management practices still used are hopelessly outdated and ineffective” (Baker, 2017).

Taking into account the above mentioned, it appears that the process of training successful/top managers cannot be conceived without knowing and understanding the multitude of available options and methods in the world economy.

Organizational performance is the ultimate dependent variable of interest for researchers concerned with just about any area of management. Market competition for customers, inputs, and capital make organizational performance essential to the survival and success of the modern business (Richard, Devinney, Yip, & Johnson, 2009).

Among the pillars that must stand at the base of an organization’s performance are: investments that support economic growth, efficient restructuring of spending, prioritization of “clean” resources, empowering and stimulating highly trained staff, and so on. Often in managerial practice it has been found that performance/success of an organization is often influenced by the overall changes that appear.

3. New management practices for obtaining increased organizational performance

In order to discover and present certain significant aspects that relate a certain management practice to its increased organizational performance, we decided to use a qualitative research method, the case study. The results obtained from the analysed case studies/approaches helped us contour a list of pertinent findings, which supports and helps achieve the aim of the research.

The approaches/case studies chosen for this paper were selected based on their relevance and accordance to the purpose of creating a foundation for further research in this field, and we consider it to be an instrument to be used by specialists and practitioners as a starting point in the means of discovering their own customized path.

One of the major challenges of current management is precisely the relational system of managerial organizations that needs to be adapted to present/current technologies, in order to create and maintain a good collaboration between its members and the contoured hierarchical systems. As we have shown above, here comes the role of the manager in the complex process of communication and in the organizational relationships, by processing all the knowledge and information and transmitting it to both its subordinates and to those outside its organization (i.e. its stakeholders). In this context, the key to success/managerial efficiency can be continuous learning, along with the permanent management of dual-internal and external communication of the acquired knowledge.

At the core of management lies the managerial capacity to understand, study and analyse the activity both within the organization as well as from external sources that are linked to it; whilst its use must be in accordance with the organization’s economic, social and financial objectives.

Also, a responsible examination and review has a decisive role in the way they accumulate, apply, and efficiently use them in an organization.

Prioritization and suitability/selection of best practices to the specifics and requirements of the activities and then their implementation where necessary is the art of efficient management of the organization in terms of managerial performance. Apparently, one might say that today (when you have access to a wide information system) it is much easier to select the best practices to follow, by using the wealth of information, but the thing that can just create a handicap, is when the manager does not have the objective and optimal/appropriate selection capability to filter the vast array of potential solutions. A great deal of knowledge leads to a greater starting base, to a more efficient knowledge structure and hence, to a deeper and more appropriate knowledge base to the organizational needs. This direct reporting to the needs and established objectives leads to the accumulation of new useful experiences to be used for future successful plans.

One of the most interesting and important management practices noticed over the years, which requires some attention is that of Japanese management practices that have been known to be related to high performance and outstanding organizational results. One of these practices is “kaizen”, or continuous improvement, which according to Parissa Haghirian, “can be applied to every management process or operation and in every organization. Every process can be improved and should be continuously improved” (Haghirian, 2010).

An important role also goes to the managerial capacity to approach and correlate current regional economic manifestations to global economic trends. In this sense, we believe that the new managerial practices represent the key to the opening/implementation of a perspective aimed at enhancing the performance of an organization, which we proposed to highlight through the study conducted and presented in this article.

According to Martin Stankard (Stankard, 2002), there are “eleven high performance organizational values, which play a critical role in integrating management system elements into a system for performance excellence: focus on results as well as on creating value, customer-driven-excellence, organizational and personal learning, valuing employees’ and other partners’ help, manage by facts, system perspective, agility, innovate, visionary leadership, focus on the future, public responsibility and citizenship”.

Another interesting approach is presented by , in their book “Compensation and Organizational Performance: Theory, Research, and Practice” (Gomez-Mejia, Berrone, & Franco-Santos, 2010), which believe that “there are four ingrained premises in most performance-contingent pay systems”, of which we consider relevant to mention the following: “a substantial amount of variance in organizational performance can ultimately be attributed to the performance of individuals and groups within the firm”.

Through this paper we presented and emphasized the fact that this close relationship between management practices, used to better leverage the potential of the organization/business by generating and spreading knowledge necessary to achieve the objectives of the organization, and the performance achieved in this context. New management practices must be the result of combinations of actions, events, facts, events, etc. – which can be transformed into prototypes, in models that can be contextually applied within certain organizations. This is where it takes creativity and the ability to apply/use them where needed. All the information contained in these new practices is correlated and synthesized in a totally efficient unit, through human resources, technologies and products within the organization structure. Through them we can ensure a performance/competitive environment within the organization, environment which is much more needed in this moment of the XXI century.

4. Findings

Present global development challenges are actually keeping management alert, which must be in continuous improvement and refinement if it wants to keep up with trends and achieve maximum organizational effectiveness and, thus, a higher performance.

The main findings of this paper refer to new management practices for obtaining increased organizational performance. Based on the undertaken research, we contoured a structured list of focus points, which management of any type of organization should revise and take into consideration, when trying to figure out how to obtain and maintain a certain level of desired performance. The list is not designed as a follow one-to-x type guideline, but more so as series of recommendations to be taken into account when choosing the correct path of action.

It should not be neglected that the long-term success of an organization also depends on its ability to adapt to change, to learn its employees (starting with management), the continuous improvement, the level of training and specialization of the trainers/consultants. So, supporting a highly developed intellectual human capital can be a solution only if the access to knowledge,

of a larger number of employees within the organization, is widened; and by sharing knowledge, their value increases with use. If managers aim to achieve remarkable results, high performance, they must have the ability and openness to identify and understand the best practices in the field so that they select and use the most pertinent and relevant to the organizations they are leading.

For an increasingly higher performance, a plan is needed, which should focus on skilled human resources, with high intellectual performance. The novelty of this managerial approach is to bring solutions by distributing, enhancing, capitalizing and using the knowledge of that organization.

A successful management approach must always be updated and readjusted to changes and deviations from the proposed goal. A predictive and anticipative capacity gives priority to managerial success. This new approach – to achieve enhanced organizational performance – must be seen as a strategy that takes into account the needs of its organization to support it in order to successfully implement it.

As we have presented, there is no single solution that will be able to turn an organization into a performance one. This is where a number of factors compete, which can influence in the short or even irreversible way the good work of an organization. The current world context can change the fate but let us not forget the major role of the management of that organization. We believe that this can be done by identifying the best managerial practices, with focusing on giving more attention to adapting to change, building a flexible team, capitalizing on/potentiating the human factor.

5. Conclusions

From the beginning of the modern society and until now, there have been a series of outstanding events that have not left global socio-economic evolution be indifferent. The response of the economy did not leave us waiting (especially after the series of global events), materializing through significant socio-economic crises (such as the global financial and economic crisis from 2008). Thus, in these conditions and at the organization level, the achievement of a certain degree of performance was difficult to achieve, but the increase/intensification and especially its maintenance was an even more difficult objective to obtain.

Even though the limits of the study cannot be overlooked, we cannot turn a blind eye to the significance and importance of continuous learning applied to the overall management process, and its undoubtable connection to the success and performance of any type of organization.

Therefore, we believe that the intended objective of the research was obtained and concretized through new management practices presented, and also through the proposal of a series of possibilities in which they can be used to obtain an increased organizational performance.

In order to increase organizational performance, management needs to, firstly, be aware of its surroundings, and, secondly, select the best managerial practices available, to succeed in obtaining its goals. In this sense, a knowledge base of information, know-how, learned lessons, best practices need to be available for use, it not representing a for all purposes solution, but a set of valuable options, performance being obtained only through the management talent used to select the appropriate methods for action.

Another recommendation for the management of an organization is to investigate best practices from other organizations similar to its field and adapt it to the specifics of its organization; followed by the adaptation of management practices, while maintaining the internal processes of the organization, but raising them to the new standards adopted/imposed.

By using this managerial approach, a creative and updated to market requirements business/work environment is obtained, an environment that can develop/potentiate skills and

competencies that promote and encourage learning and innovation among members of the organization. The latter stimulates the human factor by perpetually feeding the need for learning.

Basically, management, by having to efficiently build and coordinate a functional team, by having to communicate and listen, by having to manage time effectively, by having to take decisions (from day-to-day to strategic), by having to obtain sensible and maintainable results, and so on, it must be a jack of all traits. That being said, why not lend a helping hand by providing it all the necessary tools and methods to be able to successfully carry out the managerial process and obtain an increased organizational performance.

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How Can Infrastructure Projects be Measured for Success?

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Abstract

The article includes an analysis of how stakeholders involved in infrastructure projects in Romania perceive the main success factors. Starting from the most important approaches of the success factors of the infrastructure projects in the literature, a series of typologically representative infrastructure projects were selected and their stakeholders were questioned about the most important success factors in infrastructure projects implementation. There are differences of vision among the stakeholders involved in the success factors of the projector, but everyone believes that the most important success factors are compliance with execution time, budget, and quality specifications.

Keywords: *project, success, infrastructure, management, factors*

JEL Classification: *M10, M19*

1. Introduction

One of the most important problems of infrastructure projects in Romania is the appreciation of their success by the public and by the parties involved. Issues that arise during their lifecycle are numerous and the appreciation of their success by the parties involved differs. Achieving successful infrastructure projects is a matter of interest for Romania's future economic and social development, as it is conditional on the development of economic sectors such as transport and the automotive industry.

Infrastructure development is also essential to attract foreign investment. Access to a modern infrastructure and connection to the European one is some of the most important issues raised by companies that already have major investments in Romania and those who would like to open new production capacities on the local market. Examples of companies in the automotive industry (Renault and Ford) who have repeatedly complained about the absence of promised investments in road infrastructure are known to create additional problems in the supply of raw materials and in the sale of the produced output.

That is why it is important to study the factors and criteria used to assess the success of infrastructure projects by the parties involved in the implementation of these projects. By knowing these factors, a series of actions can be taken in the design and implementation of projects in the future, leading to the successful completion of public infrastructure projects.

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Through the research carried out within this article, we intend to quantify the main success factors in the realization of public infrastructure projects, but also the differences of vision existing between the various actors (clients, project managers, project team members) involved in their realization, because not all those involved in the realization of the infrastructure projects have the same vision of the success of a project. Client organizations, for example, will be more interested in the project exploitation period compared to organizations involved in project execution.

2. Literature Review

In the literature, the criteria and factors for assessing the success of projects are not defined in a unitary way but on the contrary, there are a number of different approaches that are used for this purpose. Turner (1993) considered time, cost and specifications to be the most important success factors in project execution. He thus shared Kerzner's (2013) vision that time, cost and quality were the main criteria for evaluating the success of projects.

Turner himself admitted that these factors mainly represent the vision of the contractors involved in the projects and less the vision of the clients. Later, Turner considered that the criteria that can be used to assess the success of the projects are: achievement of the project goal; providing a satisfactory benefit to the project owner; meeting the needs of the project owner, project users and project stakeholders; the achievement of the project objectives; producing facilities and deliverables as specified; meeting the expectations of the project team.

On the other hand, Kerzner completes the traditional approach (time, cost, quality) through three additional criteria for assessing the success of the projects: changes to the purpose of the project are to be agreed by the parties involved in the project; the implementation of the project does not lead to substantial changes in the workflows of the organizations involved in the implementation of the projects; the implementation of the project does not bring important changes in the culture of the organization. The last two criteria are, in our opinion, debatable because projects are innovative and unique, which can lead to changes in existing workflows within an organization and even organizational culture. However, the culture of the organization is not a static character but is an ensemble of constantly changing elements. Cultural practices are viewed as dynamic, ongoing, everyday actions that produce social reality (Feldman and Orlikowski, 2011).

Morris and Hough (1987) considered that a project is successful if it: delivers the main functional elements; is implemented according to budget, deadlines and technical specifications: it is profitable for the company involved in its execution. The same specialists considered that a project could be considered as a successful project even if it was not finished if its premature closure was done reasonably.

Wateridge (1998) conducted a research on the success of IT projects using as a success criterion: satisfying user requirements, accomplishing the purpose of projects, observing execution time, budget and quality. The same author also pointed out that the criteria for assessing the success of a project differ in the case of timely and failed projects. Wateridge also showed that there are differences of vision regarding the success of a project among the actors involved in its conception, implementation and exploitation. Most specialists believe that the relationships between the parties involved in the realization of a project, especially those between clients and contractors, are essential to its success (Bryde and Robinson, 2005, Toor and Ogunlana, 2008).

Chan *et al.*, (2004) classified the factors that affect the success of projects in five main categories: project-specific factors, project procedures, project management, human resource factors, external factors. These factors are in interdependence relations, their manifestation as a whole affecting the success of projects.

Cooke-Davies (2002) pointed out that there is a difference between project success and the success of project management. In order to measure the success of a project, it is necessary to complete it. Evaluating the success of a project management involves an assessment of the life cycle of the project (Han *et al.*, 2012).

KPMG in the study entitled “Success and failure in urban transport infrastructure projects” considered that the success of infrastructure projects has three important dimensions: financial success, policy success, durability success. In the same study, KPMG took into account six factors that condition the success of projects: project environment and turbulence, political control and sponsorship, role of national government, planning, efficiency of procurement and financing, organizing operations.

3. Aims of the research

As a result of the study of the literature through the research carried out within this article, we propose the following objectives:

- establishing the main factors that determine the success of the infrastructure projects in Romania;
- highlighting the differences of vision among the stakeholders regarding the factors that condition the success of the infrastructure projects in Romania;
- establishing success factors at different stages in the lifecycle of infrastructure projects in Romania;
- In establishing these objectives, we have considered the main results obtained so far by the researches carried out in different countries and the fact that in Romania, although the subject is one that is in constant public debate, there were no researches to define and measure success in the field of projects infrastructure.

4. Research Methodology

The proposed research methodology was developed on the basis of the study of the specialized literature and the previous results obtained. The proposed research methodology includes the following steps and methods of carrying out the research:

1. Establishing the typology of infrastructure projects carried out in Romania in the last 10 years on the basis of the information published by the National Statistics Institute and those requested from ministries, public institutions and companies that have carried out infrastructure projects.
2. Selection of a representative number of projects where the study of success factors is triggered. The selection was made typologically, not statistically, so that each type of infrastructure project realized in Romania in the last 10 years was represented in the sample of analyzed projects. 50 projects have been selected in the following areas:
 - road and motorway construction projects;
 - construction projects for surface and underground railways;
 - construction of bridges and tunnels;
 - utility projects for electricity and telecommunications;
 - installations projects;
 - projects that include other special construction works.
3. Elaboration of the standard list of successful factors in the field of infrastructure projects based on the ones already elaborated in the specialized literature.
4. Making the questionnaire to be completed by the stakeholders involved in the infrastructure projects in Romania. In particular, customers, designers, main contractors

and subcontractors, end-users were targeted. The questionnaire covered the following categories of questions:

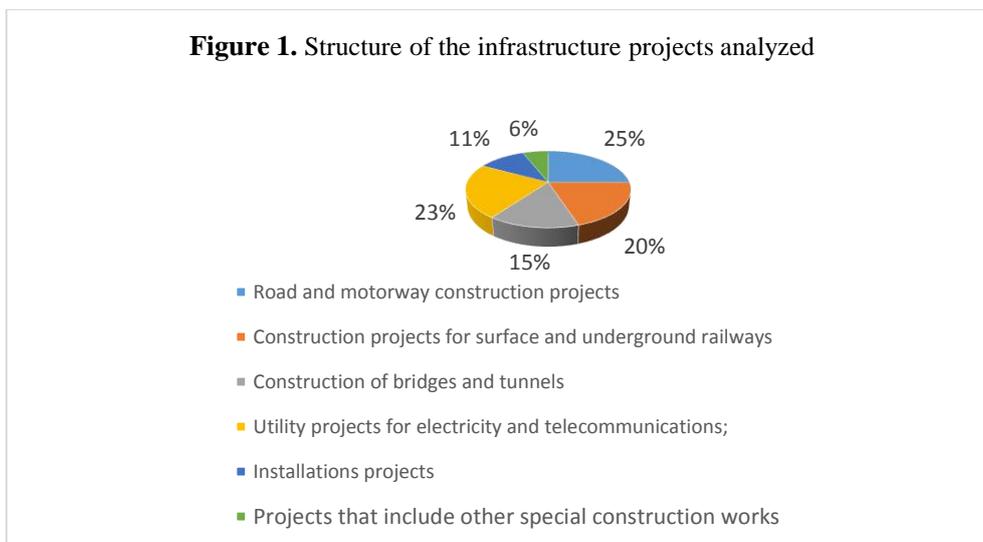
- a category of questions that reveals the particularities of the organization to which the respondent belongs: the form of involvement in the project (client, contractor, subcontractor, designer, end-user of the infrastructure); type of organization (public or private); the organization's annual budget; the number of staff of the organization.
- a category of questions about the respondent: age, seniority in the organization, professional experience, experience in infrastructure projects;
- a category of questions about the nature of the infrastructure project: type of infrastructure project; project budget; the number of people forming the project team; stakeholders involved;
- a category of questions about the success factors in the infrastructure projects in which the respondents were involved. They were allowed to choose from a list of standardized factors, but they also had the opportunity to identify success factors that were not found in this list.

In the last category of questions, multiple answers were made, aiming at highlighting the most important success factors in the realization of the infrastructure projects in Romania.

5. Launching the questionnaire and receiving the answers from the respondents. Emails were sent to 250 respondents and answered 132 respondents, equivalent to a response rate of 52.80%.
6. Analysis of the answers and formulate the conclusions of the research regarding the most important success factors for the infrastructure projects carried out in Romania. In the response analysis process, it was found that 4% of the responses were incomplete, equivalent to a final response rate of 48.8%.

5. Findings

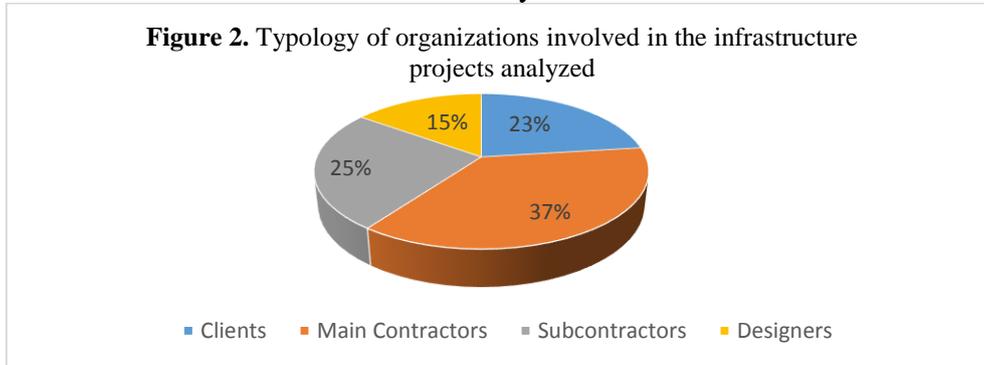
The main categories of projects represented in the selected sample are the road and motorway construction projects with 25% of the analyzed projects followed by utility projects for electricity and telecommunications (Figure 1). The least represented in the sample are the projects involving the execution of other special construction works with only 6% of all the analyzed projects.



(Source: own calculations)

From the point of view of the respondents' typology (Figure 2), the majority of respondents belonged to the respondents from the main contractor's organizations, with 7% of the total of the answers to the questionnaire, followed by subcontractors with 25% of the total answers, and of customers with 23% of all responses.

The least represented in the overall responses are the designers, but it should be taken into account that the number of staff in these organizations is much lower compared to the other stakeholders and that these organizations participating in the project are involved in a component that has the shortest duration in the cycle life.



(Source: own calculations)

From the answers to the questionnaire formulated by the clients, according to the data from Table 1, it can be noticed that the main success factors of the projects in the clients' conception are the fulfillment of the purpose of the projects (with 34% of the opinions expressed), the satisfaction of the users' requirements (with 24% formulated) and respecting the execution time with 24% of the responses.

Table 1. The main success factors of the projects in the client's conception

No.	Success factor	Percentage of answers
1	Satisfaction of user requirements	24%
2	Achieving the purpose of the projects	32%
3	Respecting the duration of execution	24%
4	Respecting the budget	10%
5	Compliance with quality specifications	10%
Total		100%

(Source: own calculations)

For customers, according to the structure of the answers in Table 1, compliance with the project budget and quality specifications seems to be much less important than the achievement of the project goal. An explanation for these results is that most infrastructure project clients are public organizations whose staff are not directly involved in pursuing quality compliance, but indirectly through a hired consultant to perform these checks.

The main success factors of the infrastructure projects in the main contractors' view are presented in table no.2.

Table 2. The main success factors of infrastructure projects in the design of the main contractors

No.	Success factor	Percentage of answers
1	Obtaining the expected profit	8%
2	Achieving the purpose of the projects	21%
3	Respecting the duration of execution	30%
4	Respecting the budget	20%
5	Compliance with quality specifications	21%
Total		100%

(Source: own calculations)

In the conception of the main contractors, the most important success factor of the infrastructure projects is the observance of the execution time with 30% of the answers. The fulfillment of the project goal and the observance of the quality specifications have almost the same importance for the respondents from the main contractors as the budget observance. Achieving the expected profits from engaging in projects replaces satisfying user requirements as a success factor for projects in the design of key contractors.

Table 3. The main success factors of infrastructure projects in the conception of subcontractors

No.	Success factor	Percentage of answers
1	Satisfaction of user requirements	11%
2	Obtaining the expected profit	21%
3	Respecting the duration of execution	23%
4	Respecting the budget	24%
5	Compliance with quality specifications	21%
Total		100%

(Source: own calculations)

The main success factors of infrastructure projects, in the conception of subcontractors, are budget compliance, followed by compliance with the execution time. Obtaining the expected profit counts much more for subcontractors as a success factor for the projects in relation to the respondents' views expressed by the main contractors.

Table 4 shows the main success factors for infrastructure projects in conception of designers.

Table 4. The main success factors of infrastructure projects in the conception of designers

No.	Success factor	Percentage of answers
1	Satisfaction of user requirements	21%
2	Achieving the purpose of the projects	21%
3	Respecting the duration of execution	11%
4	Respecting the budget	16%
5	Compliance with quality specifications	31%
Total		100%

In the conception of the designers, the main success factor of the projects is the observance of the quality specifications, followed by the satisfaction of the users requirements and the fulfillment of the purpose of the projects. Designers are less interested in respecting the duration of the project because they are not directly responsible in this regard.

6. Conclusions

Establishing the most important success factors for infrastructure projects is a very important issue for this type of project in Romania. These projects are conditional on the development of other economic sectors and, for this reason, the success of their achievement is important for all stakeholders.

In our research, we considered the most important success factors for infrastructure projects both as a whole and the differences in vision of the most important stakeholders involved in this respect. Respect for execution time, budget, and quality specifications are considered by all stakeholders as a success factor for infrastructure projects.

Among stakeholders involved in project implementation there are a number of differences in approaching project success. While for clients the most important success factors are the achievement of the purpose of the projects and the satisfaction of the user's requirements, for the main contractors the most important factor of the successful infrastructure projects is the observance of the execution time. Designers believe that the main success factor of projects is compliance with quality specifications and that subcontractors attach greater importance to respecting the budget.

The project's success factors, highlighted in this paper, seem to indicate that there is a possibility to define and measure success in infrastructure projects. In most cases, those involved in the implementation of infrastructure projects in Romania have given the greatest importance in their responses, the most important success factors highlighted in the literature.

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**The 1st International Conference on Economics and Social Sciences
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**The Role of Socialization Networks in the
Modernization of Public Administration**

Sorin BURLACU^{1*}, Cristina ALPOPI², Roxana-Maria BEJAN³

Abstract

Various reports indicate, at least for Europe, that information and communication technology may be the engine of today's economic and social development. In Romania, a series of legislative acts have been adopted for compatibility with European regulations. In order to achieve an equitable and effective management of modern, rigorous and result-oriented management in a unitary organization of the publishers, it is necessary to ensure that the system is generic, through the emergence of new forms of public relations, the redefinition of functions and roles systems, and reprocessing systems and applications.

The main objective of the research undertaken is to measure the use of social media networks in order to publicly understand the needs of citizens in order to respond to the precursors and to attract citizens into decisions that contribute to the socio-economic development of their communities. In the research a mix of qualitative and quantitative methods was used, questionnaires and observation sheets were applied both to citizens and civil servants. The overall conclusion is that leadership, operations, skill levels, technological capacity and trust are key factors in using social media.

Keywords: *Social networks, Modern public administration, the role of citizens*

JEL Classification: *A14, H83*

1. Introduction

Number of reports believe that information technology is the new engine for the development of the economy and the state of the art. We can assert that informing the public administration is a representation that does not allow us to resolve the new information system and that it has become the desirability of any government.

Today we can talk about e-economy, e-government, e-government. A few people in this direction have also been made in Romania. Legislative, our country has adopted a series of normative rules that are compatible with European standards. If we refer to the public service director, the benefits that are most likely to be understood can be easily intuited, being constituted, in essence, by:

- tightening relations between switching partners and service providers/service providers;

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- reduction of production costs and services;
- enterprise resource planning;
- improving the global productivity of the laborers' workforce;
- maximizing the efficiency of services through flexible flexibility and increased responsiveness to the market for public services.

Social networks have also begun to be used by public institutions in Romania. Perhaps at the very least, the rules after the very new means of communication to citizens could not be used are not well understood. Symptoms for this problem are frequent conflicts in the dialogue between state institutions (such as the Presidency and the Government) through the networking efforts and not through the traditional institutional framework. As a matter of fact, many of the public institutions on the so-called networks are being used in the same way as web pages in the press are made public announcements and press releases, and perhaps the differences may be different: inter- active, communicative and implied.

2. Problem Statement

In Romania, despite efforts isolated towards formalizing and regulating how the government uses social media, using social media by public institutions it is still at an early stage (Burcea & Hartescu 2014, p. 22). On the readiness of the Romanian public administration in terms of e-government, Romania is consistently one of the last places in all five dimensions measured by the European Commission (connectivity, human capital, usage, integration of digital technologies, digital services). In addition, this gap, another problem faced by most countries in the European Union is utilization of existing services, which is relatively low. Interaction with citizens through social media could have the benefit adjacent and increasing interest in online interaction with the public sector.

In choosing the social network, public institutions in Romania do not really have a real alternative: in our country, the undisputed king of social media is Facebook. The latest statistics (June 2015) tell us that 8 million Romanian citizens would have active accounts on this social network. The next largest competitor is LinkedIn (a professional network that mediates the link between employers and potential employees and thus less suited to two-way general communication that public institutions are looking for) that has around 1.7 million users Romanian. The Twitter network, very used in the United States (for example, President Barack Obama's account has nearly 62 million readers) is not very present in Romania (there are around 355,000 accounts, but only a tenth of them are active users) (Manafu, 2015).

Against the backdrop of the economic crisis, it is difficult to stop the public budget management authorities from being able to promote the development of technology, and through technology development, and by example in the private sector, the public administration is subject to the global trend and has come to an end to ask for media. In 2013, the Organization for Economic Co-operation and Development (OECD) launched the study "Government of the Gulf" (<http://www.keepeek.com/2013> apud Burcea & Hantescu), which includes a study on how to live in many states around the world was e-Government.

In Romania, the first initiative in the field of eGovernment governance was launched in 2002 in the eProcurement system, with the aim of improving the transmission and control of public services, but the information portrait of the company was launched in 2003 and is being offered. It is essential to inform central and local institutions, to allow for the use of forms of use by different public institutions, and to enable the compilation of forms via the Internet (European Commission, 2011, p. 7).

3. Research Questions/Aims of the research

The first general hypothesis that we test is the fact that the performance of the activities and services provided by public institutions is high among the respondents, because it is a very good medium for a developed society.

The hypothesis of launch has been to consider the importance of the media instruments in the consolidation of a consortium of education and training, but also in the rigors of the importance of the representatives of the public institution which are important in the development of the portfolios of demos.

4. Research Methods

Research has been based on a mix of qualitative and quantitative methods, this new approach being increasingly used in research, considering complex issues such as institutionalization, public institution-citizenship, community development.

The use of the method of operation by means of application of a questionnaire, and of a creative interpreter, consists in the production of observation sheets, having the role of supporting the citizens' level of citizenship and the institutional climate.

In view of the researches, two surveys were conducted: one for civil servants and one for citizens. The questionnaires are structured on three types of items.

The questionnaire of civil servants is an auto-response. Through these we aim to identify the perceptions of public servants regarding the trust of the citizens in the institutions, the level of security in terms of the quality of services and communication with the citizens through the social networks.

The citizen's questionnaire sought to highlight the level of public and civic participation, the confidence base in public institution decisions, and intercultural dialogue with social networks. The questionnaire contained largely closed questions, the last part being the sociodemographic and identity identities of the interviewed person.

5. Findings

Observation sheet contains fields for filling out questionnaires application, the attitude of interviewed citizens and other comments, which were not able to cover in the questionnaire. Its role is to complete the incomplete image given by quantitative analysis and to help establish the overall framework, leaving citizens freedom of expression.

The sample consisted of 12 civil servants from Sector 2 Bucharest City Hall and 100 citizens residing in the District 2, Bucharest. The sample is more unpromising and more opportunistic, taking into account the ultimate goal of research, namely to provide directions for improving and improving the performance of the public institution. Yet, the criteria of representativeness such as age, gender, education level were taken into account.

Research results indicate that although there is an (declared) interest in information and citizen participation.

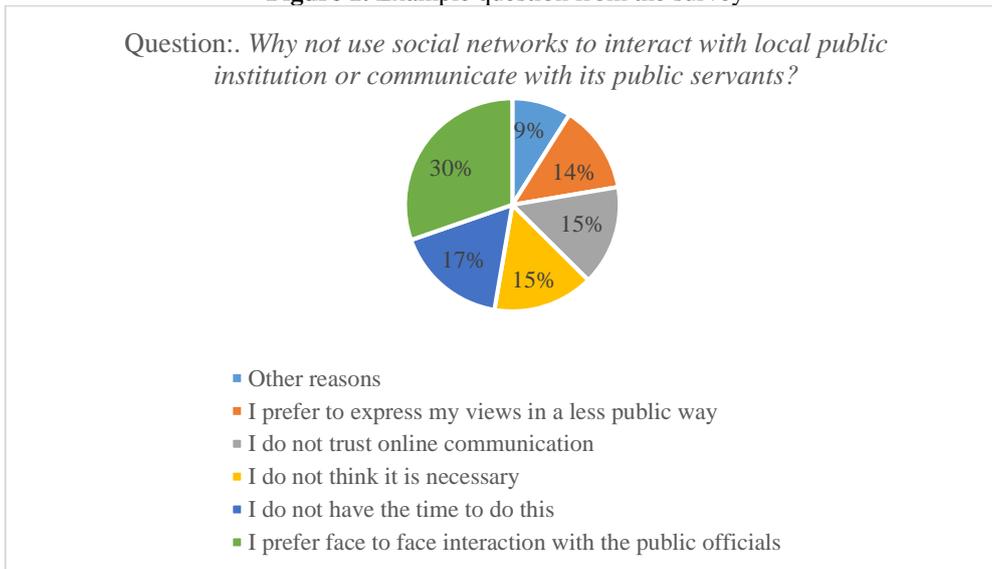
Although they appreciate that information and decision-making are important to the success of local governance, the availability and behavior of information, participation and effective involvement of citizens are at a low rate.

Table 1. Example question from the survey

Question: <i>Do you use any of the following social media channels used by the Bucharest City Hall 2?</i>	
Facebook	33%
MySpace	5%
Youtube	32%
Twitter	25%
Linkedin	17%

The results of the question (Table 1.) reveal that the interviewed citizens use one or more social media channels, with Facebook and Youtube social networking preferences, which are mostly used by the analyzed public institution.

Figure 1. Example question from the survey



Citizens interviewed say 30% do not use social networks to interact with public institutions/authorities because they prefer face-to-face interaction or because they do not have the necessary time, in which case 17% is recorded (Figure 1).

Regarding the research carried out within civil servants, data processing shows that three quarters of the civil servants questioned believe that citizens have much and very much trust in the services provided by the institution they represent.

6. Discussions and conclusions

Participation is learned, and mutual trust is essential. In order to manifest their civic activism, it is important for citizens to be informed and it is imperative that their views be taken into account and forms of participation are as diverse as possible.

The citizen needs to feel that his problems are a priority in public policies and that his presence as an interlocutor of public institutions matters. The efficiency of participatory democracy presupposes the simultaneous and binding observance of the principles of information, consultation and transparency of decision-making.

The above results show that there is not yet a culture of using social networks to interact with public administration. This, although national figures are incomparably lower, is also in line with the European trend, where only 41% of Internet users use this means to get involved, although they are very open to social media.

Such initiatives also come in support of the National Digital Agenda for Romania Strategy for the next period, which includes, among other things, the promotion and implementation of “collaborative online systems, participatory electronic tools and services to public or governmental initiatives for people and the environment business”.

Employees responsible for maintaining the institution’s presence on social networks have the right to use them for the benefit of the institution. This involves monitoring the relevant social forums, maintaining the institution’s presence on social networks, and monitoring the trends and best practices of using social networks in state institutions.

The purposes of social networking are as follows:

- Interaction with citizens in real time;
- Informing citizens;
- Consultation of public initiatives and documents;
- Involve citizens in the decision-making process;
- Making opinion polls.

Social networks pose security risks. Therefore, government units shall take all possible measures to protect communication channels, infrastructure and private and confidential information about employees and the public. The most common ways to attack social network security include phishing authentication data handling techniques – social engineering, falsifying identity – spoofing and attacking web applications. At the same time, accelerated steps which develop information technology necessitate continuous updating security protocols to deal with new security threats.

Therefore, each government unit will educate its employees about the risks associated with the use of social networks and how to mitigate them. Generally, the use of social media pages will be governed by the current security rules applied to the entire information technology system.

New technologies, the huge amount of information available online, the ability of citizens and groups to meet can create joint services. Social media tools provide public institutions with flexibility and the ability to acquire and distribute information very quickly.

Guidelines around the use of social media and online consultation, which are permissive and offers real support can provide public sector employees the opportunity to increase the commitment and it takes online. Traditional procedures at work are usually permissive and not in line with the features offered by social media, but these divisions have resolved that public-sector employees have the means, freedom and support to come into significant contact with citizens and make the most of the benefits of these technologies.

The overall conclusion is that leadership, operations, skill levels, technological capacity and trust are key factors in using social media.

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Possible Future Applications of the Blockchain Technology

Ioan RADU¹, Cleopatra SENDROIU², Mihai Ludovic DEMETER³, Florin CAZACU⁴

Abstract

Starting from cryptocurrencies and inevitably going into one of the most disruptive technologies that will shape the way we exchange money, information and goods, the present article tries to explain how this new technological opportunities can come in response to businesses from all over the world by paving the way to a new fully digitalised economy in which smart contracts and the change of assets are managed through a public ledger also known as a blockchain. The article aims at explaining what blockchain technology is and how it all started since 2009 with the arrival of the bitcoin on the market and the other cryptocurrencies that are taking the world by storm. Also, it presents what is today considered as possible regarding applications of blockchain technology into business and by what extent, also considering possible future applications.

Keywords: *blockchain, bitcoin, cryptocurrency, business, digital economy, disruptive technology*

JEL Classification: *E00, E69, F19, F10, L86*

1. Introduction

The 21 century brought us a multitude of disruptive technologies which substantially change the way people and corporations are connected and interact on a daily basis (Peters & Panayit, 2015).

One of these technologies is the cryptocurrency, more precisely, the bitcoin, which strongly modifies the way people trade at a global level, in strong correlation with the shift towards a digital economy and the transition from tangible assets to nontangible assets.

The way cryptocurrencies work is poorly understood by most of the people in the business world, given that understanding how they appear gets set within the public ledger requires a good understanding of some cryptographic algorithms. Even so, because of their fast growth in value, especially bitcoin which in 15 December 2017 hovered at around 17,900\$ (Jemima, 2017), they gained immense popularity worldwide.

However, even though cryptocurrencies have the ability to fundamentally change the way companies trade from now on, the objective of the present article is to present a brief understanding of how the technology that gave birth to cryptocurrencies, commonly known as blockchain, will change the business world and the society as a whole.

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2. Problem Statement

Bitcoin is the first example and the most notorious of all cryptocurrencies; it first appeared following a white paper written by a group of hackers going by the name of Satoshi Nakamoto (Chen, 2016) in 2009.

Cryptocurrencies may represent the biggest step in the evolution of online payments given the fact that they are the first example of „money” that is not emitted or controlled by a government or a bank, their creation being the result of activities known as mining, which rely on solving complex mathematical cryptographic problems, with the computing power of computers.

Also, by miming, the process of verifying and authenticating takes place inside the public ledger, known as blockchain. Basically, cryptocurrencies represent a form of money which exist solely as information, and do not present any other form of existence. (Vlasov, 2017).

The way cryptocurrencies are secured, and the fact that every transaction that uses them are registered almost immediately inside the public ledger, laid the foundation of a new way of trading, much more efficient and transparent than the way we do business today; with this technology being able to spread across multiple business domains.

So, after almost six years after cryptocurrencies first appear on the market along the concept of decentralisation which implies eliminating any kind of middleman such as governments or banks in this case, we can observe the blockchain can be used not only for cryptocurrencies, but to register and confirm any kind of contract, monetary system or property (Johansen, 2018).

In simple terms, blockchain represents a public ledger or some form of chronologically ordered database in which transactions are registered simultaneously by a network of computers known as nodes (Peters & Panayit, 2015) as exemplified in figure 1.

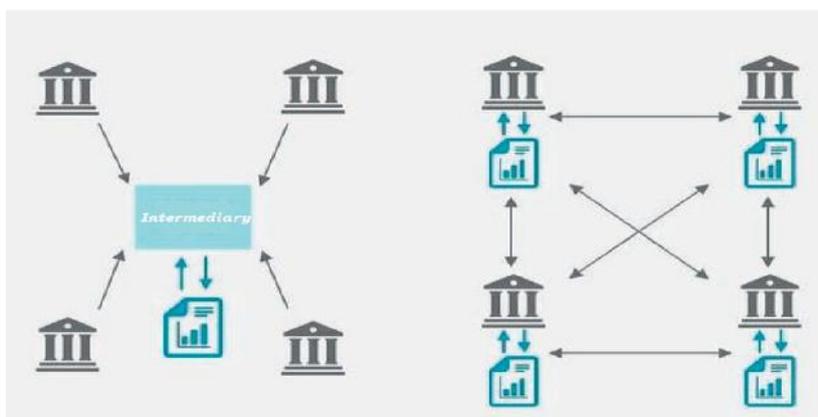


Figure 1. An example of a public ledger or blockchain (right) as opposed to the standard (left)

Source: adapted from (Euroclear & Wayman, 2016)

Thus, in order to understand the way the blockchain works and the main advantage that it can bring to the business world, the difference between the public ledger and a database, which are today our way of hosting data for every transaction at a global level, needs to be understood. Depending on the data they store we can classify 5 types of databases. (Redmond & Wilson, 2012):

- Relational databases, such as SQL and variants implemented as two-dimensional tables;
- Key-value stores, which store pairs of keys and associated values for a faster retrieval;
- Columnar databases, in which data is stored in columns for a more efficient representation;
- Document databases;
- Graph databases.

This type of databases can be distributed on many sites but yet connected by one computer as it can be observed in figure 1. The idea of distributed data bases is that by partitioning information and processing problems into smaller ones we obtain a faster response. The usual approach of maintaining control over a distributed database is by using a master – slave architecture, where updates on the master are then automatically replicated by the various slaves.

So, that means that integrity of the data inside the database falls into the direct responsibility of the administrator of the master server, in which case, if administrator security is breached all the data can be compromised.

Blockchain technology on the other hand offers a distributed ledger in which information is not maintained on a centralised administrated master server and then duplicated on other nodes, but it is in fact decentralised in several nodes. Each of this nodes participating in the administration of the public ledger, by verifying and entering new data into the blockchain. The innovation here is that the majority of nodes need to reach a consensus before any data can be introduced in the system, therefore the blockchain being more reliable in terms of security of information, based on total transparency between participants inside the blockchain.

Besides the above presented aspects, there are other differences between usual databases, that are used today in every aspect regarding information storage and transactions, and blockchains, but explaining such differences require a more technical approach, which exceeds the scope of the present article.

So, by having faster and more secure transactions with a certified degree of transparency, blockchain technology can change the way we do business today, in various business domains, some that will be presented further into the article.

3. Research Questions/Aims of the research

Approaching such an innovative subject, blockchain being one of the most disruptive emerging technologies, the modifications it can bring across multiple sectors of the economy, requires a presentation of what it is and where it can lead to. Thereby, the present article tries to summarize the way blockchain works compared to normal databases, and finding which advantages can be brought to the business world, while presenting some precise directions in which blockchain usage will strongly change the way we do business today.

Thus, we will consider the main implications and changes that the blockchain technology will bring to domains such as banking, account Iot, while taking into account who are the major players who are developing blockchain platforms today, investing and pushing forward with this disruptive technology.

4. Research Methods

In terms of research, the present article represents the base for a more broader study regarding the impact of blockchains in the present society and has resumed to analysing what is today written on the subject and the authors point of view of how they can be applied in some areas of business.

5. Findings

It is clear that today, blockchain is an intriguing concept to tackle in many areas of business and everyday life, with the ability to change most aspects of how we send and secure our data, but where will this technology be applied and become the business as usual approach is yet to be answered. But while we have time to figure that out by introducing new business models

using this disruptive technology here are the main domains in which blockchain can make a decisive change.

Banking

By default, cryptocurrency can be considered some kind of threat towards bank worldwide, given their ability to be transacted worldwide with no banking barriers, gaining more and more popularity at a global level. Even though we may wonder what will be the role of banks in this new and exciting model of trading by using cryptocurrency researchers agree that “paper money” designed and controlled by central banks will exist alongside cryptocurrencies, at least for a while.

Still, besides cryptocurrencies, banks worldwide understood the benefits of blockchain technologies, in terms of interbanking reconciliation and many other. Thus, in 2014 a consortium of more than 70 of the world’s biggest financial institutions joined together and formed a consortium known as R3. Basically, they created an open-source distributed ledger platform named Corda. Some controversy arose when Corda was announced as not a blockchain but a distributed ledger that has the benefits of a blockchain. Even so, it is clear that the R3 consortium is a way of banks trying to deal with this new disruptive technology.

Smart Contracts

In essence, a smart contract is a computer code that represents the foundation of a transaction, of currency or assets, within the blockchain. Also known as a digital contract or a block-chain based contract, it basically converts the agreement between two peers into a computer code, stored inside the blockchain and run by the entire public ledger of computers, thus eliminating the middlemen in the process of financial or asset transaction. By using the security encryptions within the blockchain, the authenticity of the transactions instructed by the smart contract is guaranteed. Even though making a smart contract implies coding and programming, for simplicity and making it a yet more viable option platforms like Etherparty appeared on the market, which offer template libraries in which users can create customized contracts with the help of a contract wizard inside the platform that will guide the customer through data sources and contract clauses.

Internet of Things

The internet of things is another example of disruptive technology that reshapes the way we live our lives or do business, combined with the distributed public ledger or blockchain technology some argue that they represent “a bigger deal than the internet” given their possibility to change everyday aspects of our lives.

Given the way blockchains work by eliminating centralized servers, cutting out the middlemen and assuring trust between users given the great transparency and security of information transmitted across the public ledger, it is clear to understand why it is converging toward the IoT. In a report by International Data Corporation from 2016 it was stated that by the end of 2019, more than 20% of all IoT deployments will have basic levels of blockchain services enabled.

IBM in their presentation of the IBM Blockchain (IBM, 2016) argued that the main benefits of using blockchain for IoT are the following:

- Building trust between parties and devices;
- Reducing the risk of collusion and tampering;
- Reducing costs by eliminating middlemen and other forms of intermediaries;
- Accelerating transactions from days to near instantaneous.

Regardless of the clear benefits that the convergence of these two technologies have to offer, there are certain limitations that developers are facing in terms of technology used, operational challenges or legal and compliance issues.

Accounting

In terms of accounting it's clear that the application of blockchains will greatly change the way accountants and auditors do their work, mainly because of the blockchain's ability to reduce or eliminate the paper trail giving no opportunity of "cooking the books". In this case accountants and auditors will spend more of their time managing complex tasks like assessing ambiguous or unethical transactions, given that all the transactions are to be trusted, due to the impossibility of altering data inside the blockchain. In some particular cases using the blockchain could solve the following auditing problem: if auditors vouch for the management of a company gaining the trust of stakeholders do auditors work for the management or for the public that relies on their integrity? This is explained in figure 2.

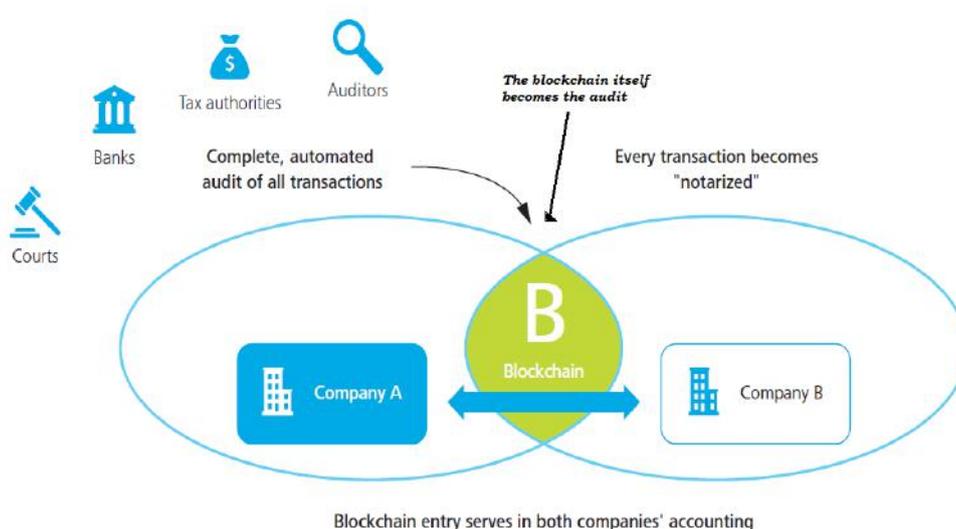


Figure 2. Applying blockchain in accounting
Source: adaptation after (Deloitte, 2016)

In this case, as it can be observed in the figure above, the blockchain itself becomes an audit, given the fact that all data is cryptographically sealed and transactions are introduced into the public ledger as a joint register. Therefore, the transactions within the blockchain can be considered as if verified by a notary but in an electronic way.

Developing blockchain platforms by big companies

It is yet to be discovered the precise way in which blockchain technologies will actually fully apply and become mainstream or to be considered as a usual approach, but since it emerged with the rise of cryptocurrencies, big companies like IBM or Microsoft are developing new ways and business solutions regarding blockchains. The most prominent examples of blockchain development are presented in table 1.

Table 1. Companies offering blockchain solutions

Companies	Service Offered
IBM and Samsung	Autonomous Decentralized Peer-To-Peer Telemetry (ADEPT)
IBM BlueMix/ IBM Z Systems	Host Blockchain applications
IBM	Open Source Project Hyperledger
Microsoft	BaaS (Blockchain as a service)
Smartmatic	Blockchain based voting system
R3	<i> Corda [although not entirely a blockchain but inspired by the technology (Brown, 2016)]</i>
Oracle	Blockchain Cloud Service (BCS)

Source: adapted after (TATA Consultancy Services, 2016)

Given the growing trend of including disruptive technologies as the blockchains in many domains ranging from finance to IoT, to accounting, it is clear that these technologies will be applied, in some kind of form, even if today we may not have yet to discover where they will work best. However, scientists and practitioners alike agree that this trend of applying blockchain solutions is here to stay and will continue to grow eventually leading to be considered mainstream in at least some domains of activity. An example of how blockchain technologies may evolve in the near future is presented bellow in figure 3.

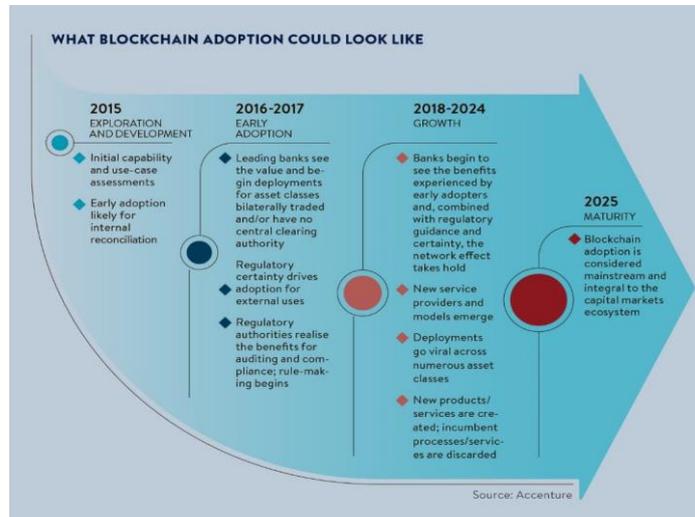


Figure 3. Possible evolution of blockchain technologies in the near future
Source: (Raconteur, 2016)

The above presented figure, adapted by the need of the report or article in the literature review, is mostly agreed upon by researchers or professionals on the subject, 2025 being considered the year where blockchain adoption will be considered mainstream in most economic systems.

6. Conclusions

As we showed above, blockchain technologies are a disruptive force that tend to change the way we do business today across sectors of the economy. Given the speed in which they evolve and get adopted, major players of the business such as oracle and IBM constantly investing and developing new applications using the blockchain, we are certain this technology is here to stay.

But we must take into account that shifting towards blockchain technologies may not be as easy across multiple sectors given that the deep changes that need to take place have to be supported by legal changes, operational changes inside business models etc. As we know introducing great change, at such a grand scale is not always that easy, taking into account that blockchain being so different from the way we send, store and receive information today; shifting towards it may make other technologies, softwares, and even human knowledges obsolete in the near future. Will the benefits of implementing blockchain at a large scale overcome the costs of change, in so many domains and how will we deal, at a global scale, with the blockchains core quality that we have no central authority in a world that is designed around regulation and control.

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Strategic Communication about Organizations' Employees

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Abstract

In organizational communication literature, the discourses related to organizations' employees from the annual reports have received limited attention, despite the fact that these documents are published on a yearly basis. Following the studies performed by Johnson, Thomson, and Frincke (1960), Hildebrandt and Snyder (1981), Kohut and Segars (1992), Henry (2008), Hutt (2010), Dragsted (2014), Cheng and Ho (2015), Poole (2016), the objective of this paper is to examine the communication related to employees performed by four large private companies in Romania based on the annual reports issued in 2014, 2015 and 2016. Using the content analysis, we were able to identify which are the most used and preferred terms in the strategic communication related to companies' workforce. The academics and companies acquire meaningful information from the current study because this advance a better understanding of the strategic communication about organizations' employees.

Keywords: *organizational communication, strategic communication, employees*

JEL Classification: *D8; D83*

1. Introduction

Communication in the opinion of Zerfass and Holtzhausen (2015) is positioned at the center of society, requiring “reflections on the frameworks of power and interests” in which communication is enacted in all types of organizations. These consist of corporations, non-profit organizations, government organizations, and all other types of actor's part of today's culture (Zerfass, Holtzhausen, 2015). Communication that is planned, purposeful and aimed to achieve organizations goals represents strategic communication (Ki, 2015, p 328).

Werder (2015, p 269) mentioned that the multidisciplinary nature of strategic communication makes possible the integration of theories and concepts from many fields to enable a complete understanding of organizational communication processes and outcomes.

“Communication strategies are manifest in the form of messages that serve as inputs to target audiences located in the environment. This manifestation is a functional result of the communication process.” (Werder, 2015, p 270)

Moreover, Cornelissen (2004, p 67) stated that organization's strategy and operations are communicated via annual reports and shareholder meetings. On the same note, Dias and Matias-Fonseca (2010) bring to light that the strategy of organizations and their financial performance

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are reflected in the annual reports, which are one of the most employed communication vehicles. Annual reports are documents completed and formulated by the organizations, being one of the most used channels of information disclosure frequently exploit as a promotional tool of the organization (Dias, Matias-Fonseca, 2010, p 206). Organizations are attentive to the communication of information through annual reports, as the textual contents of annual reports reflect the results of the year, the events that led to the obtained results and indicate future changes of the results (Dias, Matias-Fonseca, 2010, p 206).

Speaking about the importance of the present research, we mention that this study builds and develops the knowledge in the field of strategic organizational communication as well as the current research share valuable information found in the organizational discourses executed by the private companies in Romania. Finding out how the communication about employees is done by the organizations represents an important investigation as this can improve the strategic communication performed by the companies through their annual reports. Moreover, the present study is important and of interest for the academics and companies because this advance a better understanding related to the communication made by the organizations in regards to their employees, which may lead to the enhancement of the current practices and routines.

2. Literature review

There are multiple experts, authors who analyse the organizational communication documents and refer as well as use the word counts, term frequencies in their studies, researches. Speaking about the terms occurrences, Breeze (2013) said that words frequencies refer to how often a word, a combination of words or grammatical pattern occurs in the corpus.

If a feature is frequent, then we can deduct that it is significant in that kind of language, genre or register. In addition, Breeze (2013) mentioned that corpus linguistics is a collection of texts that are thought to be representative for a particular genre, register or language. The aim is to create a representative corpus so that this can provide an accurate picture of the tendencies in that variety. Researchers are able to conduct searches that may bring to light patterns that are not visible on a qualitative reading, perhaps these are not frequent or become visible in large volume of texts. (Breeze, 2013, p. 42)

The researchers, the authors who are using words frequencies analysis in their studies and that are useful as well for our corpus analysis are: Johnson, Thomson, and Frincke (1960), Hildebrandt and Snyder (1981), Kohut and Segars (1992), Henry (2008), Hutt (2010), Dragsted (2014), Cheng and Ho (2015), Poole (2016).

Johnson, Thomson, and Frincke (1960) performed diverse experiments regarding words value and words frequencies and revealed that words value and words frequency are generally related; the most frequently words are rated as good, better, pleasant words. “Specific good words are likely to be more frequently used than specific bad words”. (Johnson, Thomson, Frincke, 1960, p. 340)

Following Johnson, Thomson, Frincke (1960), Hildebrandt and Snyder (1981) reached to a similar conclusion. More explicitly, Hildebrandt and Snyder (1981, p. 10) presented through content analysis of 12 annual letters to stockholders from a bad year 1975 and 12 annual letters from a good year 1977 that positive words occur more frequently regardless of a financially good or bad year, while negative words occur less frequently in a good year than a bad year.

Words that reflect favourably the corporate goals are classified as positive, while words that reveal unfavourably the corporate goals are categorized as negative. Moreover, Hildebrandt and Snyder (1981, pp. 11-12) presented in their study the preference and frequency for certain business terms, more precisely the preferred words and their frequency as well as the non-preferred words and their rate of recurrence. This research is helpful because in our present

study we will also determine the most preferred words together with their frequencies practiced by the private companies in Romania in their strategic organizational communication.

Continuing to speak about terms recurrence, we noticed that Kohut and Segars (1992, pp. 7-14) analysed the content of 25 presidents' letters part of the annual reports as well as different characteristics like word count, number of sentences, syllables per word, and words per sentence. In comparison with the number of sentences, syllables per word, and words per sentence, Kohut and Segars (1992) revealed that the word count produced the only significant difference, as the firms with high return on equity, performance tended to be more verbose, wordy than the firms with low return on equity, performance. This research is also valuable because confirms us that the word count represents a good method to be applied further on our corpus for examining the strategic communication executed by the private companies from Romania in regards to their employees.

Moreover, Henry (2008, p- 388) stated with reference to the word frequencies that the thesaurus-based approach facilitates lists of words that include words with similar meanings, synonyms, substitute words. Henry (2008) focused only on corporate earnings press releases (that cover a limited domain of discourse) and considered that thesaurus-based approach was appropriate for her study and content analysis. Moreover, the thesaurus-based approach will be used as well in the present study for capturing relevant synonyms and similar terms in the word frequency analysis.

Another study that uses the words frequencies is the one performed by Hutt (2010) who identified the groups, organizations, and individuals referred by the CEOs in the annual report letters using a text analysis software that allowed calculating the frequent references. Hutt (2010, p. 188) concluded that employees were referred 18 times, staff was referred 2 times, team was referred 53 times in the annual report letters of 19 public restaurant franchisors part of the 2007 Franchise Times top 200 list.

In comparison with Hutt (2010), Dragsted (2014) examined the changes in themes and linguistic strategies (including the word count, number of words) in the letters to shareholders from a big Danish bank's annual reports issued before (2004-2007), during (2008-2011) and after (2012-2013) the financial crisis. Dragsted (2014, p. 99) concluded that "employees (plural) are mentioned more frequently in the 2012-2013 reports than in the other periods, whereas employee (in the singular) occurs with the same frequency during the crisis (2008-2011) and after the crisis (2012-2013) but is not used in the pre-crisis reports (2004-2007)". Moreover, Dragsted (2014, p. 92) findings contradict the observation performed by Kohut and Segars (1992) "that high performance reports tend to be wordier than low-performance reports, and that there is no relationship between performance and the length of words or sentences".

Continuing our literature review, we observed that Cheng and Ho (2015) realize a word frequency analysis on bank financial reports (issued by BNP Paribas France and Bank of China Hong Kong) and concludes that:

- analysis of BNPPC, compared with BOCHKC, shows that the most frequent three key semantic fields are "General Actions/Making", "Kin" (household), and "Investigate, examine, test, search" showing these lexical words have a frequency of at least 20;
- compared with BNPPC, BOCHKC has different key semantic fields, the most frequent three being "Geographical names", "Business: Selling", and "Geographical terms" displaying these lexical words as having frequencies of at least 20.

A different keyword analysis is performed by Poole (2016, p. 66) on the letters to the shareholders from two commercial banks, Bank of America and Citigroup, published in 2008, 2009, and 2010, and concluded "Citigroup is much more explicit in its praising of company executives and employees for generating success". Based on keywords frequencies, Poole (2016, p. 70) revealed that key items such as talent, best, and worlds showed a message that

recognized high performance to executive and employee skill, diligence, persistence, carefulness.

For making a synthesis of the studied literature, we mention that numerous authors and researchers perform the word frequencies analyses for diverse terms and aspects found in the communication of different organizations. Moreover, as presented above, there are authors who focus on the discourses executed by the several organizations in regards to their employees revealing various findings and conclusions in their studies related to the communication about employees. The information synthesized in the literature review section is valuable for the present study, as below we are continuing to discuss about the word frequencies as well as about the communication related to employees that can be found in the published annual reports included in the corpus.

Following the academic articles reviewed, performed by the authors Johnson, Thomson, and Frincke (1960), Hildebrandt and Snyder (1981), Kohut and Segars (1992), Henry (2008), Hutt (2010), Dragsted (2014), Cheng and Ho (2015), Poole (2016), further down we are continuing to discuss about the purpose of the study, research methodology and corpus as well as about the findings of this study.

3. Aims of the research

The objective of the current study is to examine the strategic communication of the private companies in Romania in regards to their employees. The research questions of the present study are:

- What terms do organizations use in their discourses when communicating about their employees?
- What are the most preferred words used in the strategic organizational communication about employees by the analysed companies?

4. Research Methods

In the current study and content analysis the words frequencies are determined using the NVivo software for Windows that is exploited globally by multiple researchers and academics.

Besides multiple functionalities, NVivo software facilitates, based on the imported documents, the automatically identification and determination of the words counts, terms frequencies.

NVivo software measured the number of times a certain term, word related to organizations' employees appeared in the strategic communication performed by the private companies included in the corpus of this research. Additionally, NVivo software allowed us to find out the context in which the terms, the words were being used in the annual reports, as we were able to view the sentences from which the words were takeout and counted.

Following the 2016 National Top of Private Companies from Romania issued by the National Council of Private Small and Medium Enterprises in Romania (<http://cnipmmr.ro>), we selected the first six companies considering the gross income statistics for being the analysed in this research: OMV Petrom, Continental Automotive, Dedeman, British American Tobacco, Kaufland, and Group Renault (Automobile Dacia).

By searching the information published by the above listed companies, the annual reports issued in 2014, 2015 and 2016 were found and downloaded for four companies (out of six): OMV Petrom (oil and gas industry), Continental Automotive (automotive industry), British

American Tobacco (tobacco industry), and Group Renault (Automobile Dacia)(automotive industry)².

Further, we are presenting the findings, outcomes of our research and content analysis performed on the available annual reports published in 2014, 2015 and 2016 by OMV Petrom with headquarter in Romania, Continental Automotive with headquarter in Germany, British American Tobacco with headquarter in United Kingdom, and Group Renault with headquarter in France, being interested to examine the strategic communication about organizations' employees.

5. Findings

The findings of this study reveal the preference for certain business terms and their frequency, more specifically the preferred words and their frequency based on the annual reports published by OMV Petrom, Continental Automotive, British American Tobacco, and Group Renault in 2014, 2015, and 2016. Following the above-mentioned academic studies, further, we are identifying which are the most used and preferred words in the strategic communication performed by the top private companies in Romania to describe the organizations' employees. By examining the annual reports issued in 2014, 2015 and 2016 by the four companies comprised in our study, we observed that the most exploited words are employee, employees, personnel, team, teams, staff, workforce, and workers.

The observed companies in total refer the words *employee and employees* by 1371 times based on the 2014, 2015 and 2016 annual reports. Continental Automotive with headquarter in Germany reveal the terms employee and employees in total of 648 frequencies, followed by British American Tobacco with headquarter in United Kingdom with 422 instances, Group Renault with headquarter in France with 155 counts and OMV Petrom with headquarter in Romania with 146 instances. More details are available in Figure 1 that presents the employee and employees words frequencies by years and organizations.

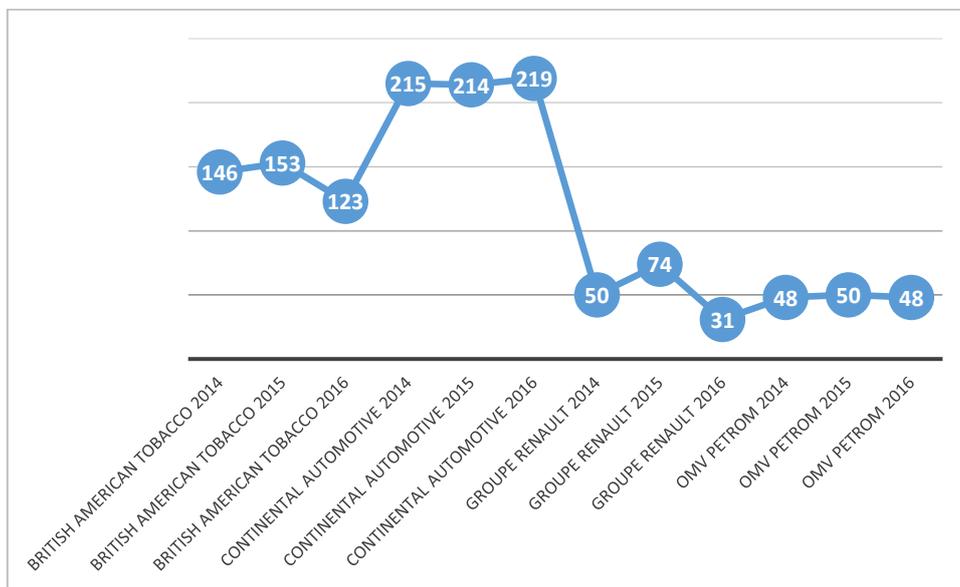


Figure 1. Employee, employee's words frequencies

² For the companies Dedeman and Kaufland the annual reports (issued in 2014, 2015, 2016) were not found in order to be downloaded and included in this research.

Based on the investigated annual reports made public by the four private companies in 2014-2016, the word *personnel* recorded 220 frequencies being used by OMV Petrom from Romania with a total of 147 instances, followed by Continental Automotive from Germany with a total of 57 counts, and British American Tobacco from United Kingdom with a total of 16 references. Group Renault from France recorded 0 counts in regards to the personnel term utilization.

Speaking about the words *team and teams*, these registered 178 frequencies based on the investigated corpus and were used by British American Tobacco from United Kingdom (68 references), followed by Group Renault from France (44 counts), OMV Petrom from Romania (34 instances) and Continental Automotive from Germany (32 counts).

Taking into account the 2014, 2015, 2016 annual reports of the four private companies, the word *staff* recorded 68 counts, being used by the German company – Continental Automotive with a frequency of 31 instances, United Kingdom company – British American Tobacco with a frequency of 21 counts, France company – Group Renault with a frequency of 9 instances, and Romania company – OMV Petrom with a frequency of 7 counts.

The word *workforce* registered 54 frequencies based on the annual reports comprised in the present study, the highest usage of this term being registered by the German company – Continental Automotive with a total frequency of 21 references. This company is followed by the France organization – Group Renault with a total frequency of 18 counts, United Kingdom organization – British American Tobacco counting 10 references and Romania organization – OMV Petrom who recorded 5 instances. More details can be found in Figure 2. Workforce word tree that presents the contexts in which the term workforce is used by the four investigated private companies included in the present study.

The word *workers* registered in total 18 frequencies, out of which Continental Automotive from Germany used this term and recorded 14 instances, British American Tobacco from United Kingdom registered 2 counts and OMV Petrom from Romania counted 2 references.

For exemplifying, we are presenting below into more details the related references extracted from the annual reports included in the corpus of this study:

- Annual report British American Tobacco 2014 – 1 reference coded
“protecting the health of farm workers and providing advice and training”
- Annual report British American Tobacco 2016 – 1 reference coded
“the International Union of Food Workers (IUF) to the UK National”
- Annual report Continental Automotive 2014 – 5 references
“for health costs for retired workers in the U.S.A”
“for union and non-union workers are based on a pension”
“for hourly-paid workers at unionized tire plants under”
“end of 2006, all hourly workers at the U.S. tire”
“Liabilities for workers’ compensation Liabilities for social security”
- Annual report Continental Automotive 2015 – 5 references coded
“the location. The experienced development workers reported on their work and”
“the year and the dock workers’ strike on the West Coast”
“for health costs for retired workers in the U.S.A”
“for hourly paid workers at unionized tire plants under”
“2015 in € millions of Liabilities for workers’ compensation Liabilities for social security”
- Annual report Continental Automotive 2016 – 4 references coded
“financial resources to support relief workers in the regions affected by”
“for health costs for retired workers in the U.S.A”
“Other employee benefits Liabilities for workers’ compensation Liabilities for payroll and”
“for hourly paid workers at unionized tire plants under”
- Annual report OMV Petrom 2014 – 1 reference coded
“for blue-collar workers, having its own Technical Training”

- Annual report OMV Petrom 2016 – 1 reference coded
 “education institutions that prepare qualified workers for the oil and gas.”

By analysing the words frequencies for employees, personnel, teams, staff, workforce, workers, we can conclude that the words employee and employees are the most preferred terms, which register the highest frequency of 1371 instances in the strategic communication performed through the annual reports by the four companies included in the present study. The employee and employee’s words preference in the strategic organizational communication is followed by the personnel term recording 220 recurrences, team and team’s words with 178 frequencies, staff term with 68 counts, workforce term with 54 counts, and workers term (18 recurrences) representing the less used and preferred term by the four private companies based on their annual reports issued in 2014, 2015 and 2016.



Figure 2. Workforce word tree

6. Conclusions

The outcomes of this study are helpful as these facilitate the understanding of the strategic communication performed by the organizations through the annual reports and increase the knowledge in this area. Following the reviewed literature and word frequencies content analysis, we were able to achieve the objective of this study and answer the research questions by identifying the terms used by the organizations in their discourses when communicating about their employees as well as the most preferred words used in the strategic organizational communication about employees by the companies included in the corpus. We observed from

the current content analysis that the terms employee, employees are the most preferred and used words in the annual reports, followed by personnel, teams, staff, workforce, workers. Hence, regarding the words usage and preference, analysed as well in the studies completed by Johnson, Thomson, Frincke (1960) and Hildebrandt and Snyder (1981), we are concluding that in the strategic organizational communication of the four analysed private companies the words employee and employees register the highest usage and preference, while the term workers lists the lowest usage and preference in the 2014, 2015 and 2016 published annual reports. The findings of this research are in line with the content analyses performed by Hutt (2010) who also revealed the frequencies for employees, team and staff words as well as with Dragsted (2014) who focused on the recurrence of employee (singular) and employees (plural) terms based on the investigated annual reports. Moreover, the present study confirms the word counting as being a good approach for analysing the strategic communication of different organizations that was also applied by Kohut and Segars (1992), Henry (2008), Cheng and Ho (2015), Poole (2016) in their researches.

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**The Analysis of Some Determinants in the Efficiency of Social
Inclusion Policies Using Data Mining Techniques**

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Abstract

Assessing the effectiveness of transfers in social inclusion programs is a major concern that can lead to the design of coherent public policies. The complexity of specific elements and peculiarities makes the process of assessing effectiveness a difficult one, considering the general objective of the state to facilitate the optimal redistribution of income within the modern capitalist society. Analyzes made on data sources such as OECD, Eurostat, World Bank or SGI Network can also be developed by using advanced statistical techniques and machine learning. The paper uses classification algorithms to determine important factors in a social-specific transfer policy. The results of the study reconfirm the importance of factors such as the role of the rule of law, GDP/capita, maintaining income inequality at an acceptable level, but also the significance of other indirect factors, such as the quality of information dissemination through the media, and the development of entrepreneurship and innovation. In addition, the indirect factors determined in the theoretical model offer the possibility to approach other levers which can be considered by the social policy initiators and also by the private environment through the corporate social responsibility projects.

Keywords: *classification methods, government policy and regulation, policy designs and consistency, social security and public pensions, data mining*

JEL classification: *C38, G28, E61, H55, C44*

1. Introduction

In order to highlight the intensity of the opinions on social assistance that have lately become acute, the study started from the analysis of two important public positions.

King Willem-Alexander delivered a message to the Dutch people from the government in a nationally televised address: “The welfare state of the 20th century is gone. In its place a «participation society» is emerging, in which people must take responsibility for their own future and create their own social and financial safety nets, with less help from the national government”.

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Another position belongs to the prophet of the crisis, Nouriel Roubini, who basically takes over Thomas Pickety's assertions: "Karl Marx, it seems, was partly right in arguing that globalization, financial intermediation run amok, and redistribution of income and wealth from labor to capital could lead capitalism to self-destruct (though his view that socialism would be better has proven wrong)".

We have listed the two points of view to emphasize the importance of transfers in defining coherent public policies that often include approaches which either involve the end of capitalism or democracy or the welfare state. Each country's specific conditions makes difficult the choice of a prognosis and dimensioning an unitary evaluation and optimization model. A much more comprehensive definition says that optimization is finding an alternative with the most cost effective or highest achievable performance under the given constraints, by maximizing desired factors and minimizing undesired ones.

Practice of optimization is restricted by the lack of full information, and the lack of time to evaluate what information is available. For example, in computer simulation (modeling) of business problems, optimization is usually achieved, for example by using linear programming techniques of operations research. It is difficult to use an algorithm as a general model because of the complexity, the multitude and the dynamics of the evolution of some factors. It is also difficult to determine the relevant input data to be encompassed in the model. At the same time, indicators aggregation is a rather difficult issue, especially when there are several types of programs (Arrow, 1950).

The paper addresses the question of determining the optimalities of social assistance programs by using a modern data analysis technology that incorporates the machines artificial intelligence. Machine learning lets us tackle problems that are too complex for humans to solve by shifting some of the burden to the algorithm. It is the field of study that gives computers the ability to learn without being explicitly programmed. The goal of most machine learning is to develop a prediction engine for a particular use case.

In economic theory there are various models to determine the optimal redistribution of revenue derived from optimal charging models (Akerlof, 1978, Diamond and Mirrlees (1971), Ramsey, 1927). From literature review, it results that an optimal redistribution model with tagging is more effective than a purely negative Mirrlees income tax.

The design of a social security system is linked to an optimal redistribution policy and it is based on increasing the global utility function throughout the society. This ensures redistribution of income through different payment channels and uses distinct identification methodologies for groups of people in need (provided in the normative acts) that are identified in the management processes.

Social programs as part of social security systems have certain characteristics, must be specific, appropriate, fair, comply with the cost-efficiency principles, be sustainable, dynamic, and compatible.

Social security systems are characterized by the provision of specific functions, namely:

- a) Preventing decline in well-being is a function that must be considered due to the decrease in income and the occurrence of variations in the level of expenditures inherent in the life stages. Prevention is usually done through social insurance programs, such as unemployment and sickness insurance, pensions, which reduce the impact of lowering incomes or increasing the cost of individuals (e.g after a certain age).
- b) Protection against catastrophic losses. Social inclusion programs protect individuals and poor families from irreversible, immediate or catastrophic losses (e.g child education, health care for households, disabilities). At the same time, such programs can reduce socio-economic damage resulting from accentuated inequalities or natural disasters.
- c) Promoting opportunities. Institutions that promote opportunities are often integrated into those that support prevention and protection. "Work activation" programs connect

social work and/or unemployed beneficiaries to incentive or support services that help them develop their skills, promote “employment ability” and connect them to jobs.

Social assistance programs can be funded by governments or even by private entities through corporate social responsibility processes. Labeling is the basis for including a person in such a program, based on certain attributes that makes it eligible (poor, child etc). Based on the above, we note that if we were to analyze the overall efficiency of an entire transfer system, we find it difficult to discover a unitary method of analysis, given the complexity of programs (from child aid to unemployment), different types of transfers (cash and in kind benefits), and all the more difficult to find consistent indicators.

This was the reason why the authors used a method of artificial intelligence which consisted in determining unsupervised factors that characterizes social policies and can be quickly used.

The authors have used data mining algorithms to facilitate unitary development, taking into account the ability of machines to learn from large data sets. As a specific tool, it was used the node tree. Quantitative methods such as classification or clustering algorithms have been used in the studies of some authors such as: Alkire and Foster (2008), Bossert *et al.*, (2009), Bourguignon and Chakravarty (2003), Antony and Rao, (2007), Muro *et al.*, (2009), Silber (2007) and Sen (1976).

Data mining, as part of the machine learning concept, is an important component of the new industrial revolution that we are going through and is the computing process of discovering patterns in data sets involving methods at the intersection of machine learning, statistics, and database systems (Olson & Delen, 2008). At the same time, the above analysis includes the stages of a data mining process that is mainly performed according to the **CRoss Industry Standard Process for Data Mining**, presented in the figure below.

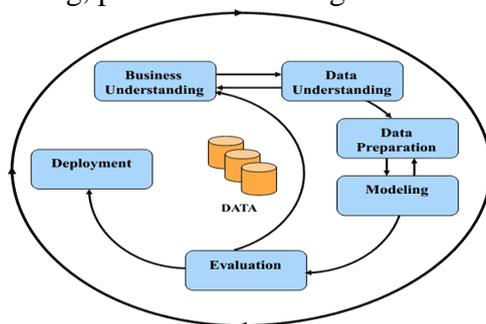


Figure 1. CRISP data mining technology

Source: https://commons.wikimedia.org/wiki/File:CRISP-DM_Process_Diagram.png

In the study have been covered the stages of the CRISP DM process. The introductory part of the study consisted of process understanding and further steps of a CRISP DM flow, such as data preparation, the use of an appropriate model, the evaluation and the interpretation of the results that will also be addressed.

2. Model description and results

The authors considered the choice of a suitable data source so that it would cover a larger area, to characterize it as unitary and as complete as possible in each country. In this regard it was analyzed a compact, large-volume (SGI) database that explores multiple components, including economic and social policy and which could make the use of the data mining concept feasible.

SGI is a cross-national comparative survey designed to identify and foster successes in effective policymaking, and explores how governments target sustainable development. SGI helps a variety of stakeholders throughout the OECD and EU navigate the complexity of

effective governance. SGI examines how well policies have performed in achieving objectives by examining outcomes across 16 policy fields.

The data analyzed were taken from the SGI website: <http://www.sgi-network.org/2017/> and include the annual indicators for the period 2014-2017. The 41 countries for which the analysis was conducted are presented in Appendix 2. As the explanatory variable (output indicator) the authors chosen the social inclusion policy indicator. This indicator has a rating of 1 to 10 (in an attempt to classify states' ability to deliver a performance policy).

According to the methodology presented on the above-mentioned website, the indicator represents how much does social policy prevent exclusion and decoupling from society.

According to the website's authors, the indicator is designed to analyze the reduction of the various risks of social exclusion and it is a core task of social policy. That is why, in the study, the authors considered this indicator to be the model for an adequate social inclusion policy.

Also, within the website, the social inclusion policy indicator for each country is descriptively explained, and there are made very relevant graphical analyzes on comparisons between countries, the dynamics of the indicator and the evolution towards other indicators.

The novelty brought by the current paper to the extraordinary analysis done within the SGI website is the analysis of the social inclusion policy indicator and the use of artificial intelligence. In this context, the authors applied a decision tree model to the dataset comprising 41 countries, 4 years and 180 indicators. Synthetically, this approach can be described briefly by the syntax: What are the rules that make the output point a certain value?

Due to the high volume of data, the authors were unable to present the entire database analyzed. In Appendix 4 it is presented the data related to the explained variable and the explanatory variables that were chosen by the artificial intelligence model. As a data mining model, the Decision Trees C5.0 technique used tree structure to build the classification models.

The algorithm divides data sets into homogeneous subsets characterized by common attributes. This division of data sets involves a series of classification rules unconditionally determined by an algorithm (Mitchell, 1997).

The C5.0 algorithm has a special method for improving its accuracy rate, called boosting. It works by building multiple models in a sequence (Han & Kamber, 2006). The first model is built in the usual way. Then, a second model is built in such a way that it focuses on the records that were misclassified by the first model. Then a third model is built to focus on the second model's errors, and so on. Finally, cases are classified by applying the whole set of models to them, using a weighted voting procedure to combine the separate predictions into one overall prediction. By default, C5.0 will try to produce the most accurate tree possible. In some instances, this can lead to overfitting, which can result in poor performance when the model is applied to new data (Margahny & Mitwaly, 2005).

In contrast to the above, the C5.0 algorithm virtually determines computer-generated rules for node separation. These rules are in the form "if the input A is equal to Y and the input B is less than or equal to Z, then the social inclusion policy is X." The rules are shown in the table below under the rule number X for the case where the note on social inclusion policy is N (e.g Rule 1 for 3, if CivilRights = 4 then social inclusion policy = 3).

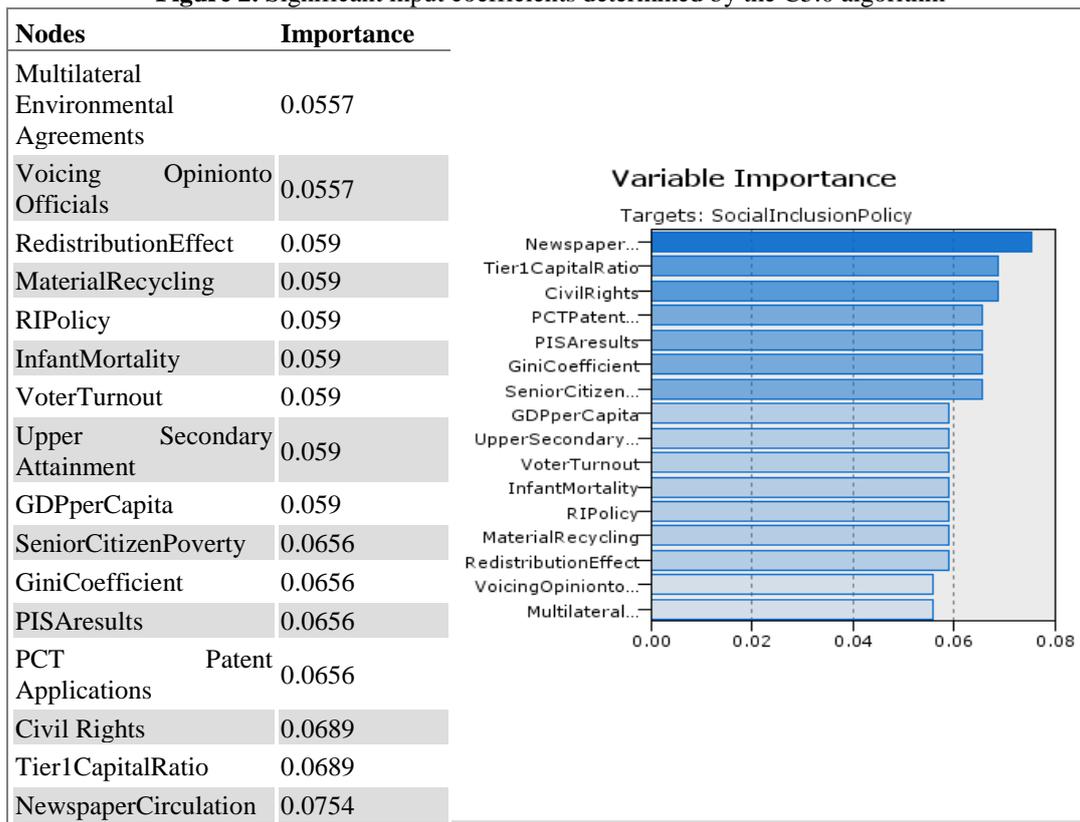
Table 1. The rules determined by the C5.0 algorithm

<p><i>Rule 1 for 3</i>, if CivilRights = 4 then social inclusion policy = 3</p> <p><i>Rule 2 for 3</i> if RIPolicy = 3 and CivilRights = 6 then social inclusion policy = 3</p> <p><i>Rule 3 for 3</i> if CivilRights = 5 and VoterTurnout > 6.192 then social inclusion policy = 3</p> <p><i>Rule 1 for 4</i> if CivilRights = 5 and VoterTurnout <= 6.192 and NewspaperCirculation <= 3.599 then social inclusion policy = 4</p> <p><i>Rule 2 for 4</i> if PISAresults <= 5.388 and CivilRights = 7 and VoicingOpiniontoOfficials > 6.216 and NewspaperCirculation <= 3.599 then social inclusion policy = 4</p> <p><i>Rule 3 for 4</i> if RIPolicy = 4 and CivilRights = 6 and VoicingOpiniontoOfficials <= 4.170 then social inclusion policy = 4</p> <p><i>Rule 1 for 5</i> if NewspaperCirculation <= 3.599 then social inclusion policy = 5</p> <p><i>Rule 1 for 6</i> if SeniorCitizenPoverty <= 3 and MultilateralEnvironmentalAgreements <= 8.765 and NewspaperCirculation > 3.599 then social inclusion policy = 6</p> <p><i>Rule 2 for 6</i> if UpperSecondaryAttainment > 8.914 then social inclusion policy = 6</p> <p><i>Rule 3 for 6</i> if PCTPatentApplications <= 7.181 and MaterialRecycling > 6.279 and MultilateralEnvironmentalAgreements <= 8.765 and NewspaperCirculation > 3.599 then social inclusion policy = 6</p> <p><i>Rule 4 for 6</i> if GDPperCapita <= 8.623 and PCTPatentApplications <= 7.181 and Tier1CapitalRatio > 8.403 and NewspaperCirculation > 3.599 then social inclusion policy = 6</p> <p><i>Rule 5 for 6</i> if UpperSecondaryAttainment <= 4.183 and NewspaperCirculation > 3.599 then social inclusion policy = 6</p>	<p><i>Rule 1 for 7</i> if PCTPatentApplications <= 7.181 and Tier1CapitalRatio <= 8.403 and UpperSecondaryAttainment > 4.183 and SeniorCitizenPoverty > 3 and MaterialRecycling <= 6.279 and MultilateralEnvironmentalAgreements <= 8.765 and NewspaperCirculation > 3.599 then social inclusion policy = 7</p> <p><i>Rule 2 for 7</i> if UpperSecondaryAttainment <= 8.914 and PISAresults > 5.388 and GiniCoefficient > 4.706 and InfantMortality <= 8.253 and NewspaperCirculation <= 3.599 then social inclusion policy = 7</p> <p><i>Rule 3 for 7</i> if GDPperCapita <= 8.623 and RedistributionEffect <= 6.049 and MultilateralEnvironmentalAgreements > 8.765 and NewspaperCirculation > 3.599 then social inclusion policy = 7</p> <p><i>Rule 1 for 8</i> if GDPperCapita <= 8.623 and RedistributionEffect > 6.049 and MultilateralEnvironmentalAgreements > 8.765 and NewspaperCirculation > 3.599 then social inclusion policy = 8</p> <p><i>Rule 2 for 8</i> if PCTPatentApplications > 7.181 and SeniorCitizenPoverty > 3 then social inclusion policy = 8</p> <p><i>Rule 3 for 8</i> if InfantMortality > 8.253 and NewspaperCirculation <= 3.599 then social inclusion policy = 8</p> <p><i>Rule 1 for 9</i> if GDPperCapita > 8.623 and NewspaperCirculation > 3.599 then social inclusion policy = 9</p>
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Source: Authors own research results

The data mining algorithm also provides a classification of the importance of the rule-based indicators that is shown in the figure below.

Figure 2. Significant input coefficients determined by the C5.0 algorithm



Source: Authors own research results

In pursuing the quantitative analysis, the authors have chosen from the rules determined by the data analysis algorithm only those rules for which the effectiveness of social policies is up to 5 or from 8 upwards. This approach sought to identify the causes that lead to extreme values of the materialized indicator either in very high scores which means a very effective social inclusion or, on the contrary, in very small notes that signal a poor inclusion.

We present below the rules for these notes and the authors own comments on the significance of the rules.

Table 2. Interpretation of the data provided by the model

Rule	Comments
Rule 1 for 3, if CivilRights = 4 then 3	The existence of very limited civil rights, for example, due to a low rule of law, implies an inefficient social inclusion policy
Rule 2 for 3 if RIPolicy = 3 and CivilRights = 6 then 3	If the preoccupation for innovation and research of a state is poorly developed and the conditions of civil rights are not respected, the policy of social inclusion is also inefficient
Rule 3 for 3 if CivilRights = 5 and VoterTurnout > 6.192 then 3	Respect for civil rights is important for an effective social policy even under conditions of high voting
Rule 1 for 4 if CivilRights = 5 and VoterTurnout <= 6.192 and NewspaperCirculation <= 3.599 then 4	Given the partial respect of civil rights, another important element which highlights that social inclusion policies are inefficient is the dissemination of information
Rule 2 for 4 if PISAresults <= 5.388 and CivilRights = 7 and VoicingOpinion to	Even if civil rights have a high level, the effectiveness of social inclusion policies is reduced in the absence of a high performance circulation of information through the mass media

Officials > 6.216 and NewspaperCirculation <= 3.599 then 4	
<i>Rule 3 for 4</i> if RIPolicy = 4 and CivilRights = 6 and VoicingOpinionontoOfficials <= 4.170 then 4	Lack of concern for science and civil rights indicates low social policies
<i>Rule 1 for 5</i> if NewspaperCirculation <= 3.599 then 5	A low information dissemination from media leads to a reduced efficiency of the social assistance system
<i>Rule 1 for 8</i> if GDPperCapita <= 8.623 and RedistributionEffect > 6.049 and MultilateralEnvironmentalAgreements > 8.765 and NewspaperCirculation > 3.599 then 8	Even if GDP/Capita is lower, an effective social inclusion policy can be due to the reduction of income inequality accompanied by concerns to ensure dissemination of information through the media
<i>Rule 2 for 8</i> if PCTPatentApplications > 7.181 and SeniorCitizenPoverty > 3 then 8	Concern for the science development and concern for the elderly leads to effective inclusion policies
<i>Rule 3 for 8</i> if InfantMortality > 8.253 and NewspaperCirculation <= 3.599 then 8	A low infant mortality and a moderate press movement lead to increased efficiency of inclusion policies
<i>Rule 1 for 9</i> if GDPperCapita > 8.623 and NewspaperCirculation > 3.599 then 9	Social inclusion policy is effective when GDP/Capita is high and when the press plays an important role in the society

Source: Authors own research results and comments

The analysis of the results in the above table mainly leads to the following general conclusions on the effectiveness of social inclusion policies:

- a) human rights abuses and rule of law lead to a low efficiency of inclusion policies;
- b) dissemination of press information is an important factor in social inclusion policy.

Thus, the cumulation of two factors, such as a low rule of law, plus a circulation of poor press information leads to inefficient social inclusion policies. In many developed countries, newspaper circulation is falling due to social and technological changes such as the availability of news on the internet. On the other hand, in some developing countries newspaper circulation is increasing as these factors are canceled out by rising income, population, and literacy (Bishop & Sharmarichard, 1980).

A possible explanation of this direct dependence on the effectiveness of social assistance policies for the dissemination of information through the media can be explained by the fact that social assistance is granted by the state in conditions where there is very little knowledge of the information. For example, for the payment of poverty relief, information is determined in the eligibility test as determined by social investigations that are not perfect. On the other hand, accessing programs is dependent on their knowledge of potential beneficiaries.

Under these circumstances, increasing the speed and accuracy of information can be an indirect leverage in rising the efficiency of social assistance programs by reducing the costs of imperfect information. In order to achieve an effective social inclusion policy, states can be involved in developing and financing actions to facilitate media coverage in some regions.

In addition to confirming direct factors that lead to the effectiveness of a social policy (maintaining or increasing the GDP/Capita and/or inequality), the study reveals the influence of indirect factors such as the development of entrepreneurship and research policies, and facilitating information specific to a free mass media.

3. Conclusions

The use of artificial intelligence and specific data mining algorithms to define the determinants in social policies has made it possible to discover new action directions that can be used as leverage in increasing the social programs efficiency. The results of the study reconfirm the importance of factors such as the rule of law, GDP/Capita, or maintaining income inequality at an acceptable level.

It also notes the influence of some other unexpected factors such as the development of policies to support entrepreneurship and research, as well as facilitating the circulation of information specific to a free mass media. The study offers the possibility of some levers to be considered by the policymakers in building public policies, but also in corporate social responsibility projects. Concretely, public policies can be designed to stimulate mass media in disadvantaged areas that will in itself lead to more effective social policies.

The advantage of the model used is the fact that the study is not entirely realized by a human being but calls for machines artificial intelligence which provide an independent big picture to a classical public policy assessor. The limitations of the paper are given by the use in the analysis of granularity at the country level not at the region or territorial administrative unit level. The model can be extended to other areas of redeployment policies specific to public finances and institutional reorganization if governments are looking to streamline their administration.

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Appendix 1. Indicators used

Policy Performance	Quality of Democracy
<i>Rank among 41 countries</i>	<i>Rank among 41 countries</i>
Economic Policies	Electoral Processes
<i>Rank among 41 countries</i>	<i>Rank among 41 countries</i>
Economy	Candidacy Procedures
Economic Policy	Media Access
GDP per Capita	Voting and Registration Rights
Inflation	Party Financing
Gross Fixed Capital Formation	Popular Decision-Making
Real Interest Rates	Access to Information
Potential Output, Growth Rate	Media Freedom
Labor Markets	Media Pluralism
Labor Market Policy	Access to Government Information
Unemployment	Civil Rights and Political Liberties
Long-term Unemployment	Civil Rights
Youth Unemployment	Political Liberties
Low-skilled Unemployment	Non-discrimination
Employment Rate	Rule of Law
Low Pay Incidence	Legal Certainty
Taxes	Judicial Review
Tax Policy	Appointment of Justices
Tax System Complexity	Corruption Prevention
Structural Balance	Governance
Marginal Tax Burden for Businesses	<i>Rank among 41 countries</i>
Redistribution Effect	Executive Capacity
Budgets	<i>Rank among 41 countries</i>
Budgetary Policy	Strategic Capacity
Debt to GDP	Strategic Planning
Primary Balance	Scholarly Advice
Debt Interest Ratio	Interministerial Coordination
Budget Consolidation	GO Expertise
Research and Innovation	GO Gatekeeping
R&I Policy	Line Ministries
Public R&D Spending	Cabinet Committees
Non-public R&D Spending	Ministerial Bureaucracy
Total Researchers	Informal Coordination
Intellectual Property Licenses	Evidence-based Instruments
PCT Patent Applications	RIA Application
Global Financial System	Quality of RIA Process
Stabilizing Global Financial Markets	Sustainability Check
Tier 1 Capital Ratio	Societal Consultation
Banks' Nonperforming Loans	Negotiating Public Support
Social Policies	Policy Communication
<i>Rank among 41 countries</i>	Coherent Communication
Education	Implementation
Education Policy	Government Efficiency
Upper Secondary Attainment	Ministerial Compliance
Tertiary Attainment	Monitoring Ministries
PISA results	Monitoring Agencies, Bureaucracies
PISA, Socioeconomic Background	Task Funding
Pre-primary Expenditure	Constitutional Discretion
Social Inclusion	National Standards
Social Inclusion Policy	Adaptability
Poverty Rate	Domestic Adaptability
NEET Rate	International Coordination
Gini Coefficient	Organizational Reform
Gender Equality in Parliaments	Self-monitoring
Life Satisfaction	Institutional Reform
Health	Executive Accountability
Health Policy	<i>Rank among 41 countries</i>
Spending on Health Programs	Citizens' Participatory Competence
Life Expectancy	Policy Knowledge
Infant Mortality	Voicing Opinion to Officials
Perceived Health Status	Voter Turnout
Families	Legislative Actors' Resources
Family Policy	Parliamentary Resources
Child Care Density, Age 0-2	Obtaining Documents
Child Care Density, Age 3-5	Summoning Ministers
Fertility Rate	Summoning Experts
Child Poverty	Task Area Congruence
Pensions	Audit Office
Pension Policy	Ombuds Office
Older Employment	Media
Old Age Dependency Ratio	Media Reporting
Senior Citizen Poverty	Newspaper Circulation
Integration	Quality Newspapers
Integration Policy	Parties and Interest Associations
FB-N Upper Secondary Attainment	Intra-party Democracy
FB-N Tertiary Attainment	Association Competence (Business)
FB-N Unemployment	Association Competence (Others)
FB-N Employment	
Safe Living	
Safe Living Conditions	
Homicides	
Thefts	
Confidence in Police	
Global Inequalities	
Global Social Policy	
ODA	
Environmental Policies	
<i>Rank among 41 countries</i>	
Environment	
Environmental Policy	
Energy Productivity	
Greenhouse Gas Emissions	
Particulate Matter	
Water Usage	
Waste Generation	
Material Recycling	
Biodiversity	
Renewable Energy	
Global Environmental Protection	
Global Environmental Policy	
Multilateral Environmental Agreements	
Kyoto Participation and Achievements	

Source: SGI Indicators

Appendix 2. Countries for which the data was analyzed

Australia, Austria, Belgium, Bulgaria, Canada, Chile, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

Source: SGI Indicators

Appendix 3. Output and input indicators determined by the C5.0 model

Year	Country	Social Inclusion Policy	Redistribution Effect	RI Policy	PC T Patent Applications	Tier 1 Capital Ratio	Upper Secondary Attainment	PISA Results	GINI Coefficient	Infant Mortality	Senior Citizen Poverty	Material Recycle	Multilateral Environmental Agreements	Civil Rights	Voicing Officials	Opinion	Internet	Turout	Newspaper Circulation
2014	Greece	3	4.6	11	3	1.22	5.53	5.60	3.134	45	7.03	3.52	5.235	6	3.966		1.0	5.252	3.043
2014	Mexico	3	1.0	00	3	1.04	5.64	1.00	1.000	00	0	1.80	7.882	4	4.375		1.0	5.249	2.112
2015	Greece	3	4.5	47	3	1.19	5.87	5.76	3.134	12	4	8	5.235	6	3.966		1.0	5.252	3.043
2015	Mexico	3	1.0	00	3	1.04	5.86	1.00	1.000	00	0	1.80	7.882	4	4.375		1.0	5.249	2.112
2016	Greece	3	4.2	66	3	1.23	7.10	6.03	3.134	79	0	7	4.176	6	2.739		1.0	5.395	3.043
2016	Israel	3	2.7	78	9	4	4.00	7.51	3.813	17	4	1	1.000	5	5.807		1.0	6.501	3.482
2016	Mexico	3	1.0	00	3	1.04	5.60	1.06	1.000	00	0	1.80	5.765	4	3.966		1.0	3.386	2.112
2017	Israel	3	2.8	13	9	7	4.48	7.51	3.622	82	0	2	1.000	5	5.398		1.0	6.501	3.482
2014	Bulgaria	4	4.3	45	3	1.09	6.91	7.56	1.121	76	5	3	6	8.588	5	3.352		3.989	3.582
2014	Chile	4	1.0	00	4	1.14	4.00	3.84	1.000	00	0	4	6.647	7	6.830		1.0	3.579	1.731
2014	Croatia	4	4.0	81	3	1.25	8.79	7.49	4.471	70	6	4	3.111	5	3.557		1.0	4.202	3.059
2014	Israel	4	3.2	72	9	5	3.94	7.40	3.813	18	8	2	1	2.059	5	3.352		5.922	3.482
2014	Italy	4	5.7	34	4	4	4.29	4.39	5.046	74	0	7	8	5.765	6	2.739		6.861	2.532
2014	Romania	4	4.0	05	3	0	5.99	6.74	1.110	44	2	7	7	9.294	5	3.966		2.632	1.763
2015	Bulgaria	4	3.9	14	3	8	8.82	7.46	1.121	81	9	4	8	8.588	5	3.352		3.807	3.599
2015	Chile	4	1.0	00	4	8	4.04	3.84	1.000	00	6	4	0	6.647	7	6.830		3.579	1.721
2015	Croatia	4	3.9	06	3	1.25	9.13	7.70	4.471	5.0	6.96	5	3.16	8.412	5	3.557		4.202	2.628
2015	Hungary	4	7.5	27	4	7	5.81	7.73	4.811	30	9	9	0	10.000	5	6.216		5.172	3.128
2015	Israel	4	2.9	25	9	6	3.88	7.48	3.813	82	4	1	1	2.059	5	3.352		5.922	3.482
2015	Italy	4	6.0	33	4	9	4.93	4.54	5.046	41	6	7	4	5.765	6	3.761		6.861	2.310
2015	Portugal	4	2.7	41	5	6	4.75	2.40	4.925	78	6	8	7	8.765	8	7.443		4.690	1.000
2015	Romania	4	4.0	35	3	5	6.22	6.35	1.110	46	5	7	1	9.294	5	3.966		2.632	1.640
2015	Spain	4	5.4	13	4	3	4.94	4.18	5.048	43	0	8	7	7.882	7	6.830		6.070	2.263
2016	Bulgaria	4	4.2	58	3	3	9.05	7.57	1.121	81	3	5	4	8.412	5	3.352		3.807	3.599
2016	Croatia	4	3.8	54	3	8	8.45	7.77	4.471	01	4	5	3	8.235	5	4.580		5.043	2.628
2016	Hungary	4	7.6	17	4	2	5.90	7.74	4.811	31	5	9	4	10.000	5	3.966		5.172	3.004
2016	Portugal	4	3.0	48	5	3	5.36	2.64	4.925	79	2	7	6	6.118	8	7.443		4.413	1.492
2016	Romania	4	3.9	66	4	8	7.26	6.64	1.110	13	9	7	5	7.353	5	5.807		2.632	1.526
2016	Spain	4	5.0	79	4	8	5.40	4.29	5.048	13	6	8	6	7.882	7	6.830		6.609	2.168
2017	Bulgaria	4	3.9	79	3	5	9.25	7.62	1.050	21	7	5	1	8.588	5	4.170		3.807	3.599
2017	Croatia	4	4.0	79	3	5	9.26	7.73	3.918	67	6	4	6	7.529	5	3.557		4.002	2.628
2017	Greece	4	4.5	41	4	4	7.31	6.22	2.564	45	6	7	8	4.000	6	3.761		5.395	3.043
2017	Hungary	4	7.3	80	4	5	6.09	7.77	3.833	63	5	9	9	9.118	5	4.784		5.172	2.852
2017	Mexico	4	1.0	00	3	1	5.72	1.06	1.000	00	8	1	8	6.118	3	3.352		3.386	2.112
2017	Romania	4	3.1	28	4	6	7.65	6.87	1.000	13	3	6	8	6.294	5	6.625		2.131	1.526
2014	Hungary	5	7.9	63	4	4	6.26	7.65	4.811	94	9	9	4	10.000	6	6.216		5.494	3.373
2014	Latvia	5	2.6	54	3	1	7.15	8.57	5.388	82	8	8	6	8.059	8	3.352		4.875	3.352
2014	Portugal	5	2.9	12	4	8	4.96	1.93	4.925	79	6	8	9	8.765	8	7.852		4.690	1.904
2014	Slovakia	5	5.9	27	4	3	6.12	8.91	3.633	23	3	9	6	9.294	7	3.966		4.827	2.508
2014	Spain	5	7.0	50	3	3	4.92	4.03	5.048	78	0	7	8	7.882	7	5.398		6.070	2.485
2014	Turkey	5	1.0	00	4	5	5.46	1.00	2.868	32	0	4	0	3.118	3	2.534		8.430	2.695
2015	Australia	5	4.3	45	4	5	4.30	6.14	6.880	07	8	1	5	7.353	7	5.193		9.143	3.389
2015	Latvia	5	2.7	67	3	1	7.42	8.59	5.388	47	0	8	6	8.059	8	3.352		4.788	3.352
2015	Slovakia	5	6.4	14	3	1	6.92	8.79	3.633	87	5	10	6	9.294	7	3.966		4.827	2.283
2015	Turkey	5	1.0	00	5	0	5.90	1.00	2.868	64	0	5	0	3.118	3	2.534		8.430	2.774

20			7.0		3.84	6.58	6.46		6.7	7.41		6.11								
15	Belgium	7	15	6	0	3	2	6.663	24	8	8	4	8.765	7	6.011		8.655		3.747	
20			3.8		3.12	4.94	7.68		4.7	6.50		3.90								
15	Canada	7	69	7	6	5	8	7.658	06	6	7	2	2.588	9	6.830		5.080		3.795	
20			4.3		1.30	6.23	6.99		4.5	7.94		3.12								
15	Cyprus	7	16	4	1	7	8	1.254	74	9	7	3	7.353	7	6.625		7.305		4.151	
20			6.4		3.96	5.52	6.87		5.3	7.26		4.47								
15	France	7	46	7	1	6	7	5.867	5.4	7.49		9	7	8.059	8	5.807		4.357	3.391	
20			5.6		6.68	6.62	8.24		5.4	7.49		8.53								
15	Germany	7	19	9	8	6	4	7.090	67	4	7	0	9.294	9	8.057		6.398		5.750	
20			8.2		3.29	6.52	6.46		7.3	8.78		5.05								
15	Iceland	7	67	7	1	5	2	4.642	53	5	9	6	2.941	8	6.830		7.652		4.753	
20	New Zealand	7	4.0		2.85	6.52	5.91		4.2	6.27		3.47								
15			5.4		7	3	5	1	6.617	76	8	7	8	8.059	8	5.602		7.084	4.064	
20			6.1		1.17	5.69	8.72		5.1	6.58		3.12								
15	Poland	7	48	6	8	5	7	7.521	36	2	8	6	8.059	8	3.148		3.538		2.346	
20			7.3		2.57	7.53	8.08		7.2	8.25		5.53								
15	Slovenia	7	02	3	9	9	3	5.791	21	3	6	7	7.882	7	6.216		3.893		2.852	
20	United Kingdom	7	6.7		3.23	5.77	7.21		5.3	7.03		5.43								
15			8.0		8	4	6	2	6.079	01	8	7	5	5.941	6	6.830		5.669	4.671	
20			6.1		5.19	5.55	7.93		6.1	7.72		5.12								
16	Austria	7	84	5	9	0	6	5.907	62	2	7	0	7.000	7	8.261		6.826		5.937	
20			3.8		3.17	5.04	7.68		4.9	6.65		3.90								
16	Canada	7	83	7	3	1	8	7.658	38	8	7	2	3.118	9	6.830		5.987		3.663	
20			3.7		1.26	6.87	7.03		3.7	8.02		3.18								
16	Cyprus	7	63	4	6	6	8	1.254	79	5	7	6	6.647	7	6.420		7.305		4.126	
20			6.8		4.05	5.86	6.98		5.6	7.26		4.55								
16	France	7	47	7	6	3	4	5.867	32	6	9	6	8.235	8	6.011		4.357		3.295	
20			5.6		6.64	6.77	8.23		5.1	7.57		8.69								
16	Germany	7	11	9	5	0	1	7.090	36	0	8	7	9.471	9	6.830		6.398		5.550	
20			8.6		3.51	6.95	6.64		7.7	8.78		4.46								
16	Iceland	7	59	6	2	8	9	4.642	83	5	9	4	1.000	8	6.830		7.652		4.753	
20	Netherlands	7	49	8	7	6	7	7.381	25	4	9	1	9.118	7	5.193		6.781		5.064	
16	New Zealand	7	3.5		2.87	6.95	5.91		3.7	6.35		3.47								
20			2.5		7	0	8	7	6.617	46	4	6	8	7.529	8	5.193		7.084	3.839	
20			6.0		1.21	6.26	8.76		5.1	6.58		4.39								
16	Poland	7	88	6	6	1	7	7.521	03	2	8	4	5.235	8	4.580		3.791		2.200	
20	United Kingdom	7	6.4		3.25	6.76	7.27		4.8	7.19		5.43								
16			2.9		8	4	5	9	6.079	38	0	6	5	5.588	6	6.216		5.714	4.632	
20			6.2		5.26	6.18	7.92		6.2	7.79		5.16								
17	Austria	7	11	5	3	9	3	5.260	94	7	8	3	6.647	7	7.443		6.826		5.845	
20			3.8		3.25	5.23	7.68		4.9	6.73		3.90								
17	Canada	7	83	7	8	3	8	7.748	38	4	7	2	2.941	9	5.602		5.987		3.519	
20			4.8		1.26	6.80	7.26		4.1	8.10		3.15								
17	Cyprus	7	46	4	3	9	6	1.000	76	1	8	7	6.471	7	5.602		5.792		3.827	
20			6.3		4.08	5.98	7.06		5.6	7.34		4.62								
17	France	7	52	8	2	3	5	5.541	32	2	9	1	8.412	8	6.011		4.357		3.226	
20			5.6		6.49	7.05	8.19		5.3	7.64		8.74								
17	Germany	7	01	9	1	8	6	6.527	35	6	7	7	9.471	9	5.398		6.398		5.377	
20			8.1		3.63	7.19	7.07		7.4	8.78		4.46								
17	Iceland	7	68	6	1	3	8	4.357	85	5	8	4	1.000	8	6.011		7.368		4.753	
20			5.8		3.10	9.68	7.33		5.4	7.72		5.99								
17	Ireland	7	22	7	0	1	3	6.605	34	2	8	2	4.353	9	6.830		5.583		3.492	
20	Netherlands	7	5.8		6.23	7.75	6.93		5.9	7.57		4.99								
17	New Zealand	7	86	9	1	5	1	6.516	63	0	9	5	8.765	7	4.989		6.781		4.800	
20			3.5		2.97	7.19	5.91		3.7	6.43		3.47								
17	Zealand	7	25	6	7	3	7	6.356	46	0	6	8	7.000	8	5.398		7.084		3.839	
20			6.2		1.24	6.69	8.83		5.1	6.58		5.24								
17	Poland	7	90	6	4	8	4	6.191	69	2	8	6	5.059	6	3.966		3.791		2.138	
20	United Kingdom	7	6.3		3.36	7.20	7.25		4.5	7.34		5.40								
17			1.7		8	8	7	2	5.873	74	2	6	8	5.765	6	6.011		5.714	4.167	
20			7.0		6.09	7.52	7.09		6.5	7.57		5.15								
14	Denmark	8	11	7	6	4	2	5.739	26	0	9	5	9.294	9	9.489		8.449		4.850	
20			7.9		8.11	6.51	8.11		6.7	8.32		4.48								
14	Finland	8	66	9	5	6	0	8.232	24	9	8	8	9.294	10	5.807		5.872		8.732	
20	Netherlands	8	6.4		5.63	5.22	6.75		6.8	7.34		4.86								
14	Switzerland	8	16	8	0	4	7	7.381	90	2	9	4	9.294	7	6.625		6.781		5.581	
20			6.5		8.27	7.08	8.28		5.7	7.19		6.62								
14			4.5		9	2	4	7.354	65	0	2	4	9.294	9	7.239		3.560		6.546	
15	Denmark	8	08	8	5	4	6	5.739	26	6	9	2	9.294	9	8.670		8.449		4.384	
20			8.2		8.18	7.12	8.19		6.8	8.40		4.08								
15	Finland	8	27	9	7	1	1	8.232	90	5	8	8	9.294	10	5.807		5.872		8.156	
20	Netherlands	8	6.4		5.82	6.45	6.77		6.9	7.49		4.87								
15			6.1		8	8	0	7.381	89	4	9	8	9.294	7	5.398		6.781		5.311	
20			7.8		8.54	8.57	7.81		7.0	8.17		6.38								
15	Sweden	8	19	9	1	1	5	4.453	55	7	8	6	8.765	9	7.852		8.205		7.393	
20	Switzerland	8	6.5		8.89	6.34	8.39		5.8	7.26		6.44								
15			6.8		9	7	3	2	7.354	64	6	3	4	9.294	9	5.807		3.560	6.164	
20			7.2		6.40	7.69	7.37		6.1	7.72		5.35								
16	Denmark	8	00	8	0	7	3	5.739	29	2	9	1	9.471	9	9.284		8.215		4.206	
20			8.2		8.37	9.66	8.35		6.8	8.48		3.92								
16	Finland	8	54	8	0	1	1	8.232	24	1	9	3	9.471	10	6.011		5.806		7.631	
20			7.2		2.56	7.93	8.23		7.0	8.32		5.72								
16	Slovenia	8	40	3	2	2	1	5.791	22	9	7	4	7.000	7	5.807		3.893		2.852	
20			7.8		8.83	9.39	7.89		6.8	8.17		6.39								
16	Sweden	8	85	9	4	7	6	4.453	90	7	8	7	8.941	9	6.420		8.205		6.947	
20	Switzerland	8	6.0		9.04	6.73	8.41		5.5	7.34		6.27								
16			9.5		9	2	7	8	7.354	33	2	4	9	8.941	9	7.239		3.472	6.164	
20			7.0		6.28	7.69	7.41		6.1	7.79		5.41								
17	Denmark	8	58	7	5	7	3	6.224	29	7	9	3	9.118	9	9.693		8.215		4.206	
20			8.2		8.30	9.65	8.40		6.8	8.55		5.56								
17	Finland	8	94	7	0	2	5	7.698	90	7	9	7	9.471	10	5.398		5.806		7.631	
20			7.3		2.70															

Appendix 4. Significance of input indicators

GDP/CAPITA Definition: GDP per capita, PPP, constant 2011 international US-\$, Year: 2015, Unit: PPP, constant 2011 international US-\$, Direction: High values translate into high scores, Source: World Bank.
REDISTRIBUTION EFFECT Definition: Percentage reduction of the Gini coefficient by taxes and transfers, Year: 2015, Unit: Percent Direction: High values translate into high scores, Source: OECD Online Database or Eurostat.
PTC PATENT Definition: Per one million people, how many applications are filed under the patent cooperation treaty (PCT)?, Definition: Number of applications filed under the patent cooperation treaty, per million population, Year: 2013, Unit: Per million, Direction: High values translate into high scores, Source: World Economic Forum, Global, Distance = (value for calculation-minimum)/(maximum-minimum) Score: Score=1+relative distance*9
TIER 1 CAPITAL RATIO Definition: FSI2, banks' risk-weighted assets to Tier One Capital, percent Year: 2016 Unit: Percent Direction: High values translate into high scores, Source: IMF Financial Soundness.
UPPER SECONDARY What percentage of people have completed upper secondary education? Definition: Population with at least upper secondary attainment (ISCED 3 and above) age group 25-64 years, Year: 2016 Unit: Percent, Direction: High values translate into high scores, Source: Eurostat Online Database or UNESCO.
PISA RESULTS On average, how well do students score on PISA tests? Definition: PISA results, mean of scores on the reading, mathematics and science scales Year: 2015, Unit: Standardized Measure Direction: High values translate into high scores, Source: OECD PISA.
GINI Definition: Gini coefficient, Year: 2015, Unit: Percent, Source: Eurostat Online Database: OECD Online Database.
INFANT MORTALITY What is the infant mortality rate? Definition: Infant mortality rate per 1,000 live births, Year: 2015, Direction: Low values translate into high scores Source: World Bank, World Development.
SENIOR CITIZEN POVERTY What percentage of senior citizens are at risk of poverty? Definition: Senior citizen poverty rate, persons 65 years or older, cut-off point 50 percent of median equivalised disposable income, Year: 2015, Unit: Percent, Direction: Low values translate into high scores, Source: Eurostat Online Database, OECD Online.
CIVIL RIGHTS AND POLITICAL LIBERTIES Civil rights contain and limit the exercise of state power by the rule of law. Independent courts guarantee legal protection of life, freedom and property as well as protection against illegitimate arrest, exile, terror, torture or unjustifiable intervention into personal life, both on behalf of the state and on behalf of private and individual actors. Equal access to the law and equal treatment by the law are both basic civil rights and also necessities to enforce civil rights.
VOICING OPINION What percentage of the people have voiced their opinion to a public official in the last month? Definition: Proportion of people having voiced their opinion to a public official during the last month, Gallup.
VOTER TURNOUT What percentage of registered voters participate in national elections? Definition: Voter turnout in parliamentary elections, Year: 2016, Unit: Percent Direction: High values translate into high scores, Source: IDEA Http://www.idea.int/vt/viewdata .
VOICING OPINION What percentage of the people have voiced their opinion to a public official in the last month? Definition: Proportion of people having voiced their opinion to a public official during the last month, Year: 2016, Unit: Percent, Direction: High values, ranslate into high scores, Source 1: Gallup.
NEWSPAPER INFORMATION Per 1,000 adults, how many people buy a newspaper daily? Indicator metadata and score calculation, Definition: Total paid-for dailies, average circulation per 1,000 population, Year: 2015, Unit: 0/00, Direction: High values translate into high scores, Source: World Association of Newspapers: World Press Trends Report, World Bank, World Development.
R&I POLICY Objective: This question comprises subsidies and incentives for research institutions conducting basic and applied research, as well as subsidies and incentives for establishing start-up companies that transfer scientific output into products and enhanced productivity. Bureaucratic impediments to research and innovation should also be taken into account.
MATERIAL RECYCLING What percentage of municipal waste is recovered by material recycling? Definition: Proportion of municipal waste recovered by material recycling, Year: 2015, Unit: Percent, Direction: High values translate into high scores, Source: Eurostat Online Database, 2: OECD Online Database, UNSD Environmental.
MULTILATERAL ENVIRONMENTAL AGREEMENTS What is the participation rate in global and regional multilateral environmental agreements? Definition: Participation rate (global and regional MEAs) Year: 2017 Unit: Percent Direction: High values translate into high scores Source 1: Bertelsmann Stiftung.

Source: SGI Indicators.

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Omni-Channel – a Solution for Romanian Companies to Achieve Competitiveness on the Global Market?

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Abstract

Technological advances and changes in consumer habits force companies to change the manner they interact with customers. Omni-channel is a relatively recent term that targets a business model where companies interact with consumers, with a primary focus on customers rather than on the company. Omni-channel assumes that all channels of sales and communication to the client are taken into account. For an effective approach, the focus must be on both the sales channel and communication, as well as the way customers want to relate to that company. The Omni-channel penetration also involves a change in the company, the sales channels must be integrated, and the Omni-channel experience is also matched by the correlation of supply with physical stocks and product availability. Omni-channel is a way to eliminate unnecessary operational costs and can be seen as the goal to be directed by the big companies in the country, but it remains to be seen when and in what form.

Keywords: *Omni-channel, competitiveness, retail companies, consumer buying behaviour, channel integration*

JEL Classification: *D12, L81*

1. Introduction

Omni channel targets a business model where companies interact with consumers, with the emphasis on customer focus, sales channel and how the customer wants to relate to that company. The implementation of the Omni channel implies that the sales channels are treated at the company level, not as a business itself. The development of this business model also depends on the correlation of supply with physical stocks and the availability of products.

Omni channel, determines the decrease or even elimination of certain categories of costs.

For example, the cost of shipping or returning products, present in the case of e-commerce, is inexistent in the case of Omni channel, where the customer is able to pick up the product or return it directly to the store.

Although at international level, especially retail companies are interested in developing Omni channel and increasing niche formats, companies present on the Romanian market do not seem willing to implement Omni channel and to have a permanent interaction with clients. The

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latter prefer to use traditional sales in stores, on-line sales, or, in a few cases, a combination of the two.

Omni channel also implicitly determines the evolution of consumer buying behaviour and the way it interacts with information. Most of the time, the main criterion for customers choosing certain stores at the expense of others is proximity and location accessibility, sometimes even at the expense of a lower price. Customers also prefer buying online, especially products such as toys, footwear, or sports items, due to the fact that they are offered a wide selection of products at a click away, thus saving time and buying more quickly. If customers choose brick-and-mortar stores, they want to be provided with a variety of products, the store has to have easy orientation and to be conveniently located for home or work.

Over time, consumer behaviour has suffered various transformations due to an omnipresent environment outside the dimensions of time and space (Beck and Rygl, 2015; Dobrin and Girneata, 2015; Verhoef *et al.*, 2015, Deac *et al.*, 2016a). Neslin *et al.*, (2006) formally characterize multi-channel client administration as the plan, arrangement, coordination, and assessment of channels to upgrade client esteem through successful client obtaining, maintenance, and improvement. By accentuating cooperation, they particularly constrain the area to channels giving two-way correspondence, barring customary one-way mass-correspondence channels, for example, TV (promoting). Verhoef, Neslin, and Vroomen (2007) consider “research shopping” for these three channels. The authors characterize research shopping as a way that customers seek in one channel (i.e., on the web) and buy in another channel. Others have researched the impact of online channel increases and client channel relocation to the online channel on investor esteem, store deals, customer behaviour (Deac *et al.*, 2016b) or customer loyalty (Homburg *et al.*, 2014; Van Nierop *et al.*, 2011). Consumers currently frequently opt between online and offline channels at different stages of the buying decision, determining multichannel sellers to implement Omni channel strategies that increase their overall profit (Bell *et al.*, 2015; Gu and Tayi, 2017; Saghiri *et al.*, 2017). Consumers using mobile channel are able to make purchases without time constraints (Park and Lee, 2017).

Companies should consider the available amount of information, fund, and product flows and to allocate responsibilities to channels in a manner that aligns with the respective strength points (Chopra, 2016).

2. Problem Statement

In order to remain competitive on the market, companies need to know and anticipate customers’ requests in order to offer them the desired products at the expected time. The difference between increasing market share and bankruptcy lies in the ability to implement the Omni channel strategy, through which customers can benefit from similar information and functionality across the entire purchase flow.

In Romania, on the other hand, the number of companies implementing the Omni channel business model is low, because these fail to identify the consumers’ expectations and what is their buying behaviour.

Therefore, first and foremost, it is important that organizations identify precisely the segment of clients they are addressing to, knowing their age, gender, location, the stores they visit, their buying habits and other similar aspects. In addition to these, big companies go even deeper, measuring customer actions in every moment of the acquisition, based on specific metrics and systems.

Strong brands reach consumers regardless of the location they are or the type of device used: smartphone, laptop, tablet or others. Currently, companies invite customers to dialogue, content becomes key, unlike previous years when companies unilaterally communicated to consumers, describing the product or service and addressing the invitation to purchase. Success lies in

identifying the right combination through which information about products or services can be transmitted along all communication channels.

3. Research Questions/Aims of the research

The purpose of this study is to investigate the availability of the Romanian companies to implement the Omni channel business model and the degree of companies' adaptation to the needs of the clients. The main research question resides in the following: “*Are Romanian companies prepared to implement the Omni channel business model?*”

The secondary objectives of the research are:

- How do companies understand to adapt their business model to the new challenges of the market?
- What are the means by which Romanian companies are trying to know and predict consumer behaviour?

4. Research Methods

For this purpose, the research methodology consists in a elaborating a questionnaire, based on which a survey was conducted in February, 2018 on a sample of 450 companies operating in Romania in the trade sector. The questionnaires were applied both online (by email) and through meetings with company representatives, resulting in a total of 374 valid responses, whose data were then centralized and analyzed through SPSS. The limitations of the study consist in the fact that the sample was composed of companies that have as object of activity the trade, the results cannot be generalized on other fields. The findings of the study may prove useful for both researchers and practitioners in adapting to the Omni channel business model.

5. Findings

The research was conducted on a number of 374 companies having as main activity sales from all the development regions of Romania. The initial section of the developed questionnaire includes general identification items regarding the profile of companies, namely the region they belong to and the number of employees. The distribution of companies according to the development regions in Romania is presented in (**Table 1**). It can be highlighted that the highest number of firms comes from Bucharest and Ilfov region (26%), West (14%) and Centre (13%).

In terms of company size classification by number of employees, most firms participating in the study are micro-enterprises, with one to nine employees (46%) and small companies with 10 to 49 employees (26%), as presented in (**Figure 1**).

Asked if the organization collects customer interaction data in order to customize and personalize customer experience, 54% of those questioned answered yes, while 173 companies that took part in the study, representing 46% of the sample, responded negatively to it statement.

Table 1. The distribution of companies according to the development regions in Romania

No.	Development region	No. of companies	Percentage (%)
1	North East	44	12%
2	South East	34	9%
3	South Muntenia	31	8%
4	South West Oltenia	29	8%
5	West	52	14%
6	North West	38	10%
7	Centre	49	13%
8	Bucharest and Ilfov	97	26%
Total	374		100%

Source: Created by authors

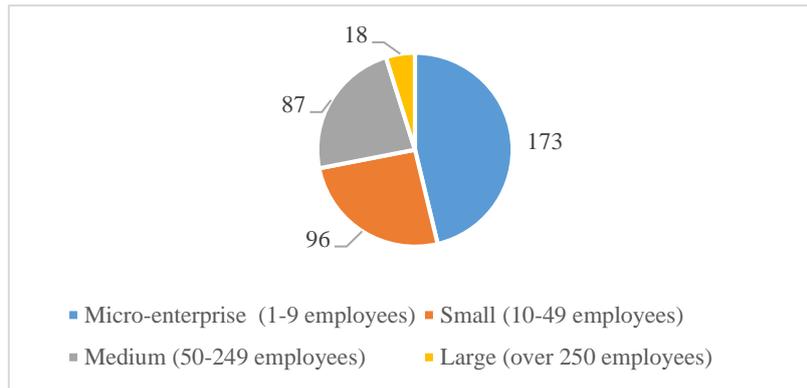


Figure 1. Company size by number of employees
 Source: Created by authors

Another item in the questionnaire aimed to identify the channels that companies use to interact with their customers (**Figure 2**). A number of responses were provided, from which several options could be chosen, depending on the situation existing in the respective company.

Thus, the most common customer interaction channels proved to be the website of the company (93.32% of the total answers), social communication channels such as Facebook, Instagram, Twitter and others (83.96%) and email (79.95%). The least selected options were television ads, where only 1.34% of those surveyed said they were using this channel and sending messages to the customers’ mobile phones, chosen by 14.71% of the participants in the survey. An explanation of the low number of responses for the two choices mentioned is that they are quite expensive, at least TV commercials, and companies tend to use free or less expensive channels to get in touch with their customers and understand their expectations. Also, most of the companies participating in the study are of medium and small size, which implies a lower budget for promotion and interaction with clients than in the case of large companies.

The other selected options were: internet advertisements (78.07%), smartphone applications (74.81%), tablet applications (54.81%) and printed materials, including flyers, coupons (31.21%).

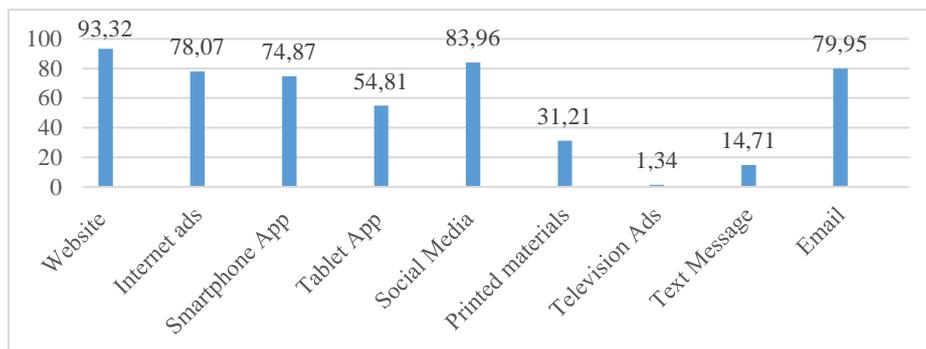


Figure 2. Channels that companies use to interact with their customers
 Source: Generated by authors

The next objective of the questionnaire was to identify whether companies are considering expanding the number of channels they use to communicate with their customers. Therefore, it was identified that 56% of the respondents, namely 211 companies, confirmed they would consider expanding their communication channels, including others in order to interact more often and more efficiently with clients and potential customers, while 44% of the total, namely 163 companies, mentioned that they do not take into consideration using other channels to interact with consumers in the future.

In the literature, as well as in practice, it is considered that the integration of the content presented on multiple channels would lead to the efficiency of the transmission of the message desired by the company (Park and Lee, 2017). Also, it would be easier for customers to be aware of what companies are promoting and the message the latter are trying to convey if the same messages, offers and suggestions appear on all channels. Instead, if companies use different messages, for example, they offer a Facebook discount, but on the company’s website it does not appear, the discount offers are different, or they inform their customers of certain products only by flyers, but not in the shop or the online shop, the clients will not fully know the company’s offers and in the future they can look with scepticism at the honesty of the company and the desire to retain its clients. Thus, when asked whether the channels that the company uses are integrated or not, 18% of respondents answered yes, while 82%, namely 306 companies answered negatively.

With regard to the content and functionality of each channel that companies use to interact with customers, 90.4% of the total said that the experience across channels is fairly consistent, respectively, the content and functionality are mostly consistent on each channel, but there are some constraints in this regard. 6.4% of those questioned said that customers can access the same functionality and content on each channel, while the remaining 3.2% have declared that the experience across most channels is very different, which means that content and functionality are different on each channel.

In order for the data collection process to prove its effectiveness, it is necessary to store the information in a central unit, regardless of the channels through which it was collected. Thus, all departments within the company can access them and take the necessary measures to ensure customer loyalty. The questionnaire included the question of how the data is stored by the company, the answers being represented graphically in (Figure 3). 83% of respondents claimed that each department independently manages the data collected through each channel, 11% responded that data is stored in a central unit and 6% of the respondents specified that customer data are not stored in any way, thus making the collection process ineffective.

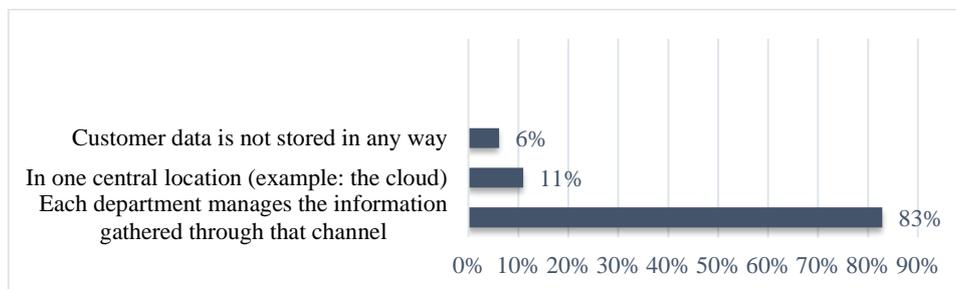


Figure 3. How companies store customer data

Source: Generated by authors

Furthermore, the respondents were asked to evaluate how advanced they felt their company was in terms of its Omni channel practices (Figure 4). The majority, respectively 50.3%, considered that the Omni channel practices were situated at an average level, while 19.5% considered that the company had implemented an advanced level of Omni channel practices and 3.7% rated a very advanced level.

Regarding the company’s efforts to create a good Omni channel user experience, the responses followed a trend similar to the previous one (Figure 5). Therefore, 52.1% felt the company was making moderate efforts in this regard, 68 companies participating in the questionnaire representing 18.2% of the total, considered that the efforts were successful and 15 companies (4%) claimed that the actions taken by the respective companies are constituted in very successful efforts.

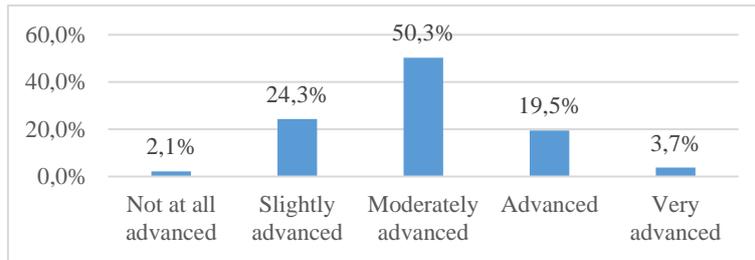


Figure 4. Degree of company's Omni channel advancement practices
Source: Generated by authors

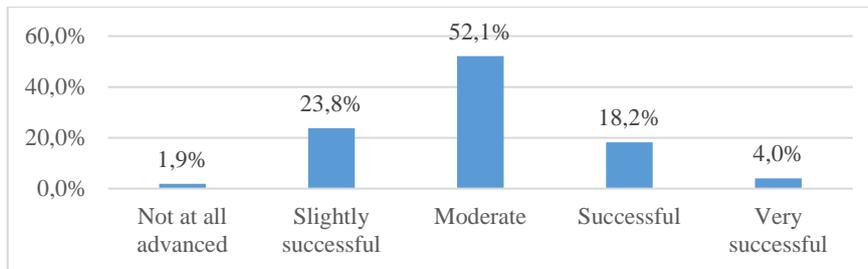


Figure 5. Companies' efforts to create a good Omni channel user experience
Source: Generated by authors

In continuation, it was aimed to identify the means by which companies are trying to understand the way in which customers interact with each channel (**Figure 6**). 8% of respondents said the company does not conduct research in this regard. 38% of the total (143 companies) said that most research studies address user behaviour on multiple channels, and the majority of 54% (202 companies) responded that they use separate user research on each channel.

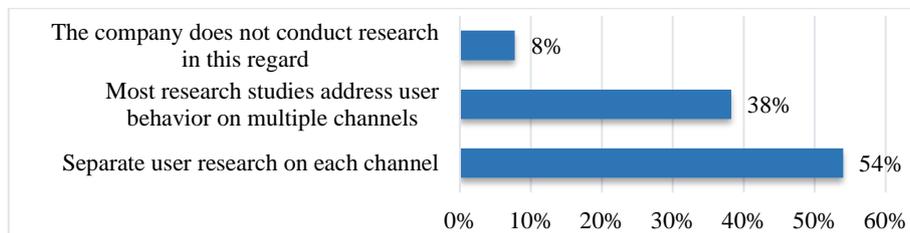


Figure 6. Mean through which companies try to understand how customers interact with each channel
Source: Generated by authors

In order for the processes of data collection, storage and usage in interacting with customers to be successful, it is necessary that companies can rely on an efficient technology infrastructure. Unfortunately, only 4% of those who participated in the questionnaire stated that technology infrastructure allows implementing Omni channel best practices successfully.

The majority, in a proportion of 94% responded that the existent technology infrastructure facilitates the implementation of some Omni channel best practices, while for 2% of the total companies participating in the survey the technology infrastructure does not facilitate the implementation of Omni channel practices.

6. Conclusions

The ability to keep in touch with customers, knowing their preferences and meeting their demands should be exploited by companies to facilitate communication at any time with current and potential customers through social networking, email, and presentation sites. Companies experiencing difficulties adapting to new media, thus failing to predict the level of demand and

to find the right time to launch or develop new products or services are likely to disappear from the market.

It is useful for companies to know if customers visit multiple online and offline stores before making a purchase to be able to predict their expectations. In the case of customers who prefer online purchases, it needs to be checked the probability of the customer visiting the company's online store, the frequency of customer orders or the evolution of this frequency following marketing campaigns. Also, it is useful to identify the marketing channels and the ads that have a high impact on customers and, consequently, generate the highest sales. Companies should follow the client's path through every sales channel: physical store, online store, TV, search engines, email, by collecting important data that can provide a complete picture of how customers make purchasing decisions.

It is noticed that customers no longer distinguish between physical and online stores when it comes to shopping. This phenomenon creates new conditions for retailers, the most important is that the digital system not only manages e-commerce, but often determines people to come to the physical store. Companies that use both on e-commerce channels and brick-and-mortar stores need to adapt their marketing strategies to allow customers to use any buying channel.

Knowing customer behaviour, merchants can make better use of online channels to attract buyers to their stores.

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**Creating a Persona for Modern Organizations' Decision-making
Case Study: The Young Consumer of Statistic Data, in Romania**

Iulia Alexandra NICOLESCU¹

Abstract

A consumer-persona is an important prerequisite for integrated decisions, to any organization. Marketing and sales strategies use personas to obtain customer-centred strategies for creating, delivering, and communicating superior customer value. (Kotler, Armstrong, 2014). Public organizations approach modern management through methods usually applied in private companies. Therefore, no wonder academic literature is seeing a rising interest for mixed digital tools applied in public policy. The public becomes the centre focus of every modern organization, each consumer's need representing the motion statement of designing strategy. According to the 11th Principle of European Statistics Code of Practice (2017 revised ed.), statistical data must correspond to the user's needs, including those of the large public. Listening and learning about consumers is also a main drive of the Digital Governing program, for a better, more ethical, more efficient modern governing. With the mission of expanding their innovation base, a small agency in the Department of Health and Human Services (HHS) developed client-centred designs in order to challenge their customers to become more involved in their projects (Wong, 2017). With evident proof that organizations search for modern methods to meet modern standards set by international regulations, this article approaches an exploratory research to develop a customer-persona. Methodology of this paper qualitatively assesses the consumer of statistics from Romania, with focus on the youngsters' segment, with the help of a survey questionnaire. Based on the collected data, this study also develops a model of individual questionnaire for building the profile. This paper reveals that young consumers do have a rising interest for statistics but insufficient knowledge to interpret them correctly; the presented data also show an appetite for modern visualization techniques but, limited use and activity on social platforms from behalf of official statistics producers. The consumer-persona created is for a domain less influenced by marketing strategies therefore stakeholders might be interested in order for similar studies to be deepened in order to build a comprehensive profiles list, clustered on emerging groups of users.

Keywords: *Statistics, modern public management, marketing, consumer persona*

JEL Classification: Z

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Introduction

The persona has occurred from being a method for IT system development to being used in other contexts, including development of products, marketing, planning of communication, and service design. Dam and Siang (2017) describe personas as fictional characters created upon research in order to represent the different user types that might use a specific service, product, site, or brand in a similar way. However, despite the fact the method exists since the '90s when they were first mentioned by Cooper (1999), there is still no clear definition of what the method comprises. Marketing techniques such as the user-persona, help organizations focus their messages on targeted public segments by getting to know their customers. Some of these methods successfully portrait the main categories of public the organization addresses to, by building models of the entire acquisition process, from intention to decision. Present study uses process mapping and consumer profiling specific methodology.

Given the rich possibilities it presents, this study reaches an exploratory manner to develop a persona for statistics users in Romania. Statistics are confronted with more and more challenges within the process of communication and dissemination since modern techniques and digitalization, therefore it is only natural to assume such a method would come in helpful into this process, for official statistics producers.

Statistics are public asset and serve an important purpose by providing a mirror to the world we live in (UNECE, 2009), but, one of the issues which motivated this exploratory approach is that statistics' vast area is rarely accessed by people with lack of knowledge in mathematics or economics. This fact doesn't mean that statistics are scarce. At the contrary, statistics represent a large part of the information we receive on daily basis, from domains of large interest such as sports scoring, weather prognosis and reports on the economy (UNECE, 2012). By studying the behavior of the consumer segment with most potential to influence other segments of public, results could lead to a raised audience for statistics messages. Targeted messages adapted to public needs is a perfect method to create relatability to data regarding the surrounding world.

One of the amazing opportunities of such an effect is streamlining the process of data collection among households but also companies.

2. Problem Statement

Defining the concept of a 'persona'/'buyer persona'/'user persona' is not an easy task. There has been no agreement on which definition is the best, but, we might relate to the definition given by Lidwell (2010, p. 182) describing it as a fictional character created to represent a consumer type of people who might use a specific product or service in the same way. The initial concept was developed by A. Jenkinson (1994, pp. 60-72) and then spread internationally through Oglivy One. Furthermore, there is no agreement on the benefits of this method; the benefits are seen as ranging from increasing the focus on users and their needs, to being an effective communication tool, to having direct design influence, such as leading to better design decisions (Cooper, 1999; Cooper *et al.*, 2007; Grudin & Pruitt, 2002; Long, 2009; Ma & LeRouge, 2007; Miaskiewicz & Kozar, 2011; Pruitt & Adlin, 2006).

The present research fills the gap in research by designing a persona for statistics users. One of the perceived benefits of such a persona is that it gives the stakeholder a mental model of a particular kind of user, which allows the decision maker to predict user behaviour and needs.

The personas evoke empathy and prevent designers from projecting their own needs and desires onto the project (Floyd *et al.*, 2008). It's relevance to statistics is related to the focus that all official statistics producers have, that of raising awareness about statistics to the public in order to produce more effective and relevant data for modern user's needs.

This user-centred design is combined with customer-segmentation, by marketers, in order to develop successful digital strategies, where the personas are constructed as representatives of specific segments. An organization may develop one or more personas for a comprehensive strategy. They are useful in considering the goals, decisions and limitations of customers, thus helping stakeholders to guide decisions regarding a certain product or service. Also, this type of design is extremely useful when deciding a specific interaction space or communication channels, a certain visual design, very important in the digital era.

We are living in the era when the focus is on the customer rather than on the product. Meeting the needs and challenges of the consumer is the key to success of both public and private organizations. To accomplish this, entities need to take time and understand each consumer, from the stage of decision to the very end of their choice towards a service or product. What is the use of data to a particular individual and what are the challenges he or she confronts?

Organizations need to understand who their consumer is, what are the needs that trigger certain decisions and where your organization can help in this process. Needs and challenges are decrypted with the help of new age marketing techniques which usually cross information from all departments in order to obtain valuable data about consumers. The model of what is called the “buyer’s journey” or the customer’s journey first emerged as an idea from the study on the consumer of Dewey (1907) and was simply addressed as “Problem/Need/Recognition”.

Kotler (2000) elaborated many decades to come on a complex model of consumer behaviour with patterns of action and reaction, on which marketers elaborated mixed tools in order to understand and meet this behavior in every stage.

The blue ocean vs. red ocean battle (Kim *et al.*, 2005) is obsolete in the era of social media and inbound marketing, therefore organizations should rethink strategies targeted on certain segments at a given time, by leaving this ocean entirely and reaching directly to the consumer.

In our specific case, the main stakeholder of such a technique would be the organizations which collect data and produce official statistics in Romania, just like the National Institute of Statistics. This official producer of statistics collects, disseminates and communicates data every day, on national level, to all categories of consumers, like media, stakeholders, institutions and government. A large data-base is available online, for free, in Romania, by the National Institute of Statistics, so users can generate specific statistics in different areas of interest, called TEMPO.

For practical implementation stakeholders developing personas must engage with real users and their needs. This may be accomplished with the help of a survey or a quiz with customers or potential consumers that wish to communicate certain information with your organization, considering personas as descriptive of real people. Consumer personas can be created through research, surveys, and interviews of your target audience. That includes a mix of customers, prospects, and those outside your contacts database who might align with your target audience.

Basically, the development is realized with the help of a form where questions should focus on aspects like: demographics, goals, challenges, education background, also awareness for a certain subject and issues in consumers’ experience.

At the most basic level, developing personas allows stakeholders to create content and messaging that appeals to the target audience. It also enables them to target or personalize strategies for different segments of audience. Furthermore, when combined with tools such as lifecycle stage, personas also allow stakeholders to map out and create highly targeted content.

Also, some organizations create negative personas, in order to have the added advantage of being able to segment out the “bad apples” from the rest of the consumers, which can help them achieve a lower cost and see higher productivity.

3. Research Questions/Aims of the research

Given the rich possibilities it presents, this study reaches an exploratory manner to develop a persona for statistics users in Romania. Statistics are confronted with more and more challenges within the process of communication and dissemination since modern techniques and digitalization, therefore it is only natural to assume such a method would come in helpful into this process, for official statistics producers. Therefore, the general objective of this article is to develop one main profile of statistics consumer in our country, objective sustained by specific methods, such as:

- Identify the behavior of consumers when confronting with statistics;
- Determine the path of decision when in need of information;
- Understanding how the customer interprets statistics;
- Find out opinions and attitude towards official statistics producers.

4. Research Methods

Methodological framework starts with a questionnaire. This quantitative method is combined with a marketing technique of interpretation in order to obtain details regarding attitudes and behaviour towards statistics in day-to-day life. Survey is applied on a sample aged 18-39 years, from urban area, who use online social platforms. The variables were selected in order to address the public segment with the most influencing behaviour on other segments.

Therefore, young public, including the millennials have proven to be in the top of all market researches for products and services directed to the large public.

The second stage is represented by a specific questionnaire which has been developed in order to determine specific traits of the persona, such as: issues they encounter, challenges and objectives, career plans, habits and experiences, behaviour and communities involved in. The form is targeted to specific individuals or small groups of typologies, which match the average traits combination revealed by the questionnaire. The questionnaire was applied to one selected individual, in order to obtain specific details. For further developing such a research, function to how many profiles a stakeholder wishes to build, this study recommends more future applications of a personalized form.

The persona of a user of products and services, is used in marketing as well as in client-centred strategies. A profile is a fictional character created to represent a user or consumer pattern that could be used in similarly a brand or product (Lidwell, 2010). Marketing specialists can use characters along with market segmentation, the profile becoming representative of the segment being tracked.

Results in the present study, focus on building one profile of a young consumer, who uses modern communication channels, due to his or her frequent habit of accessing social media platforms and online media resources.

5. Findings

Survey results and key points. The survey registered a total of 77 respondents from the urban area of Romania, frequent users of online social platforms, who answered a total 10 questions related to their demographic information, knowledge in statistics, opinion about statistics in Romania and consumption habits related to data.

They revealed that the majority of respondents have acquired a Master's degree (53.2%) and currently have a job (98.7%) and use statistics at their job (71.4%). Even so, the most shocking fact is that most of them do not have the ability of interpreting a basic statistical affirmation

correctly (74% wrong answers at Q10), therefore we can assume a lack of statistical culture, on a general note, and a high risk of misinterpreting statistical information.

Results of the individual form. Our persona is based on a specific interview with a representative consumer selected out of the average information revealed by the survey. This procedure may apply on several models of consumer revealed by the data analysis, in order to obtain more personas. The majority of respondents fall into the category of medium-sized scholars, moderate users and who face statistical data mostly at the job.

The 6 topics questionnaire was applied individually to one subject: woman, 35 years, lives in Bucharest, with Bachelor's degree, average knowledge level about statistics but with good capacity to correctly interpret statistical information presented in our survey and, most importantly, is aware of public data provided by official statistics producers in Romania.

The persona: Mary, as we named our persona, is currently working as IT & Quality service Manager in the tourism industry although it is not her field of study, as she graduated European Integration Studies. Mary is confronted with statistics predominantly at her job, and mainly when building complex and well-organized reports. These have major significance in decision-making inside the company and are thoroughly documented in order to gain macro-economic point of view in the eyes of the General Manager, to whom she reports. Data contained by her reports: Market share, competitors, prices, number of travelers, accommodation units, flights statistics, market tendency, economic situation. Challenges faced by this type of consumer are those such as the current data available, the exclusive use of statistical data sources, which are more likely to lead to accessing publications and whitepapers, at the expense of databases provided by the official data providers present in Romania. What proves to be time-consuming for our respondent is the long process of generating datasets. As revealed by Mary, the main watering hole for her information is the big 4 audit companies and latest publications of domain professionals. But, when it comes to public data about her industry one of her main hurting-points is when coming across less-documented data, regarding details of calculation. This profiling technique helps us build a more accurate route for the use of statistical data in this case. Furthermore a communications specialist may develop the right strategy to encode and send messages directly to the receiver, using the best technique.

A next and necessary step would be to create a list of personas, in order to have a more accurate idea about who represents each segment of your public.

6. Conclusions

The present study is comprehensive but not yet exhaustive and further developments on this direction should include several such studies. Moreover, marketing and communication are creative domains, thus interpretation is subject to personal interpretation. Even so, important conclusions may be extracted from the current research and results might lead to strong and relevant new strategies for statistics communication and data dissemination. As consequence to this study, several conclusions and recommendations can be formulated.

- Traditional techniques must be properly combined with modern techniques.
- Communication channels to be distinguish function to the specific persona, thus segment.
- Strong communities have formed on social media platforms by individuals with common interests; relevant conversations take place on concerning topics like statistics, economics, social media, marketing etc.
- Visual tools are well exploited in online environment due to fast understanding, therefore images and short videos should be used to communicate data, according to the saying that a picture represents a thousand words.

- Interpretation of data brings consumers closer to data producers because they create a common environment for both individuals.
- Organizations can educate their consumers and a large segment of the public through modern communication channels like social media platforms. Collaborations with academia and educational entities may be initiated in order to grow statistical culture and build the next generation of statistics professionals.

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Appendix

"MANAGER" MARY

Age: 34 years
 Education: Bachelor Degree in Economics-European Integration
 Industry: IT, Business2Business
 Job role: Quality Service Manager
 Type: Executive
 Reports to: General Manager

CHALLENGES & HURTING POINTS:

- I like to be in control so I need to know all the details before I make a decision
- I believe a business without digital input is impossible
- My challenge is to make effective planning and implementation, fast!

WATERING HOLES:

- I get the latest news on statistics from the industry from BIG4 audit companies
- I think whitepaper reports are the best source of credible information
- The key is online access and free data.

STATISTICS INTERACTION

- I am both reporting and in constant need of fresh data
- My strong asset is building complex report based on documented data sets.

DECISION CRITERIA & SUCCESS FACTORS

- Mary doesn't like to waste time! It's all about efficiency in her business, meaning that she will eliminate or replace any process/supplier with a more performant one.
- Online and comprehensive information, accessible at the tip of her fingers.

Image 1. First consumer profile of statistical data in Romania
 Source: Author

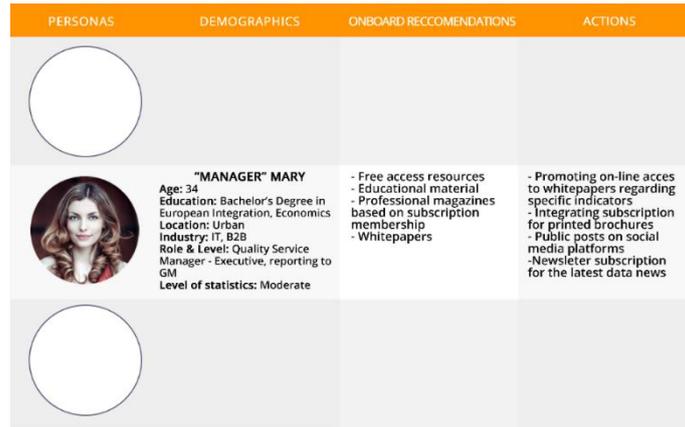


Image 2. The consumer personas' list with actions

Source: Author

Table 1. Questionnaire Survey.

Source: Author

QUESTION	ANSWERS	%	TOTAL NO. OF ANSWERS
1. How would you name your level of knowledge in statistics?	a. Basic= one semester in university b. Moderate=user at work c. You know nothing John Snow d. Advanced level e. Expert doctor	40.3% 37.7% 16.9% 3.9% 1.3%	77
2. What is your field of work?	a. IT b. Business/ Sales c. Education d. Health e. Public Administration f. Banking g. Tourism h. Marketing i. Other	24.7% 23.4% 7.8% 6.5% 6.5% 5.2% 6.4% 2.6% 16.9%	77
3. What is your current professional status?	a. Employee in private sector b. Employee in public sector c. Student d. Entrepreneur e. Unemployed	67.5% 16.9% 10.4% 10.4% 1.3%	77
4. What is your level of education?	a. Master's degree b. License degree c. Doctorate degree d. High school	53.2% 41.6% 3.9% 1.3%	77
5. Where/when do you use statistics?	a. At my job b. Scientific research c. Business decisions d. Reporting data e. Doctorate degree f. Other	71.4% 44.2% 44.2% 32.5% 19.5% 5.2%	77
6. Do you follow statistical information from NIS? Where?	a. Occasionally, on TV and newspapers b. I use TEMPO ONLINE c. I like and follow the Facebook page	64.9% 15.6% 7.8%	77

	d. No e. Other	6.5% 5.2%	
7. Did you notice some changes in the way NIS communicates information, lately?	a. The new Facebook Page b. Some new online presence on social platforms c. Press releases are easier to read d. Brochure and printed publications with new design e. Free access to TEMPO online database f. No	33.6% 28.6% 27.3% 9.1% 9.1% 24.7%	77
8. How much do you believe statistics can bring you economic value - in your personal finance, and - in your business? From 1-none at all to 5-very much	Personal Finance Business 1 1.3% 0% 2 10.4% 1.3% 3 31.2% 18.2% 4 36.4% 40.3% 5 20.8% 40.3%		77
9. Which do you consider more relevant for expressing statistical data?	a. Press release b. Infographics	7.8% 92.2%	
10. How would you interpret the next affirmation? “The total area of urban green space increased by 110% in 2017 compared to 2015.”	a. Area increased 1,1 times b. Area increased 2,1 times c. Area increased by 2,1 percentage pints	58.4% 26% 15.6%	20/77 correct answers

Table 2. Specific profile form, on topics
Source: Author

TOPIC	QUESTION	ANSWERS
CAREER & ROLE	1. Do you work in the field of your studies? 2. What is your position at the company? Management, Executive – and who do you report to?	1. No. My bachelor’s degree is in Economics, European Integration. 2. Executive, reporting to General Manager
INTERACTION WITH STATISTICS	3. Are you a consumer or a reporter of data? 4. Attitude towards the use of data in your life:	3. Both 4. Interest in new data from different domains, the fact that it gives a usefulness to these data and their contribution to a better understanding of the world’s economic and social issues.
CHALLENGES & HURTING POINTS	5. How is a normal interaction with statistics providers and how do you prefer it to be? Via e-mail, telephone, fax or other 6. How would you describe your customer experience?	4. I sometimes want more details on the calculation steps. Email is preferred 5. Scarce. Too many and too hard to find reliable sources

		(eg macro economical or industry-related data)
WATERING HOLE	7. Where do you get your statistics information necessary for your job? How about for your personal hobbies?	6. Big4 audit companies; whitepapers, best practices industry-related
DESCRIPTION OF EXPERIENCE	8. How would you describe your last process of obtaining some statistics?	7. Online datasets- hard to generate, too much steps. Dashboard of company's ERP - The best.

**The 1st International Conference on Economics and Social Sciences
Challenges and Trends in Economic and Social Sciences Research
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New Public Management in Romania

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Abstract

One key aspect in guaranteeing the development and modernization of a country is to have an efficient and competitive public sector. After the fall of communism, Romania engaged into an ongoing process of reforming the public sector. First, it was because of the necessity of shifting from a centralized administration (typical for communist regimes) to a decentralized one (typical for democratic countries). Secondly, due to the accession to international organizations, mainly to the European Union, the Romanian administrative system has been subjected to new changes. The intention of this paper is to analyze if the legislative framework concerning the public administration sector encompasses the principles of the New Public Management. Our hypothesis is that on paper, many of such principles are reflected in the public management legislation. We also argue that due to several reasons (e.g. institutional weakness, corruption etc.), the public administration in Romania does not reach out to the international standards, still being subject to politicization.

Keywords: *public administration, new public management, legislative framework, politicization*

JEL Classification: *H83, D73, P26*

1. Introduction

Administrative reform is generally regarded as one of the main policy choices of governments in transition periods, seeking to increase the institutional capacity of the state structures in order to fulfill their societal mission. Yet, previous studies have indicated that the administrative reform in different countries showed different paths and paces, with more or less positive outcomes.

This paper aims at answering to the question whether the current status-quo of the Romanian public administration framework complies with the principles of the New Public Management.

We hypothesize that, on paper, many of such principles are reflected in the public management legislation, but that there are still significant factors (e.g. lack of political will, politicization, institutional weakness, corruption etc.) that impede the public administration in Romania from achieving the international standards.

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2. Approaches to public administration

2.1 Historical developments in public administration research and practice

The key dilemma for scholars in public policy and administration has been whether public administration performs better under or exempt from political influence in terms of efficiency, efficacy and accountability. Traditionally, the administrative apparatus was viewed in Weberian terms: a value-free, neutral, rational bureaucracy, a mere executive branch that implements the policies originated in the political realm of the decision-makers.

Yet, starting with the Great Depression in the 30s and even more during World War Two, it became clear that the administrative personnel had their own values, beliefs, attitudes and preferences, which exercised a significant influence on the policy-making mechanisms, deepening the intertwining between administration and politics.

The shift of perspective was marked by the emergence of the concept of “organization development”, at the core of which lie the human relations. This organismic approach was thus concerned with the “the identification of personal with organizational goals, the “self-actualization” of workers and managers, effective interpersonal communication, and broad participation in decision making”.

Another trend that developed starting with the 50s was the emergence of participatory democracy under the form of inclusive policy-making. Bringing decision-making closer to the citizens was a central claim of the advocates of decentralization, who also regarded it as a means of fostering responsiveness and accountability.

Generally, the response of the governments in dealing with an ever-increasing scope of public policies in the economic and social spheres (e.g. through the extension of the regulatory activities) was the widespread adoption of economic performance indicators (e.g. national income, GDP). From this perspective, known as incrementalism, development and efficiency were tantamount to ever-growing values of these indicators; hence, the need to stick to policies and reluctance to review and adaptation.

With the rise of the Public Policy Approach in the 70s, it was argued that the way the decision-making process is structured influences the outcome of the policy, because both the formulation of the problem and the envisaged solutions are filtered through the subjective lenses of the bodies involved: politicians, bureaucrats, interest groups, pressure groups etc.

2.2 Principles of New Public Management

When Hood first introduced the concept of New Public Management back in the early 90s, he actually aimed at providing an overarching designation to a wide range of transformations within the public administration structures in several OECD countries. However, we can hardly call it a model of development, since it clusters many variations in the reform processes among these countries. Rather, we can distinguish several principles:

- (i) providing authority to public managers to make decisions, initiate and coordinate actions and pursue results matching objectives;
- (ii) widespread use of quantitative and qualitative performance indicators in order to make informed policy decisions;
- (iii) active monitoring, control and evaluation;
- (iv) adoption of market-based instruments in maximizing public revenues (e.g. most efficient use of private property of the administrative units or public entities);
- (v) fostering competitiveness in the provision of public services (tendering systems, limited contractual periods etc.);

- (vi) adopting a more flexible, results-oriented management style, contrasting the traditional formalism of bureaucratic behavior (i.e. compliance burden);
- (vii) focusing on the beneficiaries of public services (a citizen-oriented approach);
- (viii) transparency and openness to feedback;
- (ix) decentralizing decision-making, thus increasing responsibility and accountability;
- (x) efficient allocation of resources.

Many of the reforms concerning the public administration have focused on the formal aspects of organization, such as structuring hierarchies of command, control and accountability. Many of these forms were borrowed from the military and private sector, such as “(1) organizing departments, ministries, and agencies on the basis of common or closely related purposes, (2) grouping like activities in single units, (3) equating responsibility with authority, (4) ensuring unity of command (only one supervisor for each group of employees), (5) limiting the number of subordinates reporting to a single supervisor, (6) differentiating line (operating or end-purpose) activities from staff (advisory, consultative, or support) activities, (7) employing the principle of management by exception (only the unusual problem or case is brought to the top), and (8) having a clear-cut chain of command downward and of responsibility upward”.

Traditionally, the principle of efficiency in public services meant achieving the most at the lowest costs. However, it was soon noticed that cheapest does not always mean also qualitative, so recently the focus has shifted to more comprehensive assessment frameworks, such as cost-benefit analysis or quality-price ratio.

An assessment of public services performances that allows cross-country comparisons must take into account three main aspects: inputs, outputs and outcomes. The first refers to all resources required for the provision of a public service, such as the material and personnel costs involved in the provision of universal access to a centralized heating system. Ideally, this calculation should also comprise the negative externalities (e.g. environmental costs, transaction costs etc.).

The outputs refer to the specific quantifiable results of the intervention, e.g. number of beneficiaries (e.g. new households connected to the centralized heating system) and the quality of the service (e.g. availability and functional parameters the service).

Lastly, the outcomes comprise an overall evaluation of the efficacy of the public service in terms of a general benefit it produces (e.g. increase in the quality of life, health improvement etc.).

No matter the fields in which the interventions occur, what matters is the public administration to systematically collect and analyze the data from comprehensive performance matrices and to permanently seek to improve these indicators.

3. Romanian legal framework on public administration

3.1 Law on Public Administration

The Local Public Administration Law no. 215/2001 (amended and supplemented by Law no. 286/2006 and republished in 2007) introduces in the chapter of Basic Principles of Local Government Organization another three fundamental principles besides the three principles stipulated by the constitutional text (decentralization, local autonomy and devolution of public services): the eligibility of local public administration authorities, legality, consultation of citizens in local issues of particular interest.

An essential addition to Law no. 215/2001 on local public administration, introduced by Law no. 286/2006, is the introduction in Article 1 of the concept of intercommunity development

association – “structures of cooperation with legal personality, of private law, established under the law, established by administrative-territorial units for the joint realization of development projects of local or regional interest or the joint provision of public services”, which can actually exist in two forms: “urban concentrations – intercommunity development associations established on a partnership basis between municipalities, other than those provided at paragraph j) and cities, together with the urban and rural localities in the area of influence, respectively the metropolitan area – the intercommunity development association established on the basis of partnership between the capital of Romania or municipalities of 1st rank and the administrative-territorial units located in the immediate area”.

It must be noted, however, that this local associative institution, newly introduced in the Romanian local public administration legislation, is the result of taking over the existing model at the level of other European states, especially the French state. This “adoption” can cause difficulties in implementation, due to multiple interpretations and contradictions in practice, as illustrated by the failed attempts to operationalize in Romania the public – private partnerships.

3.2 Law on civil servants

In order to observe the efforts to improve and reform the public administration system, we have analyzed one of the laws that can influence the activity of public servants – Law no. 188/1999 on the status of civil servants, republished and updated by Law 129/2017. After numerous discussions on the amendment of this law, an alignment is introduced to Article 90, which does not radically influence the direction of law, but clarifies certain practical situations.

Excessive bureaucracy remains a problem of public administration, even though in some cases the negative character began to fade. The main accusation and perhaps the most criticized feature of bureaucracy is hierarchical subordination. In Law no. 188/1999 on the status of civil servants, republished and updated by Law 129/2017 at Article 3, par. g, this aspect of hierarchical subordination is mentioned with reference to the principles underlying the exercise of public office. The emphasis on hierarchical subordination undermines its performance, because, as Weber accepts, valuable people are led by mediocre, the public administration’s activity being in distress, in terms of its performance and ability to adapt to social and economic changes in the external environment.

In terms of looking for some clues to analyze the performance of management in public administration, we stopped at a document that brings novelty to the system. Thus, by a derogation from the provisions of Law no. 188/1999 on the Statute of civil servants, Ordinance no. 56/2004 sets out specific rules on recruitment, training, appointment, evaluation, remuneration and rapid promotion in the category of senior civil servants, as well as the way of access to senior civil servants of public managers. The role of the National Institute of Public Administration seems to be an important one for this part of the recruitment and training of managers due to the collaboration with the National Agency of Civil Servants and being monitored by a Commission, the result being a manager who knows the performance criteria closely and applies them, thus slowly reforming the entire institution. These courses are organized for the public managers who are obliged to carry out their activity in a public position at least 5 years after their graduation. Schooling implies two-year specialized training programs and specialized training programs specific to young civil servants with a duration of one year.

Another interesting aspect of the law of civil servants is referring to contractual personnel in public administrations based on an individual labor contract and not under the influence of the law. Between these two categories of public administration employees there is a tension that can sometimes be justified by the fact that the contractual personnel can carry out other economic activities, while the public servant is somewhat more confined by the civil servants’

law. However, these arguments are not sufficient and can be confronted by contractual personnel who have a number of other disadvantages.

A fundamental question remains: whether there is a solid, consistent legal framework that allows/ensures that state (and state-owned) institutions can operate autonomously, i.e. remote from political influence. We can still observe that the politicization of the leading positions in state institutions by the ruling party on the grounds of partisan affiliation rather than genuine competence visibly alters the performance of the public administrations, which translates into low quality of public services and low satisfaction of the citizens.

The same reluctance to professionalize the management of state and state-owned institutions and to provide them with genuine decision-making autonomy is reflected also by the numerous political pressures on the corporate governance framework formally introduced in 2011. In fact, as recently as December 2017 the Parliament had passed a legislative initiative allowing almost 100 state-owned companies to be exempted from the prerequisites of corporate governance (international recruiting of managers, transparency, no political influence etc.), which de facto meant putting them again under direct political command and control.

3.3 Law on decentralization

The principle of decentralization (which has been stated as a fundamental principle both in the Constitution and in the Local Public Administration Law no. 215/2001) is regulated in terms of its status, functioning and organization in the Framework Law on decentralization no. 195/2006 (which repealed Law no. 339/2004): “Decentralization is the transfer of administrative and financial competences from the level of the central public administration to the local public administration or to the private sector”.

One of the most relevant issues to be mentioned about the law on decentralization is that it was drafted without taking into account a reference document, namely the European Charter on Local Autonomy – not the 2004 version nor that of 2006. This has led to neglect of very relevant issues, namely subsidiarity – it was mentioned in 2004 in the absence of a definition and in 2006 it was defined, but without reference to the European standards. Subsidiarity is one of the most relevant principles when it comes to transferring competencies and implicitly decentralization and regionalization. The approach to decentralization has been made in a gradual manner after the fall of the communist regime, focusing mainly on the enumeration of the principles of decentralization as well as the stages. A transfer of competencies was attempted in 2013 but this initiative was declared unconstitutional. A first step towards effective decentralization, is treating subsidiarity, together with proportionality to their true value and importance.

Antonie Iorgovan in his essay “Administrative Law Treaty” presents a particularly important argument regarding the way in which the Romanian legislation regulates the role of the principle of decentralization in the organization and functioning of the local public administration, namely he underlines that the way in which this principle was enunciated by the Constitution of Romania in its original form, rather referred to the specific formula of devolution (since it focused more on the aspect of the external services of the ministries, the representatives of the ministries at the local level, who are in subordination on vertical hierarchy with the latter ones). In this respect, with the revision of the Constitution, in order to ensure specific consistency, the principle of devolution of public services was introduced as a fundamental principle, different from the other two previously enshrined in the Constitution – local autonomy and decentralization.

Another amendment to Article 120 following the constitutional review, which has been amended since the need to harmonize Romanian legislation with European legislative aspects, provides in the new paragraph: “In administrative-territorial units where citizens belonging to

a national minority have significant weight, using the language of the respective national minority in writing and orally in the relations with the local public authorities and the devolved public services is guaranteed under the conditions stipulated by the organic law”.

A study on the evolution of decentralization in Romania from the early 1990s until 2004 identifies four main stages. The first stage comprised changes within the structure and funding of local authorities. The second stage focused on transforming the administrative and financial decentralization into a key priority for the Romanian reform of the state. In the third stage, new regulations regarding utilities and public services were adopted. Lastly, starting with 2004, a package of new legislative provisions were adopted in order to deepen and accelerate the process of decentralization.

3.4 The law on public procurement

In many cases, public procurement law may be a real problem that hinders and even prevents the start and finish of some important projects. The Government has modified and completed public procurement legislation, one of the news being art. 19 which is amended and has the following content:

“By way of exception to the provisions of art. 17 and 18, the contracting authority may apply the simplified procedure or, under Art. 7 par. (5), the direct purchase, for the award of individual lots, where the following conditions are cumulatively met:

- a) the estimated value, without VAT, of the respective lot is less than 355,632 lei, in the case of the purchase of goods or services, or less than 4,445,400 lei, in the case of the purchase of works;
- b) the cumulative value of the lots for which the condition referred to in point (a) and which are or have been awarded under this Article shall not exceed 20% of the total value of all the lots in which the work in question was divided, the purchase of similar products or services concerned.”

Through this amendment, the executive tries to streamline the entire public procurement process by going under the thresholds imposed by European legislation and publishing only at national level, using shorter terms and minimum requirements. Thus, for lower-value contracts, it is trying to ease the process in order to allocate resources more efficiently.

Law no. 98/2016 on public procurement, modified by the Emergency Ordinance no. 107/2017, still has discrepancies, even if some have been reported by specialists. Taking into account the performance criterion of the New Public Management based on active monitoring, control and evaluation, the most important aspect is that National Procurement Agency should be more active and constantly involved in information and promotion campaigns of good practices to ease the entire procurement process. Before the legislative changes, within the LECA project, two Romanian specialists conducted an interesting study and identified a number of contradictory or insufficiently clear legal provisions that triggered different interpretations in the practice of public procurement. These considerations lead to the conclusion that there is insufficient documentation from the public authorities and, of course, all summoned leads to a reduced performance of the entire public administration.

The New Public Management should be oriented toward the beneficiaries of the public system. However, in a survey based on 300 organizations mainly from the Central Region, 90% of the respondents have little and very little trust in the public procurement system in Romania, indicating a series of issues related to the entire procurement process, thus demonstrating the inefficiency of many legislative changes.

3.5 The Law on Community Utilities Services

The Law on Community Utilities Services no. 51/2006 refers to the settlement of activities involving: water supply; sewerage and sewage treatment; collecting, sewerage and drainage of rainwater; production, transport, distribution and supply of centralized heat; public lighting; local public transport and more.

The amendments to the Law of community utilities no. 51/2006 through Law no. 225/2016 refer to some clarifications such as the article art. 1 par. (2) lit. d). There was stipulated that, within the meaning of that law, community services of public utilities are defined as all the activities regulated by this law and by special laws, which ensure the satisfaction of the essential needs of general utility and social interest of the local communities with regard to:

(d) production, transport, distribution and supply of centralized heat; and is changed to (d) district heating; There are 18 other such changes meant to clarify certain aspects of the law.

Also an article referring to the authorization, described as a technical and legal act issued by the competent regulatory authority, which empowers a legal person to mount, commission, modify, repair and exploit cost sharing systems was abrogated.

4. Conclusions

Contemporary organizations are developing in a difficult direction to anticipate, but it is clear that de-bureaucratization, de-ordination, decentralization are directions of the reform aimed at improving the efficiency of the public sector. Yet, Romanian politicians have traditionally favored a gradual approach to reforms in all major societal fields (economic, social, as well as administrative). This reluctance to change on behalf of both policy-makers and bureaucrats and the general tendency to preserve the political influence over the administrative apparatus and to maintain a large degree of centralization have caused significant setbacks in the efficiency of the public sector at all levels (national, regional, local).

The professionalization of the public employees should be a primary concern for decision-makers. While addressing the changes in the legislation of the civil servants it is useful to note the rather slow advancement of reforms. Nonetheless, the attempt to adopt a new management style, opposed to the bureaucratic behavior and specific to the new public management, can be a step to slowly reorganizing forward towards achieving a more adaptable, citizen-oriented and professional institutional framework.

In the end, the purpose of a functional public administration is to provide qualitative services to the citizens. In this regards, certain normative and institutional measures have been adopted, a good example being the comprehensive legislative package concerning the services of public utilities, which aimed at providing decentralization and flexibility in the provision of such services. We note a key point in this regard, namely the decision-making autonomy of the territorial-administrative units to provide specific public services directly or by means of delegation (externalization), and alone or in association. Still, the legislation remains rigid, difficult to analyze in terms of performance criteria and sometimes even more difficult to manage due to the many problems that arise on such a wide range of services.

To conclude, our insights into the key directions of reform affecting the public administration – decentralization, status and professionalization of the public employees, public procurement, public services etc. – indicate that in the absence of a coherent and comprehensive reform process, with clear objectives and backed by consensual political will, the public sector will remain weak, with a lack of institutional capacity to ensure, monitor and control the provision of qualitative services.

The adoption of New Public Management principles would be effective only if internalized by all stakeholders, but this desiderate would remain hard to achieve as long as the public sector is seen and used as an instrument of the political elites in power.

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**The 1st International Conference on Economics and Social Sciences
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**Symbolic Management – Harnessing the Search for Identity in
Today’s Economy**

Cătălin PÎRVU¹

Abstract

This paper aims to find some insight into a simple to ask, yet difficult to answer question: How can we use a deep understanding of the Symbolic Nature of Man and of our Search for Positive Self Identity to theory-craft better methods and systems of Management?

If we were to have such a thing as a Symbolic Management, what would it focus on? What would be the key human drives it addresses, and what would be its understanding of how individuals are most effectively managed.

The key to these questions is to be found in the relationship between our symbolic nature and our positive identity seeking. People are symbolic creatures who seek to form a positive identity. Drawing on insights from systems that study personality and the self, such as MBTI, Human Design or the Gene Keys, and from Behavioral Economics which studies among others Symbolic Utility, this paper attempts to offer an overview of many streams that all tie into one unified conflux: Symbolic Management.

It is an attempt to unify the understanding of Identity with the understanding of Symbolic Utility in order to bring about a new paradigm in Management, one that focuses on the Symbolic needs of the individuals and particularizes those needs according to each individual’s uniqueness.

Keywords: *Symbolic Management, Symbolic Utility, Identity, Personality Matrix, Bounded Rationality*

JEL Classification: *M12, M42, M54*

1. Introduction

Whether we want to accept it or not, the Rational Choice paradigm that was for many years the dominant paradigm in Economy has failed in explaining the complexity and nuances of human decision making.

As studies in Behavioral Economics and fields connected to it such as the research into bounded rationality have shown, the way human make decisions do not exactly fit the perfect rationality model that Rational Choice theory proposes as the norm for all decision making.

We only need to look at the works of authors such as Daniel Kahneman and Amos Tversky’s 1979 article in *Econometrica* “Prospect Theory, an analysis of Decision under Risk” to see that when people make decisions about uncertain probabilities, they tend to have not an uniform, but a differentiated attitude toward gains and losses, with the potential loss weighing more on the psyche than the potential gain.

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That's all fine and good, given the same absolute value of expected positive vs expected negative utility, we tend to associate more subjective "loss of utility" for the negative outcome than we associate subjective "utility gain" to the positive outcome. But what does that mean for the way we can better manage our people in organizations?

Well, in order to answer that question, we need to introduce the work of philosopher Robert Nozick which in his work "The Nature of Rationality" introduced a concept that is key in understanding how human subjectively make decisions. That concept is symbolic utility.

People are Symbolic Creatures. To disregard that would be folly. Yes, we have a rational side to us and yes, even though we are far from being rational in all our decision making, just by using some rigorous observation we can see a striving or at least an openness to seeking rationality in the way we interpret the world and make decisions.

If we take a look at the whole sociological current of symbolic interactionism, particularly the works of Erving Goffman such as "The Presentation of Self in Everyday Life", we see how deeply we deal and trade in symbols.

In this paper I ask a simple question: How can we use a deep understanding of the Symbolic Nature of Man to theory-craft better methods and systems of Management?

This paper aims not to demonstrate a theory, but to provoke thought, to provoke inquiry into how our symbolic nature works and how we might use that to better cater to the symbolic needs of individuals, teams and organizations.

We will end not with a conclusion that validates or invalidates a Null Hypothesis, but with a better understanding of how our symbolic nature works, of the psychic archetypes that symbols fall into, and possibly with a general idea of what a Management based on the principles of Symbolic Utility might look like.

This is not a quantitative paper, but a qualitative attempt at inquiry and understanding, with a practical purpose in mind: constructing a new Philosophy of Management that is more sustainable, more user-friendly and ultimately creates less organizational stress and insanity than the models we are using today.

2. Problem Statement

Management is not a new discipline, but Symbolic Management does not yet exist as an established branch of Management or as a Discipline onto itself.

It takes more than one article to found a new field of study, but it has to start somewhere.

Symbolic Utility is a domain that has scarcely been looked into, with a few notable distinctions.

Elias L. Khalil, an associate professor at the Monash University in Australia, which specializes in Behavioral and Evolutionary Economics discusses Symbolic Utility as opposed to "substantive utility" in his article from the August 2000 issue of Theory and Decision, volume 49, noting in the abstract to said article "While substantive products confer welfare utility in the sense of pecuniary benefits, symbolic products accord self-regarding utility. Symbolic products enter the utility function in a way which differs from substantive ones". (E. Khalil, 2000)

Khalil goes further in his article and describes three kinds of symbolic goods: prestige goods, resulting from forward-looking evaluation, pride goods, resulting from forward-looking action, and identity goods, resulting from backward-looking evaluation.

Both a Philosopher and an Economist, with a Ph.D. in Economy, professor Wilfred Dolfsma is an expert in Social Economy who has also tackled the issue of Symbolic goods, particularly in his 2008 book "Consuming Symbolic Goods – Identity and Commitment, Values and Economics". The book was first published as a special issue of Review of Social Economy in September 2004.

Dolfsma notes “Symbolic goods may be defined as goods that people buy to signal their identity with”. (Dolfsma, 2004) Key aspects in such analyses, as Dolfsma outlines in the introduction to his book are the person’s identity and the commitment to that identity.

In this paper, we take the view of Management on the issue of the relationship between Symbolic Utility and Identity. And as such we need a method of research to type and measure individual Identities.

Fortunately, there is no shortage of such psychometric systems. Among such psychometric systems, one that I have studied extensively and am personally familiar with, having also used it in corporate consulting is the Myers-Briggs type indicator, or MBTI in short.

Based on the work of Carl Jung, published in his 1921 book “Psychological Types” the MBTI system measures personality based on a cognitive stack consisting of the 8 psychological functions outlined by Carl Jung.

Apart from daughter Isabel Briggs Myers and mother Catherine Cook Briggs from which the name of the system stems, another author that is a reference in the MBTI field is David Keirsey with his book “Please Understand Me”, in which he expands the model and brings his own understanding and take to it.

Much like Myers and Briggs, David Keirsey also groups the 16 psychological types outlined by the MBTI into four distinct categories, each with their own identity, preferences, culture and norms.

The Four categories in the MBTI are:

- The Guardians (SJ – Sensory and Judging): The Cooperative and Concrete type;
- The Artisans (SP – Sensory and Perceptive): The Utilitarian and Concrete type;
- The Rationalists (NT – Intuitive and Thinking): The Utilitarian and Abstract type;
- The Idealists (NF – Intuitive and Feeling): The Cooperative and Abstract type.

On the surface, it may appear that the MBTI types are excessively simplistic and the description given to the types are of the one-size-fits-all sort. This kind of limited thinking can go on only if you don’t roll up your sleeves and really begin to understand the ethos of the type through actually practically working with individuals that know their type.

At first glance it can appear that the descriptions are very neat and straight-forward, and through using the original MBTI questionnaire or one of its many clones you can box-in people.

But as a student and practitioner of personal development and self-improvement using MBTI as one of my tools, I saw from direct experience that there’s much more to individual identity than the simple description of the types, yet knowing your type does give you a starting framework that needs not be rigid and confining, but a structured way to make sense out of the tendencies and feelings that accompany us day in and day out.

In practice, people feel a sense of self-discovery and sometimes even relief once they learn about their type. And with qualified support in understanding their type and how it works in their life, one can make great progress in uncovering one’s own identity.

Let us make one thing very clear: Type is not Identity. There are many psychological tests measuring our tendencies, abilities and inclinations (Big Five and Neo Pi-R come to mind), but for all the insight into attributes that pertain to us as individuals, neither of them can show what a person’s Identity is.

Type can be measured and observed. Identity can’t. Yet even though we cannot measure it, it is a driving force, in both our personal and professional lives, and also in Management.

So far, Management has been focused on the task and on efficiency, on getting the human resource that is managed to do more of what needs to be done, faster, with minimal inefficiency and distraction, effectively taking a very pragmatic philosophy.

In latter years, a higher awareness of the human element, of the individual differences and talents of the human resource is beginning to enter the Management thinking mainstream. It is

still a long way before we as humanity are ready to put the Pragmatic element of Management in the Passenger's seat and give the wheel to a more Humanistic Centered approach. But more and more, the individual and identity centric approach is emerging.

Identity is much more diffuse and much deeper than simple Type. Type omits and misses out on key elements that make up the more complex and much messier identity. But it is precisely because of that omission of the details and because of the focusing on the key structural elements that we can actually measure type and not identity.

For the purposes of Management, measuring type through systems such as MBTI is the tool and the doorway through which we can access a primary understanding of Identity. By studying in depth each of the 4 main types and their psychological structures, we gain insight into the symbolic realm of what philosopher Edmund Husserl named "Lebenswelt" (lifeworld).

From there, there are two disciplines that can facilitate the transition from an understanding of psychological type to a deeper understanding of the more symbolic and more elusive Identity.

These two disciplines are synthesis disciplines, fusing together the personal insights of their creators as well as various wisdom streams from the ages.

These two disciplines are Human Design System and the Gene Keys. The first was first brought into the world by Alan Robert Krakower, better known as Ra Uru Hu by those who study Human Design System. It uses an instrument known as a Bodygraph to map out the genetic imprinting of an individual at the time of birth, and from the calculations that result, it assigns what is known as a Strategy for Decision making, also showing the person their main Authority for making decisions.

The advantage of the system is its clear structure that once understood is easily applied to any bodygraph. The main disadvantages of the system are its over complex concepts and language for those just starting, and the relative rigidity of the system when it comes to how we interpret the bodygraph.

The second of the two disciplines is the Gene Keys teaching by Richard Rudd. It is a much more feminine approach that is not as normative as Human Design, but instead uses Contemplation and Self-Inquiry as a means of getting to the Core of our Identity.

There are many books, lectures and articles on Human Design, mainly available at the Human Design official site www.jovianarchive.com.

For the Gene Keys, there is the Gene Keys book, and the accompanying 3 books for the Golden Path, namely the Activation Sequence, the Venus Sequence and the Pearl Sequence.

These teachings, and also access to the Gene Keys Community and Living Library are also available online at the official Gene Keys site: www.genekeys.com.

There is no easy way to go from type to identity, but if we are to go to the next level in Management and be able to use Symbolic Utility to create healthier, happier, more sustainable and ultimately also more productive working environments, an understanding and even a mastery of personal Identity is required.

3. Research Questions/Aims of the research

The primary purpose of this paper is to ask if and how Symbolic Utility can be woven into the fabric of modern day management through the understanding of the relationship between it and Type and Identity.

Unfortunately, there is no way to directly link Identity and Symbolic Utility. But one needs only to observe carefully the way different MBTI types define themselves, the way they talk about themselves, their preferences, tendencies, and aspirations to realize that there is more to Management than simply catering to the employees substantive utility.

I aim not to discredit or diminish the importance of substantive utility, but I propose that if we look closely at Abraham Maslow's hierarchy of needs, we will observe that the further up the pyramid we go, the less concrete and the more symbolic the needs become.

The biological needs or the security needs are satiated mainly at the substantive utility level.

And they are not to be discounted, for they form the very bedrock everything else sits upon.

But neither can we remain at this level and cater only to these needs through our Management.

Through this paper, I wanted to analyze the theories centered around Motivation and see if I can arrive at an insight linking Symbolic Utility to the construction of a personal Identity, to psychological type and to what makes people tick. If such an insight can be achieved, it can be implemented in how we manage our organizations.

4. Research Methods

For the purpose of this research, my methods were a combination between self-inquiry, contemplation and the analysis of the literature centered around the forward motivations of individuals, on the one hand, and an extensive study of the human archetypes through Human Design and Gene Keys systems, along with Joseph Campbell's work discussing the Monomyth and the Hero's Journey aimed at understanding how Identity is formed and what the journey of achieving it looks like.

I was not interested in all the theories of motivation, of which there are many, but in those theories that speak about what we would classify according to Herzberg's Two Factor theory as "Motivation Factors", and not merely "Hygiene Factors".

5. Findings

I found Brendon Burchard's (2012) theory of drive outlined in his book "The Charge: Activating the 10 human drives that make you feel alive" of particular interest.

In this book, he goes beyond mere motivation, and outlines what he identifies as our 5 baseline drives and our 5 forward drives.

Although the author expands more on each drive in the chapters, what the drives are is clear from the titles in the table of contents.

The 10 human drives, according to Brendon Burchard (2012) are:

- The Baseline Drives are Control, Competence, Congruence, Caring and Connection.
- The Forward drives are Change, Challenge, Creative Expression, Contribution, Consciousness.

We can see that as we move from the first drive, Control, toward the last, Consciousness, they become more and more diffuse and less and less tangible. The first five drives fall in the category that according to Herzberg's two factor theory we might call "Hygiene Drives" i.e. drives that do not ensure zeal, devotion or ignite passion and creativity, but are nevertheless very important, especially so if they are missing.

But the real added value of Burchard's theory comes from identifying the forward drives, the ones that actively stimulate a Positive Self-Identity.

If there is to be a key to a successful Symbolic Management (i.e. Management focused on understanding and maximizing symbolic utility based on individual identity), then this seeking to form and maintain a Positive Self-Identity would be it.

So by necessity, if we are to follow Burchard's insight into the drives that make us feel alive and vibrant, we can say that successful Symbolic Management would have the drives for Change, Challenge, Creative Expression, Contribution and Consciousness at its core.

But of course, even though we have identified the core, it is not enough in order to answer our research question: How can we link Symbolic Utility to Identity for a more effective Management.

We understand what the drives leading to a positive self-identity are. But is there not differentiation to be had inside these drives? Are they a one-size-fits-all perfect fit?

While these five forward drives that Brendon Burchard talks about are without a doubt universal, they are taken in through different personality types. And in order to figure out what those personality types might be all about and how they might relate to a sense of positive identity, we need to look at the work of David Keirsey (1998).

In the second edition of his book “Please Understand Me”, Keirsey constructs a Matrix of Traits for each of the 4 types of personality, the Guardians, Artisans, Rationalists and Idealists focusing on dimensions such as language, intellect, interest, orientation, self-image, value and social role.

For the purpose of this paper, the quadrant of the matrix that interests us is the Self-Image one.

Table 1. The Matrix of Psychological Traits

	Artisans (SP) – Sensory and Perceiving	Guardians (SJ) – Sensory and Judging	Idealists (NF) – Intuitive and Feeling	Rationalists (NT) – Intuitive and Thinking
Self-Esteem	Artistic	Dependable	Empathetic	Ingenious
Self-Respect	Audacious	Beneficent	Benevolent	Autonomous
Self-Confidence	Adaptable	Respectable	Authentic	Resolute

Source: Adapted from Keirsey (1998), p. 62

Using this model, we can much easier maneuver in figuring out how individuals assign priorities to certain types of Symbolic Utilities.

What are the individuals being managed after in terms of Identity? How does that fit in with the Overall Vision of the Organization?

The table above represents one map of the Ethos that is there as a resource, waiting to be tapped by the managers skilled enough to recognize that in order to go to the next level in Management, one needs to account for and incorporate such Symbolic Cues that are so intimately linked to the identities the people being managed aspire to.

The space in this article does not permit for a lengthier exposition of insights that can be garnered by going deeper and studying Identity through the lens of other systems such as the Gene Keys or Human Design. But even using these two models, the model of the forward Drives of Brendon Burchard and the Matrix of Psychological Traits by David Keirsey, we can devise a new kind of Management, a Symbolic Management that understands and uses the link between individual seeking for a Positive Self-Identity and the cues we know each individual type is after.

6. Conclusions

The aim of the paper was to determine whether we can construct from the bottom up a new kind of management, that uses Symbolic Utility to further its goals.

We saw through the review of the scientific literature that Symbolic Utility is linked to how a person defines themselves, to their Identity. This is true not just for Goods, but also for how people work and relate.

Man is an Identity seeking creature, and the elements of that positive identity each seeks to create can be mapped according to psychological type, as we have seen from David Keirse's work.

Furthermore, regardless of psychological type, there are the 10 Drives that Brendon Burchard discussed in his book *The Charge*, and in particular the 5 forward drives of Change, Challenge, Creative Expression, Contribution and Consciousness, which underpin the Focus of the Symbolic Management.

The research has some obvious limitations. For one, Symbolic Utility is a highly subjective measure that cannot be easily quantified. We can talk about it, but when it comes to actually measuring it on an individual level, we do not yet have the tools for it. On top of that, Identity and aspired-to identity is also difficult to measure.

This is not exactly the realm of quantitative science, and it can seem as if all this is speculation. While indeed, the data we need in order to understand Identity and Symbolic Utility is far from being clear and undisputable, like it can be in more quantitative studies, we cannot simply write off the pursuit for creating the field of Symbolic Management as a mere flight of fantasy. Symbolic Utility is real. And while it may be difficult to isolate and put our finger on what exactly Identity is, we know it influences how people work and how they respond to being managed.

This paper is just an outline of what Symbolic Management might look like and what it might focus on if it were to become more widely researched and more widely accepted.

To further understand our Symbolic Nature and the Archetypes of our consciousness and Identity, we can look to systems such as Human Design or the Gene Keys which have a wealth of wisdom to share about who we are, what our blueprint looks like, and our individual story-arc.

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The Role of Government in Developing the Management Consulting Industry in Countries

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Abstract

Nowadays the rapid change of competitive world driving many companies and organizations to find a way to well- developing their process, improving their plans and programs and increasing capabilities and enhancing their performance to have more effective result and benefits in the business activities. Management consultancy industry is a major part influences in the business activities of any kind of organization, the phenomenon of management consulting can help the organization to improve their business through the effectively analysing their programs for improvement the quality and quantity performance of process, with wide range of new designs and methods such as re- engineering, growth share market, redeveloping the system and process, cost reduction, optimization or core competencies. For achieving this aim the government as a key element in country can help and plays a vital role in improving the management consultancy industry. Government as the role of a manager and trustee can be a responsible to create and increase the management consulting institutions with the aim of effective national and international development of the country and consulting industry development. The academic note tries to characterize the need and importance of management consulting as an industry in any country and role and impact of governments in consulting firms' transactions and elucidate the challenge its face during this development process.

Keywords: *management consulting, management consulting industry, creates a market, infrastructures, systemizing, government responsibilities*

JEL Classification: *L1, M38, O43, O57*

1. Introduction

Government as the role of a manager and trustee can be responsible to create and increase the management consulting institutions in the country with the aim of effective national development of the country and consulting industry improvement. Government can play the important role by providing three basic elements: Infrastructure, create a market and systemizing for better preparation the environment and conditions of increasing the management consulting institutions in country and between companies and also to help well done developing the consulting industry. The following article is an introduction to invite to reflection and a starting point for reaching an agreement on a frame and model for the important role of government in the development of the management consulting industry in the country.

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Government and management consulting has a multilateral mutual relationship. (Corcoran, Jan & McLean. 1998) As consultants can be an effective help for development the government, in this regard the governments also can playing two essential roles:

- At the role of a manager;
- At the role of a trustee the country's development.

At the countries, especially with the democratic government system, the consulting industry is the largest labor market in a country. According to Statistical Center of Iran, in (Iran) more than 70 percent of organizations are governmental. Furthermore, the distribution of resources in both the public and private sectors is not adequate and equal. For example, 30 percent of the workforce in the governmental organizations constitutes of the educated people, while seeing this ratio in private companies is 3 three percent. So, we can say in the country (such as Iran) with regard to the shape and form of government, the governmental organizations, nearly constitute all the sections of the management consulting market. The government in the role of trustee it has a fundamental and significant responsibility for the development of the management consulting system in the country, although this role of government has been less in attention. The basic question is what should the government do to play such a role more effective?! In other words, what are the expectations of management consultants of the government for develops the management consulting in the country?

Objectives and methodologies:

Here in this descriptive article tried to answer to this fundamental question and regarding the main objectives of this research for understanding better the perception and expectation of consulting industry about the government effectiveness in the country and to study the relationship between the consulting performance and its development with the government interactions, the concentration is based of Iranian's consultants organization because due to the lack of literature on consulting industry in middle east countries and limited understanding of the role of government in the countries with different and special kind of culture and organizational climate at developing the consultants' industry, the models and samples chosen from Iran. The methodology for gathering the following data and information provided with the help and using the questioners, interviews and also survey between potential consultant organization and some secondary data and library source also to assess the reliability and validation of the questionnaire the content method used. In this method the questions were designed to correspond to the research assumptions. And then these questions reviewed and reformed by the supervisor. At end for analyzing the conceptual hypothesis of this research the data was analyzed by descriptive analysis.

The role of governments in developing the capacity of management consulting in the country.

Government for the sake of responsibility and mission of the national development will inevitably play a significant role and important impact for the management consulting development. Statistics results indicate the significant fact, which there is a direct relation between country development and management consulting development. The amount of growth in the global management consultant's market, depending on the inclusion scope of the market, it can estimate between 120 to 170 billion dollars. As it can be seen in Figure (1) the distribution of management consulting market accounted for about two-thirds of this amount, in the United States and Western Europe and the rest of countries have only included one-third of the market.

The growth rate of management consulting market is high rate in developing countries, these countries mainly in Central and Eastern Europe, Asia-Pacific, Latin America and Africa but the market growth rate in developed countries is low and saturated.

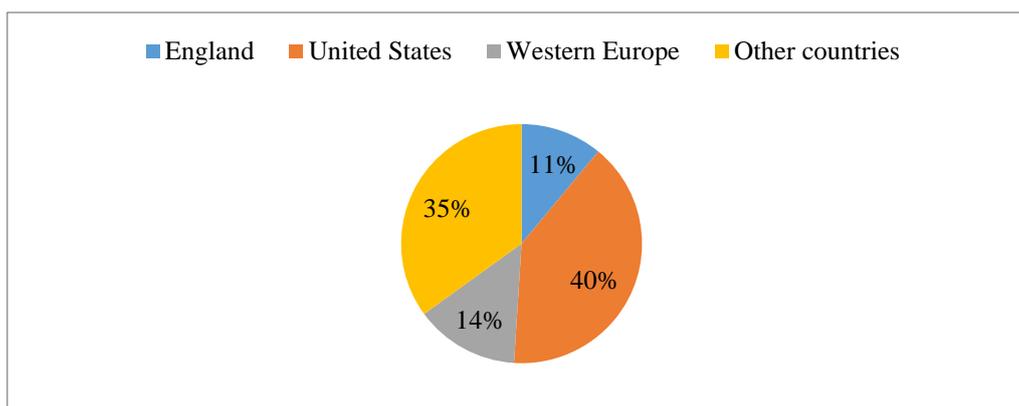


Figure 1. The geographical distribution of management consulting market
Source: Calvert Markham of CST (consultancy skills training limited)

The importance of building and increasing the capacity of management consulting in national development is to the extent that, the governments which they see the development in consulting as the important issues beyond establishes the dams, factories and road for them ,for this development aim which they consider it as the human-centered process, they try to impalement the strategies of increasing the capacity at the software, programs and intellectual level and consider it as a strategy decision for national development and management consultant development. The proceedings of Eastern European countries in this context at the late 80's since the regime changed are a clear example in this regard. These countries to overcome and compensate for the bygone lagged in the development process and rapid national development in the country – which is a major issue of concern for the Western Europe and the United Nations – alongside the privatization, they placed on the issues of developing management consulting capacity as a major strategy for efficiency development on their agenda and plans.

The basis of this action, a belief in the principle that a privatization alone cannot increase organizational efficiency and management consultants should come as evolution agents to support managers. Japan Productivity Center for support of investments carried out in Eastern Europe so far Japan has established subsidiaries in these countries.

Level expectations of government.

To create a management consulting and development institutions in the country should create conditions conducive to thought and not adopt one of two particular decisions. Singer (American philosopher) says: acorn is not a result of an oak tree, but it is a result of conditions which a tree is one of the necessary factors to create those conditions. (McLachlan, R. D. 2000) Collections of the factors that create favourable conditions for the development of the counselling system in the country are at three levels:

- Create market;
- Infrastructures;
- Systemising.

Each of these levels is a prerequisite for creating the next level. In other words, we must first understand and attention to the development of the market consultancy, consultation is the kind of service that demand for it, would not exist under any circumstances. The demand function needs the circumstances, which is the government responsible to create it. (McLachlan, R. D. 2000) In the case of market development, the consultant development in the next level needs to do infrastructure to by this action create a field for growth and development the management consultant. In the third level, the government has responsibility and tasks for creating favourable and healthy conditions for proceed with the function and process of management consulting. So, expectation levels of the government can be in shown the form of a pyramid-shaped in three levels as below:

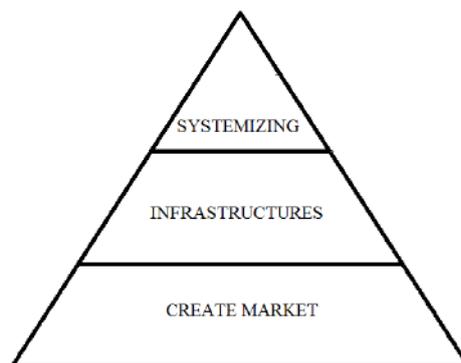


Figure 2. Pyramid government's role in the development consulting
Source: (Dawes, Dowling & Patterson, 1992)

1) Create market

Management Consulting, like any other business management needs demand, for their development, government as the largest manager in the management consulting and national development in the country, consequently, can play a key role in deepening developing and expanding the market for management consultants. At this level, the government provided the conditions, which under these conditions, will provide the opportunities for consultancy work in the country. The result of this preparation is creating a vision and effective efforts of all agents' government in alignment with it. The following are two essential factors in creating and developing the management consulting market and creation and supply of them are the government duty.

A) Stability: One of the basic conditions for survival and life counselling is the stability of the political and economic situation in the country. Although instability and uncertainty in government policies and decisions are considered a problem for all industries, but management consulting and training is the most of the affected industries, in unstable conditions. Managers in terms of uncertainty will not stop current operations, but they will postpone the start of their development programs.

B) Culture: A comparative study (Peter & Peterson, JULY 1994) indicates that the Iranian managers in their decision-making process rely upon over the public opinion than consulting.

This study examined the decision-making process managers in different countries and the influence of some affecting factors on it, and the result showed the Iranian managers have less trust and believe in using the consulting in their decision-making process, while investigated the use of consultants in decision-making is at the helm of American managers work. For the demand development and creating job opportunities of management consulting, the government should work and concentrates on culture.

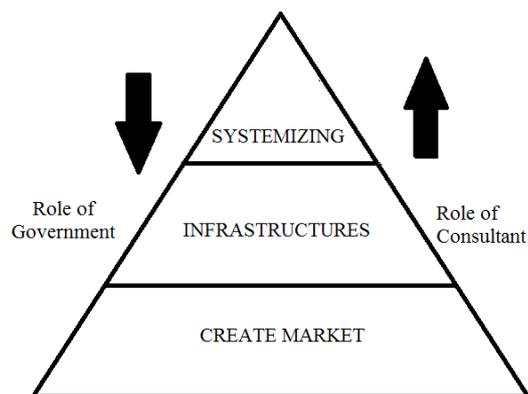


Figure 3. Comparing the role of government and consultant role in the development consulting, system
Source: (Dawes, Dowling & Patterson, 1992)

In this connection, two main factors more than any other cultural factors involved in the development of the consulting market:

- Rationalism: The primary and main source of consulting is wisdom. Consulting sells think of others.
 Therefore, the consulting demand development has a direct relationship with the valuable thinking and advice for the employer and managers. The role and impact of wisdom are shown at work and assessments and have placed value on thinking in action and not just in words and expression, and rationalism requires the prevention of having any prejudice, luck, and superstition in decisions. It is the responsibility of the government and its cultural programs and absolutely it is not an easy work and takes time and it is very difficult to be dealt with carefully. Bertrand Russell said “most people would rather die than think and many of them do. (Collins, 2001).
- Variability: One of the major problems of third world countries unprepared and lack of preparation to an adaptation of the present conditions which one of the most important characteristics of this age is the intensity and highly variability. The issue of variability in the organization of such importance that it can be a major index of an organization’s health. We can see as Motorola Company” 24 times in four years has changed the structure in its organizational system. Compare this with our organizations- Iranian organization- and ministries indicate that there is very low capacity variability, in our organization system. One of the government tasks for developing the market segment management consulting is to preparations government agencies and more importantly believes their senior managers to accept change and variability. The consultant is an evaluation and transition factor, but if in an environment which the managers run their organizations with controlling and managing the status quo and they think no need to change and assume their organization separate as competition world, therefore will not have a consultant in their system.

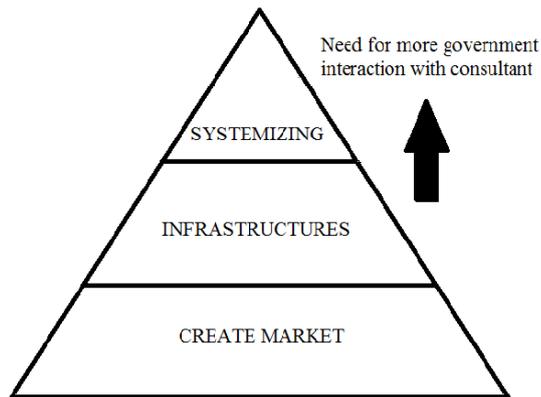


Figure 4. The amount of interaction between government and consultant institutions
Source: (Dawes, Dowling & Patterson, 1992)

2) Infrastructure

The government's role as a supporter can help to create and establish the best conditions under which development of management consulting to respond to the market facilitate. The result of the government's efforts in this area, to create a platform for developing smoothly consulting institutions in the country. Government recognition, management consulting as a professional and necessary organization in the country and it can effectively provide its requirements growth in the country's development. (Christensen, Wang, & Bever, D. 2013)

The constituent elements of this level include:

- Rules and Regulations: The government as an employer and as a trustee of development should reconsider in the existing laws and regulations to develop government agencies as well as it can and create favourable conditions for the management consulting work.
- Infrastructure facilities: The need to provide and access the necessary resources for the development of management consultants such as books, journals, software, fast internet, satellite and participation in international conferences.
- Accuracy and considering the development of consulting in development programs and plans: This issue as one of their objectives should be placed on the agenda of planners to consistently and systematically planning for having an effective counselling, development, holding training courses in universities and forecast state budget use of consultants are examples in this regard.

3) Systemizing

After creating market and infrastructures for growth consulting, government plays another role in organizing and systemizing the consultation. The result of the government and society of consulting effort in this area is to create an intelligent market in which the consultant with employers and the government has a productive and win-win relations and the consultant in the form of a coherent system has a high capacity for problem-solving. (Hagedorn, H.J.1982)

Management consulting industry to be able to operate in the form of a business and career as a community needs to regulate the industry and its environment and on the other hand, requires setting standards, professional ethics and a way to determine the necessary competence in the form of the management consulting system. A noteworthy point is the sensitivity of the government's role and its impact on the formation and creation of consultancy in the country.

Government as the major employer and manager is required to regulate the conditions and referral policies, deliver and evaluate the work, coordinated with counselling system to prevent

any disorder or chaotic in the system and in the market. The government will be responsible for decision making and create the consistent policies for more effective development of consulting system and help to improve and strengthening the management consulting.

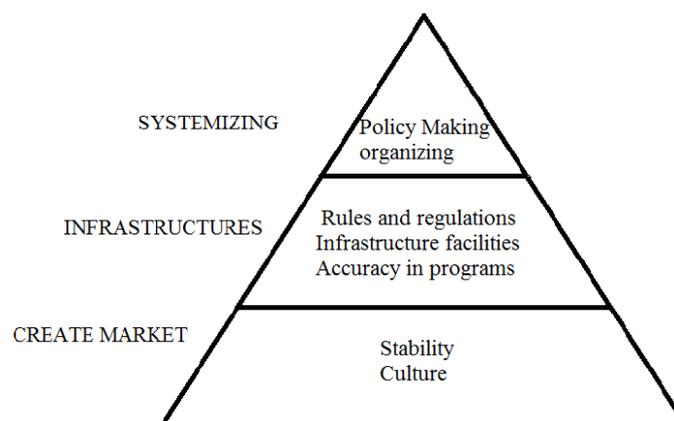


Figure 5. Three levels of management consulting, development
Source: (Dawes, Dowling & Patterson, 1992)

The government should refrain from direct intervention in creation of career system and it's important to leave and pass it for the profession. (Hagedorn, H.J. 1982)

The main 2 factors in the effective role of government at systemizing are policy-making and organizing.

- **Policy-making:** Role of policy making in strengthening the foundations of management consulting is very important, inconsistent policies and neglects by the state government in their development tasks, is now one of the major causes of backwardness of the consultant's society in the country. The following refers to the example of policies that are required by the government for adoption and perform at the systemizing level:
 - Don't competition, government with the private sector;
 - The government shouldn't have any direct intervention in the formation of consultation system;
 - Help to make a more competitive market;
 - Refrain from the unilateral policies related to the industry.
- **Organizing:** The government for organizing role required to set the specific reference and organization and also consider the appropriate structure for this organize to coordinate the consultant work and ensure consistent policies are implemented in the same direction and effective sets with government objectives.

Importance comments on the proposed model:

It is necessary to consider the following points for clarifying the proposed model:

- 1) Referral levels of the pyramid role of government and identified factors in each level aren't absolutely inseparable and in some cases, a little or too much they overlap each other. (Kuber, M., ur.2002);
- 2) In article wherever is talking about the consultant, it means institutions and organization consultant, not an individual consultant, (wherever I mean those individuals that have been mentioned);
- 3) The model has been developed to express the expectations of consulting organizations from the government. This model is not talking about the consultants who make significant contributions to the development the counselling system. In figure (3),

identifies the different degree of contribution government and consultant in the different levels;

- 4) In figure (4), however, moves from the down of the pyramid to the top of it, a need for interaction and coordination between government and consultant will be more increase.

6. Conclusions

The obtained model of interaction between consultant's organization and government showed the governments in the development of management consulting not only as a manager in the country, but also in order, with the mission of national development, can play a major and important role. The tasks and responsibilities of government in this context mentioned and proposed in the form a set factors and conditions that influence on the aim and objectives of management consulting, while all these factors can create favorable conditions for the development and improvement of management consulting in the country. As it was shown in the pyramid model in figure (5).

All these factors are categorized into three levels, systemizing, infrastructure, create market which obtain and achieve the needs of each level, is a prerequisite and the necessary condition for finding needs of the next level. Another thing to notice in the pyramid of government's role in the development of management consultant is that, how much moves from the down of the pyramid to the top of it, the need of interaction between government and consultant will be more increase as it was shown in the figure (4) and its mainly the best response and reason for the need and expectation of consultant industry for better supporting and potential interactions with government.

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**The 1st International Conference on Economics and Social Sciences
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**Education, Economic Growth and Unemployment:
Evidence from Romania**

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Abstract

The research aims at determining if there is any the correlation between the economic growth, education and unemployment. Thus, we used three econometric models in order to measure the influence total expenditures on education has on the GDP per capita level as well as the dependence between the GDP per capita and education level, or to analyse the correlation between the GDP per capita, the level of education, total costs of education and the unemployment rate. The results of the research emphasize the fact that one of the main factors influencing the level of training is the human factor. Thus, increasing the level of total expenditures for education and also increasing the share of people aged 15-64 years who have completed upper secondary education level (ISCED 3-4) in total population is a reason for gaining a larger stability on labour market contributing to reducing unemployment and increasing the GDP per capita. In treating interdependencies between the mentioned macroeconomic variables, we took into account the availability of data series for a number of years (2002-2016), the empirical values expressed in real terms and caution in interpreting the results due to co-linearity between factorials involved in econometric models. The data associated with variables is forming time series. The model describing the interdependence between GDP per capita and the three factorials is the linear regression function and the method used for computing is the least-squares method.

Keywords: *education, economic growth, expenditures on education, unemployment rate, ordinary least squares method*

JEL Classification: *E24, E27, I25*

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1. Introduction

One of the most important aspects in the education of individuals consists in the impact it has on human capital and on economic growth.

Thus, we assessed the correlation between the economic growth, education and unemployment, by using three econometric models in order to measure the influence total expenditures on education has on the GDP per capita level as well as the dependence between the GDP per capita and education level, or to analyse the correlation between the GDP per capita, the level of education, total costs of education and the unemployment rate.

The rest of the paper is organised as follows. In section 2 we review the previous studies on the links existing between the economic growth, education and unemployment. Section 3 presents the research methodology as well as the results of the empirical research, while section 4 concludes.

2. Literature Review

Education is a dynamic instrument of development that needs continuous investment and innovation for enhancing the educational potential. Thus, the economic development of a society must be based on this kind of investment because “only the science that passes through people’s mind and heart creating systems of attitude, skills and spiritual abilities will become an active and beneficial factor of economic, social and cultural development” (Vaideanu, 1998).

Many researchers tried to evaluate the contribution of education to the economic growth.

The most dedicated estimations were the ones of Schultz and Denison (Suciu, 2000). Even if there were used two types of analysis, the conclusion was that, at least theoretically, both conducted to similar results.

Distinct determinations were conducted by Mincer (1974 and 1978), showing up that the earnings’ logarithm (y) is a linear function depending on number of tuition years, on variable experience and on after-education capital expenditures. Jorgenson (1989) tried to evaluate the education’s contribution to economic growth in the USA between 1948-1973 and concluded that the contribution of education was of about 11%, corresponding to a contribution of human resources quality approached on 0.45% per year from the total contribution of inputs. But, the contribution of education to the total increase of the labour input, by 0.67% per year, was related to the improvement of labour productivity. Thus, the increase of productivity as a result of capital expenditure in education is considered the most related phenomenon to the economic growth.

Using a method based on the opportunity cost of education Plant and Welch (1989) tried to measure the impact of education on labour productivity.

There are also a number of studies trying to evaluate the correlation between education, productivity and economic growth.

Other authors (Altonji and Pierret, 1996; Psacharopoulos, 1999; Johnson and Wilkin, 2002; Caragea, 2010; Campeanu *et al.*, 2012; Voineagu *et al.*, 2012; Caragea and Alexandru, 2017) established, in their empirical research, that the education of a certain qualification in a given domain represents only a small part of the difference of salary related to education.

Mingat and Tau (1996) emphasized that the marginal macroeconomic impact on the different education levels varies according to the level of development of the given country. In accordance with their studies, the primary and secondary education impact is the most important in poor or in emergent countries meanwhile higher education has a more consistent impact in developed societies.

Hanushek and Kimko (2000) analysed in their studies the impact of the quality of education on economic growth and they spotted that the effect of quality is much more important than the one of quantity in education.

The author of the memorable study “Human Capital”, professor Gary S. Becker (1997) analysed the expenditures on education as a main component of human investments and underlined the economic effects of it; starting from the estimated costs and profits of education, the author exposed “the correlations between study level, earnings and gaining a work place”.

For that matter, the author stated that “the earnings of educated and trained individuals increase faster than the ones of the less educated and trained individuals, developing the concept of age-earnings or age-assets curves and highlighting that their form is determined by the capital expenditures on education”.

Some similar opinions were expressed by Druker (1999) in his study – “The New Realities”.

In his opinion, “future knowledge workers and service providers should have the opportunity to move to a knowledge-based work, to be able at every stage of their lives to continue the training, to continue to focus or shift work, according to labour market requirements.

3. Research Methodology and Findings

In this research study Multiple Linear Regression models were applied to observe the influence of certain socio-economic factors on the economic development level. Regression analysis is used for explaining or modelling the relationship between a single variable Y, called the response, output or dependent variable, and one or more predictor, input, independent or explanatory variables (Xi).

Our goal is to find and explain the relationship between the dependent variable (GDP per capita) and particular independent variables. We chose several explanatory variables for testing.

In theory, the model takes the following form, given n observations:

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} + \varepsilon_i, i = 1, 2, \dots, n \quad (1)$$

with the equation having the following form:

$$\hat{y} = b_0 + b_1 x_{i1} + b_2 x_{i2} + \dots + b_p x_{ip}, i = 1, 2, \dots, n \quad (2)$$

b₀, called intercept parameter, shows the value of the response variable considering the predictor variables as null. It is more useful in calculation since it does not have a definite significance.

The rest of b_i parameters show how the response variable (y) modifies when a predictor variable (xi) changes with one unit, and all other variables remain constant. The OLS – ordinary least squares method for estimating the unknown parameters in a linear regression model – is the most commonly used method, finding regression parameters that gives the best fit of dependent variable. Least squares method minimizes the residual sum of squares where the residuals (ε_i) are given by the differences between observed and expected values of response. In other words, we must find the theoretic values of the response as “close” as possible to the observed values. Residuals:

$$e_i = y_i - \hat{y}_i \quad (3)$$

Residual sum of squares (Sum of Squares for Errors):

$$SSE = \sum_i e_i^2 = \sum_i (y_i - \hat{y}_i)^2 = \sum_i (y_i - \beta_0 - \beta_1 \times x_i)^2 \quad (4)$$

Model 1.

The authors present in the first part of the scientific approach the correlation between total public expenditure on education, the share of people aged 15-64 years who have completed

upper secondary education level (ISCED 3-4) in total population (%) and GDP, pointing out that one of the main factors influencing the level of training is the human factor. In this context, we perform regression equation of the form:

$$Y_t = a_0 + a_1 X_{1t} + a_2 X_{2t} + e_t \quad (5)$$

Given the variables used, the equation can be written as following:

$$GDP/capita_t = a_0 + a_1 Edu_t + a_2 Exp_edu_t + e_t \quad (6)$$

where:

- **GDP/capita** – Gross Domestic Product, expressed in Euro per inhabitant;
- **Edu** – The share of persons aged 25-64 years who have completed upper secondary education level (ISCED 3-4) in total population (%);
- **Exp_edu** – Total public expenditure on education, expressed in million PPS;
- Computing the data from Appendix 1, we obtain the following equation results.

Table 1. The results on testing the model 1 with R software

	Estimate	Std. Error	t value	Pr(> t)
Intercept	-2.670e+04	1.004e+04	-2.659	0.0208*
Edu	4.223e+02	1.412e+02	2.99	0.0113*
Exp_edu	1.809e-01	9.222e-02	1.961	0.0735

Residual standard error: 563.3 on 12 degrees of freedom
 Multiple R-squared: 0.7315
 Adjusted R-squared: 0.6867
 F-statistic: 16.34 on 2 and 12 DF
 p-value: 0.0003749
 Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Source: computed by the authors using the data in Appendix 1

Analysing the results, it is observed that the increase of one share of persons who have completed high school expects GDP to grow on average by 422.3 Euro per capita. The results were statistically significant with a 95% (p-value – value less than 0.05).

Also, an increase of one million units (PPS) for education spending could generate increases by 1.8 Euro in the level of the GDP per inhabitant.

The results confirm the significance of the model, which is given by Fisher’s test. We can also notice that the connection between variables is strong ($R^2 = 73.15\%$), which means that the two variables (Edu and Exp_edu) explain GDP growth rate in a percentage of 73.15%, as determined by the regression model.

Plotting the regression model in R, (Ciuhu *et al.*, 2017), there are produced 4 plots we can use to judge the model:

- residuals versus fitted values;
- Q-Q plot of standardized residuals;
- scale-location plot (square roots of standardized residuals versus fitted values);
- plot of residuals versus leverage that adds bands corresponding to Cook’s distances of 0.5 and 1.

The “Residuals vs. Fitted” chart shows if there is a trend to the residuals. When a linear regression model is suitable for a data set, then the residuals are more or less randomly distributed around the red line. OLS models require that the residuals be “identically and independently distributed”, that their distribution does not change substantially for different values of x. Another assumption is that the errors are approximately normally distributed; the Q-Q plot is illustrative. If there are outliers in certain locations, they could be identified in Scale-Location chart (or Cooks distance plot). Cook’s distance is a statistic which tries to identify those values which have more influence than others on the estimated coefficients.

If the Cook's distance line encompasses a data point, it suggests that the analysis may be very sensitive to that point and it may be prudent to repeat the analysis with those data excluded.

Any observation for which the Cook's distance is close to 1 or more, or that is substantially larger than other Cook's distances (highly influential data points), requires investigation. A leverage point is defined as an observation that has a value of x that is far away from the mean of x.

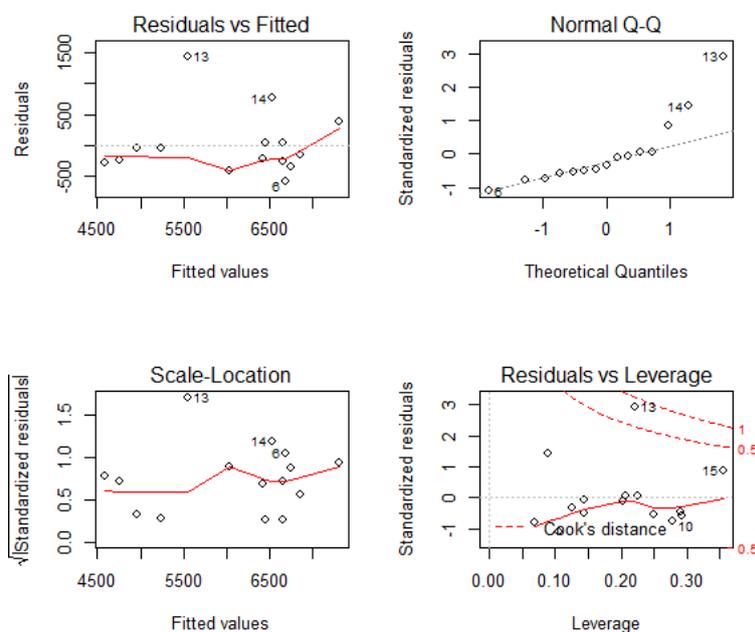


Figure 1. Plotting the regression model 1 in R
Source: computed by the authors

Model 2.

To analyse the relationship between the level of Romania economic development (measured by GDP per inhabitant) and the following covariates: education (expressed by the share of persons aged 15-64 years who have completed upper secondary and by education public expenditure) and the level of employment (measured by unemployment rate), we used a regression model as it follows:

$$GDP/capita_t = a_0 + a_1Edu_t + a_2Exp_edu_t + a_3Unemploy_t + e_t \quad (7)$$

where:

- **GDP/capita** – Gross Domestic Product –, expressed in Euro per inhabitant;
- **Edu** – The share of persons aged 15-64 years who have completed upper secondary education level (ISCED 3-4) in total population (%);
- **Exp_edu** – Total public expenditure on education, expressed in million PPS;
- **Unemploy** – Unemployment rate (%). Unemployment rates represent unemployed persons as a percentage of the labour force.

Table 2. The results on testing the model 2 with R software

	Estimate	Std. Error	t value	Pr(> t)
Intercept	-1.032e+04	1.448e+04	-0.713	0.491
Edu	2.521e+02	1.756e+02	1.436	0.179
Exp_edu	8.097e-02	1.100e-01	0.736	0.477
Unempty	-4.090e+02	2.719e+02	-1.504	0.161

Residual standard error: 535.8 on 11 degrees of freedom
 Multiple R-squared: 0.7773
 Adjusted R-squared: 0.7165
 F-statistic: 12.8 on 3 and 11 DF
 p-value: 0.0006574
 Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Source: computed by the authors using the data in Appendix 1

Adding a new variable to the model 1, the data processing shows that the results are not statistically significant, p-value has greater values than 0.05 ($p = 0.161 > 0.05$). In this situation, the variables taken into consideration, related to the educational level of the Romanian population and related to the level of the employment, they are not relevant to express the variation (supposing increasing) of the level of economic development of the country.

Model 3.

In case when the education variables are eliminated from the model 2, it could be visible the dependence between economic development and unemployment.

$$GDP/capita_t = a_0 + a_1 Unempty_t + e_t \quad (8)$$

where:

- **GDP/capita** – Gross Domestic Product, expressed in Euro per inhabitant;
- **Unempty** – Unemployment rate (%). Unemployment rates represent unemployed persons as a percentage of the labour force.

Table 3. The results on testing the model 3 with R software

	Estimate	Std. Error	t value	Pr(> t)
Intercept	11699.1	966.8	12.101	1.89e-08***
Unempty	-777.6	132.8	-5.854	5.65e-05***

Residual standard error: 547.7 on 13 degrees of freedom
 Multiple R-squared: 0.725
 Adjusted R-squared: 0.7038
 F-statistic: 34.27 on 1 and 13 DF
 p-value: 5.645e-05
 Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Source: computed by the authors using the data in Appendix 1

There is a strong correlation between labour participation and the GDP. In this case, a decrease with 1 percentage point in unemployment rate will contribute to a GDP per capita growth with 777.6 Euro.

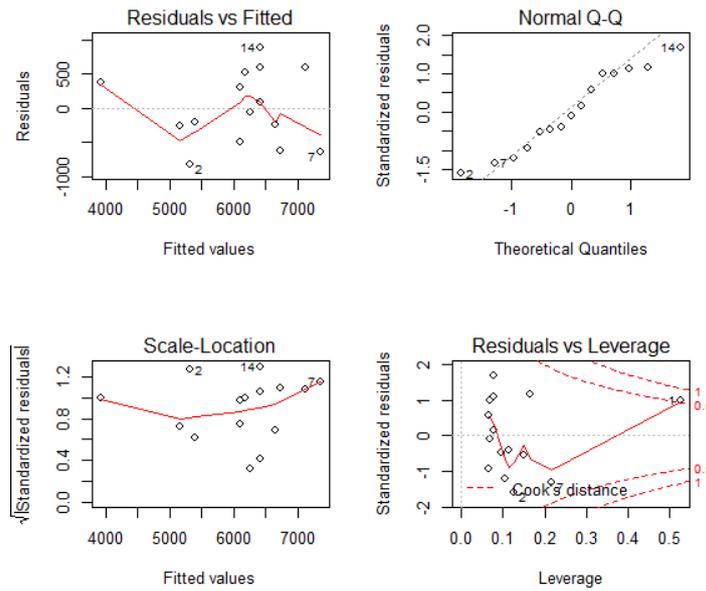


Figure 2. Plotting the regression model 1 in R
Source: computed by the authors

Measures of fit quality of the model 3 shows that the coefficient of determination, R^2 (Multiple R-squared) is 0.725. R^2 represents the proportion of the total sample variability explained by the regression model. That means the explanatory variable (unemployment rate) explains 72.25% of the response variation (GDP/capita). Adjusted R^2 (Adjusted R-squared) equals to 0.7038. The adjusted R^2 takes into account the number of degrees of freedom and is preferable to express the significance of the fitting model using R^2 .

Here the p-value is $5.65e-05$ (<0.05), so we reject the hypothesis that the slope is zero (in this situation, there is a correlation between variables, 95% confidence intervals).

To predict the estimated value of dependent variable it is used the fitted function in R. In the figure below, we compared the observed and fitted values of the dependent variable.

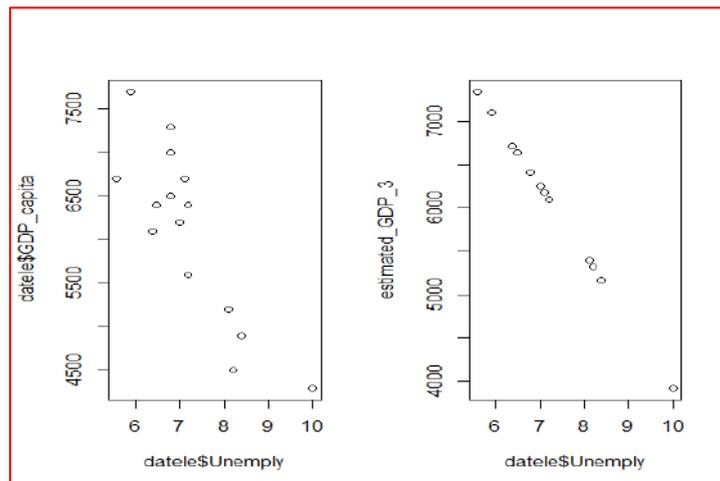


Figure 3. Real data versus fitted data
Source: computed by the authors

The fitted model shows the linearity between the economic development (estimated_GDP_3) and unemployment (the independent variable Unemploy).

4. Conclusions

The research highlights the link between education expenses, education and GDP/capita and analyses the correlation between the level of education and the level of unemployment. Nevertheless, worldwide is recognized the role of education and its many benefits in improving the economic and social world, education being called “the single most important key to development and poverty reduction”.

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Appendix 1

Table 1. GDP/capita, Education (%), Expenditure Education (mil. PPS), Unemployment (%)

	GDP/capita (EUR per inhabitant)	Edu (%)	Exp_edu (milioane PPS)	Unemploy (%)
2002	4300	72.1	4601.7	10.0
2003	4500	72.4	4856.8	8.2
2004	4900	72.7	5246.8	8.4
2005	5200	73.1	5906.9	8.1
2006	5600	74.2	7695.1	7.2
2007	6100	75.0	9483.3	6.4
2008	6700	75.3	9770.5	5.6
2009	6400	74.7	10057.7	6.5
2010	6200	73.9	10550.6	7.0
2011	6400	74.5	11043.5	7.2
2012	6500	75.4	7298.1	6.8
2013	6700	75.7	7710.5	7.1
2014	7000	72.8	8311.5	6.8
2015	7300	75.0	8620.7	6.8
2016	7700	76.7	8929.8	5.9

Source:

1. <http://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tsdec100>
2. <http://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tps00065>
3. <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>
4. <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00203&plugin=1>

Note:

1. Because data on education (Edu) is not available for the entire analysed period, the data for 2002-2004 have been estimated using average growth method.
2. Data on Public expenditure on education (Exp_edu) is not available for the entire analysed period; the data for 2015 and 2016 have been estimated using average growth method.

Appendix 2

Table 2. GDP/capita (real data) and Estimated GDP/capita (real data)

	GDP/capita (real data) (EUR per inhabitant)	Estimated GDP/capita (real data) (EUR per inhabitant)
2002	4300	3923
2003	4500	5322
2004	4900	5167
2005	5200	5400
2006	5600	6100
2007	6100	6722
2008	6700	7344
2009	6400	6644
2010	6200	6256
2011	6400	6100
2012	6500	6411
2013	6700	6178
2014	7000	6411
2015	7300	6411
2016	7700	7111

Source for the real data:

1. <http://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tsdec100>

Note:

1. for the estimated data it was used the fitted model no. 3

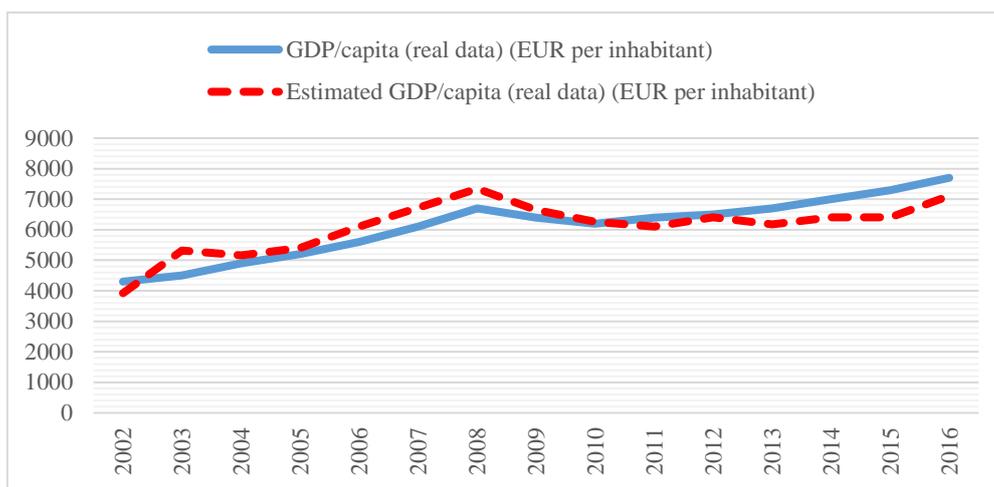


Figure 1. The estimated data on the base of the regression model no.3

Source for the real data:

1. <http://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tsdec100>

Note:

1. for the estimated data it was used the fitted model no. 3

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Foreign Language Education in ASE Bucharest – A Quantitative Approach

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Abstract

The purpose of the current article is to explore the way in which a Romanian university – The Bucharest University of Economic Studies (ASE) develops graduates' foreign language skills to prepare them for an increasingly multilingual job market. We start by reviewing key European Commission documentation on the European labor market's ever higher demands for multilingual professionals, and the EU's measures to encourage the education sector to contribute to the development of such professionals. We then provide a detailed account of the quantitative study we conducted in the period January-March 2018, on the foreign language background of ASE's Bachelor's candidates, the number/types of foreign language classes included in ASE's Bachelor's and Master's curricula for several generations, and effects upon ASE's internationalization strategy. The reader is also kindly invited to peruse the sequel to this article – "Lifelong Learning for the Labor Market", where we further explore the demands of the Romanian labor market with respect to foreign language skills.

Keywords: *Multilingualism in the European Union, foreign language education in Romania, ARACIS standards on higher education, foreign language education in ASE Bucharest.*

JEL Classification: *A22, A23, I23, I25, I28, J24, M51, M53, O15, Z13*

1. Introduction

The current article is the first in a series of two studies dedicated to the permanent dialogue between the labor market (in Romania) and the education sector, with an emphasis on the development of professionals' foreign language skills. The first article – "Foreign Language Education in ASE Bucharest – A Quantitative Approach" – examines the curricula of ASE Bucharest's Bachelor's and Master's study programs to see what weight is given to foreign language classes in order to prepare students for the labor market. As ASE Bucharest is a university in Romania – a European Union Member State since 2007, the study naturally places the discussion against the larger context of the European Commission's endeavors to promote

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multilingualism as a means of supporting labor mobility, among other key issues. The second article – “Lifelong Learning for the Labor Market” – provides an overview of the demands of the Romanian labor market with respect to the foreign language skills of jobseekers and employees, and addresses the issue of continuing education in the field of foreign languages.

Both articles contribute to a wider understanding of the role of higher education institutions in preparing graduates for the domestic and international labor market by equipping students with foreign language competences – which are considered basic skills by EU’s “Strategic Framework for Education and Training 2020” [5].

2. Problem Statement – European context

Nowadays foreign languages and communication skills are at the heart of the European Union, including the EU labor market. The citizens’ need for foreign languages has been permanently highlighted by European Commission’s publications, which we briefly refer to in what follows.

Multilingualism (i.e. the ability to use several languages) is part of the *European Charter of Fundamental Rights*, whose Article 22 states that the Union respects cultural, religious and linguistic diversity [16]. Moreover, Article 3 from the *Treaty on European Union* commits to respect the cultural and linguistic diversity and to ensure that “Europe’s cultural heritage is safeguarded and enhanced” [idem]. The goal of enabling citizens to communicate in two languages other than their mother tongue was stated in the *Barcelona objective* to which all EU Heads of State and Government agreed in 2002 [15]. Moreover, in 2006, the *Key Competence Framework* was introduced, which stipulates that communication in foreign languages is one of the eight key competences “individuals need for personal fulfillment and development, active citizenship, social inclusion and employment” [3, 9: p. 8]. Among the priorities set within the 2008 *Communication on Multilingualism – an asset for Europe and a shared commitment* [4], we mention the development of new educational tools to improve language skills, the monitoring of the progress in language teaching and learning – *to encourage mastery of more than one language as a way of improving job prospects* – and rewarding of innovation in language teaching and learning as well [9: p. 8, see also 8, 11].

With special reference to the job market, the *Special Eurobarometer 386* published in 2012 [10], specifically mentions that, when interviewing a candidate, employers are looking for flexibility, effective communication skills, cultural awareness and the ability to work in multilingual and multicultural teams. In addition, Didiot-Cook, Gauthier and Scheirlinckx, K. (2000) point to the fact that language requirements vary according to the position and role within the company: for production, logistics and finance, proficiency in English is a must; multilingualism with fluency and negotiation skills in several languages are highly recommended for acceding to upper management positions in sales and marketing; while for senior management positions, a high level of English is required, especially if involved in international business [1].

A key aspect of the EU labor market is the internationalization of companies. In this respect, the *Eurobarometer 304* from 2010 [7] states that language and cultural barriers are very important obstacles to overcome. Thus, recruiting multilingual staff demonstrates market intelligence and it has become a long-term strategy for growth and increasing competitiveness.

Acknowledging the need for multilingual professionals, the European Commission established *The European Business Platform for Multilingualism* with the purpose of raising awareness about the need for language skills in international business and providing companies with the tools to improve multilingual business communication [9: p. 9, see also 6]. Moreover, the focus of the European education programs is placed on encouraging the partnership between the employers and the academia by enabling the former to take part in the design and evaluation

of syllabuses. Among such programs we mention: the *Lifelong Learning Program 2007-2013* which was meant to set up networks to develop language policies (multilateral projects were financed and implemented to create language learning materials which were made available to the public); the ongoing *Erasmus +* program 2014-2020, which promotes language learning and linguistic diversity through mobilities both for students and academia; the *Creative Europe* framework program for supporting culture and the audiovisual sectors.

As of 2007, Romania has been a Member State of the European Union, and has observed and implemented the European legislation regarding the study of foreign language. Thus, in the *Education Law 1/2011*, Article 68 sets the framework for structuring the national syllabi for primary, secondary and upper secondary education [13]. Within the national curricula the study of foreign languages is established as one of eight core competences. Through *Government Decision 26/2017*, Romanian education institutions are encouraged to diversify and extend the study of foreign languages [12]. In the case of bilingual studies, the same normative act stipulates that bilingual study groups should comprise a maximum of 16 students.

The effects of such legal provisions are recorded by Eurostat (2017), at three education levels [17].

For *primary education*, while in most EU Member States the majority of pupils study English as the first foreign language, in Romania from 2007 to 2015 the number of pupils learning English increased by 69%, while the number of school children learning French as foreign language increased by 15-16%. In upper *secondary general education*, 58,5% of the EU Member States' students studied two or more foreign languages in 2015 (up from 50,1% in 2010), while in Romania, 98,5% students learned two or more foreign languages (which placed Romania on the 4th place at European level, after Luxembourg, France and Czech Republic).

As far as *higher education* is concerned, the EU endorses the development of knowledge in several foreign languages, to take advantage of the economic, educational and professional opportunities. In Romania, the higher education curricula must comply with the standards for external evaluation set by the Romanian Agency for Quality Assurance in Higher Education – ARACIS⁶. For example, in the field of Economics, the ARACIS standards include the study of a *first* foreign language as a *fundamental* discipline for the domain, while the study of a *second* foreign language is introduced as a *complementary* subject in all eight domains of specialization in economics [2].

Having reviewed key European Commission publications and Romanian legislation, we can infer that there is a genuine need for multilingual professionals on the labor market. In addition, that efforts are being made both at EU and at Romanian level so that the educational sector may address this need by including foreign language training in the curricula at all levels – primary, secondary and higher education.

3. Research Questions/Aims of the research

The purpose of the present article is to present a case study on a Romanian higher education institution – The Bucharest University of Economic Studies (ASE) – and its strategy regarding the training of graduates for the domestic and international labor market. Our main research aim is to identify the way in which ASE equips its students with the necessary foreign language skills by referring to the numbers/types of foreign language classes specified in its Bachelor's and Master's curricula. We link this information to some statistical data on the foreign languages that students have acquired before enrolling in ASE's Bachelor's study programs and

⁶ The Romanian Agency for Quality Assurance in Higher Education (ARACIS) is a full member of the European Association for Quality Assurance in Higher Education and it is listed in the European Quality Assurance Register for Higher Education.

we also address the issue of the role of foreign language classes in ASE's internationalization efforts.

4. Research Methods

The study was conducted in the period January-March 2018 and consisted in gathering four categories of data: i) on the foreign language background of ASE's Bachelor's candidates for the period 2013-2017; ii) on the number/types of foreign language classes included in ASE's Bachelor's curricula in the period 2012-2017; iii) on the number/types of foreign language classes specified in ASE's Master's curricula in the period 2014-2017; and iv) on ASE's Bachelor's and Master's student's registration for Erasmus study mobilities in the period 2017-2018. The first category of data were retrieved from ASE's IT Department, which manages the Admission database; the second and third categories of data were retrieved as follows: the data on current generations were collected from the dedicated page on the institutional website (<http://planinvatamant.ase.ro/> [18]), while the data on previous generations were collected from the SIMUR platform (an intranet facility developed as part of the SIMUR Project [14]), while the fourth category of data were collected from the website of ASE's International Relations Department [19]. Upon collecting the various categories of data, we have analyzed them so as to obtain an overall perspective.

5. Findings

This section presents an overview of foreign language education at The Bucharest University of Economic Studies, Romania, henceforth referred to as ASE Bucharest. We first present the foreign languages that students have acquired before enrolling in ASE's Bachelor's study programs; then we give details on the foreign languages that they study while attending Bachelor's and Master's studies, and we conclude the section by referring to the role of foreign language classes in ASE's internationalization efforts.

As regards the foreign languages that students have acquired before enrolling in ASE's Bachelor's study programs, such data is systematically collected by ASE Bucharest as part of the Bachelor's Admission procedure during candidates' registration in the Admission database.

Having examined the data collected during 2013-2017, we noticed that the foreign languages that ASE's candidates study in high school as a *first* foreign language are: English, French, German, Italian, Spanish, Russian, Japanese; while the *second* foreign language studied in high school is one of the following: French, German, English, Spanish, Italian, Russian, Chinese, Japanese. Moreover, English is consistently the most widely spoken *first* foreign language (with 9696 candidate documents specifying it in 2017 versus 3896 candidates in 2013 – almost 2.5 times as much), while French is consistently the most widely spoken *second* foreign language (with 8232 candidates documents specifying it in 2017 versus 3431 candidates in 2013, nearly 2.4 times as much).

To see what opportunities ASE Bucharest offers its first year Bachelor's students to continue studying and practicing foreign languages, we examined the curricula from all 11 Faculties offering on campus Bachelor's study programs, for the period 2012-2017 (for reasons of space, we refer to 2012 as the first year of studies for the 2012-2015 generation, to 2017 as the first year of studies for the 2017-2020 generation, and so on). We retrieved 141 Bachelor's curricula, as follows: 63 curricula for the 2012-2014 period from the SIMUR platform [14], and 78 curricula for the 2015-2017 period from the dedicated page on the institutional website (<http://planinvatamant.ase.ro/> [18]).

The close examination of the Bachelor's curricula for the five generations revealed no significant changes during 2012-2016 and major differences between the latter period and 2017.

Hence, in what follows we present the curricula of the first four generations separately from the curricula of the last generation under scrutiny. The findings are as follows:

- The Bachelor's curricula comprise three types of foreign language classes: **obligatory first** language, **obligatory second** language, and **optional second** language⁷.
- For the period 2012-2016, the curricula of all faculties comprise an **obligatory first** language: English for three faculties (FABIZ in English, MRK, REI⁸), French for one faculty (FABIZ in French), German for one faculty (FABIZ in German). Some faculties offer first year students the possibility to choose from a more or less limited set: either English or French (EAM); either English or French or Romanian (AMP, BT, CSIE, ETA, FABBV, MAN); either English or French or German or Romanian (CIG). As a rule, the obligatory *first* language is studied for 2 hours per week during 2 semesters (a total of 56 hours) – the case of AMP, CIG, CSIE, EAM, FABBV. The other faculties' curricula show variation: 2 hours per week during 1 semester (28h in total - ETA); 2 hours per week during 2 semesters and 1 hour per week during 1 semester (70h in total - MAN); 2 hours per week during 2 semesters and 1 hours per week during 4 semesters (112h in total - BT); 2 hours per week during 4 semesters (112h in total - FABIZ), 2 hours per week during 5 semesters and 1 hour per week during 1 semester (154 in total - MRK), and 2 hours per week during 6 semesters (168h in total - REI - Program in International Business and Economics). On average, ASE Bucharest's students benefit from nearly 84h of **obligatory first** language classes per all Bachelor's study programs.
- For the period 2012-2016, an **obligatory second** language is offered by only two faculties, as follows: FABIZ offers English, German or Romanian for the FABIZ in French study program; French, German or Romanian for the FABIZ in English study program; English, French or Romanian for the FABIZ in German study program. The Faculty of REI offers a choice from the following set of six languages: French, German, Italian, Romanian, Russian or Spanish. The obligatory *second* language is given the same weight as the **obligatory first** foreign language, i.e. 2 hours per week during 4 semesters (112h in total - FABIZ), and 2 hours per week during 6 semesters (168h in total - REI - Program in International Business and Economics). On average, ASE Bucharest's students benefit from a bit more than 25h of **obligatory second** language classes per all Bachelor's study programs.
- For the period 2012-2016, the situation of **optional second** languages varies from faculty to faculty according to two criteria: the size of the set of languages that students can choose from, and the number of hours per week and of semesters per Bachelor's study program. As concerns the dimensions of the set of **optional second** languages, it varies from 3 languages (English, French and Spanish - AMP), to 6 languages (English, French, German, Italian, Russian, Spanish - MAN), to 8 languages (the previous ones plus Chinese and Japanese - FABIZ), to 9 languages (Chinese; English or English culture and civilization or English specialized terminology; French or French culture and civilization or French specialized terminology; German, Italian, Japanese, Romanian, Russian, Spanish, Turkish - BT, CIG, CSIE, EAM, ETA, FABBV, FABIZ, MRK, REI). As concerns the number of hours students can take **optional second** languages for, it varies as follows: 1 hour per 4 semesters (56h in total - BT), 2 hours

⁷ The optional language is subject to a compulsory enrollment fee of 100 ron/semester.

⁸ For ease of reference, we use the consecrated abbreviations of ASE's Faculties: FABIZ – Faculty of Business Administration, AMP – Faculty of Administration and Public Management, BBS-Bucharest Business School, BT – Business and Tourism, CSIE – Faculty of Economic Cybernetics, Statistics and Informatics, CIG – Faculty of Accounting and Management Information Systems, EAM – Faculty of Agrifood and Environmental Economics, ETA – Faculty of Theoretical and Applied Economics, FABBV – Faculty of Finance and Banking, MAN – Faculty of Management, MRK – Faculty of Marketing, REI – Faculty of International Business and Economics.

per 2 semesters (56h in total - CSIE, ETA), 2 hours per 3 semesters (84h in total - REI), 2 hours per 4 semesters (112h in total - CIG, FABIZ, MRK), 2 hours per 5 semesters (140h in total - BT), 2 hours per 6 semesters (168h in total - EAM, FABBV, MAN). Where **optional second** languages are taught for less than 5 semesters, they are included in the curriculum starting the second year of studies. On average, ASE Bucharest's students may benefit from 112h of **optional second** language classes per all Bachelor's study programs. This is the maximum possible number of hours per study program, but in reality, students hardly ever benefit from so many hours, for various reasons: the schedule for obligatory disciplines may overlap with the schedule for optional disciplines, the absence of **optional second** languages from the curricula during one or more semesters means these languages are not mentioned in the transcripts of records etc.

- A special study program is “Applied Modern Languages” offered by the Faculty of REI since 2013. Up to 2016, it offered English as an **obligatory first** foreign language for a total of 1106h per study program and French as the **obligatory second** foreign language for a total of 434h per study program, with no **optional second** languages. The number of hours of study per semester varied from 42h to 126h, in the case of English language, communication, culture and civilization, and from 56h to 84h, in the case of French language, communication, culture and civilization.
- For the period 2012-2016, there are no changes related to the number/types of classes of foreign languages in the curricula. As concerns the 6 Bachelor's programs in foreign languages introduced in 2014 (by the Faculties of CIG, BT, CSIE, FABBV, MAN and MRK), the number/types of classes of foreign languages in their curricula does not differ from the curricula of similar programs held in Romanian. Moreover, the “Human Resources” Bachelor's program introduced in 2014 by the faculty of AMP contains the same number/types of classes of foreign languages as the “Public Administration” program offered by the same faculty and referred to above.
- When comparing the 2012-2016 curricula to the 2017 curricula, we noticed similarities and differences in what concerns **obligatory first** language classes. Similarities refer to the foreign language/ set of foreign languages offered by ASE's faculties as **obligatory first** language classes - English for three faculties (FABIZ in English, MRK, REI), French for one faculty (FABIZ in French), German for one faculty (FABIZ in German). Some faculties offer first year students the possibility to choose from a more or less limited set: either English or French (EAM); either English or French or Romanian (AMP, BT, CSIE, ETA, FABBV, MAN); either English or French or German or Romanian (CIG). Differences arise in what concerns the numbers of hours and semesters of study: seven faculties have preserved the same number of hours and semesters (BT, CIG, AMP, EAM, FABBV, MAN, REI - Program in International Business and Economics), one faculty has increased the number of classes to 2 hours per week during 2 semesters (56h in total - ETA, up from 28h), while three faculties have decreased the number of **obligatory first** foreign language classes in their curricula: 2 hours per week during 1 semester (28h in total - CSIE, down from 56h), 2 hours per week during 2 semesters (56h in total - MRK, down from 154h), and 2 hours per week during 3 semesters (84h in total - FABIZ, down from 112h). On average, now ASE Bucharest's students benefit from nearly 72.5h (down from 84h) of **obligatory first** language classes per all Bachelor's study programs.
- For 2017, an **obligatory second** language is still offered by only two faculties - FABIZ and REI. The set of languages students can choose from is the same: English, French, German, Romanian at FABIZ, and French, German, Italian, Romanian, Russian or Spanish at REI. What differs is the number of classes: FABIZ students are offered 2

hours per week during 3 semesters (84h in total, down from 112h), whereas REI students are offered 2 hours per week during 6 semesters (168h in total, just as before 2017). However, although at the Faculty of at REI the number of hours per week and the number of semesters have been preserved, they are now allocated differently: 1h for course and 1h for seminar per semester. In effect, since courses are delivered to large audiences (several groups of students), it becomes nearly impossible to offer **obligatory second** foreign language classes in German, Italian, Romanian, Russian and Spanish. Moreover, as the number of seminar hours is reduced, students' exposure to effective communication in the respective **obligatory second** foreign language diminishes significantly. On average, ASE Bucharest's students benefit from just under 23h of **obligatory second** language classes per all Bachelor's study programs.

- For 2017, the situation of **optional second** languages is almost the same as before 2017, with the notable exception of the Faculty of FABIZ, which has lowered the number of such classes in the curricula from 112 to 84 per study program. This change affects the average maximum number of **optional second** language classes offered by ASE to its Bachelor's students – 109h per all study programs, down from 112h.
- Again, the study program in “Applied Modern Languages” offered by the Faculty of REI represents a special case, as it has adjusted the number of classes for all types of foreign languages in the curricula, in accordance with the accreditation requirements of the Romanian Agency for Quality Assurance in Higher Education (ARACIS). Thus, it now offers a total of 644h of English as an **obligatory first** foreign language (down from 1106h), 616h of French as the **obligatory second** foreign language (up from 434h), and 168h of **optional second** languages such as: Arabic, Chinese, German, Italian, Japanese, Russian, Spanish, and Turkish. The number of hours of study per semester now varies from 84h to 154h, in the case of English language, communication, culture and civilization, and from 98h to 112h, in the case of French language, communication, culture and civilization – a more balanced situation than the previous one.
- In sum, upon examining the curricula of five generations of Bachelor's study programs offered by ASE Bucharest from 2012-2017, we have observed that the university's students are given the chance to develop their knowledge of English (at all 11 faculties)/French or German (at 2 faculties)/ Italian, Russian or Spanish (at one faculty) as **obligatory first** or **second** foreign languages, and to start or continue studying a foreign language as an **optional second** foreign language (from a generous set: Arabic, Chinese; English or English culture and civilization or English specialized terminology; French or French culture and civilization or French specialized terminology; German, Italian, Japanese, Romanian, Russian, Spanish, Turkish). By comparing this to the set of languages Bachelor's students have studied before enrolling at ASE, we may say that only English is widely offered, whereas the rest (Chinese, French, German, Italian, Japanese, Spanish, Russian) are in danger of being lost for lack of practice until the second year of studies, when the majority of ASE's students are offered a chance to register for **optional second** foreign language classes. This type of classes is still not certain to ensure continuation of study as the curricula are very heterogeneous (i.e. characterized by a large variety of sets of languages on offer, and of numbers of hours and semesters of study).
- All in all, for the last five generations, we have also noticed a general downward trend in the number of hours and semesters that ASE's Bachelor's students benefit from foreign language classes: 16% less **obligatory first** language classes (72.5h on average in 2017, down from 84h in 2012), 9% less **obligatory second** language classes (23h, down from 25h), and nearly 3% less **optional second** language classes (109h, down from 112h).

We would like to place the number of foreign language classes taught in ASE against the perspective of the number of foreign language classes taught at leading language and cultural centers in Romania: The British Council, the French Institute, the Goethe Institute, the Russian Center for Science and Culture, and the Cervantes Institute. Thus, adults who wish to start learning the foreign languages taught by these institutions can expect to reach an intermediate level after a number of classes which ranges from 138h (for English) to 250-280h (for French, Russian or Spanish), to 400h (for German). Those who wish to reach an advanced level of proficiency are encouraged to attend 240h of English, 450-480h of French and Spanish, or 600h of German (no advanced classes of Russian are on offer in the spring of 2018) [20-24]. Against this background, we notice that the number of foreign language classes offered at Bachelor's level in ASE is indeed small in comparison to the number of hours that leading language and cultural centers assume learners need to attend, with a view to reaching at least an intermediate level of proficiency.

Our research also aimed at understanding how foreign language education is carried out in ASE at Master's level. For this, we examined the curricula from all 12 Faculties offering Master's study programs, for the period 2014-2017. We retrieved 314 Master's curricula, as follows: 162 curricula for the 2014-2015 period from the SIMUR platform, and 152 curricula for the 2016-2017 period from the dedicated page on the institutional website (<http://planinvatamant.ase.ro/>).

The findings are as follows:

- The Master's curricula still comprise three types of foreign language classes: **obligatory first** language, **obligatory second** language, and **optional second** language; however, the incidence of all types of foreign language classes is significantly reduced, when compared to the curricula of Bachelor's study programs. Since the heterogeneity of Master's curricula is far greater than that of Bachelor's curricula, we have decided to present each faculty separately before describing the general situation in ASE.
- During 2014-2017, The Faculty of AMP has offered three Master's programs all taught in Romanian, with no foreign language classes of any type.
- The Faculty of BBS has offered only 3 MBA programs all taught in foreign languages (English or German). The English-taught program "Romanian-Canadian MBA" does not provide any foreign language classes. The German-taught program "Management and Entrepreneurship MBA" provides 84h of German within courses of "Rhetoric, moderation and presentation" and "Academic research and writing". The third program, named "Economic development of the economy" in 2014-2016, offered **obligatory two** foreign languages: English (20h) and French (20h). Rebranded in 2015 as "Romanian French INDE MBA", this program offers an **obligatory first** foreign language – English, with a total of 42h of instruction. On average, BBS now offers 42h of **obligatory first** foreign language classes.
- The Faculty of BT has offered 7 Romanian-taught programs, 5 of them offer English as an **obligatory first** language (with the total number of classes ranging from 28h to 84h), and 2 programs do not offer any foreign language classes. On average, BT offers 34h of **obligatory first** foreign languages per Master's study program.
- The Faculty of CSIE has offered 8 Master's programs, with 6 of them not comprising any foreign language classes (including the only English-taught program "IT&C Security"). The remaining Master's program offer 56h of English or either English or German as an **obligatory first** foreign language. On average, CSIE offers 14h of **obligatory first** foreign languages per Master's study program.

- The Faculty of CIG has had 13 Master’s programs, out of which 10 do not contain foreign language classes, English is offered as an **obligatory first** language (28h in total) for one program (taught in Romanian), and as an **optional second** language (42h in total) for another Romanian-taught program. Moreover, students in another Romanian-taught program (“Business Services”) may choose from either French/German/Italian/Spanish as an **obligatory first** language (84h in total). No English taught program offers foreign language classes of any type. Across generations, there is only one aspect that varies: until 2017, the “Business Services” Master’s program curricula also contained English/French/German as **obligatory second** foreign languages taught for 84h. On average, CIG offers 9h of **obligatory first** foreign language classes and 3h of **optional second** foreign language classes per Master’s study program.
- The Faculty of EAM has offered three Master’s programs all taught in Romanian, with no foreign language classes of any type.
- The Faculty of ETA has offered four Master’s programs all taught in Romanian, with no foreign language classes of any type.
- The Faculty of FABIZ has offered five Master’s programs all taught in foreign languages (English or French or German), with no foreign language classes of any type.
- The Faculty of FABBV has offered nine Master’s programs (eight programs taught in Romanian, one program taught in English). In 2017, no program offers foreign language classes. Until 2017, the program in “Banking Systems Management” was the only FABBV program to offer an **obligatory first** language – English, with a total number of 42h of instruction.
- The Faculty of MAN has offered nine programs, out of which eight do not offer foreign language classes (including the English-taught program in “Business Management”). The only program that offers an **obligatory first** foreign language (English) is “Management and International Marketing” – 140h in 2017 (up from 105h in 2014-2016). On average, MAN offers 16h of **obligatory first** foreign language classes.
- The Faculty of MRK has offered nine Master’s programs all but one taught in Romanian, with no foreign language classes of any type.
- The Faculty of REI has offered 8 Master’s study programs (three of them taught in English and the rest in Romanian). Out of these programs, two do not comprise any foreign language classes, while the number of **obligatory first** foreign language classes (English) in the others varies from 28h to 252h; only one Master’s program offers an **obligatory second** foreign language (French) for 28h. On average, REI offers 81h of **obligatory first** foreign language classes and 4h of **obligatory second** foreign language classes.
- In sum, by examining the curricula of four generations of Master’s study programs offered by ASE Bucharest, we noticed the following: six faculties (AMP, EAM, ETA, FABIZ, FABBV, MRK) out of the 12 faculties that organize Master’s or MBA study programs no longer offer their students the opportunity to continue practicing and developing their foreign language skills. One faculty (BBS) eliminated French from its offer of **obligatory two** foreign languages, transferring the number of hours to English. On average, BBS offers 42h of **obligatory first** foreign language per study program. The remaining five faculties offer English as an **obligatory first** foreign language (for an average number of hours that varies from 8h to 34h per study program), English/ French/ German as **obligatory second** foreign languages (for an average number of 6h per study program - CIG), or English as an **optional second** foreign language (for an average number of 3h per study program - CIG).

- All in all, in 2017 ASE's Master's students are offered an average of 2.8h of **obligatory first** foreign language classes, no hours of **obligatory second** foreign language classes, and 0.03h of **optional second** foreign language classes. A careful examination of the curricula of the last four generations of Master's programs points to the fact that no significant changes have occurred in their curricula since 2014.

With respect to the role of foreign language classes in ASE's internationalization efforts, we would like to briefly point out that ASE aims at encouraging both foreign youth to enroll in its Bachelor's/Master's/Doctoral study programs, and participation of foreigners and Romanian nationals in exchange study programs abroad. In the case of foreigners who become ASE's full-time students and attend English/French/German-taught programs, they are compelled to take classes of Romanian as a *first* foreign language. In the case of foreigners who join one of ASE's Romanian-taught programs, they must prove a minimum level of proficiency in Romanian⁹, but they would still need to attend classes of Romanian as a *first* foreign language. However, as we have pointed out above, the curricula of only seven faculties comprise such classes (AMP, BT, CIG, CSIE, ETA, FABBV, MAN), which leaves the other five faculties out of the options of potential full-time foreign students.

In what concerns Romanian nationals' participation in Erasmus exchange study programs abroad, ASE currently has 140 partnership agreements, as follows: 69 for mobilities in English (up from 53 in 2017), 29 for mobilities in French (down from 66 in 2017), 17 for mobilities in Italian (up from 14 in 2017), 14 for mobilities in German (up from 12 in 2017), 11 for mobilities in Spanish (up from 10 in 2017) [19]. Some mobilities are especially targetted at students from a certain faculty in ASE, some others are open for all of ASE's students, irrespective of the faculty they are enrolled at. Hence, it is immediately relevant for students from all of ASE's faculties to master at least one of these five languages, and to promote the study of a second language (French, Italian, German, Spanish etc.) so that they take full advantage of the Erasmus offer. Against the background of the overall drop in the number of foreign language classes included in ASE's Bachelor's and Master's curricula for 2017, we have also noticed a significant drop in the number of ASE's students registering for the Erasmus competition in January-February 2018, as compared to January-February 2017, despite of the general increase in the number of mobilities abroad.

This section has presented the findings of the extensive quantitative research undertaken in January-March 2018 with a view to understanding the way in which ASE Bucharest contributes to the development of its students' foreign language skills. We have noticed that: i) the Bachelor's and Master's curricula are heterogeneous with respect to the types and numbers of hours of foreign language classes; ii) there is a downward trend in the Bachelor's curricula in 2017 as compared to previous generations in that the number of, for instance, **obligatory first** foreign language classes diminishes by 16%; iii) there is no significant change in the Master's curricula throughout the period under scrutiny (2014-2017) with **obligatory first** foreign language classes amounting to nearly 8h per study program; iv) this heterogeneity and small number of foreign language classes affects the University's internationalization endeavors in that it may discourage Romanian and foreign students from making the most of ASE's educational offer at national and international level.

⁹ Foreign students coming to Romania to attend Romanian-taught programs are generally encouraged to complete a Preparatory Year of Romanian Language for Foreign Citizens at one of the cca twenty universities authorized/accredited to organize such a program. ASE Bucharest has offered such a program since 2014.

6. Conclusions

The present article aimed at presenting the findings of an extended case study on the way in which The Bucharest University of Economic Studies (ASE) from Romania develops students' foreign language skills to meet the demands of the domestic and international (European Union) labor market. We have referred to the numbers/types of foreign language classes specified in the University's Bachelor's and Master's curricula and compared it to data on the foreign languages skills that students acquired before enrolling in ASE's Bachelor's study programs and by exploring the issue of the role of foreign language classes in ASE's internationalization efforts. We have noticed that at Bachelor's level there is a general interest in offering training in English, a more sporadic interest in French, German Italian, Russian or Spanish as **obligatory first** or *second* foreign languages, and increased heterogeneity as regards **optional second** foreign languages. Although the set of languages is a generous one at institutional level, there is a lot of variation from one faculty to another in terms of available options and numbers of classes. At Master's level, the numbers/types of foreign language classes are drastically reduced as compared to Bachelor's curricula, which raises the question of whether Master's students are considered to possess a level of proficiency that would allow them to perform well on the labor market without further training, or whether this type of training is left for self-study. All in all, given the European context, which definitely requires multilingual professionals, Romanian universities in general need to find a way to align their curricula to the needs of cross-border labor market mobility.

Acknowledgment

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**The 1st International Conference on Economics and Social Sciences
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Lifelong Learning for the Labor Market

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Abstract

The present article aims at identifying the role of foreign language competences on the Romanian labor market. To reach this goal, we have conducted a survey on the latest market trends as recorded by key publications such as Adevarul.ro, Cariereonline.ro, Outsourcingportal.eu, Revistabiz.ro., Spiegel.de, Wallstreet.ro, Ziarul financiar. We have selected data on the most important foreign investors in Romania in the last decade, the presence of multinationals on the Romanian market, the employers' needs with respect to employees' foreign language competences.

We have placed these data against the background of language education at university level, and explored the blended-learning options in the process of teaching and learning foreign languages. The reader is also kindly invited to consider the previous article (“Foreign Language Education in ASE Bucharest – A Quantitative Approach”), for a more detailed analysis of recent trends in higher education curricula on foreign languages for professional purposes.

Keywords: *lifelong learning, foreign languages for professional purposes, labor market needs, foreign investors in Romania*

JEL Classification: *A22, A23, I23, I25, I28, J24, M51, M53, O15, Z13*

1. Introduction

The current article is the second in a series of two studies dedicated to the labor market's expectations from the education sector, with an emphasis on the development of the foreign language skills of professionals. The first article – “Foreign Language Education in ASE Bucharest – A Quantitative Approach” – provides an in-depth examination of the curricula of ASE Bucharest's Bachelor's and Master's study programs to explore how this Romanian university develops students' foreign language skills for the labor market. The second article – “Lifelong Learning for the Labor Market” – takes a close look at the demands of the Romanian labor market with respect to the foreign language skills of employees, and illustrates how these demands can be satisfied through foreign language education at university level. Both articles

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aim to raise awareness of the responsibility of higher education institutions in equipping graduates with the necessary foreign language competences required by the national and international labor market.

2. Problem Statement

The aim of this section is to present approaches and methods for teaching/learning foreign languages in Romania with a view to illustrating how the study of foreign languages relates to various products and processes involved in empowering students in the field of competencies and abilities so that they integrate on the labor market and be agents of change and innovation in their different areas of life.

All the evidence points to the fact that there is a strong connection between competencies in various foreign languages and successful integration on the labor market. Today, global business and industry demand that students come out of university with skills that can be directly applied in the workforce. As shown in section 5 below, Romanian employers' needs and expectations express the same demand about their future employees' knowledge of foreign languages. In fact, foreign language knowledge is so valuable nowadays not only because it meets today's requirements for a *global efficient and effective communication*, but also because it embeds a wide range of skills acquired within the process of learning foreign languages. We have in mind the *ability to think creatively and solve problems, to work collaboratively as part of a team, to acquire and integrate new information, to make judgments, and to reflect and critique one's work and the work of others*. These skills and competencies enable students to function in the real world as responsible, productive citizens, and are highly cultivated in the process of teaching/learning foreign languages.

As organizations have moved from task-oriented to process-oriented, professionals must be multitasking proficient; cognitively capable; process oriented; business literate; have strength of character; and be able to evolve on a labour market that becomes more and more volatile.

These skills and abilities are an *outgrowth of conceiving a balanced curriculum* and should be built in order to ensure successful integration of students on the labor market. Moreover, in a *hypercompetitive and mobile labor market*, foreign language acquisition can provide *wider lifelong learning opportunities* for our graduates.

Becoming a pre-requisite for seizing employment opportunities and career development in present world, teaching/learning foreign languages have to face bigger challenges to be more efficient. Consequently, applying both various face-to-face approaches and those created by the fast-growing online industry (MOOCs, e-platforms, social media) represents the common ground of teaching/learning foreign languages with the view to improving their effectiveness.

2.1 Approaches and methods for teaching and learning foreign languages – an overview

Improving effectiveness of foreign language learning has continuously embraced changes in teaching methods. The method concept in teaching, namely “the notion of a systematic set of teaching practices based on a particular theory of language and language learning” [16: p. 3], has always been a controversial topic, reflecting the linguists', applied linguists' and teachers' permanent quest for better methods.

As concerns the major trends in teaching languages that dominated the 20th century, we take into consideration the *oral approach*, the *situational language teaching* and the *audiolingual method*. Alternative approaches and methods are the *natural approach*, the *total physical response*, the *silent way*, *community language learning*, and *suggestopedia*. As regards the 21st century, the following approaches and methods are in use: *communicative language teaching*, *content-based instruction*, *content and language integrated learning (CLIL)*, *whole language*,

competency-based language teaching (standards) and the *Common European Framework of Reference for Languages*, *task-based language teaching*, *text-based instruction*, *lexical approach*, *multiple intelligences*, *cooperative language learning* [idem].

Each approach or method has an articulated theoretical orientation and a collection of strategies and learning activities designed to *reach the specified goals* and *achieve the learning outcomes* of the teaching and learning processes. What all these methods have in common is “the belief that teaching practices it supports provide a more effective and theoretically sound basis for teaching than the methods that preceded it” [idem: p. 4].

A question teachers and planners often ask when presented with alternative ways of addressing an issue is, ‘*Which approach is best?*’. The assumption underlying our contribution is that there is no best approach or method, many of the above-mentioned methods might each work well, but in different circumstances.

2.2 Making sense of methods and curriculum design models in foreign language teaching programs

As teachers of foreign languages within the largest Romanian economic university – The Bucharest University of Economic Studies (ASE), we are fully *empowered* to design and deliver curriculum and instruction that actively and effectively engage our students in business language/communication learning and business culture studies. We use a variety of *teaching strategies and proper instructional resources* to help develop students’ proficiency, increase their knowledge, strengthen their understanding, and foster their critical and creative thinking. We work together to *set up and maintain language curricula* that ensure progress through each university cycle and faculty. Hence, we may say that we promote a *process of “spiralling” curriculum and instruction* which tries to introduce, review and enhance the *structures and functions of language* at each level of the curriculum, on the one hand, and, on the other hand, not only addresses *communicative skills* but also embraces *cultures, connections* to other disciplines, *comparisons* of languages and business cultures and worldwide business experiences.

For us, the development and implementation of language teaching programs can be approached in several ways, each of which has different implications for curriculum design. We have in mind three basic curriculum approaches, which are known in literature as *forward design*, *central design* and *backward design* [15]. Each differs with respect to when issues related to input, process, and outcomes, are addressed. *Forward design* starts with syllabus planning, moves to methodology, and is followed by assessment of learning outcomes. *Central design* begins with classroom processes and methodology. *Backward design* starts from a specification of learning outcomes and decisions on methodology and syllabus are developed from the learning outcomes. The *Common European Framework of Reference for Languages (CEFR)* (Council of Europe, 2001) is an example of backward design already implemented in our university. *CEFR* is designed to provide a “common basis for explicit description of objectives, content and methods of the study of modern languages, within a wider purpose of elaboration of language syllabuses, curriculum guidelines, examinations, textbooks’ etc. across Europe” [24: p.1]. Its features could be summarized as follows:

- *Syllabus*: Needs based, Ends-means approach, Objectives or competency-based, Sequenced from part-skills to whole, Pre-determined prior to course; Linear progression;
- *Methodology*: Practice of part-skills, Practice of real-life situations, Accuracy emphasized, Learning and practice of expressions and formulaic language;
- *Role of teacher*: Organizer of learning experiences, Model of target language performance, Planner of learning experiences;

- *Role of learner*: Learning through practice and habit formation, Mastery of situationally appropriate language, Awareness of correct usage, Development of fluency;
- *Assessment*: Criterion-referenced, Performance based, Summative assessment, Improvement oriented, Assessment of learning, Cumulative mastery of patterns and usage taught.

Nevertheless, this *common ground methodology* incorporates in various sequences of teaching/learning process features of *other approaches*: transmissive and teacher-oriented, practice and control of elements, imitation of models, explicit presentation of rules (forward approach); learner-centered, experiential learning, active engagement in interaction and communication, meaning prioritized over accuracy, activities that involve negotiation of meaning (central approach).

2.3. The use of technology in foreign language teaching/learning

The 21st century intensively promotes flexible work, the gig economy and various processes of *dematerialization* and greater presence of *virtuality* within the perceived concrete reality.

Learners today have high expectations when it comes to technology. They are the generation that grew up amid tweets and instant status updates, with social media, YouTube, Instagram, Skype. This *tech-oriented generation* is able to think of Artificial Intelligence (AI) and knows the power of the Internet inside and out. All this require an approach which makes online technology and face-to-face foreign language teaching/learning complement each other.

Approaches and methodologies in teaching/learning foreign languages have continuously developed a *special relationship* with the Information and Communications Technology (ICT) based on the high potential that the latter has in enhancing learning outcomes. Using technology in the study of foreign languages may refer to: using authentic multimedia materials (downloadable, online activities and material on discs); up-to-date content; websites, images, audio and video materials, blogs, podcasts, webquests; electronic dictionaries, worksheets; office software (a compulsory tool for business presentations); interactive whiteboards; portable devices (mobile phones, PDAs, laptop computers, digital cameras); social networks; creative resources: blogs, podcasts, wikis, websites; enhanced listening; computer-mediated communication (i.e. text chat, MOOs or Multi-Object Orientation – an environment that allows more than one person at a time to chat, forums, bulletin boards, video-conferencing; Virtual Learning Environments – VLEs) [17; 12].

As regards VLEs, these are web-based platforms designed to support teachers in the management of online educational courses. *Blackboard* and *Moodle* are two of the best-known VLEs. The Romanian higher education sector has widely embraced this technology, which is used as a *common ground resource* for enhancing learning outcomes. For instance, the top-most five Romanian universities, members of the “Universitaria” Consortium, have all implemented VLEs, either Moodle or Blackboard type: ASE Bucharest [26], the “Babeş-Bolyai” University of Cluj Napoca [25], the University of Bucharest [27], the “Alexandru Ioan Cuza University of Iaşi [29], the West University of Timișoara [28].

As an example of *comprehensive methods* used in teaching/learning foreign languages we mention the *Oportunidance Platform*⁶ which incorporates Content and Language Integrated

⁶ Oportunidance Platform – <http://www.oportunidance.ase.ro/?redirect=0> – is part of the *life-long learning* non-formal European education project OPORTUNIDANCE “Dance your way to other cultures”, No: 2015-1-RO01-KA204-015155 – <http://oportunidance.eu/> - financed by the European Union through Erasmus+, Key Action, 2, Strategic Partnerships for Adult Education. The institutions involved in this project are the following: The Bucharest University of Economic Studies – coordinator, partners: Association Club Vertical/Dance School Oportunidad, Bucharest, Université Libre de Bruxelles/Belgium, Escola Oficial d’Idiomes de Barcelona-

Learning (CLIL), languages on specific purposes (LSP), the use of Open Education Resource (OER) and Information and communications technology (ICT) and has a *Moodle* format access.

This platform embeds the Action-Orientated Approach in Learning. It facilitates learning 6 foreign languages (Catalan, English, French, Portuguese, Romanian, Spanish) and increases learner's autonomy, self-assessment, reinforcing learning strategies and consolidating a wide range of skills, easily transferable to other cultures.

The *development of Web 2.0 tools in language teaching and learning* has the potential to greatly enhance the opportunities available for students to make meaningful use of their target language in real time contexts. For maximum impact, we believe that a *wide repertoire of approaches*, personalized to meet the needs of individual students and cohorts, is required within a *framework* which combines the *face-to-face* classroom component with an *appropriate use of technology* (VLEs, social media, MOOCs). Direct teaching (frontal, structured, teacher-led) and student-led teaching and learning strategies are to be combined in personalized approaches where digital learning resources and methods complement face-to-face intervention. *E-learning* is not meant to compensate or replace *face-to-face activities* that should appear in the curricula. Therefore, we believe that *E-learning* and *face-to-face activities* should come together as they complement each other in improving effectiveness of foreign languages teaching/learning.

This section has presented the way in which the teaching and learning of foreign languages takes place at university level, namely in ASE Bucharest. We have shown that such classes are grounded on thorough theoretical grounds and that they keep up with the most recent trends in the field (e.g. state-of-the-art technology). We have argued that the best way to approach the teaching/learning of foreign languages is to combine direct teaching (face-to-face activities) and e-learning. In fact, this blended learning approach has been shown to be a characteristic of all the five members of the "Universitaria" Consortium comprising leading Romanian universities.

3. Research Questions/Aims of the research

The present article aims to explore the role of foreign language speakers on the Romanian labor market. We refer to the presence of foreign companies on the Romanian market, and to the latest trends with respect to these companies' need for multilingual business professionals.

4. Research Methods

The research was conducted in the period January-March 2018 and was based on the qualitative evaluation of key publications on the Romanian labor market trends: *Adevarul.ro*, *Cariereonline.ro*, *Outsourcingportal.eu*, *Revistabiz.ro.*, *Spiegel.de*, *Wallstreet.ro*, *Ziarul financiar*. The topics under consideration were: the most important foreign investors in Romania in the last decade, the presence of multinationals on the Romanian market, the employers' needs with respect to employees' foreign language competences.

5. Findings

The aim of this section is to describe the Romanian employers' needs and expectations as regards employees' knowledge of foreign languages. The data has been gathered from online articles in specialized economic magazines, which highlight the fact that the Romanian labor

Drassanes/Spain and Universidade de Lisboa/Portugal. The project duration: 31 December 2015 – 30 December 2017. The project was awarded the European Language Label in 2016 for innovation and creativity in foreign language teaching and learning.

market has a genuine and increasing need for speakers of foreign languages, and that jobseekers have to adapt to this need in order to be seen as eligible for the positions they are applying for.

5.1 Foreign companies in Romania

According to the online issue of *Ziarul financiar* of 18 January 2017, the Top of Foreign Investors in Romania for 2015 is dominated by The Netherlands, Germany and Austria, and by companies from France, Italy, Cyprus and Switzerland [1]. Another ranking published by the same magazine on 7 June 2016 shows that the largest companies in Romania were controlled in 2015 by shareholders from France (Renault), Austria (OMV), Kazakhstan (Rompetro)⁷, Germany (Kaufland), Great Britain (British American Tobacco) and Russia (Lukoil) [4].

As regards the number of jobs, the former article specifies that companies with foreign capital created a total of over one million jobs in 2015, most of the latter in companies with German and Dutch capital⁸ (over 200 000 each), as well as Italian and French capital (130 000 jobs and 100 000 jobs, respectively).

According to the issue from 28 April 2017 of *adevarul.ro*, in 2015, 92.6% of companies in Romania were controlled by firms or individuals from Germany, France and Italy; moreover, the number of such companies was 43% higher in 2015 than in 2014 [5]. If we compare this to the situation from a decade before, we notice that in 2004 the reality was not much different from today in what concerns the top of foreign companies in Romania. According to the statistics published by the National Trade Register Office – ONRC and the Romanian Agency for Foreign Investment – ARIS, [31] the first companies on top at that time were OMV and Renault, followed by LNM Holdings N.V.

According to a report published by the National Bank of Romania, cited by *money.ro* on 22 February 2013, the countries that have invested most in Romania after 1990 are The Netherlands, Austria, Germany and France [32].

The data presented in this section leads to the conclusion that, irrespective of the variations in rankings, the presence of foreign companies and investors has been and remains a decisive factor on the Romanian labor market.

5.2 Foreign languages and the Romanian labor market

As regards the use of foreign languages on the Romanian labor market, the documents that we have analyzed highlight a few major aspects. It is already widely ascertained that knowledge of English is no longer a competitive advantage, but an absolute prerequisite when it comes to recruiting and hiring employees. What can make a difference in the case of English is only an advanced level of proficiency. When referring to the reasons for which foreign companies open subsidiaries in Romania, recruitment specialists highlight the following: the foreign language skills and youth of potential employees [13], with the majority of Romanians being knowledgeable in English and another foreign language. Several publications mention German and English as the most wanted foreign languages on the Romanian labor market (47% and 27%, respectively), followed by French, Spanish and Italian, with knowledge of these foreign languages being considered a genuine need [7]. Not surprisingly, in some lines of work (e.g. Sales/ Customer Support), employers are more and more interested in hiring people who speak a minimum of 2-3 foreign languages [8]. Moreover, according to the portal

⁷ In 2016 China Energy Company took over 51% of KMG International NV, the majority shareholder of Rompetrol Rafinare S.A.

⁸ The same article mentions the fact that, due to fiscal conditions, many of the companies registered in The Netherlands do not have Dutch capital, which is also the case of Romanian companies registered in The Netherlands.

<http://www.learnro.com/de/job-rumanien>, which offers foreigners an insight into the Romanian labor market, there is a limited number of positions that do not require knowledge of Romanian; hence, foreigners who seek employment in Romania are well advised to learn Romanian as well [33].

Consequently, the learning of Romanian as a foreign language is essential for foreigners who are in search of a job in Romania, a phenomenon which we were not so much aware of until recently.

5.3 Perspectives

As evident from the documentation analyzed, candidates' level of proficiency in foreign languages has a decisive influence on their recruitment. An advanced level of proficiency in foreign languages can sometimes be more important than the level of specialized knowledge.

Employers also ask for certificates that prove the candidates' level of proficiency in foreign languages, and do not settle for the mere mentioning of such proficiency levels in applicants' CVs.

The increasing importance of foreign languages on the Romanian labor market is also confirmed by the investments companies make in foreign language training courses. As indicated by websites of recruitment agencies, during January-November 2016, "approximately 50% of the companies in Romania requested training courses in English for their employees, 22% requested training courses in French, whereas 13% requested training courses in German to ensure success in business"⁹ [7].

Moreover, the sources we consulted show that since 2017 recruitment specialists have forecast an increase in openings for speakers of foreign languages. There is a special emphasis on languages such as Slovak, Polish or Japanese, as well as German – they all represent a competitive advantage over other candidates. However, irrespective of what foreign languages job candidates speak, they should master at least two foreign languages. Furthermore, according to the sources we consulted, one of these languages has to be English – with an advanced level of proficiency, to which one or two other foreign languages must be added, such as German, Portuguese, Nordic or Asian languages, as well as Russian, Czech or Polish.

Given these aspects and the stipulation in the "Romanian Partnership Agreement for the 2014-2020 Programming Period" – concluded between Romania and the European Commission, in which Romania sets its priorities as regards the use of European funding in the aforementioned period – regarding the correlation between study programs and competences demanded by the economy, namely the omission of transversal competences (such as communication competences) [10: p. 52], we believe it is necessary for universities (including ASE Bucharest) to reconsider the position of foreign languages in their curricula and, hence, to correspondingly adapt the latter so as to meet the demands of the labor market and the needs of students/ future graduates.

6. Conclusions

The aim of the present article has been twofold: to offer a glimpse of what can be done at university level to develop future professionals' language skills, and to examine the latter's role on the Romanian labor market. On the one hand, we have considered the fact that the teaching and learning of foreign languages is a process whose theoretical and methodological grounding continually adapts to technological development. On the other hand, we have referred to

⁹ Original Romanian quote: "aproximativ 50% din companiile din România au solicitat training de limba engleză pentru angajații lor, 22% au dorit cursuri de limba franceză, iar 13% cursuri de limba germană pentru a-și asigura succesul în business."

professional publications on labor market trends, which emphasize Romanian and foreign companies' genuine need for multilingual employees that speak at least two foreign languages: English and/ or German, French, Spanish and Italian, Slovak, Polish, Japanese, Portuguese, Nordic or Asian languages, as well as Russian, Czech or Polish.

To conclude, we believe that the blended-learning approach to the study of foreign languages is precisely the answer to students' and graduates' need to keep up with the demands of the labor market. Through a combination between a balanced curriculum (requiring on and off campus activities) and e-learning tools, students will develop both foreign language abilities and the transversal competency of learning how to learn, as the development of foreign language skills is a continuous, lifelong endeavor.

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**New Institutional Design in Higher Education Systems.
Challenges and Features for Universities**

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Abstract

The paper aims to support the idea of a new institutional design of higher education institutions in emerging and developing countries (EDC) based on a sustainable partnership between public and private educational organizations. It mostly highlights the importance of non-government organizations active in the field of education based on a Romanian example that focus on economics and entrepreneurship education. The paper highlights mostly the importance of the new European academic model and of the triple Helix Model of knowledge production. It focus on the entrepreneurial university model and on the entrepreneurial endeavours in the higher education field. Finally the paper includes the example of a non-government Romanian organization – Romanian Center for Economic Education (CREE) created with the support of National Council on Economic Education from United States of America in order to support economic and entrepreneurial education in our country. The most important message of the paper is that under the auspices of the new institutional design of the European universities, higher education institutions in emergent and developing countries (EDC) need to take into account all the possibilities to co-operate both with other similar universities and research institutions but also with the business sector and with specialized institutions belonging both to the public or private institutions.

Keywords: *Higher education institutions, the triple Helix Model of knowledge production, entrepreneurial education*

JEL Classification: *A20*

1. Introduction

Higher education systems in emerging and developing countries (EDC) ask for a new institutional design based on a modern approach of the contemporary university covering a variety of ideas and cross disciplinary vision of higher education institutions under a broader and complex context.

The higher education institutions world-wide are tending to catch a new course while shift focus from the old, traditional attributes – such as: *knowledge, identity, autonomy, collegiality, excellence, effectiveness*, to several different ones, such as: *growth/development, massification, fragmentation, networking, convergence, transnationality, competitiveness, accountability, efficiency, marketization, managerialism, bureaucratization, entrepreneurialness*.

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The shift of the universities' culture to a pragmatic pattern is not just a choice, but rather a key-solution for the numerous challenges the universities need to cope with in the present fast changing and challenging times. For instance one of the first foreseeable consequence of *the marketization process* is a painful, cynical selection among universities following the rules of the market itself. And it is amplified by a set of complex and interconnected crisis such as: demographic, economic, social, moral, value & attitudes crisis.

2. The traditional model of universities. Knowledge production

Knowledge production has been always considered one of the primary mission of the universities among the other tasks that higher education institutions have. Although universities tasks are supposed to diversify, change and shift, the traditional knowledge production pattern seems to remain still one of the most important of all the other.

The international literature dedicated to the academic models includes many debating and controversies issues. For instance the report of Le Feuvre and Metso (2005) underlines some weaknesses of the three “*ideal-type*” academic models that are in place in the European universities, which may prevent to a certain extent higher education institutions from meeting the requirements of the knowledge-based economy & society. Briefly presented we may consider that:

- The universities that belong to *the Humboldtian model*, though rely on academic freedom and institutional autonomy, might not be receptive enough to the needs and stakeholders' interests.
- The universities belonging to *the Napoleonic model* are highly dependent on state control.
- While the universities belonging to *the Anglo-American model*, although benefit from a large autonomy, are sometimes too much dependent on their stakeholders.

The report of Le Feuvre and Metso (2005) also presents the basic characteristics of the *traditional model of knowledge production*: problems of knowledge are set and solved in a context governed mainly by academic interests; knowledge is based on disciplines; there is a relative homogeneity of knowledge production locations and a hierarchical and durable knowledge production structures where quality control is assured through a process of peer review.

According to some other authors (Poskiene, 2002) there is also a modern approach on the generic features of the contemporary university would reveal the following ones, which any decent higher education institution is supposed to be able to display:

- flexibility of programs and attitudes;
- dynamic ability to forecast challenges & changes and to implement the necessary changes in curricula, programs, ways of teaching, learning, evaluation etc.;
- integration of programs and assuring more connection to society needs;
- innovation by stimulating students and teachers to manifest their talents and creativity and to integrate universities among the creative corridors and creative communities on the local level;
- contemporary internalization by focusing on an international openness and on developing an international co-operation based on networks and partnership relations;
- extensive use of modern technologies based mostly on the implementation of ITC (information technologies and communication) in higher education applying the tools of distance learning, e-learning etc.;
- attract and stimulate highly qualified and competent teachers to look for their students performances and to stimulate both their professional and personal development;

- diversification of the research fields among the academic community, according to the contemporary changes and trends in research-development-innovation sectors of activity;
- high quality and competence of the research staff in connection to trust & team building among cross disciplinary research teams able to face the complex and interdisciplinary research within universities;
- rendering academic degrees, evaluating extended university education opportunities according to the principles of wide lifelong learning based on the development of academic skills and scientific competence.

At the same time, universities – generally speaking, share a set of values, which establish a well-structured universal pattern:

- 1) *Values defining the mission of the university*: liberal education, intellectual development, competence, openness, perseverance of the intellectual culture of the society (creation, accumulation, storage and passing over of knowledge, as well of other material and non-material culture values);
- 2) *Values which reveal the uniqueness of university education* given its autonomy and academic freedom;
- 3) *Values related to the members of the academic community* – teachers and students, to their rights, duties, and activities: research, rationality (including the boundary rationality vision), freedom of discussion and open minded, tolerance, autonomy, critical thinking, and personal achievement.

The traditional academic pattern – still in place, of the higher education institutions consist of a low corporate culture, protecting the individual freedom, in a collegiate climate, with bureaucratic norms and quite).ambiguous goals.

John Davies (2001) stated consequently that the culture of universities is mostly collegiate and bureaucratic.

The concept of collegialism might encompass the nature of the good traditional model of university world-wide, since it treasures and nurtures all its basic values and features. In terms of the traditional pattern of the university structure and functioning, collegialism turns into the concept of loose-coupling. University's working texture may be described as a tapestry of work units or cells of specialization operating side by side, located in departments and loosely connected at operating level. Another description, as accurate as the first, depicts university as a collection of containers housing a large number of academic departments, each of those representing a monad-complete, self-sufficient, and ready to set and implement its own objectives (Bellamy, 2010). Collegial governance would presume shared decision-making by a collegial group in relation to academic matters, mutual support in upholding the academic integrity of members, conservation of a realm of special knowledge and practice.

Collegialism applies to any of the university components, from by-laws and curriculum development to research projects and ceremonies. As the collegial governance is concerned, this might be the grey side of the academic. As a matter of fact, in this point collide two opposite governance patterns of collegialism, that form the two ends of a scale on which each university may get positioned.

On one hand, *the traditional (conservative) type of university governance* would imply isolationism, individualism, defensiveness, wary of change, elitism, vague quality criteria.

Some people justify their individualism behavior on the fact that some of the current criteria evaluate their performance based on points accumulated when they publish books, papers and so on. And they justify the fact that they prefer to work alone based on the fact that the points accumulated on publishing have to be shared/divided with the other co-authors.

On the other hand, *the new (radical) collegialism* would imply networking, teamwork, responsiveness, innovation, empowerment, readiness to change, the facilitation of active

learning, explicit quality criteria (Bellamy, 2010). According to the new vision supported by the concept of *open innovation* the majority of the best paper published are cross disciplinary papers based on a cross disciplinary co-operation among people that belong to distinguish field of research. While observing that the collegialism may be a better or a worse way for a community of scholars to work along, we need to refer to the alternative contemporary type – the bureaucratic university, based on the authority of expertise and office as well. The latter one might be the dominant factor, supported by the prevalence of regulations and legitimated by rational principles.

The bureaucratic university type isn't common in the Western contemporary world, and this statement may apply mostly to the Central-Eastern part of Europe if exclude its communist period in the past century.

3. The project of a new European academic model

The European dimension of the academic model is not a new and exotic feature for the universities. Although the higher education institutions have grown in their national frameworks and been subordinated to various extents to the nation state – from which have been nurtured ideologically, financially and in many other ways and scopes, universities always displayed, carried and embodied a certain *Europeanness* (van Vught, 2007).

The European dimension still comes second after the national one for the universities, but lately they have been given a quite different role in the new act of the *Europeanness* play – to act as European institutions, and to contribute to the European – rather than only the national, knowledge society. The *Bologna process*, the *European Higher Education Area* and the corresponding *European Research Area* are just few steps towards promoting a certain *Europeanness among universities as a new institutional design for higher education institutions*.

The new European mission of the higher education institutions has been defined and triggered by two interconnected factors. On one hand, *the real process of convergence of the European societies*, under the circumstances of political, economic, labor market, monetary, financial and – in the near future, fiscal integration, which has led to the need of integrating the education and research systems as well, for to grow and multiply the entire potential of the European Union. On the other hand, *the real trend of education convergence* has been institutionalised through narratives, rule and regulations generated by the European Union bodies in order to hasten, optimize and control the course. This is mostly about *the Lisbon and Bologna processes*, which have provided specific requirements to *the European higher education institutions* for to converge to and share a frame of reference in terms of goals, objectives, policy, open coordination, benchmarks, good practices, research resources and output, mobility of faculty and students, exchange and transfer of knowledge and expertise, project collaboration, cooperation on monitoring, evaluation and peer review (de Groof, 2007; Gornitzka, 2007).

The *Europeanness* mission itself is a difficult and long-run mission to accomplish, and it should be done in the context of coping with other major challenges – the structural reforms that universities are supposed to run anyway under a diversified global pressure, while they have to preserve their own traditions and confront fears for an uncertain future.

As a result, the process of *the European convergence of higher education systems* need – while advances toward its goals, to deal with certain problems and threats. We express further a few of these concerns based on the cases, debates and controversies one can find by studying the literature dedicated to these subjects:

- *The democratic deficit of the Bologna process*, which is sometimes blamed for superordinating the national systems, and universities as well, while the latter struggle to get back space of freedom from governments (de Groof, 2007).
- The peril of advancing toward a uniform European pattern, under the pressure of the EU bureaucracy, though some authors think that – for the time being at least, the Bologna process gave universities the opportunity to shift to what they have dreamed (Meek, Goedegebuure, 2007).
- The threat of an emerging gap between the Europe of bureaucrats and the Europe of academics, that would expectedly lead to the vanishing of the European universities as site of cultures and replacing those with institutions focused on market competition suppressed by the ideology of individualism (Barnett, 2007).

For one thing, in the foreseeable future, it is unlikely for the convergence policy to lead to the same results across all the European countries. A unique European model seems to remain just a hypothesis, whereas the local academic traditions would prevail, with the good news and the bad news attached, all together. (Le Feuvre and Metso, 2005).

4. The Triple Helix Model of knowledge production

The new model of knowledge production has been associated with the *post-industrial knowledge-based economy & society* and with the so-called “*service university*”. The implementation of new patterns of knowledge production is much depending on the development of the *interdisciplinary academic approach*, both on teaching and research level, which would imply a *marketization of higher education and research* in the global economy (Le Feuvre, Metso, 2005).

The features of the new academic model of knowledge production were defined by Le Feuvre and Metso (2005), against the traditional model as follows:

- *Knowledge is produced and carried out in a context of application* (versus traditional model: Problems of knowledge are set and solved in a context governed by the academic interests);
- *Knowledge is cross/trans-disciplinary* (versus traditional model: Knowledge is based on disciplines);
- *Heterogeneity of knowledge production locations* (versus traditional model: Homogeneity of knowledge production locations);
- *Heterarchical and transient knowledge production structures* (versus traditional model: Hierarchical and durable knowledge production structures);
- *Reflexive quality control through stakeholders and user groups* (versus traditional model: Quality control through peer review).

Briefly presented, the knowledge production of university in the new context is supposed to:

- get ignited from the real, current needs rather than the academic agenda;
- focus more on innovation than on discovery;
- work interdisciplinary and in a applicable manner;
- take place in dedicated structures and units (most likely outside the higher education institutions);
- gather transnational resources and support;
- get under the supervision of the stakeholders and education process users.

The key-factor of this process model is the so-called *Triple Helix of academia-industry-government relations*, which suggests the tridimensional shape of the new engine of knowledge production.

The nowadays university is establishing new relationship with industry and government, assuming a third mission – *economic & social development*, beside the traditional ones – teaching and research. The linear design of the old model of knowledge production implies a unidirectional, slow flow from laboratory to development, then to production, and finally to marketing. A *spiral model – Triple Helix*, of innovation implies going beyond knowledge production to *capitalisation of knowledge*, and *creating multiple linkages between the three helices of the engine – university, industry, government*, at different stages of the process (Etzkowitz, Leydesdorff, 1998).

5. The entrepreneurial university

A suitable model of entrepreneurship for universities is *social entrepreneurship*, which requires a balance between the goals of education and the ability to maximize those goals. This particular cultural model has many names – the *innovative university*, the *proactive university*, the *entrepreneurial university*, but the important thing is where it leads to, states Burton Clark (2005), one of the founders of concept.

According to John Davies (2001), who provided extensive analyses on the case of the entrepreneurial university, *entrepreneurial culture* is generally characterized by the willingness and capability to take risks and to experiment with new things, as well as by the ability to evaluate those ventures, learn collectively from experience, and transfer the essence of experience across the university.

The model of the *university entrepreneurial culture* can be depicted by Davis matrix.

Any university could be located into one of the above quadrants, which indicate *the entrepreneurial performance*:

- *Ad hoc – Marginal culture* (low development and relatively unsystematic): low potential and low performance.
- *Systematic – Marginal* (relatively low level of development, but explicitly and carefully supported): high potential and low performance.
- *Ad hoc – Extensive* (considerable development, rather disorganized): low potential and high performance.
- *Systematic – Extensive* (considerable development, well and explicitly supported and organised): high potential and high performance.

Davies (2001) highlighted that: “*the development of a sustainable entrepreneurial culture is a complex and difficult business*”. Government has to stimulate entrepreneurial cultures, and not by reducing subsidies in the first place. The universities’ entrepreneurial effort can be sustained through the encouragement and support of mission diversity in higher education, deregulation, and investment in the capacity of the higher education institutions, resource incentives, and incentives for university-stakeholder collaboration, quality regimes which recognise the client/market dimension.

An interesting way to shape entrepreneurially the academic activity was demonstrated by the alliance that *The University of Texas* at Austin, USA, and *Queensland University of Technology*, Brisbane, Australia, formed with SAP – a German company leading in the IT market (Scott, Gable, 1997). Universities gained funding research, gave opportunities to students to have enterprise software experience, were provided with learning databases, multimedia curriculum materials, training for faculty and staff involved in the project, while SAP accessed faculty research and promoted their software among students.

The ties between universities and industry strengthen with management practices that address challenges associated with goal congruence, trust and organizational cultures.

Another good way for universities to become more entrepreneurial is to establish sustainable partnerships with non-governmental organizations who are interested and actively involved in

the educational field, especially in the economic, entrepreneurial or financial education. A good example for Romania, could be the partnership with Romanian *Center for Economic Education – CREE*, the NGO that developed new economic education programs for teachers and pre-university students. According to the lifelong learning principles CREE advocated in favor of a new institutional framework that supports the idea of introducing economic education as soon as possible starting at least with the elementary and middle school too. CREE had been actively involved since 2001 within this process by contributing to the redesign of the curriculum for elementary and middle school. This curriculum includes basic economic concepts direct related to everyday life, to the way in which people are acting as consumers and producers. CREE also developed programs oriented to encourage and sustain teachers' creativity emphasizing teachers' educational entrepreneurial skills. One of the most successful CREE program in this respect was teachers contest '*Best Economics Lessons*' that involved hundreds of teachers of economics in a continuing process of improving their teaching methods and skills and in designing and developing innovative lessons for a better school.

6. Conclusions

Modern universities in emergent and developing countries (EDC) are on a turning point. It is our belief that we have to face a new institutional redesign based on networking and partnership to support the challenges that universities need to implement in the context of a knowledge-based economy and society.

The higher education institutions need to confront simultaneously problems coming from the fast changing environmental issues with which the universities have to cope: development challenges, such as: social structural conversion, institutional changes, demographic changes.

They also have to face some international challenges concerning: internationalization, globalization, ITC orientation, lifelong learning, and knowledge-based society. As centers of learning and key actors and engines of both national, local and regional development universities need to take into account more the increasing social demands that become more complex and more dynamic due to a variety of factors such as: politics, economics, culture, government's higher education policy, planning, and evaluation and reward systems.

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**The 1st International Conference on Economics and Social Sciences
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Using Information and Communication Technologies in Helping Children and Adults from Rural and Remote Areas to Benefit from Distance Education

Florentina BURLACU¹

Abstract

The most important investment a state can make is investing in its future. In order to have economic growth a country must invest in its future human resources – the children. If students receive a good quality education they will become valuable human resources. Some of us forget that human resources are the most valuable resources a state can have, and in the light of that we must provide them the best training possible.

It is easy to provide high quality education for children who live in cities. But what happens with the children from rural areas? What can we do in order to provide these children the best education possible?

The solution is introducing distance education with the help of information and communications technologies (IT&C). These new technologies give local and central authorities the chance to provide distance learning to children via Internet. The investment is worth it, children learn very quickly how to use technology, teachers are trained by specialists, and the lessons become more interesting.

Eurostat's data shows that Internet coverage is vast and in continuous expansion on the old continent and consequently also in Romania. Romanian authorities have the obligation to provide an alternative to all the children that can't go to school for various reasons, and also to all the adults that want to attend university courses or qualification and retraining courses.

Keywords: *Information and Communication Technologies (ICT), Children, Adults, Rural Areas, Remote Areas, Distance Education, Distance Learning*

JEL Classification: *I240*

http://www.aeaweb.org/jel/jel_class_system.php

1. Introduction

In Romania, especially in the rural areas, because of the low birth rate children are very few in numbers. This is the reason why many schools were closed and the remaining children were moved to other schools. The students have to travel long distances, in the summer and in the winter time, in order to attend the courses of the schools from the neighbouring villages.

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Because the students have to commute on a daily basis the dropout rate is high.

When traditional face-to-face education is not possible, and the children that live in rural areas can't go to school because they have no school or their school has been closed, we must adapt and change our ways to make education available for everyone, even on the mountain top.

Luckily the Romanian central and local authorities have the solution in their hands: to provide in the rural areas and in the remote areas distance education with the help of information and communications technologies.

The main objective of this article is to present solutions that can be implemented by the Romanian authorities in order to provide education to all the children and even to adults.

Although distance education is used mostly in higher education we are convinced that it can also be applied with great success in primary and secondary school. We admit that in the primary school it's very important for children to have face-to-face classes with their teacher.

Especially when children begin to learn how to write they need a teacher to show them how to do it. But online teachers can find the best solutions to overcome this important problem.

We believe that the most efficient way to provide distance education to all the children and adults from remote areas is via Internet. Nowadays the Internet coverage area is vast and in continuous expansion, soon we will have round-the-world internet coverage.

2. Problem Statement

Mehrotra, Hollister and McGahey (2001) define distance education as “any formal approach to instruction in which the majority of the instruction occurs while educator and learner are not in each other's physical presence.”

Distance learning seems new because of the development and wide availability of new technologies for connecting teachers and students, and the rapid pace at which these technologies have been adopted by educational, governmental and commercial organizations (Mehrotra *et al.*, 2001).

Mehrotra, Hollister & McGahey (2001) state that traditional classroom-based education requires that the teacher and the student to meet in a particular place at a designated time. Instead, distance education accommodates geographic or physical separation between teacher and student. Another trait that distance education has, is that it permits the instructor and the students to decide when the learning exchange occurs.

Today's technology allows mankind the opportunity to meet society's needs for a more widespread education at lower costs, a learning process developed for specific audiences, and provided in circumstances suited to the needs of the students (Mehrotra *et al.*, 2001).

Mehrotra, Hollister & McGahey (2001) believe that the challenge for educators is to find the proper combination of technologies that best mimics the teacher-student approach that worked so well in traditional education. Meeting this challenge requires an understanding of what technologies are compatible with distance education, what are the costs and benefits of each type of technology and how well the technology serves the educational purpose.

Two-way radio, telephone, interactive television and Internet conferencing are common examples of technologies used in the civilized states for distance education (Mehrotra *et al.*, 2001).

Martin and Loomis (2014) highlight the fact that the Internet provides many tools suited for distance learning, such as: webcams, e-mail, websites, school-based chat rooms, video and audio streaming.

Distance education can take a wide variety of forms. Synchronous distance learning is when a group of students meet regularly at a remote location and connect with a teacher located in a distant classroom at the same time the lesson is taught. Asynchronous distance learning is when

students use individual workstations or home computers to access the teacher's course in their leisure (Martin & Loomis, 2014).

Martin and Loomis (2014) point out that many online courses are a mixture of both synchronous and asynchronous instruction. In this mix type of distance education students access the information the teacher has uploaded on the internet and then they are required to log in to a school-based chat room, on a previously established date and time, in order to interact with the other students and with the teacher.

The schools that teach their curriculum mostly or entirely online using the Internet are called virtual schools and they provide courses for all school grades, from kindergarten through high school. Virtual schools have special trained teachers, and their courses can be done 100% online, or they can provide a mix between online and face-to-face courses held in classrooms (Martin & Loomis, 2014).

Martin and Loomis (2014) emphasize that virtual schools are extremely useful for students in rural areas where online classes help fill the gaps in courses offered in the upper grades, and help provide good quality education for elementary grade children who are not able to make it to school regularly, and also for students who live in remote areas where school is not available.

Most virtual schools are fully accredited by the same institution that accredits traditional schools and most virtual high schools offer high school diplomas.

In order to use distance education successfully, teachers must be able to organize information and design instruction to make it suitable for transmission and for student-centred learning.

Teachers must also be familiar with the technology in order to create courses and to troubleshoot and solve problems. Students must also contribute to their learning and the learning environment (Martin & Loomis, 2014).

Martin and Loomis (2014) present in their study some of the new technologies that are used for online learning:

- *WebQuest* – is an activity designed by teachers which provides information to students via Internet. It is a semidirected outline of activities that students use in independent investigations: the inquiry, a task, a set of information sources, a description of the process, guidance, conclusion and evaluation (Dodge, 1995).
- *Websites* – private websites can be developed by teachers and students. These websites contain the information necessary for a specific class such as: curriculum, courses, homework, notices of class activities, results of investigations, grades, the dates of exams, student enrolment, etc.
- *Wikis* – are collaborative websites on which content can be edited by anyone who has access to it. Teachers and students can write their observation or thoughts on the wiki, ask for responses or critiques from others, respond to the entries of others and edit all content that was posted. A famous wiki is Wikipedia.
- *Blogs* – are websites that contain text, audio, photo, and video postings on a particular subject. Teachers and students can develop their own blogs in order to share with one another opinions, thoughts and reflections, to demonstrate understanding of a concept or to seek clarification.
- *Podcasts* and *Vodcasts* – Podcast is an auditory broadcast and Vodcast is a video broadcast over the Internet. They are one-way only, the listener or the viewer cannot communicate with the broadcaster, and are usually recorded for later access in order to explain or describe a concept or a point. Podcasts and Vodcasts are often found on blogs. In distance education teachers and students create them for the benefit of the classes.
- *Internet telephone* and *video calling software* (Skype) – are often available free of charge, and enable anyone in the world to make free video and voice calls to anyone else in the world who has installed the same software. This type of software is used

for video conferencing and for virtual face-to-face discussions between the teacher and one or more students that take online classes (Martin & Loomis, 2014).

Cohen, Bloom & Malin (2006) emphasize the enormous potential of the information and communications technologies (ICT) in facilitating worldwide education. Because the costs of information and communications technologies are decreasing we can find them in the classrooms of the poorest, most remote and sparsely populated areas. The introduction of this new technology can increase the quantity and the quality of education by facilitating distance education.

Distance learning can provide education to those that have no access to traditional schools. It can also be of use to those who want to learn on a non-traditional schedule, for example in the evenings after work (Cohen *et al.*, 2006).

This new and revolutionary type of education stimulates students to gather information in an active way, they grasp new ideas, and afterwards they explain and present in a creative way what they have learned. IT&C can improve learning in a wide range of subjects (Cohen *et al.*, 2006).

Cohen, Bloom & Malin (2006) point out that teachers can also benefit from IT&C through the use of computer-based teaching aids and curricula and online professional development. The new technology can facilitate communication among teachers from different communities, allowing them to share materials and ideas.

Efforts to introduce and utilize information and communications technologies in education at all the levels have produced mixed results. The benefits are obvious for students and for teachers, but the problem in utilizing new technologies in education often lies with implementation (Cohen *et al.*, 2006).

The biggest obstacle in the expansion of IT&C in primary and secondary school is the belief shared by many teachers that information and communications technologies are in opposition with the diversity of traditional resources such as textbooks and other basic supplies (Cohen *et al.*, 2006).

Cohen, Bloom & Malin (2006) draw attention to the fact that political leaders and decision makers focus on the visible short-term gains such as buying computers, and forget about the long-term investments that must be made such as maintaining the computers, and more important, providing training for their use. The success of the implementation of this type of project often lies in the costs allocated for proper training (30%-40% of the budget as specialists suggest).

In the following part of this paper we focus exclusively on Romania, and we will present the beginning of distance education represented by e-learning.

In the “*Study on the Development of E-learning in Romania*” made by Beta Software Management we can find some data about the beginning of e-learning in our country. One of the first programs that supported the teaching process through the use of modern technologies in secondary education was SEI (Computer Based Educational System) in 2001. This program was initiated by the Ministry of Education, Research and Innovation, and with the passing of time, in the process of creation, development, implementation and application of IT&C in the educational process got involved the following organizations/societies/universities:

- Siveco (2003) – AeL (Advanced Learning) – a complex portal that offers learning and teaching tools, and also evaluation, content and educational management; The Intel®Teach Program (2007) in partnership with Intel – is a training program with over 5 million trained teachers in 40 countries; Learning in the Knowledge Society (2009-2010) in partnership with the Ministry of Education, Research and Innovation – for the training of 3000 teacher trainers;
- Softwin (2003) – INTUITEXT – proposes modern and complete learning solutions, adapted to the requirements of pupils aged between 8 and 15;

- Center for Innovation in Education (2006) TEHNE – 1educat – is running e-learning programs and projects, IT&C in education, curricular development, education for democratic citizenship, lifelong learning and lifelong learning for teachers;
- Timsoft (2001) – eLearnTS, IntraTS, eTestTS – online courses, hosting and/or development of online courses and workshops, e-learning consultancy and also in the use of blogs, development of integrated e-learning systems;
- Data Solutions SRL – Etrainer – is a free e-learning solution that offers facilities such as: course management, management of documentation, references and of the files attached to them, user management, test management of different genres, student progress reports, test statistics, and other tools to see the effectiveness of on-line training;
- “Athenaeum” University of Bucharest, Siveco Romania (2010) Platform Launching Conference “Online university collaboration network for the development of the capacity to provide skills and competitiveness for the labour market”;
- University of Bucharest and National Authority for Scientific Research (NASR), Siveco Romania and Intel Corporation (2006) International Conference of Virtual Education “News Technologies in Education and Research” (ICVL Project);
- National Defense University “Carol I” Bucharest (2005-2013) International Scientific Conference „eLearning and Software for Education” (eLSE Project);
- University of Bucharest and National Authority for Scientific Research (NASR), Siveco Romania and Intel Corporation (2003) National Conference of Virtual Education “Promoting modern technologies in education and research” (CNIV Project).

3. Research Questions/Aims of the research

The questions we would like to find answers for are the following:

Can distance education be successfully implemented in Romania?

Is distance learning an alternative for the children that have problems in attending school?

Can the dropout rates be reduced by introducing distance education?

Are the central and local authorities able to provide this type of education to all the students that can't attend traditional face-to-face courses? Can the authorities provide for students and teachers all the IT&C devices needed for distance learning and the necessary training for using them properly?

We believe the answer to all the above questions is affirmative.

The objective of this article is to draw attention to some feasible solutions to the dropout problem in the Romanian rural areas. These solutions can be implemented with success in Romania because the Internet coverage area is expanding fast.

4. Research Methods

In this article we used mainly the qualitative method in order to obtain the extensive data about the usage of information and communication technologies in providing distance education. Quantitative analysis is also used, particularly with regard to statistical data. The techniques used here are: a case study on Romanian distance education and the analysis of the theoretical works in this field.

5. Findings

In order to demonstrate that providing distance education via Internet is possible in Romania we will present in the following table the official statistical data taken from Eurostat that show the great potential of the Internet and the existent coverage area.

Table 1. Level of internet access – households %

Geo/Time	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EU (28 countries)	55	60	66	70	73	76	79	81	83	85	87
EU (27 countries)	55	60	66	70	73	76	79	81	83	85	87
Euro area (changing composition)	57	62	67	71	74	76	79	81	83	85	87
Belgium	60	64	67	73	77	78	80	83	82	85	86
Bulgaria	19	25	30	33	45	51	54	57	59	64	67
Czech Republic	35	46	54	61	67	65	73	78	79	82	83
Denmark	78	82	83	86	90	92	93	93	92	94	97
Germany	71	75	79	82	83	85	88	89	90	92	93
Estonia	52	57	62	67	69	74	79	83 ^b	88	86	88
Ireland	57	63	67	72	78	81	82	82	85	87	88
Greece	25	31	38	46	50	54	56	66	68	69	71
Spain	43	50	53	58	63	67	70	74	79	82	83
France	55	62	69	74	76	80	82	83	83	86	86
Croatia	41	45	50	56	61	66	65	68	77	77	76
Italy	43	47	53	59	62	63	69	73	75	79	81
Cyprus	39	43	53	54	57	62	65	69	71	74	79
Latvia	51	53	58	60	64	69	72	73	76	77 ^b	79
Lithuania	44	51	60	61	60	60	65	66	68	72	75
Luxembourg	75	80	87	90	91	93	94	96	97	97	97
Hungary	38	47	53	58	63	67	70	73	76	79	82
Malta	54	59	64	70	75	77	79	81	82	82	85
Netherlands	83	86	90	91	94	94	95	96	96	97	98
Austria	60	69	70	73	75	79	81	81	82	85	89
Poland	41	48	59	63	67	70	72	75	76	80	82
Portugal	40	46	48	54	58	61	62	65	70	74	:
Romania	22	30	38	42	47	54	58	61 ^b	68	72	76
Slovenia	58	59	64	68	73	74	76	77	78	78	82
Slovakia	46	58	62	67	71	75	78	78	79	81	81
Finland	69	72	78	81	84	87	89	90	90	92	94
Sweden	79	84	86	88	91	92	93	90	91	94 ^b	95
United Kingdom	67	71	77	80	83	87	88	90	91	93	94
Iceland	84	88	90	92	93	95	96	96	:	:	98
Liechtenstein	:	:	:	:	:	:	:	:	:	:	:
Norway	78	84	86	90	92	93	94	93	97	97	97
Switzerland	:	:	:	:	:	:	:	91	:	:	93 ^b

Data source: Eurostat.: = not available b = break in time series

In the table from above it is presented the percentage of households who have internet access at home. All forms of internet use are included. The population considered is aged 16 to 74.

In Romania the percentage of internet access in households was 22% in 2007, and since then it had an ascending trend. The recorded statistical data is the following: 30% in 2008, 38% in 2009, 42%-2010, 47% in 2011, in 2012 was 54%, 58% in 2013, in 2014 was a break in time

series and the recorded percentage was 61%, in 2015 was 68%, in 2016-72% and in 2017 was 76%.

In 2007, 2008 and 2009 Romania had the biggest growth of the percentage of internet access in households from 22% to 30% and finally to 38%. And from 2013 to 2014 was recorded the smallest growth from 58% to 61%.

If we compare Romania's percentage with the percentages of the other Community countries we can observe that our country is not in top 10, but we have the potential to grow and evolve, if we put some effort in it and if authorities do their job.

6. Conclusions

There are many ways to provide distance education, but we are convinced that using information and communications technologies via Internet, teachers can reach even the most remote Romanian settlement.

In Europe the Internet coverage area is vast, in some developed countries the percent of Internet access reach 98%, which is huge. Romania is a little behind, but can recuperate.

Distance learning is the best way for the Romanian authorities to provide education to children from remote areas who can't go to school. With the help of the new technologies the dropout rate can be diminished, students being able to receive diplomas after attending online courses.

Romanian local and central authorities are more than capable of providing all the technologies that are necessary for distance learning and the costs are not so high.

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**The 1st International Conference on Economics and Social Sciences
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The Influence of Foreign Direct Investments on Economic Policies in Romania

Laura Elly NAGHI¹, Oana Ramona GLONȚ², Adina Alexandra DARMAZ-GUZUN^{3*}

Abstract

The ability of a country to contribute to the economic global activity represents a significant indicator that shows its performances and competitiveness. In this regard, we need to know which are the appropriate sources, that could lead us to an economic increase, taking into consideration the impact that these sources can have on the foundation of public political measurements in this area.

The foreign direct investments represent such a source, which may give rise to major implications on both regional economic policies level and on national level. For this reason, a correct capitalization of the investments will bring us the opportunity to determine the benefits that they can generate to the economy. The present paper aims to identify in which way the foreign investments influence the growth of GDP as a variable of the study, as well as the causal relationship between the foreign direct investments and devaluation of the exchange rate using the economic models of multiple regression.

Keywords: *foreign direct investments, GDP, public policies, devaluation of the exchange rate, economic policies*

JEL Classification: *G11, G15, G18*

1. Introduction

The economic policies have the main objective to manage and complete the market actions.

It is very important to coordinate all the factors that a market has, in order to obtain the expected results. However, during the years, in any country there are both positive and negative results regarding its economy. This is also the case of Romania, where the durable increase of the economy has an important role as a permanent concern in establishing the adequate framework.

The purpose of this study is to examine the influence of the foreign direct investments on the economic growth in Romania, considering that in all the states, especially in the emerging countries, the economic increase cannot be realized without investments. Foreign direct investments represent not only a significant funding source, but also have an important influence on the manifestation of globalization process of the markets.

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The decisions regarding the foreign direct investments of a country have to be strategically, in order to satisfy both the investor and the host state. In this regard, is very important for a state to have the necessary instruments to attract investments as the effect generated by them is different from a country to another, and also depend on their current economic potential.

2. Problem Statement

Taking into consideration that the economic increase depends largely on the foreign investments flow (Bosworth și Collins, 1999), there are also economists that after analyzing the link between the FDI and economic increase show that there is no correlation, so the FDI do not influence the economic growth (Kholdy and Sohrabian, 2005). To the same conclusion have arrived through their study also Mansfield and Romeo (1980).

Having a short view in the past, there were studies that have demonstrated the link between the foreign direct investments and the economic increase, but taking into consideration some economic aspects of the host country. In this sense, the authors Borensztein, De Gregorio și Lee (1998) showed that to have positive results of FDI, each country have to ensure a minimum level of human capital stock. Although, they noticed that it is also important that the host country to be able to absorb the advanced instruments of the new technology.

The level of the education in the host country is a key factor when we are talking about FDI, considering that domestic investments do not have the same interaction with the educational level of the workforce (Borensztein *et al.*, 1998).

Carkovic and Levine (2000) suggests that the human capital is not the main element that influence the impact of FDI on economic growth, but a rich country helps to increase the economy through the FDI. Blomstrom, Lipsey, and Zejan (1994) have the same opinion, while Balasubramanyam, Salisu, and Sapsford (1996) argue that the effect of foreign direct investments on economic growth is different, depending on the trade policy regime of the host country. It means that a country which is strongly oriented outwardly from trade policy point of view has more chances to obtain economic increase than those which are inwardly oriented.

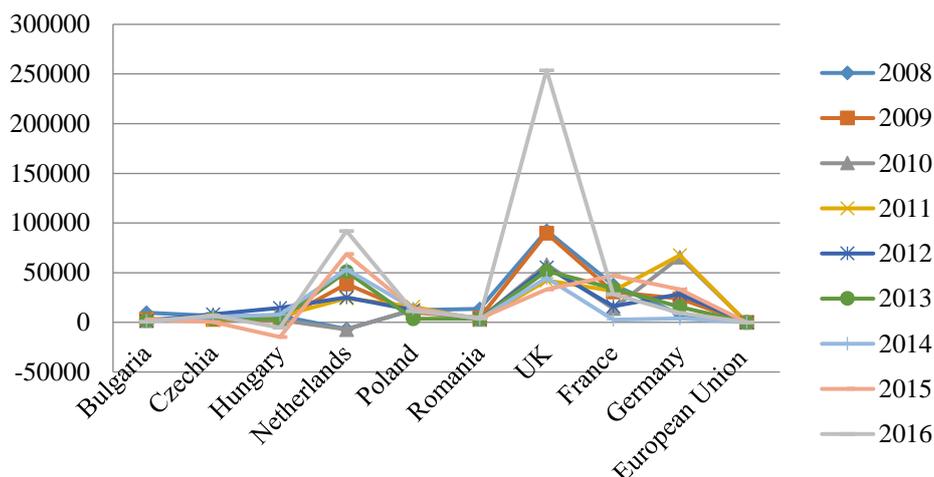
Considering all the above statements, we can summarize that, in case foreign direct investments have an influence on the economic growth, it depends largely on different factors such as: economic environment, human capital, technological conditions.

3. Research Questions/Aims of the research

The aim of this study is to identify the relationship between foreign direct investments and GDP, exchange rate and in Romania. In order to have a short view of the actual situation, we first analysed it at Europe level.

In this regard, we have found that Europe is the largest investment regime that gives the opportunity to investors to have an attractive environment for their investments. This can be explained by numerous advantages that a European market can offer to their investors: besides the infrastructure investments, high level of human capital, there is also the facility of removing the policy barriers concerning the free movement of capital.

Table 1. Inflows of FDI in European Union countries 2008-2016



Source: Own processing, UNCTAD Statistics

Between 2008 and 2016 the foreign direct investments considerably increased at European level, a very important evolution was for Great Britain and Netherlands during this period. At the beginning of the analyzed period, in 2008 the highest amount of foreign direct investments was achieved by UK with a volume of inflows of 92.158 billion USD, followed by Spain and France. Romania was on the fifth place, with 85% less inflows on the market towards UK.

Looking at the end of the period, we can see that on the first place is still UK, but the second place was replaced by the Netherlands with a volume of 91.956 billion USD, followed by Belgium, Italy and France. In 2016, Romania was at the middle of the ranking, with a volume of inflows of 4573 billion USD, which means a percentage of 30% less than the European Union average.

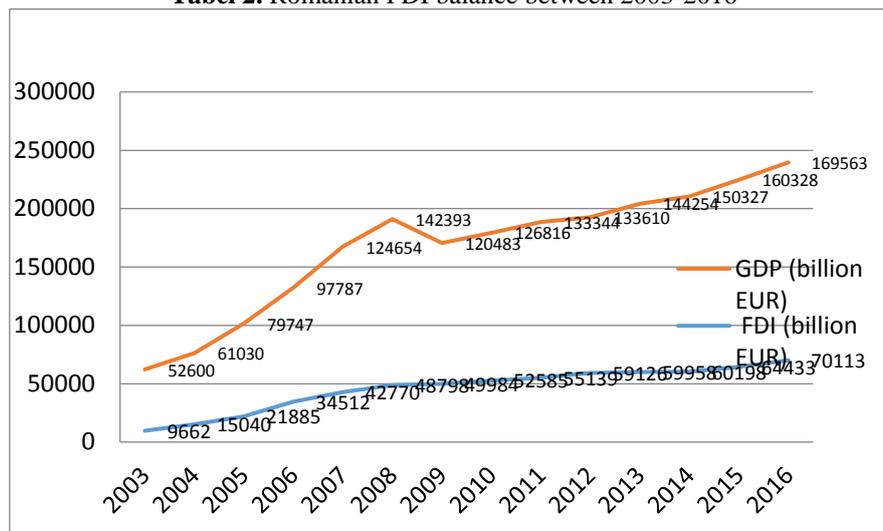
In 2016 overall, there is a decrease on inflows onto European Union. Towards 2015, in 2016 the European Union the FDI inflows have decreased by approx. 25% (from 592.453 billion USD to 440.364 billion USD), one of the reasons being the result of large movements in intracompany debt flows which were not offset by high levels of equity transaction.

Even if our data are focused on the period after the economic crisis was installed in most of the countries, we have to talk also about the period before the financial crisis. According to World Investment Report (2008) the foreign direct investments knew a growing period not only on European level, but also worldwide. 2007 was the year when the global FDI flows have reached the highest level of the period before the crisis, with inwards of 824.401 billion USD.

This was also reflected in the economy of the European countries, which have faced with a high economic performance and growth. Of course, the effects of the financial crisis appeared in early 2008, so the economic decline was rapidly installed on the market.

Regarding Romanian case, after the economic crisis was installed in 2008, we can observe a continuous increase of the foreign direct investments but with low amounts of balance.

Tabel 2. Romanian FDI balance between 2003-2016



Source: own processing using NBR database

The final balance of FDI per each year means the whole value that was accumulated at the specific data. Between 2003 and 2016, the highest increase percentage was in 2006 when Romanian FDI amounts increased by 57% compared with the end of 2005. At the end of 2016, the value of foreign direct investments in Romania was of 70.113 billion EUR, with an increase percentage of 8,8% from 2015. According to NBR, the balance of FDI at the end of 2016 was relocated on some of Romanian industries, such as: manufactory (32% of FDI balance), constructions (14%), commerce (12,8%) and professional, scientific activities, support services (5,6%).

NBR has also specified the countries which have the highest percentage of investments in Romania, so we can observe that at the end of 2016 the first position is occupied by the Netherlands with 24,3%, followed by Germany (13,2%), Austria (11,9%), France (6,9%) and Cyprus (6,5%).

The same as foreign direct investments, GDP is also an important economic indicator which has known an increasing period in Romania between 2003 and 2008. Starting with the end of 2008, the financial crisis affected the market and the effects were also seen in the evolution of GDP. But, after 2 years of decline, it began to increase, reaching in 2016 the value of 169.563 billion EUR due the growth in the sector of exports, industry and agriculture.

4. Research Methods

In order to analyse the possible factors of influence on Romanian foreign direct investments, we have used Eviews 10 as an econometric instrument. In this regard, we have defined as variable resultant the foreign direct investments and GDI and the exchange rate as independent variables. We have used annual data between 2003 and 2016 according to data offered by NBR and UNCTAD.

Dependent Variable: ISD_MIL_EURO
 Method: Least Squares
 Date: 04/15/18 Time: 21:04
 Sample: 2003 2016
 Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-43537.80	8584.271	-5.071810	0.0004
PIB_MIL_EURO	0.460214	0.028685	16.04389	0.0000
EXCHANGE_RATE__RON_EUR__ANN...	8325.750	2502.772	3.326611	0.0068
R-squared	0.979095	Mean dependent var		46014.50
Adjusted R-squared	0.975294	S.D. dependent var		18899.34
S.E. of regression	2970.640	Akaike info criterion		19.01835
Sum squared resid	97071702	Schwarz criterion		19.15529
Log likelihood	-130.1285	Hannan-Quinn criter.		19.00568
F-statistic	257.5915	Durbin-Watson stat		1.418078
Prob(F-statistic)	0.000000			

Figure 1. Results of Eviews 10
 Source: own processing using Eviews 10

According to the results of the Regression, we can observe that the R^2 is 97,90%, which means that between the GDP and foreign direct investments there is a positive correlation. Thus, when foreign direct investments increase, the GDI also increase.

The value of the adjusted multiplication factor R-adjusted is 0,9752 for GDP, so being closed to 1, this means that the regression model is applicable and reveals that 97,52% of GDP are influenced by FDI, but we have to take into consideration that also other factors influence the GDP value.

Regarding the exchange rate, the data were not stationary, so the result is not relevant and it will be analyzed in a next case study.

5. Conclusion

According to our research, we can say that the influence of foreign direct investments is related to the GDP, and the increase of FDI will have positive effects on the economic growth.

During the analyzed period, the two macroeconomic instruments have demonstrated that an economic increase is hard to be maintained for a long period, and investments are related not only to the tradition of the host country, but also need an adequate environment such as infrastructure, human resources, and trade policy regime.

As public financial resources, foreign direct investments represent also a flow capital that can contribute to the increase of an economy. In Romania, we had found that during the analyzed period, the FDI had constantly increased from year to year. This was reflected also in the GDP, which was also on a growing trend, except 2009, when the effects of the financial crisis were reflected on the macroeconomic level. Nevertheless, starting with 2010, the economy increased again, but FDI flows have not knew an important increase, even if the Romanian business environment had positive results. An explanation of this might be that the Romanian investors did not expect immediately effects, and they have made investments on long term. In this regard, a good model for us is Czech Republic and Poland, which have an efficient policy regarding the investments field, such us: facilitating the corporate lending activity, implementing investments agency, accordance of fiscal stimulants.

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Fiscal Efficiency and Indirect Burdens for Entrepreneurship in the European Unions

Clara VOLINTIRU¹, Mihai VOLINTIRU², George ȘTEFAN^{3*}

Abstract

This paper accounts for the relationship between the state and citizens as an important way of discerning contemporary fiscal behaviour and the individual's framing system. It also explores the implications for business initiatives. This analysis allows us to trace the factors that favour or impede collection levels. We support this argument with data on such indirect costs of paying taxes as costs of information, time spent in the process of paying taxes, and other resources devoted to fiscal compliance. Our assertion is that procedural aspects of the fiscal process impact the private sector. The more burdensome the process of paying one's duties is, the more likely it is that small and medium sized enterprises will be affected, as well as the prospects for future entrepreneurs.

Keywords: *First keyword, second keyword, third keyword, forth keyword, fifth keyword*

JEL Classification: *H2, H3, D2*

1. Introduction

For the past years, European Commission's country-specific recommendations have touched upon Romania's fiscal collection capacity, as well as its limitations in the chosen reforms to address the issue. The first country-specific recommendation in 2017 clearly stated "Strengthen tax compliance and collection". According to the most recent statistical data, Romania's collection levels rank second lowest in the EU (see Figure 1). Why is tax compliance so elusive for Romanian authorities? Many times, the tax-payer is singled out as having a low tax morale (i.e. willingness to pay). Yet, recent evidence from the largest cross-national tax compliance experiment conducted anywhere in the world (http://willingtopay.eu/wp-content/uploads/2016/03/NEW__Todor_TAX_H_RO_39.pdf) shows that Romanians have a high compliance disregarding tax rates and redistribution patterns. It is thus reasonable to look at the institutional capacity for the cause of the low levels of tax collection in Romania.

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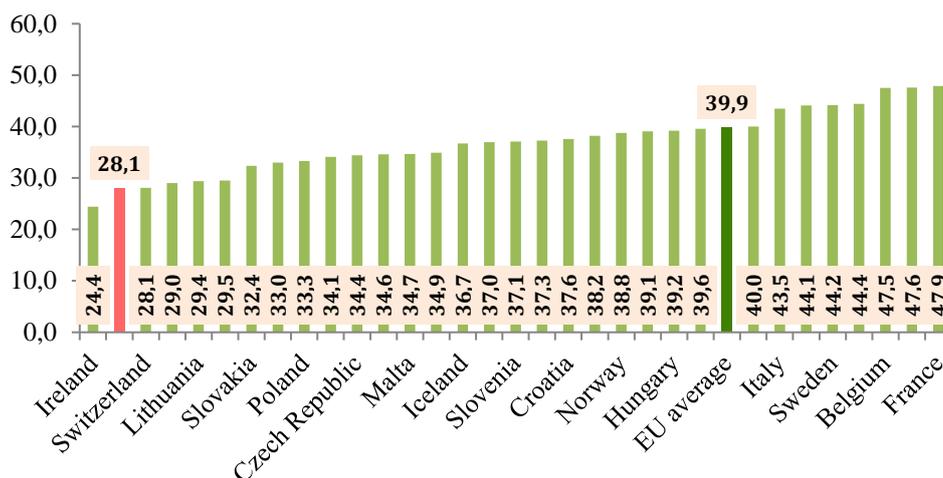


Figure 1. Fiscal Collection Levels in the EU (2015, last available data)

Source: Eurostat, last accessed on 02.09.2017

2. Problem Statement

The fiscal regime in a given country is generally assessed in terms of the tax rates. While the differences in compliance based on the imposition of a regressive or progressive tax systems have been covered by the literature to date, we argue that a taxpayer must be engaged in an active cooperation with public institutions in order for his actions to be guided by changes in the level of the fiscal burden. In contrast, as this paper suggests, if we account for individuals who are detached from the institutional process, in the sense that they have little or no expectations from it, then such citizens will not be likely to be convinced by the opportunity of strategic game plays (Braithwaite *et al.*, 2003).

Therefore, looking at the larger pool of taxpayers-both those engaged in an active cooperation with state structures, and those with minimal expectations, the present analysis is focused on the costs they face in the process of paying their taxes. It is the most effective way of explaining tax compliance in the presence of a variety of individual norms and motivations with regards to the citizen-state relationship, as was detailed in the previous section of the present paper. Such costs can be split in two main categories: direct costs of paying taxes (i.e. the amount of the tax burden), and the indirect costs of paying taxes (i.e. every other resource mobilized in the process of accomplishing one's fiscal responsibilities). The argument of this paper is that the increase of indirect costs is one of the main drivers of low tax compliance in a given country or jurisdiction.

As the "slippery slope" argument suggests (Kirchler *et al.*, 2008, Kirchler and Wahl 2010), an ideal fiscal system that is able to achieve high collection rates is both enforced by the power of authority, and generates voluntary cooperation through the level of popular trust in the institutional functions. In other words, we should expect people to be more willing to pay their taxes when they are convinced that this would bring them redistributive benefits in return.

Following such a logic, the expected benefits can range from direct payments in social security cases, to public goods.

One could be very trusting of the enforcement institutions in his country (e.g. police), which would generate compliance by fear of being caught – "cop vs. robber" approach, but not be trusting in the collection and redistributions institutions (e.g. fiscal authorities), and as such would not be likely to comply in a cooperative manner.

If we trace the roots of this interpretation of the citizen as a stakeholder, and his compliance as an act of cooperation in the administrative process, we find the New Public Management approach to administrative duties as services to clients (Dunleavy and Hood 1994). This

approach offers us a business-like view of the public system in which there exists an advantageous equilibrium between taxpayers and the state (Auerbach 1985). And, it makes the willingness to pay one's taxes just as predictable as the willingness to pay for any other goods and services, according to their prices, and the intersection of the offer and demand in a free market. While the economics of setting an optimal fiscal burden is frequently useful in determining the level of fiscal compliance, I argue that the relationship between a taxpayer and fiscal authorities is much more complicated than that between a client and a service provider.

While some of the empirical evidence covers both types of taxes-direct (i.e. taxes levied on profits and income), and indirect (e.g. VAT), the argument of the indirect costs is constructed differently. The variations are generated by the forms of payment. In the Romanian context, the direct taxes always involve indirect costs, such as the costs of information, or those of employing a tax accountant, but consumption tax such as the VAT is not always a generator of indirect costs. For example, companies with a turnover of less than 50,000 euro have the option, but are not obliged to register for VAT purposes and submit VAT returns. In such situations, small companies would theoretically benefit from lower indirect costs of paying their taxes, but according to interviews with governmental official less than a third of the eligible entities – 70% of the SMEs, are opting for this facility. The survey data suggests that it is mostly due to learned patterns of behaviours. This supports the argument of the strong effect informal institutions can have on fiscal choices.

If we accept that through institutional inefficiency the voluntary compliance is diminished in what concerns the indirect costs of paying taxes, we should also account for broader governmental efficiency in Romania. Fiscal institutions are only a part of the state apparatus, and they reflect larger procedural deficiencies. The World Bank World Governance Indicators are concerned with six broad dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. If we turn to Figure 2 we can see that Romania has seen a moderate improvement across all layers of assessment over the past couple of decades.

Key to the present analysis however is the dimension that deals with Government Effectiveness. It reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. In apparent contradiction to many of the specific failures of Romania in the field of good governance, it is the dimension in which Romania seems to have recorded the most visible progress, increasing by 18 percentile ranks, from 33 in 1996 to 51.92 in 2015. It is still the lowest score in this set of indicators, but the rhythm of improvements gives cause for optimism in the future. As such, one can hope that the procedural burden exerted in the fiscal policy sector can improve over the course of the coming years.

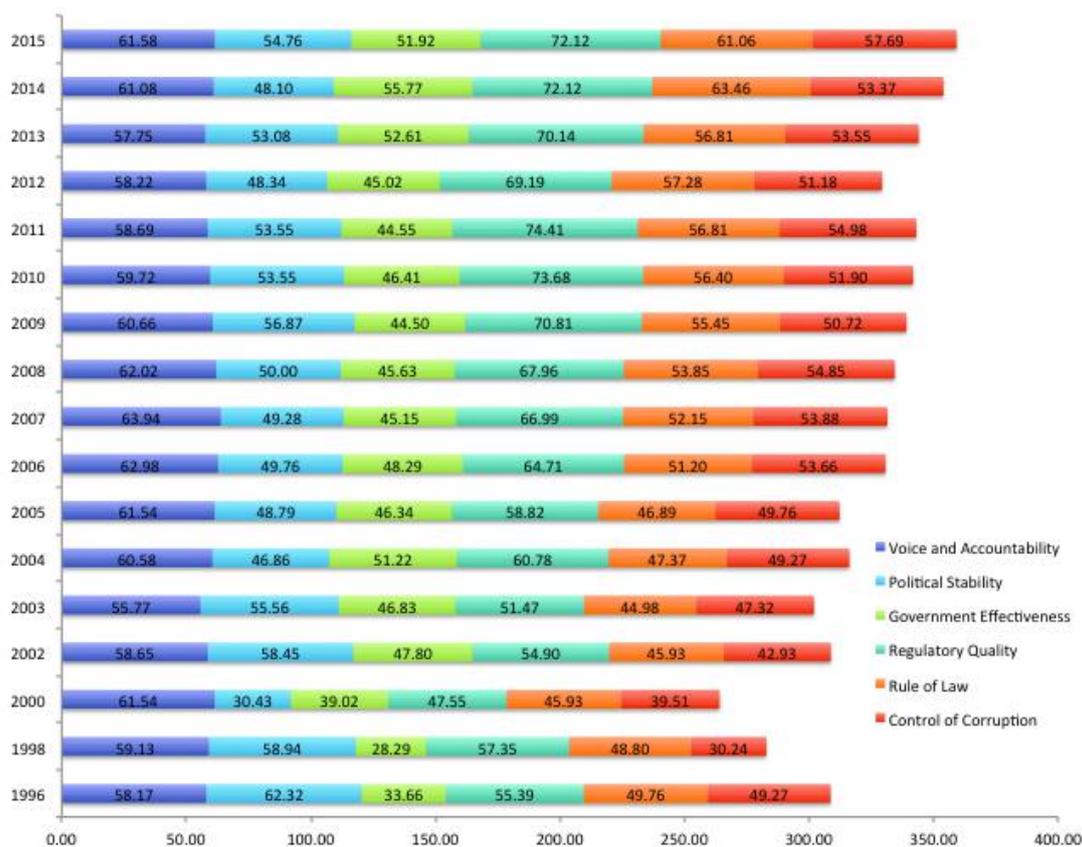


Figure 2. World Governance Indicators Values for Romania (1996-2015)

Source: Worldwide Governance Indicators (WGI) Database, accessible at www.govindicators.org, last accessed on 16.06.2017

3. Research Questions/Aims of the research

Still, a fact frequently overlooked is that the individual’s behaviour in what regards his personal taxes will be mirrored in his behaviour as an entrepreneur. Especially in such cases as authorized professionals, micro and small enterprises, or family businesses, the owners will manage their profit and corporate tax in the same manner in which they would manage their personal tax. When we account for the fact that the aforementioned entities generate over 40% of tax collection in Romania, we begin to understand the relevance of the indirect costs bared by the process of paying taxes for the overall functioning of the fiscal system. Medium enterprises with more than 10 employees, like bigger corporations, have the resources to have dedicated personnel in charge of fiscal duties. According to the national survey data, it is the taxpayers that have the perception of a “cop-robber” type of relationship with the state that are most likely to use specialized services of tax accountants, disregarding their size.

On the other hand, lowering the indirect costs of paying one’s taxes involves significant costs for the administrative institutions. Since 2008, when the peak of indirect taxes was reached-over 110 different tax payments per year, and over 140 hours spent in paying those taxes, there were significant efforts put in place to lower these indirect costs. Beyond lowering the number of payments-currently 14, advancements in the field of online servicing were also put in place. Currently, there is an estimate from the Central Government that taxpayers spent an average of 8 hours per months paying their taxes, which is still high compared to other EU economies (see Table 2), but still significantly lower than in previous years. The yearly total of 159 hours spent paying taxes is one of the most telling indicators of the amount of indirect costs.

While other countries in the region have similarly high levels of such indirect costs as time spent, the more straightforward connection with lower levels of fiscal compliance remains the total number of dues payments, suggesting that the information costs are internalized worse by the taxpayers than the time costs.

Unfortunately, the evidence on the dynamics of tax collection is less transparent, so it is hard to mention the effect these measures have had on the fiscal behaviour of the population. This is further complicated by the gap in showing effects of any such measure, due to the aforementioned institutionalization of informal practices. For example, even if local taxes be currently paid online to the full extent, an average of 80% of the taxpayers in each of the urban areas still prefer queuing at the fiscal offices, claiming they had no knowledge of the alternative, or low trust in digital systems.

4. Research Methods

The methodology for assessing the level of indirect costs comprises two indicators: (1) the total and average number of hours spent to pay one's taxes, and (2) the total number of taxes.

We extract both figures from the joint international comparative research conducted annually by the World Bank and PwC, within the flagship reports "Paying Taxes" for 2015 and 2017 (see Table 1 and 2).

To the given indicators of the report, we add a third one, calculating the overall efficiency of paying taxes in a given country, compiled by dividing the number of taxes per the total number of hours spent to pay taxes. It is obviously a gross measurement, as some taxes might be paid monthly, and other annually, but it helps us get a broader picture of the indirect costs.

We triangulate the number of companies in each of the EU member states with our original Fiscal Efficiency indicator to assess the differences in entrepreneurial environments in relation to fiscal procedures. This allows us to effectively analyse the role of indirect costs of paying one's taxes in the entrepreneurial environment.

5. Findings

The empirical evidence of a national survey conducted by the Romanian Centre for Economic Modelling (CERME Research) portrays a predominant perception that taxpayers perceive their relationship with the public authorities as a "cop vs. robber". In other words, they perceive their taxes to be costs that they would not pay if not for enforcement. Still almost 30% believe that the state is weak and incapable of effective control-category of respondents that would most likely evade paying taxes if given the opportunity to do so. Finally, only 28% of the respondents considered their relationship with fiscal authorities as one characterized by the typology "service-client". Overall, based on the national survey data, cooperation-driven fiscal compliance occurs in the case of big corporations-over 41%, while enforcement-driven fiscal compliance occurs in the case of self-employed and micro-enterprises-40%. This type of data differs from previous experimental studies on the willingness to pay of the Romanians, as the survey data covers responses of past experience, or actual patterns of fiscal behaviour within the selected sample.

For individuals, as well as companies, we can distinguish between the direct costs of fiscal compliance, represented by total monetary amount of taxes paid, and the indirect costs of fiscal compliance represented by the time spent on getting the necessary information, and going through the actual process of paying the taxes, as well as by the material resources allocated to this task (e.g. gas consumption). In this category, represented by such legal entities as self-employed, the indirect costs are most heavily felt, as they have no means to effectively manage their indirect costs as opposed to the corporate actors (e.g. dedicated tax accounting

departments). Furthermore, due to the shares of tax collection, the administrative structure is arranged in favour of the big companies, with a dedicated department servicing these approximately 1,500 entities.

Table 3. Evolution of the number of companies by size, in Romania

Type of Enterprise	Nb. Employees	2008	2009	2010	2011	2012	2013	2014
Micro enterprises	0 – 9	450,396	439,351	394,660	353,057	358,943	373,944	380,975
SMEs	10 – 49	44,679	42,130	39,975	43,133	43,501	44,682	45,387
	50 – 249	9,506	8,165	7,624	8,148	7,766	7,669	7,496
Corporations	> 250	1,824	1,552	1,495	1,540	1,459	1,455	1,406
Total SMEs		504,581	489,646	442,241	404,338	410,210	426,295	433,858
Total Enterprises		506,405	491,198	443,736	405,878	411,670	427,749	435,262

Source: Eurostat, latest available data

As we can see in Table 1 and Table 2, the Efficiency Indicator of Romania is relatively low compared to other countries in the region, and it is decreasing from 2015 to 2017 suggesting a deterioration of the institutional context of tax collection.

Table 1. Indirect Costs of Paying Taxes (2015)

	Total Tax Rate (%)	Time to Comply (h)	NB of Payments	Efficiency Indicator
Sweden	49.4	122	6	20
Estonia	49.3	81	7	12
Malta	41.6	139	7	20
Latvia	35	193	7	28
Finland	40	93	8	12
United Kingdom	33.7	110	8	14
France	66.6	137	8	17
Spain	58.2	167	8	21
Greece	49.9	193	8	24
Portugal	42.4	275	8	34
Czech Republic	48.5	413	8	52
Ireland	25.9	80	9	9
Netherlands	39	123	9	14
Germany	48.8	218	9	24
Denmark	26	130	10	13
Belgium	57.8	160	11	15
Lithuania	42.6	175	11	16
Slovenia	32	260	11	24
Hungary	48	277	11	25
Austria	52	166	12	14
Bulgaria	27	454	13	35
Romania	43.2	159	14	11
Italy	65.4	269	15	18
Poland	38.7	286	18	16
Croatia	18.8	208	19	11
Slovak Republic	48.6	207	20	10
Luxembourg	20.2	55	23	2
Cyprus	23.2	147	29	5

Source: adapted from PwC and World Bank Report “Paying Taxes 2015”

Table 2. Indirect Costs of Paying Taxes (2017)

	Total Tax Rate (%)	Time to Comply (h)	to NB Payments	of Efficiency Indicator
Sweden	49.1	122	6	20
Estonia	48.7	84	8	11
Malta	43.8	139	8	17
Latvia	35.9	169	7	24
Finland	38.1	93	8	12
United Kingdom	30.9	110	8	14
France	62.8	139	8	17
Spain	49	152	8	19
Greece	50.7	193	8	24
Portugal	39.8	243	8	30
Czech Republic	50	234	8	29
Ireland	26	82	9	9
Netherlands	40.4	119	9	13
Germany	48.9	218	9	24
Denmark	25	130	10	13
Belgium	58.7	161	11	15
Lithuania	42.7	171	11	16
Slovenia	31	245	10	25
Hungary	46.5	277	11	25
Austria	51.6	131	12	11
Bulgaria	27	453	14	32
Romania	38.4	161	14	12
Italy	62	240	14	17
Poland	40.4	271	7	39
Croatia	20.9	206	31	7
Slovak Republic	51.6	192	8	24
Luxembourg	20.8	55	23	2
Cyprus	24.7	127	28	5

Source: adapted from PwC and World Bank Report “Paying Taxes 2017”

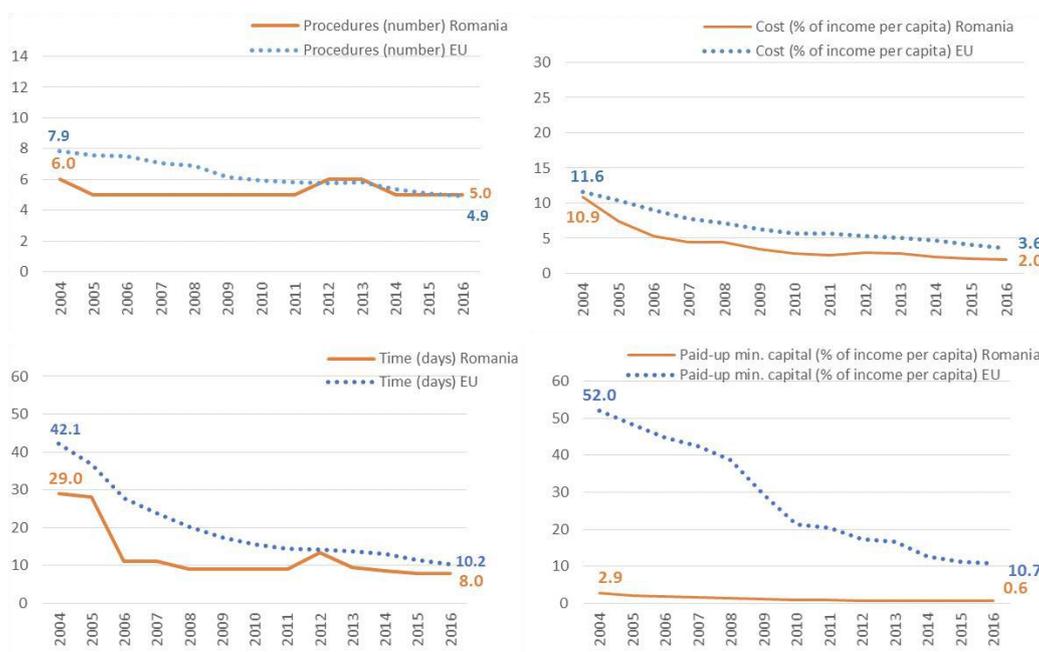


Figure 3. Starting a business indicators in Romania, 2004-2016

Source: World Bank: Doing Business 2004-2016 in Lagging Regions Report, accessible [http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/challenges_lagging_a_nnex9_en.pdf](http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/challenges_lagging/econ_challenges_lagging_a_nnex9_en.pdf) , last accessed on 03.03.2018

If we look at the values reported in the World Bank Doing Business data reported in the recent EC Lagging Regions study. If we look at the overall ease of doing business values, Romania is below the EU average. It is the country ranked 19 out of the 28 EU Member States.

We can interpret this as a significant additional burden for doing business in this country than in the EU on average. It is true, that in terms of the ease of starting a business, Romania is around the EU average, suggesting a relatively high potential for new actors in this market.

According to the aforementioned evaluation of the efficiency of paying taxes in various EU countries, we find that Romania is not necessarily one of the least attractive environment for business development in Europe. Still, beyond datasets, real life procedures and interactions can play a significant and less quantifiable role on business development and lifespan of SMEs (inherently more vulnerable or more responsive to contextual factors).

6. Conclusions

This paper addresses a timely topic, as billions are yearly the subject of tax avoidance and tax evasion with recent scandals. Evaluating the elements to trust and compliance in the case of fiscal authorities allows us to understand what it is that drives an individual or a company to pay its taxes. We focused on the case study of Romania, and used a variety of dataset to portray the quality of governance and the economic environmental dynamics of businesses. We also devised an original metric on the basis of existent comparative indicators on the ease of paying taxes. The methodology for assessing the level of indirect costs comprises two indicators: (1) the total and average number of hours spent to pay one's taxes, and (2) the total number of taxes. We argue in this paper that the lower the indirect costs of paying one's taxes are, the more likely it is that there will be a higher fiscal compliance.

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Changes in Values of Public Expenditure and Government Revenue and their Impact on Economic Growth: A VAR Approach Related to Romania

Ramona-Mihaela BÂZGAN¹

Abstract

The paper intended to explain the impact of tax revenues along with the public expenditure on the economic growth. The study involves the estimation of an unrestricted VAR (Vector Autoregressive) model which included as endogenous variables the rate of the economic growth, the level of tax revenues as percentage of Gross Domestic Product (%GDP) and the level of public expenditure as percentage of Gross Domestic Product (%GDP). The econometric model was based on the multivariate time series related to Romania over the period of 2009 (2nd quarter) and 2017 (2nd quarter). It was used the impulse response function in order to estimate results of the VAR model for a short or medium-term period. According to the impulse response function, it was revealed that a positive impulse in the level of public expenditure or in the level of tax revenues would result in a negative correlation with the evolution of the economic growth for the next future periods of time. Further on, according with the results of the co-integration rank test, it was revealed that there is no long-run relationship between the chosen endogenous variables. For estimating which type of fiscal policies should be better implemented by the state, the causality link between tax revenues and public expenditure was explained due to the Granger-causality test which revealed a unidirectional form from government expenditure to tax revenues.

Keywords: *economic growth, tax burden, public expenditure, Granger-causality, Vector Autoregressive model*

JEL Classification: *E62, H21, H50, O47*

1. Introduction

The issue which implies the correlation between public revenues and government spending remains a potential debate for policy makers. Fiscal policies should be implemented according to the macroeconomic variables of each state due to the fact that those fiscal policies can attract higher revenues which could further ensure a possibility for the state to cover the level of public expenditure. Furthermore, this could conclude in a sustainable economic growth and a stable economic system for the next periods of time. The need for each state of expanding government investments is constantly increasing. Thus, revealing the correlation between public revenues and government expenditures along with the explanation of their future impact on economic growth could lead to a potential stabilization and sustainability for each economic system.

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This paper will tend to reveal if there is any connection in the evolution of the tax revenues along with the evolution of the level of public revenues and their impact on economic growth. There would be used times series data related to Romania over the period of 2009 (2nd quarter) – 2017 (2nd quarter) by implementing them in an unrestricted Vector Autoregressive (“VAR”) model.

2. Problem Statement

This part of the paper would reveal the recent empirical findings on issues such as the impact of public expenditure on economic growth, the impact of tax revenues on economic growth along with empirical findings that explain the causality relationship between public revenues and public expenditure.

Afonso & Jalles (2014) studied under an econometric model the causality between government spending, revenue and economic growth. The results suggested that there is a weak evidence supporting causality from expenditures or revenues to GDP per capital. The study used a time series panel of 155 developing and developed countries for the period of 1970-2010.

Luković & Grbić (2014) have studied the causal relationship between government revenue and government expenditure in Serbia using time series data over the period of 2003(Q1)-2012(Q4). The results showed an unidirectional causality running from government expenditure to government revenues.

Mutaşcu (2016) revealed under an econometric study the causality between government revenues and government spending in the case of 10 EU ex-communist countries for the period of 1995-2012 by using the Granger causality approach proposed by Konya(2006). In case of Romania, there was found no Granger causality between these variables.

Bobasu (2016) studied a Bayesian VAR model in order to reveal the impact of government expenditure and revenues on economic growth. The study revealed that their impact is insignificant and the fact that discretionary policies are negligible in a small economy as Romania.

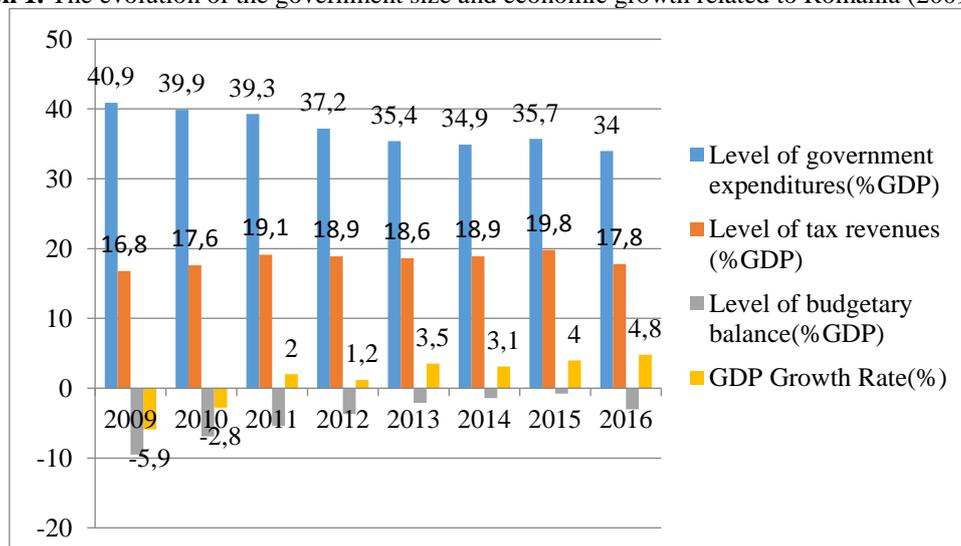
In terms of the impact of public expenditures on the economic growth there can be revealed some empirical literature that by using linear approaches, indicated a positive correlation between government expenditure and economic growth as revealed in the study of Guseh (2007) while the empirical study of Romeo&Strauch (2008) indicated a positive relationship between these variables.

3. Research Questions/Aims of the research

The paper would try to focus on the estimation of the causality between tax revenues and public expenditure along with their impact on the economic growth using time series data related to Romania over the period of 2009(2nd quarter)-2017(2nd quarter). The estimation of whether changes in the level of tax revenues or public expenditure could lead to economic growth would have a significant impact on achieving macroeconomic balance. Romania tended to have expansionary policies in the last years explained under the reduction in the tax rates such as the decreasing of the value added tax rate from 24% to 19%, the decreasing in the tax rate for individuals from 16% to 10%, the decreasing in the tax rate for the dividends owed from 16% to 5% while a significant economic growth was achieved due to the evolution of private consumption. (European Commission, 2017b). On the other hand, there were registered increases in the level of wages allocated to the public sector. The evolution of the tax revenues, government expenditure, economic growth and budget deficit related to Romania would be explained in Graph 1.

Thus, empirically findings are useful in the estimation of any correlation between tax revenues, public expenditure along with the significance of their impact on the economic growth could result in a macroeconomic balance followed by the achieve of a sustainable growth.

Graph 1. The evolution of the government size and economic growth related to Romania (2009-2016)



Source: Author’s own research using time series data from Eurostat database

4. Research Methods

For estimating the impact of public expenditures and of the fiscal revenues on economic growth, a VAR model would be implemented. There would be used multivariate time series data related to Romania over the period of 2009(2nd quarter) – 2017(2nd quarter) resulting in a total of 33 observations. The endogenous variables used for the econometrical model are explained in Table 1. The VAR model would be implemented by using the Eviews software.

Table 1. Notations of the endogenous variables used in the VAR model

The name of the variable	Notations
Level of government expenditure (% GDP)	gov_expend
Economic growth rate (%)	gdp_growth_rate
Level of tax revenues (% GDP)	tax_revenue

Source: author’s own research

The VAR model used to explain the contribution of the government expenditures and government revenues on economic growth would be represented by the following:

$$\begin{aligned}
 \text{gdp_growth_rate}_{1t} = & \alpha + \beta_1 \text{gdp_growth_rate}_{t-1} + \beta_2 \text{gdp_growth_rate}_{t-2} + \\
 & + \beta_z \text{gdp_growth_rate}_{t-z} + \gamma_1 \text{gov_expend}_{t-1} + \gamma_2 \text{gov_expend}_{t-2} + \dots + \gamma_z \text{gov_expend}_{t-z} \\
 & + \delta_1 \text{tax_revenue}_{t-1} + \delta_2 \text{tax_revenue}_{t-2} \\
 & + \dots + \delta_z \text{tax_revenue}_{t-z} + \varepsilon_t
 \end{aligned}
 \tag{1}$$

Where:

- β , γ , δ represents the coefficients that could significantly have an impact on the economic growth;
- gdp_growth_rate , gov_expend and tax_revenue represent the endogenous variables used for the VAR model;
- ε_t represents the stochastic error;

- z represents a notation that refers to the fact that time series start from z and end up to a p number of lags.

5. Findings

First step that was taken into consideration when estimating the VAR model included the estimation of the unit root test. According to the Table 2, *gov_expend* and *tax_revenues* were stationary integrated at I(1). At the same time, *gdp_growth_rate* variable was stationary integrated at I(0).

Table 2. Augmented Dickey-Fuller test at level

Unit root		P-value	T-static	Critical value
Variable	<i>gdp_growth_rate</i>	0.0000	-6.01	-3.65*
	<i>gov_expend</i>	0.6649	-1.18	-2.62***
	<i>tax_revenues</i>	0.7244	-1.04	-2.62***

Asterisks (***, *) denote statistically significant values at 10% and 1% level.

Source: author’s own research.

The cointegration rank test would be implemented in order to estimate if there is any correlation between the endogenous variables in the long-run term.

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.362171	23.78837	24.27596	0.0575
At most 1	0.265355	9.848123	12.32090	0.1254
At most 2	0.009271	0.288732	4.129906	0.6521

Trace test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Figure 1. Cointegration Rank Test for the VAR Model (Johansen Cointegration Test)

Source: Author’s own research

The result of the cointegration test revealed that there is no cointegration which further acknowledge that there is no long-run relationship between the chosen endogenous variables.

As far as choosing the number of lags included in the VAR model, the criteria length selection would be displayed in Figure 2. The lag length selection criteria indicates a number of 4 lags for the VAR model.

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-193.9214	NA	158.7349	13.58078	13.72223*	13.62508
1	-184.2569	16.66291	152.4194	13.53496	14.10074	13.71215
2	-179.3560	7.435915	207.0943	13.81765	14.80776	14.12774
3	-164.1014	19.98867	142.7475	13.38631	14.80075	13.82929
4	-137.8618	28.95406*	48.87781*	12.19737*	14.03614	12.77325*

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Figure 2. Lag length selection criteria

Source: author’s own contribution

Null Hypothesis:	Obs	F-Statistic	Prob.
GOV_EXPEND does not Granger Cause GDP_GROWTH_RATE	29	1.52481	0.2330
GDP_GROWTH_RATE does not Granger Cause GOV_EXPEND		0.48157	0.7490
TAX_REVENUE does not Granger Cause GDP_GROWTH_RATE	29	0.81795	0.5288
GDP_GROWTH_RATE does not Granger Cause TAX_REVENUE		0.25869	0.9009
TAX_REVENUE does not Granger Cause GOV_EXPEND	29	0.49556	0.7391
GOV_EXPEND does not Granger Cause TAX_REVENUE		3.72743	0.0201

Figure 3. Granger Causality Test Results
Source: Author’s own research

Null hypothesis for the Granger causality test involves the fact that the evolution of the variable X would not influence the evolution of variable Y and also on the reverse way. P-value is less than 5% which meant that the null hypothesis would be not taken into consideration, *gov_expend* to *tax_revenue* indicated an unidirectional causality form. On the other hand, there was revealed no other causality between other variables.

	Coefficient	Std. Error	t-Statistic	Prob.
C(14)	-0.988037	0.303096	-3.259814	0.0049
C(15)	0.026382	0.304388	0.086672	0.9320
C(16)	-0.819960	0.289601	-2.831346	0.0120
C(17)	-0.013830	0.318103	-0.043477	0.9659
C(18)	-0.502295	0.210400	-2.387341	0.0297
C(19)	-0.532946	0.191623	-2.781222	0.0133
C(20)	-0.373920	0.194136	-1.926067	0.0721
C(21)	-0.418858	0.167671	-2.498093	0.0238
C(22)	-0.043029	0.107197	-0.401404	0.6934
C(23)	-0.253802	0.093990	-2.700314	0.0158
C(24)	-0.104071	0.094363	-1.102885	0.2864
C(25)	-0.322064	0.089866	-3.583832	0.0025
C(26)	63.90350	16.07673	3.974907	0.0011
R-squared	0.674896	Mean dependent var		1.415697
Adjusted R-squared	0.431068	S.D. dependent var		1.938206
S.E. of regression	1.461942	Akaike info criterion		3.899253
Sum squared resid	34.19637	Schwarz criterion		4.512178
Log likelihood	-43.53916	Hannan-Quinn criter.		4.091213
F-statistic	2.767919	Durbin-Watson stat		2.077326
Prob(F-statistic)	0.029830			

Figure 4. The estimation of the p-value related to each coefficient included in the VAR model which can affect the *gdp_growth_rate* variable
Source: Author’s own research

The results acknowledged in Figure 4 revealed that there are coefficients that could individually impact the value of *gdp_growth_rate* due to the value of p-value which is less than 5%. The VAR model is valid due to the existence of coefficients which individually could influence the endogenous variables.

Lags	LM-Stat	Prob
1	7.444372	0.5910
2	8.058370	0.5283
3	9.463011	0.3957
4	6.566242	0.6822

Probs from chi-square with 9 df.

Figure 5. Residual Serial Correlation LM Test
Source: Author’s own research

The indication if the residual series of the model are normal distributed represent a way to check if the VAR model is valid. Due to the fact that the p-value is higher than 5%, the residuals are auto-correlated and the VAR model is valid.

Joint test		
Chi-sq	df	Prob.
159.4000	144	0.1798

Figure 6. White Heteroskedasticity Test
Source: Author's own research

The heteroskedasticity of the series should also be estimated in order to check the validity of the VAR model. If p-value is higher than 5% then the residual series are heteroskedastic and the model is valid as showed in Figure 6.

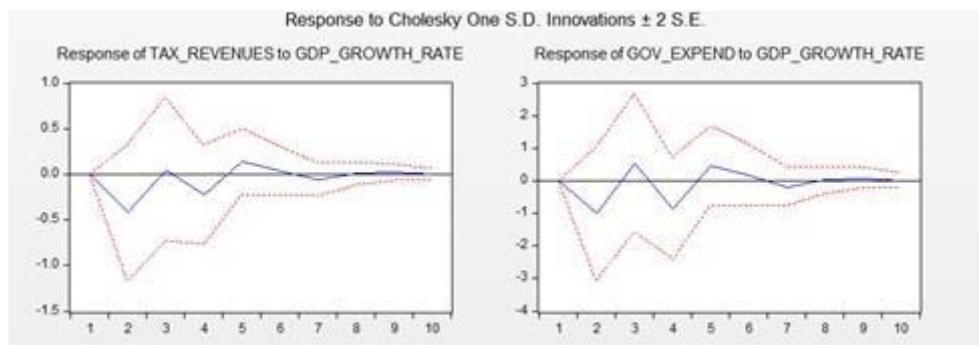


Figure 7. Impulse response function for the VAR model
Source: Author's own research

Further on, in order to acknowledge the result of the VAR model, the impulse response function would be determined. In case of any positive change in the level of tax revenue or the level of public expenditure, it would be revealed a negative impact on the evolution of economic growth.

6. Conclusions

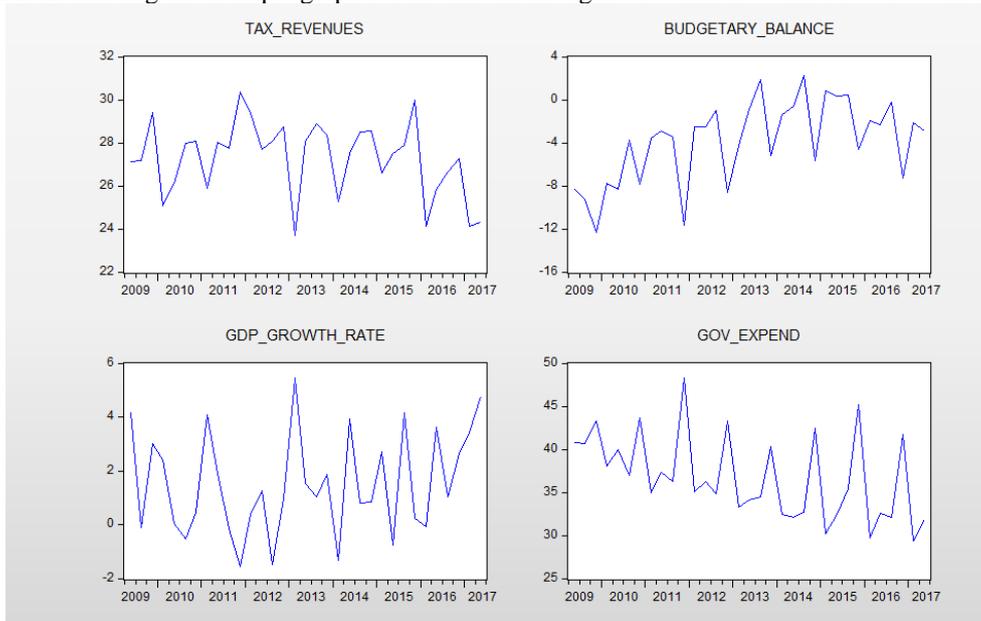
There was revealed a unidirectional relationship between public expenditure and tax revenues on time series data related to Romania over the period of 2009 (2nd quarter)-2017 (2nd quarter). Taken into consideration the results of this study and the macroeconomic variables related to Romania in the last years, it could be suggested that the level of public expenses should be decreased in order to reduce the level of the budget deficit by policies that can stimulate government revenue in the next years. On the other hand, taxes and government expenditure affect economic growth both directly and indirectly through investment. Any raise in the level of taxes by increasing tax rates would lead to a decrease in the level of private investment revealing further a negative impact in the evolution of the economic growth. Thus, the way on which the deficit registered for Romania could be decreased in the long-run would consist in decreasing the level of public expenses. As the study indicated, any increase in the level of public expenditure in the next years would lead to an increase in the level of tax revenues which consist in increasing of tax rates. Further empirical studies on how each type of public expense affect the level of tax revenues and economic growth should be taken into consideration in order to see the cost-benefit for each type of public expense related to Romania.

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Appendix

Appendix 1. Estimating the multiple graph for the chosen endogenous variable at unit root test at first difference



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The Impact of the Intermodal Transport Infrastructure Connectivity on Foreign Direct Investment in the European Union

Cezar TECLEAN¹, Alexandru FOTIA²

Abstract

In this paper we propose to evaluate the impact of intermodal connectivity of transport infrastructures on foreign direct investments in the European Union. In this context, we will demonstrate the hypothesis that the density of network nodes is more important than the size of networks to attract external investors. The impact assessment pursues two objectives: to quantify the extent to which intermodal connections influence the volume of foreign direct investment in the Member States of the Union and to spatially prioritize the construction/interconnection of infrastructures in the European space. Knowing the impact of spatial accessibility given by intermodal connection on attracting foreign direct investment is a mandatory element for substantiating transport policies in each EU member country. The volume of foreign direct investment is directly proportional to the degree of interconnection of transport infrastructure, which give the intermodal nodes the role of territorial and economic cohesion agents at the scale of the community space. The intermodal connectivity gap creates the map of the investment deficit risk, due to the reduced attractiveness of the respective spaces. Therefore, spatial differences in the endowment of intermodal nodes hierarchize spatial priorities for the interconnection of transport networks.

Keywords: *transport infrastructure, network nodes, intermodal connectivity, foreign direct investment, European Union*

JEL Classification: *F20; F21; R41; R42*

1. Introduction

Foreign direct investment (FDI) is one of the main drivers of regional economic growth and of the achievement of territorial and economic cohesion in the European Union (Eurostat, 2017a, p. 37-38). The spatial accessibility provided by the endowment of flexible and efficient transport infrastructure is a decisive regional asset for attracting foreign direct investment along with other favourable factors such as market size, innovation capabilities and the R&D level of the region, degree of urbanization, taxation level, labour education, administrative and bureaucratic flexibility (Blomström & Kokko, 2003, p. 39-40, Copenhagen Economics, 2006, p. 4, 18). Within this framework, we intend to analyse the effects of intermodal connectivity of transport infrastructure on foreign direct investments in the European Union. The intermodal

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connectivity is given by the existence of network nodes in which interconnection lines belonging to different categories of infrastructure (road, rail, air, river and maritime) are interconnected.

2. Problem Statement

The role of intermodal connections in transport networks is analysed in the literature by three elements of interest: contribution to cost reduction, reduction of transport time and approach to environmental friendly relations (Kreutzberger *et al.*, 2003, p. 2-3 Janic, 2007, p. 34). The evaluations aim at substantiating the most appropriate proposals for optimizing transport costs through network interconnection (Macharis *et al.*, 2010). According to Piet Rietveld, intermodal connections are among the determinants of the space economy; the author makes a comparative assessment of investments made in transport infrastructure and foreign direct investments at regional level (Rietveld & Bruinsma, 1998, p. 7) and suggests taking into consideration intra-modal links along with intermodal links (Rietveld & Bruinsma, 1998, p. 162) as a tool for the flexibility of freight and passenger flows (I.U.R., 2017). The beneficial economic effects of intra-modal connections are also shown in a case study on the German railway infrastructure, in which Harald Rotter proposes intra-modal connection of large railways in large nodes (mega-hubs) to shorten the transshipment time of goods and increase the volume of transport in the time unit (Rotter, 2010, p. 348).

Transport integration in the European Union is seen by Dominic Stead and Moshe Givoni as a necessity for the configuration of the European body's blood network, capable of sustainably satisfying current economic development requirements in terms of economy and environmental protection (Stead, 2010, p. 16). The integration of road and rail transport networks is defined in the literature as a priority of the applied research in the field of transport economics and geography, aiming to open the agenda of a newly created field-intermodal applicative research (Bontekoning *et al.*, 2004). The emergence of transport is an analysis line in which applied research should provide proposals to identify the shortest transport routes on which the largest quantities of goods can be traded (Macharis & Bontekoning, 2004).

For the Eastern European countries which acceded EU after 2004, the modernization and development of intermodal interconnection infrastructure appears to be one of the most important ways of economic growth and attraction of foreign investment along with technological innovation and the establishment of modern logistics centres (Šakalys & Palšaitis, 2006, p. 148-149; European Commission, 2013).

Also, the issues of accessibility and territorial cohesion given by the spatial and intermodal connectivity of transport networks have been extensively evaluated by Ana Condeco-Melhorado (2014), Michael Baun and Dan Marek (2008) and David A. Hensher (2004).

Romanian academic literature has, in the last period, dealt mainly in terms of the technical aspects with the impact of intermodal connections on freight and passenger traffic in the European Union and on attracting investments. The evaluation of technical and economic advantages of the combined transports has substantiated the proposal for solutions for the efficiency of intermodal transshipment activities (Dragu, 2009, p. 171).

A less used approach in the literature is the quantitative assessment of the impact of intermodal connectivity on foreign direct investment from the perspective of identifying vulnerable spaces in terms of infrastructure equipment. In this context, we propose to carry out an impact analysis in order to identify deficiencies and proposals for spatial prioritization of intermodal connection works.

3. Research Questions/Aims of the research

Knowing the impact of intermodal interconnection of transport networks on investment is an essential issue for prioritizing community and national policies in the field of infrastructure. We therefore propose the following *objectives*:

- quantifying the extent to which intermodal connections influence the amount of foreign direct investment in the Member States of the Union;
- identifying the areas where infrastructure interconnection needs to be accelerated, as means of the spatial accessibility to attract investors. Achieving this research goal will help substantiate decisions and options regarding networks interconnection.

The *research hypothesis* from which we start is that the intermodal interconnectivity of transport networks is more important than the size of these networks to attract external investors' attractiveness.

4. Research Methods

In this chapter the author should present and discuss the research methods used in obtaining data/results. We suggest the detailing of the research methods, of the period of application, the means of application, the sample, methods, etc.

The elements of transport interconnection are represented by intermodal nodes connecting the following infrastructure elements: highways, high-speed railways (allowing running speeds over 200 km/h), airports, maritime and river ports. Intermodal nodes have been identified by authors by the interpolation method of thematic maps of the four types of infrastructure (European Commission, 2017). Depending on the level of connection they perform, we used the following hierarchy of intermodal nodes:

- 54 first order intermodal nodes (main nodes) represent existing points along the trans-European TEN-T network in which elements of all network categories converge; they equip the territories of 14 states and polarize economic activities.
- 412 intermodal nodes of the second order (intermediate nodes) represent the interconnection points of three out of the four categories of networks; they are found on 25 states' territories.
- 870 third order intermodal nodes (primary nodes) connect two out of four networks and are found in all the EU countries. They are the basic synapses of the interconnection of transport infrastructures. Their relevance stems from the fact that, although they do not have the polarizing valences of the first and second order nodes, they are the most widespread in the territories and thus contribute to connecting less developed regions and diminishing interregional cleavages. Thus, the primary nodes are in fact the small and "silent" contributors, but the most significant for achieving territorial cohesion in the EU.

In order to quantify the foreign direct investments, we used the *FDI stocks* in EU at the level of 2016 (1990-2016), accessed from the UNCTAD database. The relationship between territorial equipment with intermodal nodes and the volume of FDI received follows the model of an overlapping geography (Table 1): the spaces with the largest quantity of FDI are endowed with higher interconnecting nodes, while at the opposite pole, the lowest the connectivity degree, the lowest the FDI volume.

Table 1. Intermodal Rank and FDI Stock (1990-2016)

FDI Stock	>200 billion \$	100-200 billion \$	<100 billion \$
Intermodal Rank			
Intermodal Rank I, II, III	Belgium, Spain, Netherlands, United Kingdom	Germany, France, Italy, Sweden	Denmark, Austria, Poland, Portugal, Greece, Finland
Intermodal Rank II, III	Ireland, Luxembourg	Czech Rep.	Bulgaria, Croatia, Latvia, Lithuania, Hungary, Romania, Slovenia, Slovakia
Intermodal Rank III	–	Cyprus, Malta	Estonia

Source: Authors' proceedings; UNCTAD (2017)

In order to perform the quantitative evaluation of the relationship between the intermodal connectivity of transport infrastructures and FDI we used the multiple regression method of FDI (as dependent variable) depending on the number of intermodal nodes of first, second and third orders (as independent variables) (Table 2); we logged the FDI values.

Table 2. Regression output

<i>Regression Statistics</i>	
Multiple R	0,722653918
R Square	0,522228685
Adjusted R Square	0,462507271
Standard Error	1,013805963
Observations	28

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	26,96258806	8,9875294	8,7444126	0,000425989
Residual	24	24,66726074	1,0278025		
Total	27	51,6298488			

$$y = 24.7 - 0,25 \cdot x + 0,037 \cdot z + 0,026 \cdot w + \varepsilon \quad (1)$$

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	24,70097571	0,259913749	95,035279	1,938E-32
Intermodal rank I	-0,253847058	0,247877074	-1,024084	0,3160075
Intermodal rank II	0,036978822	0,067590593	0,5471001	0,5893615
Intermodal rank III	0,026879709	0,032498326	0,8271106	0,4163227

Source: Authors' proceedings

The multiple relationship hypothesis is correct because the value of the significance factor (F-statistic) is less than 0.05 (it is in fact 0.00042), so it is possible to assert with a probability of over 99% that there is a strong link between the variables. However, we acknowledge that due to the rather small sample (only 28 values corresponding to the 28 EU Member States) the p-values of the parameters (excluding the intercept) may lie above the significance level, the model itself still remaining trustworthy.

The existence of intermodal transport networks nodes explains 46.2% of FDI in each EU member, according to the adjusted correlation coefficient $R^2=0.462507271$. This percentage

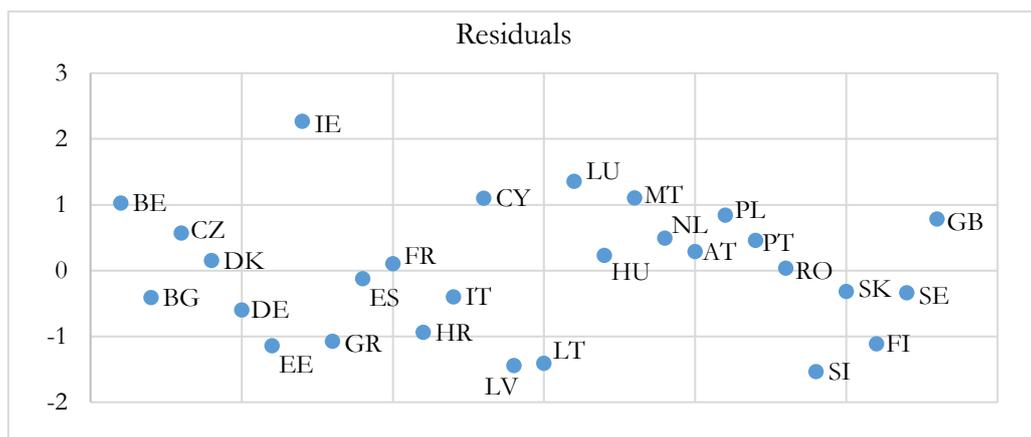
highlights the major role of intermodal connections in attracting foreign direct investment; practically all the other factors that determine the attractiveness of FDI (qualification of labour force, flexible administrative-bureaucratic framework, innovative environment, etc.) influence all together the motivation of direct investors in a weight of 53.8%.

The correlation between FDI and the number of first order intermodal nodes is indirect and negative across the Union, given the negative value of the coefficient $a=-0.25$, due to the fact that half of the Member States do not have this type of high-level interconnections. In contrast, for the other 14 states, their contribution is immense, emphasizing their role in polarization of regional development: each existing or future first intermodal node will add an extra FDI contribution of USD 0.25 billion, mathematically added to the amount of the residue for each state.

The correlation between FDI and the number of second order intermodal nodes is direct and positive, according to the positive coefficient $b=0.037$. For the 25 states equipped with this type of interconnection structures, their contribution is significant, underlining their role as mediator of regional development and economic and territorial cohesion: each existing or potential second order intermodal node will bring on average an additional FDI contribution of USD 37 million.

The correlation between FDI and the number of primary intermodal nodes (third order nodes) is direct and positive, according to the positive coefficient $c=0.0268$; virtually every existing or potential primary intermodal node will add on average an additional FDI contribution of USD 26.8 million. All Member States of the Union are equipped with this category of intermodal connections, but the interpretation of their contribution to investors motivation has to be clearly defined. The contribution is relatively modest, but it is particularly relevant for national spaces not equipped with first class intermodal nodes. For these countries, the provision of primary interconnections is the key to attracting foreign investors and therefore a relevant tool to raise the level of regional development and diminishing development disparities.

Figure 1. Regression residuals



Source: Authors' proceedings

The residuals of regression (ϵ) represent the most interesting parameter of evaluation and interpretation (Figure 1), as it measures the influence of other factors contributing together, as we have shown, in a proportion of 53.8% to FDI. Positive eccentric residual values (above 1) indicate that for these countries (Ireland, Belgium, Luxembourg and Cyprus) the role of intermodal nodes in attracting FDI is mitigated by many other highly attractive factors: well-qualified workforce, innovative environment, administrative stability. The more the residual

values tend to 0 (in the range ± 1), the more the role of intermodal connections in attracting FDI is balanced in relation to other development factors. The negative eccentric residual values (below -1) characterize states for which the network of interconnected nodes, no matter how well structured, is one of the few attractive factors for investors; this category includes some Eastern European states with a certain level of development, such as the Baltic countries, Slovenia and Greece, and Finland where the vastness of uninhabited space and peripheral position within the Union have made intermodal nodes not so numerous.

5. Findings

The distribution of the three levels of intermodal connectivity of transport infrastructures (first, second and third orders) reveals a mirrored “photo” in the FDI distribution: the image of a Union with more levels of investment attractiveness. The situation is determined, on the one hand, by the polarization of higher order interconnections (first order) in favor of several developed areas in Western Europe that are able to attract the largest volume of FDI. On the other hand, the convergent role played by primary intermodal connections for the less attractive areas in the East (new Member States after 2004) plus Greece and Finland is highlighted. On this background, the connectivity gap in Europe appears to be more evident, but also the role of lower-order intermodal nodes as an attraction for investors and therefore for the achievement of territorial cohesion.

Within Central and Eastern Europe, Poland is a more evolved area from this point of view (Eurostat, 2017b). The Polish state managed to set up a first order intermodal node, 5 second order nodes and 17 third order nodes, a real premiere for the countries of the post-2004 accession wave, with a beneficial impact on the reception of FDI.

The distribution of multiple regression residuals is relevant for the prioritization of endowment of interconnection nodes, especially for spaces with no first order intermodal connections or other attractiveness factors. The lack of intermodal infrastructure connectivity contributes to a low investment attractiveness of these spaces. Depending on the vulnerability due to the lack of intermodal connections, we propose a hierarchy of spaces that require the multiplication of interconnection connections, highlighting from this point of view two priority spatial categories:

- the most vulnerable spaces in terms of primary intermodal connections are countries with negative residual values of regression and without main intermodal connections, namely Bulgaria, Croatia, Latvia, Lithuania, Estonia, Slovenia and Slovakia;
- the second priority spatial category is represented by the regions without main intermodal connections and for which the regression residuals are positive and below 1, namely Romania, Hungary and the Czech Republic.

6. Conclusions

The spatial accessibility of intermodal connectivity of transport infrastructure is one of the prerequisites for attracting FDI. It is also a prerequisite for the segregation of the community space, according to the model of a Europe with more interconnection/investment speeds. The presence of the main intermodal nodes provides the greatest attractiveness to investors, determining the concentration/polarization of FDI and contributing to the economic and territorial divergence in the EU. Instead, primary intermodal nodes behave as vectors of convergence and cohesion. Their presence has a complementary and compensatory effect, ensuring better accessibility for the areas where major intermodal connections are missing and which can thus hope for better visibility and attractiveness for foreign investors.

This assessment validates the hypothesis that the intermodal connectivity of transport networks, especially at the primary level, is more important than the size of these networks to attract foreign investors' attractiveness.

The map of EU with more investment speeds highlights two priority space clusters to cover the Union with third order intermodal connections as a prerequisite for more effective FDI attraction: the first priority areas include Croatia, Latvia, Lithuania, Estonia, Slovenia and Slovakia, and the second priority class includes Romania, Hungary and the Czech Republic.

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**The New EU Industrial Policy:
A New Public Strategy or a New Business Strategy?**

Mihaela BUICA^{1*}

Abstract

The European Commission's initiative on Digitising European Industry represents one of the most important measures launched in the latest years at the European level to both revive the economic growth in all EU member states and also to better support the competitiveness of the European economy on the global market. Also, this new initiative comes with a new approach in terms of strategic design, with many similarities with the strategic approaches from the private sector.

The objective of this paper is focused on this subject, specifically the new type of strategy adopted at the EU level and its possible implications on the future of public sector. Thus, we can see many similarities by comparatively analyzing the main characteristics of the strategic approach of a successful private company and the main characteristics of the strategic approach of the new EU policy. This approach can be considered the start of a new design of EU public policies.

The paper concludes that, taking into account, on one hand, the fact that the digitisation is a reality at global level, proving a high degree of dynamism that imposes rapid and constant adaptation by both private and public sector and, on the other hand, the context of globalization which may determine the public sector to change its type of strategies like the private sector, then a new type of efficient governance may be adopted.

Keywords: *Globalization, Industrial Policy, Public Policy, Adaptation, Competitive Strategy*

JEL Classification: *F680, L520, O380, L210*

1. Introduction

In the last few decades, humankind is both an observer and sometimes involuntary participant in the global transformation through the process of digitisation or as it became known the Fourth Industrial Revolution. Talking about the impact on people, the World Economic Forum characterizes this process as being “a new chapter in human development”.

This new and challenging context forces somehow the leaders at the global level, both from private and public sector, to reconsider their development strategies in order to protect their place in the global ranking.

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Taking into consideration these aspects, the European Commission started to rethink and redesign the EU strategies, especially since 2010, with the adoption of the ‘Europe 2020’ strategy (European Commission, 2010a).

The flagship initiative ‘An Industrial Policy for the Globalisation Era’ (European Commission, 2010b) focuses on the central objective of this policy, namely promoting the competitiveness of European industry.

2. Problem Statement: The digitisation and the agile governance

The evolution of digitisation is not just an easy way to increase the economic competitiveness and improve the governance, it is at the same time a phenomenon more complex and profound in many aspects. For example, Klaus Schwab appreciates the changes that the Fourth Industrial Revolution brings as unprecedented “In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before” (2015, p. 3). Also, Andrew Ng, at the Stanford MSx Future Forum characterized artificial intelligence (AI) as “the New Electricity” (Li O., 2017).

Nowadays many think-thanks, NGOs, international institutions and experts in the field offer various and valuable analyses which, on the one hand, emphasize the huge benefits of digitisation and, on the other hand, expose and warn about the various implications.

Therefore, digitisation represents the biggest challenge of our times for managers, both in the private and in the public sector.

If the managers from private sectors were somehow familiarised with the challenges created by the competition on the free market, the managers from the public sector are new to this game.

For all managers, experts in the field offer various solutions, strategies, models and ideas of new management, leadership, innovation and creativity.

Isaksen and Tidd recommend the same solution for both the private and public sectors “Under these conditions, managers must learn how to become more flexible and agile in order to respond successfully” (Isaksen & Tidd, 2006, Preface). In their opinion “successful organizational transformation and managing change demand both leadership and management as well as creativity and innovation” (Isaksen & Tidd, 2006, Preface).

Taking into consideration the importance of innovation, Roland Bel in his work ‘Leadership and Innovation: Learning from the Best’ highlights the importance of having good leaders “And without great innovation leaders, there is no innovation” (Bel, 2010, p. 47).

For the public sector, the recommendation offered by Schwab to decision-makers is to embrace “... ‘agile’ governance, just as the private sector ...”(Schwab, 2015, p. 9). It is worth noting the emergence of a new concept, namely the concept of ‘agile governance’, and Elmi and Davis (2018) have recently brought to the attention of those interested that “a global initiative on Agile Governance dedicated to reimagining policymaking for the Fourth Industrial Revolution” was launched by the World Economic Forum. The concept of agile governance is defined as “adaptive, human-centred, inclusive and sustainable policymaking, which acknowledges that policy development is no longer limited to governments but rather is an increasingly multi-stakeholder effort” (Elmi & Davis, 2018).

Also Klaus Schwab warns policy makers about the risks involved in the process of digitisation “Ultimately, the ability of government systems and public authorities to adapt will determine their survival” (Schwab, 2015, p. 8).

Taking into consideration that, when we are talking about the ‘ability’ of government systems to adapt, we are mainly talking about conceiving adequate strategies, this paper intends to go further with the idea of the new governance or ‘agile governance’. Thus, this paper analyzes the possibility that, in the future, the classic type of public strategies will look more like business strategies.

3. Aim of the research: From public strategy to business strategy

As can be seen, The Fourth Industrial Revolution brings, in essence, changes in everything.

At the EU level, the change was officially adopted with the 2020 Strategy, however the most daring change was accomplished with the adoption of the new EU strategy ‘A renewed EU Industrial Policy Strategy’ launched on September 2017 (European Commission, 2017). The key aspect of that evolution, besides other changes like an holistic approach and servitisation, was the fact that both sectors, public and private, became officially interdependent.

The aim of the research is to identify similarities between the new EU industrial strategy and business strategies. This aspect is useful in creating a theory, that in the future, the concept of public strategy will suffer significant changes, meaning it will ‘borrow’ more characteristics from the business strategies and thus will revolutionize the concept of public governance itself.

4. Research Method

In order to track and better understand the evolution of the relationship between governance and economic development in the EU, first a proper definition of industrial policy is needed.

The most common form is that of Warwick who defines it as “any type of intervention or government policy that attempts to improve the business environment or to alter the structure of economic activity towards sectors, technologies or tasks that are expected to offer better prospects for economic growth or societal welfare than would occur in the absence of such intervention” (Warwick, 2013, p. 8; Pellegrin *et al.*, 2015, p. 17).

Thus, according with this definition, through its history, the business sector was somehow influenced by the public sector. But this ‘relation’ was not so mutually advantageous all the time, with reference to the phase of sectoral industrial policy or ‘French industrial policy’ characterized by interventionism. That’s how the need for a closer cooperation between them appeared because “Setting up good policies is not enough if the private sector is not involved” (Pellegrin *et al.*, 2015, p. 54). The latest development of this collaboration is promoted in the new EU strategy ‘A renewed EU Industrial Policy Strategy’ where all stakeholders are involved in design and implementation of industrial policy. More than this, the strategy itself borrowed some characteristics of the business strategy.

In order to identify the similarities between the business and the public sectors, through a comparative method, a parallel view was created between the main characteristics of a business strategy and the main characteristics of the renewed EU industrial policy strategy.

5. Findings: Two strategies – one goal

A. Private sector – Saint-Gobain, a business strategy for the global challenges

Concerning the ability of private sector to survive the various challenges during times of hardship, there is no doubt. The private sector has always found the right solutions not only to survive but also to be globally competitive. Thus, innovation, research and professional development are very common terms in all successful business strategies.

As an example for a successful private strategy, in order to analyse its main characteristics, one can choose any global leader, but a relevant strategy for this analysis should focus on the manufacturing field, given the challenges of this sector.

Saint-Gobain is a French enterprise over 350 years old (1665-present), one of the world’s largest manufacturing companies, currently acting as a group, in several countries and sectors of activity.

As can be seen on its website, the activity of the Saint-Gobain Group began in October 1665 in Paris, when the king granted the donor Nicolas Dunoyer and his associates the exclusive right to produce “mirror glass” in order to compete directly with the supremacy of Venice on the European mirror market.

Today, the Group’s activity is represented in more than 67 countries, over 179,000 employees, 8 research centres, 3 activity hubs: innovative materials, construction products and building distribution.

The Group’s motto is “Saint-Gobain, a key ingredient in the wellbeing of everybody and the future of all”.

The main characteristics of the Saint-Gobain strategy can be summarized as follows:

- Vision oriented to development and performance: for example at high-performance materials is No. 1 worldwide, at flat glass is No. 1 in Europe and No. 2 worldwide, and so on;
- Positioning research, development, innovation as a focal point in its development strategy: since 2011 is included in the top 100 Global Innovators by Clarivate Analytics. In opinion of Pierre-André de Chalendar, Chairman and Chief Executive Officer “Innovation is at the heart of Saint-Gobain’s strategy. More than 23% of our sales are generated through products which were developed less than five years ago.” Also, Saint-Gobain sees “Researchers, a driving force”;
- Care for human capital: Saint-Gobain certified Top Employer 2018 in 31 countries by the Top Employers Institute;
- Saint-Gobain’s HR policies are structured around 4 priorities: professional mobility, team diversity, employee commitment and talent development;
- Strong relation with customers: “Listening to market needs”, “Stronger ties with Group marketing”;
- Environmental awareness: “Developing a culture of eco-innovation”.

B. Public sector – ‘A renewed EU industrial policy strategy’, a public strategy for the global challenges

In support of increasing the competitiveness of industry, in 2010, the European Commission launched the flagship initiative “An Industrial Policy for the Globalisation Era” as part of ‘Europe 2020’ strategy.

But at the European level, the Member States, which have identified an opportunity to increase faster and easier their competitiveness through adaptation and integration of digital technologies in the industry, developed many initiatives in this field, as Industry 4.0 in Germany, Industrie du Futur in France, Smart Industry in Netherland, and so on. This ‘movement’ is called the New Industrial Revolution or the Fourth Industrial Revolution and is considered by industry experts to be the present stage of development of the industry, according to the classification for industrial technology development.

In this context, since April 2016, European Commission changed the approach of the industrial strategy and started an official process of digitisation of industry as “... a unique opportunity for attracting further investments into innovative and high growth digital and digitised industries in Europe” (European Commission, 2016a, p. 6). This initiative was adopted after less than a year when a “strategy for a Digital Single Market proposed transformational actions for the European economy and society” (European Commission, 2016a, p. 15).

In May 2017, the European Council highlighting “the essential role of industry as a major driver for growth, employment and innovation in Europe and its contribution to the Union’s prosperity, as well as the critical importance of industry for dealing with major transformations in the EU economy, including sustainability, servitisation and digitization” and recognizing that

“there is a need for a coordinated and strategic industrial policy framework at EU level” (European Council, 2017) called on the Commission to provide a holistic EU industrial policy strategy.

Therefore on September 13, 2017 the European Commission adopted the Communication ‘Investing in a smart, innovative and sustainable industry A renewed strategy for EU industrial policy’.

The new industry ecosystem is presented in Figure 1.



Figure 1. Industry ecosystem

Source: http://europa.eu/rapid/press-release_IP-17-3185_en.htm

The main characteristics of the strategy can be found in its seven specific themes:

- a deeper and fairer single market: empowering people and businesses;
- upgrading industry for the digital age;
- building on Europe’s leadership in a low-carbon and circular economy;
- investing in the industry of the future;
- supporting industrial innovation on the ground;
- the international dimension, and
- partnership with Member States, regions, cities and the private sector.

The novelty of this strategy consists in the implementation method which “will require a joint commitment and systematic efforts on part of the industry as well as all relevant EU, national and regional stakeholders.” (European Commission, 2017, p. 6).

Another important and innovative aspect related to its implementation is the adoption of the collaborative dialog with all relevant stakeholders. Thus, two fora through this strategy were formalised: an annual European Industry Day and a High Level Industrial Roundtable.

In conclusion the common approaches of these two strategies can be observed below (Figure 2):

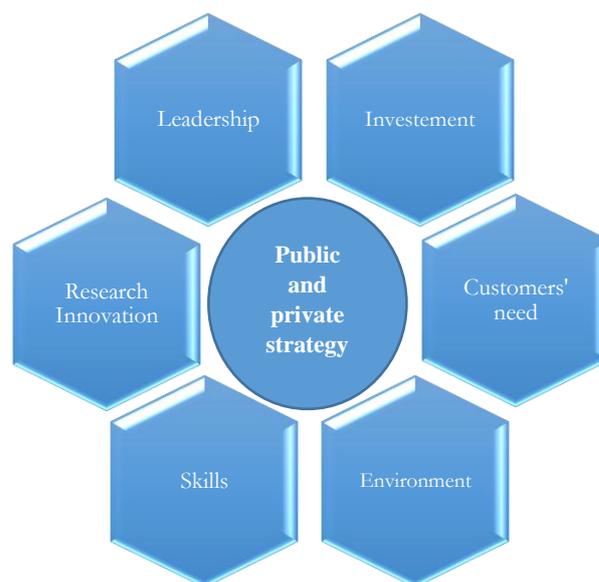


Figure 2. Public and private strategies: common approaches
Source: Own interpretation

- maintaining the competitive edge, see the concept of “agile governance”,
- taking in consideration investment as a base for development,
- putting research and innovation as the focal point of the strategy,
- taking in consideration customers’ needs, see the concept of servitisation,
- considering as a vital aspect the skills of human capital, and
- taking in consideration the environment.

6. Conclusions

The digitisation is no doubt a reality and its speed of transforming the world is unprecedented.

The private sector learned how to manage the changes due to many challenges throughout the history. It learned how valuable it is to invest in human capital and how valuable it is to support innovation. For example, the history of Saint-Gobain revealed to us how important innovation was in supporting its development. Thus, it can be seen that on December 1688, the company obtained “the privilege of manufacturing large sheets of mirror glass using a revolutionary procedure”. In 1952 its first Research Centre was opened.

In the renewed strategy for EU industrial policy the influences from private sector can be evidently seen. More than this, in the implementation of this strategy an important contribution is expected to come from the private sector as it is also a beneficiary.

There are significant differences between the public and the private sector in both their goals and their methods and these differences will not fade away in the current economic paradigm.

However these sectors have grown closer together as far as management and strategies are involved. From the point of view of this paper, a successful and sustainable public strategy needs to reconcile its main purpose of serving all its citizens with the dynamism and flexibility of the private sector, while maintaining a core competitive edge ready to adapt to the challenges of the future.

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Iraqi Investment Law, Advantages, Guarantees and Immunities from Punitive Damages

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Abstract

States seek to encourage and transfer modern technologies to contribute to the growth and development of the country and to expand its production and service base, as well as to encourage the local and foreign private sector by providing the necessary facilities for the establishment of investment projects and enhancing competitiveness and human resource development through the issuance of laws and regulations dealing with investment. The laws of states have many award and guarantees for the investor to polarize and attract the country. In contrast, punitive damages are one of the most important means of punish malicious behaviour or intentional or blatant act of civil responsibility, but these compensation may be an obstacle to the realization of investment laws for their economic objectives, which is to attract capital in the case was imposed on the investor, especially that it is very large and unexpected financial penalties. This research attempts to determine the possibility of imposing punitive damages on acts of tort or tort liability for parties subject to investment laws and the availability of immunity or lack of availability to investors in the face of such compensation.

Keywords: *Punitive damages, investment law, arbitration, guarantees*

JEL Classification: *K13*

1. Introduction

Investment, locally or abroad, is the most powerful mean of financing that developing countries seek to attract for economic and social development, given the material, informational and technical possibilities they provide to those societies that are unable to achieve development. This process requires a wide and active movement to issue laws And simplifying the procedures and strengthening legal and judicial guarantees that include privileges and benefits granted to the investor in order to attract capital and scientific expertise and advanced technology to help build the country that lacks such expertise and competencies, and investment helps to provide job opportunities and reduce the unemployment rate, and leads to improving the quality of the products. However, those legal guarantees and privileges granted to the investor may sometimes encounter some obstacles that affect the increase of investment opportunities. Punitive measures on the investment project. This compensation is very large and unexpected fines, which are semi-punitive damages. They are described as punitive in

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nature, reckless and reckless, and are deterrent to others in the future. The question we are dealing with in this paper is “The effect of punitive damages on investment activity in the state, of course, depends on whether the state’s legal system recognizes punitive damages or not.

2. Problem Statement

This paper examines the question of determining the dimensions of the relationship between punitive damages and investment laws and activating economic activity. The research attempts to answer the question of whether punitive damages stand in the way of achieving the objectives of the Investment Law. Are punitive damages fines added to state imports?

3. Research Questions

The focus of the study is the effects of the investment sector, both domestic and foreign, in the case of imposing punitive damages for an intentional act of making profits at the expense of the consumer at times, and sometimes a serious mistake due to recklessness or recklessness that causes great harm to others. Is investment affected negatively in the environment that adopts punitive damages? Do punitive damages have a role in protecting consumers from the unreasonable behaviour of investors seeking profit by all means?

It depends on the extent of the general policy of the state acceptance or rejection of punitive damages, and it depends on the provisions contained in the investment laws and its position on punitive damages.

4. Research Methods

This section attempts to achieve two goals: 1 - Description of the methodology used for the study. 2 - Justification of the methodology chosen for the study. Other sections include research methodology, methods of data collection and type of research, and analysis of texts and comparative study. The main purpose of these divisions is to clarify most aspects Search to be useful. (Cohen, Manion, Morrison, 2007)

5. Historical Development of Investment Laws in Iraq

The investment legislation in Iraq has witnessed two different stages, the first stage before 2003, and the second stage after 2003, the year in which Iraq witnessed a change in the political system. First: The pre-2003 stage: This stage was characterized by a kind of instability in economic life due to the conditions that Iraq was going through, especially in the eighties of the last century in the years of the Iran-Iraq War and its habitat from the nineties of the period when imposed the economic embargo on Iraq because of The war on the State of Kuwait. This period in particular has made Iraq an environment unsuitable to bring and attract foreign capital to Iraq in application of the economic embargo imposed by the Security Council (UNSC: 1990). The pre-2003 period was not the appropriate period for the recovery of foreign investment in Iraq.

In terms of legal legislation there was no independent law dealing with the regulation of investment provisions in an integrated manner, which was present is a law related to Arab investments, and laws related to industrial investment of the public and private sectors. The real birth of the concept of investment came with the issuance of the Iraqi Investment Law No. 13 of 2006, which tried to set a clear line of investment and opens the door wide to foreign capital and local capacities and expertise to build joints of life in Iraq (AIL:1988, AIL:2002, IIL:1991).

Second: the post-2003 stage:

After 2003, two laws were issued in Iraq to regulate investment issues. The first is the Investment Law issued by the Coalition Provisional Authority, is the authority established by UN Security Council Resolution 1483 (2003) after the change of regime in Iraq, the first authority to be set up to run Iraq. Its work extended from April 21, 2003 to June 28, 2004, This authority issued order No. 39 of 2003 entitled Foreign Investment Law, which was canceled under the Investment Law in force No. 13 of 2006. The promulgation of this law is subject to the constitutional provision that compels the state to encourage investment. It is also a clear indicator of the transformation of the political view of the state towards domestic and foreign investment as an economic reform program. Article 26 of the Constitution of Iraq (IC: 2006) states that “the State guarantees the encouragement of investments in the public and private sectors”. As well as the positive reasons for the investment law, which states that “in order to advance the process of economic and social development and develop and provide technical and practical expertise and development of human resources and create job opportunities for Iraqis to encourage investments and support the process” to establish investment projects in Iraq and expand and develop them at various economic levels and grant concessions and exemptions for the draft laws. The second law is the law currently in force, the Iraqi Investment Law No. 13 of 2006 (IIL: 2006) this law included many new concepts and principles on the scope of the Iraqi economic axis, especially in the care granted to the investor privileges, guarantees and rights as attracting factors.

6. Modern trends, advantages and guarantees contained in the Iraqi Investment Law

The Iraqi investment law came with new concepts and trends that are broader than those that were available in most of the legislations that preceded it. The aim of the legislator is to expand the application of the law in addition to working to promote the achievement of the objectives that have been legislated for the law in order to achieve economic development, scientific and social, especially with regard to the definition of the investor or the formation of the National Investment Commission.

6.1 definition of the investor

The Iraqi investment law distinguished between the investor in the case of being an Iraqi or a foreigner. This means that the law did not make the investment limited to the foreign person only, but gave this description to the Iraqi also whether the investor was a natural or moral person, although the law used the expression of the real person and the moral person. From this it can be seen that the investor can be an Iraqi with Iraqi citizenship, and this trend is the one that went to the Egyptian law while the Kuwaiti law against it, limiting the investment to the foreigner only. The definition of the investor in the Iraqi investment law in the first article of it as follows: i. Foreign Investor: A person who does not hold Iraqi nationality in the case of the real person and registered in a foreign country if he is a legal or legal person. J. The Iraqi Investor: He is the holder of Iraqi nationality in the case of the real person and registered in Iraq if he is human rights. It is the same meaning as in the first article of the Egyptian Law (EIL: 2017), and Law Kuwait (LFCK: 8/2001) in the first article which mentioned the definition of foreign investor only. The other important issue here is the exceptions stipulated by the law and are subject to investment in specific areas, namely the extraction and production of oil and gas, the banking sector and insurance companies. This is a natural issue, an application of the constitutional ban, which kept these sectors in the hands of the state exclusively, which is covered by Article 29 of the Iraqi Investment Law that all areas of investment subject to the provisions of this law except the following: First: investment in the extraction and production of oil and gas. Second: Investment in the banking sector and insurance companies.

6.2 Advantages and guarantees granted to the investor

6.2.1 Financial advantages granted to the investor

The law grants the Iraqi or foreign investor a set of financial advantages to encourage him to invest in Iraq. These financial advantages include:

1. The law grants the investor the right to extract the capital that he has entered into Iraq, in addition to the profit returns based on the provisions of the investment law and the instructions of the Central Bank of Iraq and in a convertible currency. This is a very important financial advantage. Strict to reduce the output of that currency.
2. The law grants another advantage, but the foreign investor only without the Iraqi investor and it consists of two rights, the first is the right to trade in the Iraqi market for securities stocks and bonds listed in it, and the second is the composition of investment portfolios in stocks and bonds. In addition to the foregoing, there are other financial concessions granted by law to the investor came in the form of exemptions from some of the fees and taxes listed in the law in Chapter V under the title “Exemptions” can be summarized as follows:
 - A. Exemption from taxes and fees for a specified period in accordance with the law, which is ten years on the conditions are: that the investment project has the license of incorporation, start the period of exemption from the date of commercial operation of the project (article 15st of the Iraqi law).
 - B. Increase the number of years of exemption from duties and taxes from ten years to fifteen years, but here the condition of the law to achieve this important condition is that the contribution rate of the Iraqi investor in the project 50%, and this advantage for the Iraqi investor without the foreign investor (article 15rd of the Iraqi law).
 - C. The law also grants other financial exemptions, but these exemptions for the imported assets for the project. The law stipulated two conditions for this exemption. The first condition is that these assets be entered into Iraq within three years from the date of granting the investment license, not from the date of operation of the project. Disposition of such assets other than for the purposes assigned to them.
 - D. The other financial advantage came in the form of the right to dispose of the assets, but the law differed between the two types of conduct and arranged provisions on each of them: a – the sale of the exempt or assigned assets to another investor benefiting from the provisions of this law to be used in his project. The investor shall, after notice to the Authority, sell the exempted assets to any person in accordance with the provisions of this Law after payment of the fees and taxes due thereon. The difference here is clear by the fact that the law did not require the payment of duties and taxes due in the case of the sale to another investor benefiting from N. investment, and this clever gesture of the law is to encourage and advantage to the investor covered by the provisions of this law (article 24 of the Iraqi law).
 - E. The law gives the investor another financial advantage related to the investor’s right to insurance on his investment project with an insurance company according to his wishes, whether national or foreign. It is necessary to clarify the important point is that the term insurance company is intended to operate in Iraq under the law regulating the work of insurance companies (IGLPI: 2006).
 - F. The latest financial advantage is to allow the investor to open accounts in Iraqi or

6.2.2 Administrative features and facilities

Foreign currency or both at one of the banks in Iraq or outside the licensed project.

Most investment laws try to grant the investor many privileges as a means to attract foreign capital and expertise and modern technology. The Iraqi investment law granted the investor other privileges in addition to administrative privileges can be explained as follows:

- A. The law grants the investor the right to retain the land on which the project is built. For a monetary consideration to be determined with the owner, however, the law has further amended this right by expanding its scope to include land allocated to industrial projects belonging to the state and the public sector. It also granted the Iraqi investor exclusively the purchase of land belonging to the private or mixed sector according to a system issued by the Commission. Note that this right has been mentioned in Article 10 of the Iraqi Investment Law but has been amended twice: the first by the issuance of the First Amendment Law (ALIL: 2010), and the second amendment in Law (ALIL: 2015).
- B. In addition to the right of ownership, the law grants the investor the right to lease the necessary land for the project duration of the project. The law stipulated that this should not exceed 50 years, taking into account the nature of the project and its feasibility for the national economy.
- C. The provisions of paragraphs (a) and (b): The need for mechanisms to achieve and complete these mechanisms established by the law when it provides for the formation of the National Investment Commission and the investment bodies in each governorate in Iraq, as well as the establishment of a single window in the National Investment Commission and regional bodies Before the ministries and members appointed by the provincial and governorate councils, as the case may be and the competent authorities to grant leave and obtain approvals from other parties in accordance with the law (Article I, paragraph B, and also Article IX, paragraph III).

6.2.3 Guarantees granted to the investor

The investor deciding to invest his money is always looking for a safe environment for that money. the investor attempt to avoid a lot of trouble and problems related to political decisions or administrative or financial corruption or administrative complications, and try most investment laws to send reassurances to the investor in an attempt to make the investor is willing to The investment law in Iraq included many of these guarantees, which can be explained as follows:

1. Guarantees relating to employees in the investment project:

The provision of a suitable environment for the life of the functional worker in the investment project is one of the success points of that project. Therefore, the Investment Law of Iraq included a set of issues related to achieving this point as follows:

- A. The law provides for the right of the investor to employ and employ non-Iraqis in the event that it is not possible to use an Iraqi who has the necessary qualifications and is able to carry out the same task in accordance with the regulations issued by the Commission.
- B. the Investment Law has granted foreign investors and non-Iraqi investment workers the right to reside in Iraq and facilitate their entry and exit from and to Iraq.
- C. The issue of removing foreign currency from any country is governed by central laws and regulations in order to preserve the strength of the national currency. However, there are facilities provided by the investment law that reduce these restrictions, such that non-Iraqi technical and administrative personnel in the project may transfer their salaries and compensation outside Iraq In accordance with the law after the payment of their obligations and debts to the Iraqi government and all other parties (Article 12/1-2-4 of Iraqi law).

2. Guarantees relating to the project as an independent entity:

Although it depends on future events that have yet to be realized, but the law grants investment projects future guarantees as follows:

- A. The law guarantees to the investor not to confiscate or nationalize the investment project covered by the provisions of this law, in whole or in part, except in accordance with a final judicial ruling.
- B. The other guarantee is a guarantee related to the idea of legislative stability, that is, any amendment to this law does not have any retroactive effect affects the guarantees and exemptions and rights under which the investor.
- C. The last guarantee is that the investor is not deprived of any additional benefits that may be realized in accordance with an international agreement, be it a bilateral agreement between Iraq and the country to which the investor belongs or a multilateral agreement to which Iraq is a party. This point reflects Iraq's compliance with its international obligations (Article 13, and article 22 of Iraqi law).

7. The scope of application of punitive damages in the provisions of the Investment Law

Punitive damages are compensation aimed at punishing the defendant and deterring others from committing the same act in a civil liability case due to fraud, malice, gross violation or intentional intent (John:2002), (Wisconsin:1978).

The Iraqi legal system adopts the principle of full compensation. Therefore, the idea of punitive damages is not but in reading the texts of the investment law, it is possible to specify the following: The law has established a mechanism for resolving disputes arising between parties subject to the provisions of the Investment Law.

7.1 The legal effect of the investor's violation of the provisions of the Investment Law

The Iraqi Investment Law did not address any financial penalty against the investor in case of violation of the law. The only punishment stipulated by the law is to stop the exemptions and privileges granted to the investment project. The idea of compensation in general, the law guarantees that others have the right to claim damages. The law was not successful in formulating the idea of punishment, which should have been addressed in a tougher and more stringent form for the following reasons:

1. The law did not specify a clear concept of the meaning of the violation and give the investment authority the right to decide the violation or not without a legal or judicial guarantee to protect the investor against Arbitrariness of the Investment Authority.
2. Granting the Investment Authority the right to withdraw the investor's license and stop the work of the project is not a successful economic solution.
3. The idea of compensation that the law cited in the application is vague (article 28 of Iraqi law).
4. The law applicable to disputes arising between parties subject to the provisions of the Investment Law:

The rule of freedom of the parties to choose the law applicable to disputes arising between them is adopted by the Iraqi law with the exception does not accept the interpretation that the Iraqi law is applicable in the case of the parties did not agree otherwise and in cases that are subject to the provisions of Iraqi law exclusively or Jurisdiction of the Iraqi courts (article 27 of Iraqi law).

The law also guarantees the right to arbitration as a mechanism for resolving disputes In accordance with Iraqi law or any other internationally recognized authority. The law also provides for the arbitration clause stipulated in the law in commercial disputes exclusively.

From the intensive reading of the articles of the Iraqi investment law, it is possible to say that it is impossible to apply the idea of punitive damages for reasons related to the legal system applied in Iraq, because the Iraqi law is based on the principle of full compensation and this principle does not allow the application of punitive compensation. According to the principle of full compensation, tort law seeks to put the victim in the position he was in before the tort.

This position is generally considered to be the situation where the victim does not suffer any harm at all (Peter: 2001), (UNIDROIT:7: 2010). The law also decided that Iraqi law is applicable in cases where it is subject to its exclusive provisions, any competition from a foreign law that may include punitive damages may be ruled out, even in the only case that may allow for the application of such compensation. This is a case if the parties to the dispute are non-Iraqis and it is permissible to agree on the law Applicable, this application will be outside the limits of the powers of the Iraqi state. The rule of law is that it is not possible to impose a penalty without a legal text (IPC:1: 1969). the principle that punitive damages is a punishment for a malicious act or deliberate or blatant behavior, and in this sense, cannot impose punitive damages unless the text is clear and explicit and cannot be interpreted and there is no such text.

In the investment law and in other Iraqi legislation. There remain two issues in this area: the question of the powers of the arbitrator in granting such compensation, and the application of punitive damages in the case of implementation of a foreign judgment in Iraq. The arbitrator's power to award punitive damages is not even agreed upon in the sponsors of punitive damages, some courts in the United States of America refuse to allow the arbitrator to grant punitive damages on the grounds that they are contrary to the public policy of the state, or that the penalties are limited to the state only, While other courts in their decisions to recognize the authority of the arbitrator in granting punitive damages. The most famous case in refusing to grant the arbitrator the power to award punitive damages is GARRITY case (GARRITY: 1976), While the case that supports the arbitrator's right to award punitive damages is the most obvious issue DRYWALL (DRYWALL: 2002). The Iraqi arbitration law grants the court the power to invalidate the arbitration decision in certain cases, including if it violates public order or public morals or violates a rule of arbitration (ICPC:273: 1969). Since there is no provision for the imposition of punitive damages, the arbitral award that decides such compensation will be revoked. In this sense, we believe that the enforceability of an award containing punitive damages depends mainly on the national judge's view and interpretation of the location of such damages from public order. In other words, if the judge considers punitive damages to be contrary to public order, he will decide to reject that decision, and vice versa. As for the issue of the implementation of the foreign judgment that includes punitive damages, the above opinion relating to the arbitration decision itself applies to the foreign judicial decisions that are required to be implemented in Iraq if the provisions of Article VI of the law of implementation of foreign judgments are available (EFJIL:6: 1928).

8. Conclusions

Investment is a process that in essence carries economic, cultural and social dimensions through which various national economies are absorbed into a global system. The guarantees and benefits contribute to investment flows and thus achieve the economic development of those countries. The guarantees and benefits represent the key to security and reassurance to investors by providing the appropriate investment climate and economic resources and thus have a clear role in attracting and attracting investments and provide protection against any legislative, administrative and future action. But in the case of punitive damages may be penalties for the expulsion of investment abuse without clear controls or standards, despite the need for such compensation to punish and deter others.

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The True Meaning of “Taking Ownership” in the Pursuit of “Sustainable Development”: From Global to Local, from Macro to Micro, from Public to Private

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Abstract

The widespread idea of “sustainable development” may look either like a truism, at a first glance (development is hardly acceptable in both mundane and erudite talk as a spasmodic move, with steep push-ups and sudden downfalls), or like a pleonasm, on a second thought (despite humans’ time preference for immediateness over remoteness or only for own life-long horizons, no sane person aims for dead-ends). Still, the main concern with this economic syntagma is not its eventual conceptual redundancies, but its translations into practice/policy. Sustainable development is being preached as the so longed triumph of public/societal spirit over private/individual short-sightedness, of coordinated macro- instruments over disarrayed micro- tools, of global frameworks for managing spill-over effects over ineffective local setups. The present papers aims to do justice to a scientific principle (and societal purpose) that risks to become “sustainably unsustainable”, arguing that the only meaningful way for its processing and professing is to reconcile it with some basic features of human cooperation: property rights and free markets, sound money and low taxes, unhampered research, education and culture, solid family and community bonds. The main argument of this plea is that properly defined, disposed and defended ownership rights in scarce resources are the crux of the issue. Only in a society where (property) rights are assigned according to non-contradictory and non-discretionary rules, individuals beget the responsibility to “take ownership” with respect to the harmonious betterment of their own lives as well as those of their fellows and descendants.

Keywords: *sustainable development, private property, free markets, personal responsibility, societal prosperity*

JEL Classification: *A12, B53, D23, Q56, Z18*

1. Introduction

Human action in society is subject to two intermingled and inescapable categories of constraints: those imposed by the *laws of the natural world*, as well as those coming from the *laws of social life*. We inhabit a *natural environment* anthropically enriched (or

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impoverished!?), governed by deterministic causality, yet unpredictable due to the innumerable interactions among either sub-atomic particles or supra-atomic bodies of matter. We inhabit a *social environment* producing (linearly) or re-producing (circularly) material resources, but governed by teleological causation that is ascertainable a priori in form and structure, and yet in content subject to the vagaries of the perfect surprise that is the human free will. Therefore, the human individual is cramped both in a physical environment, of material and energetic resources, objectively scarce relative to subjective needs, and in an environment of mental/scientific grasp of all these relations in terms of “efficiency”, “equity”, “equilibrium” – as components of the *sustainability paradigm*. And the social digestion of these (trendy or steady) concerns such as *sustainable development* (SD) or *climate change* (CC) (Jora, 2017) is also a function of the *sustainability* of the intellectual and institutional *climate* in which themes emerge and evolve.

The stake of the present paper is to critically survey and creatively repair what the authors consider as redeemable and workable in the idea of *sustainability*. Our study explores and exploits previous concerns in this direction that more or less explicitly were devoted to proposing a non-mainstream approach. We offer a commonsensical re-reading of a concept that we see as inbuilt in the very functioning of a free society populated by responsible people, a society that unfortunately *is undermined* by the coercively-constructivist, governmentally proactive mechanism designs, in place, in modern and contemporary times, all over the world. Our inquiry starts with arguments for setting the right perspective in the quest for sustainability: *local* (person, family, community) rather than *global*, *micro* (based on the tenets of methodological individualism) rather than insensitively *macro*, *privately* bottom-up (exploiting right incentives and calculus as seen at the level of responsible and reasonable human persons) rather than *publicly* top-down. A special track will be devoted to particular instances where sustainability can be enhanced: *sound economic institutions* (markets, monies) and *analytic tools* (avoiding the calculus of fake optimality), *free* (depoliticized) *scientific and religious debate*, *healthy bonds in(ter) societal organisations* (family vs. welfare state, company-to-community, NGOs).

2. Refurbishing the sustainability concept

The problem

The Brundtland Report’s – *Our Common Future* (WCED, 1987) – famous one-phrase summary of SD – “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” – implicitly puts two social science views shoulder to shoulder. They are equally legitimate and relevant in a world where *scarcity* of resources (time included) is an ultimate and ubiquitous given within the human action means-ends interplay:

the *economic* one (striving for the efficient removal of individuals’ uneasiness, satisfying needs, ranked by their subjectively perceived importance, with the available stock of scarce, thus valuable, resources);

and the *ethical* one (striving for an orderly response to the sensitive problem of when violence/coercion is to be allowed and considered legitimate, given the propensity for conflict spurring from scarcity).

The mainstream *economics* of sustainability (Sachs, 2015) rests on the *ethical* axiom that it is every generation’s responsibility to “preserve” a certain amount of “capital goods”, needed to sustain a certain “level of income” for the members of the generations to come. The terms highlighted above by quotation marks hide, despite an apparent common sense, a predisposition to erroneous descriptions and, further on, faulty prescriptions (Taylor, 2002; Brätland, 2006):

“capital” is seen physically, ignoring the time-consuming, entrepreneurially-driven, monetary-calculated *accumulation and maintenance process*;

“preserve” refers to tax-spend-regulate public policies to “facilitate” the capitalisation, while *interventionism* has historically *perverse effects*;

“level of income” suggests that future benefits might be imputed and granted by *planners* out of unmarked-to-market “natural capital” stock.

The question

It is almost evident that the discussion seems to be confiscated and monopolised by the *public sector*: the resources in question (which make up the ecosystems) are and should remain publicly owned or publicly managed; consequently, the purely privately-owned environmental assets are and should remain eventually marginal.

Our research offers a principled critique of the “orthodoxy” according to which the “playing ground” of the cause of sustainability is/should be the *public* goods and services domain, to be disciplined by some *centrally planned responsibility*, arguing instead that *private property rights* and *free markets* are the much better deal.

The method

Methodologically (in the broader sense), this study is placed under the auspices of the *Austrian School of economics*. This paradigm-choice is grounded in the analytical virtues displayed by *praxeology* – the fundamentally qualitative, a priori universal logic of human action (non-falsifiable and non-testable empirically).

In the narrower sense of methodology, we use praxeological method, narratives, analysis, synthesis, deduction and all the elements of the logic-verbal paradigm. We will discern some necessary offshoots of institutionalising private property rights-based behaviours devoted to sustainability-oriented societal objectives.

3. The alternative sustainability framework: the private property order

The non-aggressive order of free persons is known either as “free market economy” (in the *economic* sense) or as “natural order” or “private property order” (in the *ethical* sense). Private property rights, in their natural, Lockean, ontology, are derived from the principles of self-ownership and homesteading, extending consecutively to productively transformed and voluntarily transferred goods. This purports at least two main consequences regarding environmental goods.

The problem of *preserving* environmental capital. The concept of capital that is found in the literature dedicated to sustainable development is, from an economic point of view, an inadequate metaphor (Carden, 2013). The concept is macroeconomic in nature and tries to capture under its guise all features of the physical environment that are thought to sustain man’s wellbeing (Brätland, 2006). But, economically speaking, there is no method of grasping and, more importantly, of valuing such a compound of heterogeneous resource, most of which do not even have a market or a price. For instance, what is the value of clean air, all the wood in the world and of a certain animal species? Long story short, the only *economically rational* way to accumulate and allocate capital goods and natural resources entails leaving these decisions at the “micro” level and the privatisation of natural resources (Rothbard, 1982).

The problem of *protecting* environmental capital. The arrangement of private property extended to environmental goods provides the translation of the equivocal logic of negative externalities (such as pollution) and their imputation into that of *property conflicts*, repairable by personal and proportionate restitution/compensation of the injured party by the injuring party. Thus, we now have a more accurate sense of the idea that “the polluter pays” than in the

Pigouvian-type public mechanisms or the pollution permits schemes signal. By legal internalisation of the real pollution cost, the price signal is now turned into a relevant dimensional expression that objectively separates what some consider for themselves “acceptable pollution” vs. “aggressive pollution” (Anderson & Leal, 2001; Block, 1990; Cordato, 2004).

4. Fake market-sustainability: “pollution permits” and “cheap currencies”

In this part of the study, we briefly inventory the features of a false market order in which the very function of prices and their monetary support is far from the one we’ve suggested so far as having the ingredients of a *rational-economic* (not *politically-arbitrary*) response to the aim of sustainability. We explain, for instance, that “cap and trade” systems (as promoted internationally) are not real markets, while the contemporary monetary order is heavily distortive to real sustainability.

Mimicking trade by designing surrogate markets

The idea behind “cap and trade” principle is to replace the straightforwardly statist-interventionist pollution fiscalism or “carbon tax” (which obviously distorts prices and the structure of production and triggers all the dubious effects of special interest lobbying and political entrepreneurship) with a more supple system (which has the felicitous coordinating properties of the market and supposedly avoids much of the moral hazard associated to policy-making). Only that the proposed solution is never the simple idea of freedom coupled with responsibility – the genuine application of the “polluter pays” principle. It is never that pollution is left to simply appear as an issue in private courts, as a triable conflict between private persons or associations (businesses included).

As shown by Block (1990), in the 30s and the 40s of the nineteenth century, in the US and Canada quite a number of pollution cases between private parties were brought in front of the judiciary. Courts of law proceeded to judge the matters in terms of the common law and issue injunctions against “polluters”. Left to itself, such a development would have better disciplined the ensemble of social behaviours. Industrial units would have had to become much more careful as the people would have become aware of their rights. The jurisprudence and the forensics necessary to rigorously establish the “pollution offence” would have developed. But, instead of this obvious clear-cut route, a rather twilight statist macro-management of industrialisation and pollution came into place.

The economic significance of “cap pollution and trade pollution permits” quasi-market can be ascertained by remembering the interwar debate on “the socialist economic calculation”, with Mises (1920) and Hayek (1935) arguing against the pretence of rationality of socialist command economies. While conceding Mises’s insights, the “market socialists” (O. Lange, A. Lerner) replied, in fact, to Hayek’s “mild” line of defence, saying that it is not necessary for a socialist regime to fully outlaw and abolish markets: it can synthetically reproduce them and use their “signals” (“prices”) for central planning. Later on, the *information economics* stream grew on that “softened” Hayekian framework (Mirowski & Nik-Khah, 2017).

As it is the case with contemporary pollution permit schemes, the market was less and less seen as a *social process* (as Mises would put it), and more and more along the Hayekian lines of a *processor of information*. Markets (and prices) were no longer to be seen as arising from human interaction in *responsible freedom* and using *property rights* as such. Now, they could be designed on arbitrarily defined “goods” (pollution quotas) out of merely “bads” (proven pollution) and on rights to do “controlled harms”. Even if we simplify to drive home the point, it is in this tradition of thinking, centred on “mere information”, that the origin of the cap and

trade system is to be found. And, no matter how elaborate and sophisticated the disguise, this is, ultimately, only another form of (ruinous) *market socialism*.

Unsound money and unsustainable development

Briefly put, a *monetary system based on sound money* means that the generally accepted medium of exchange is no longer under the control of the state (Salerno, 2010). Fiat money is replaced by a 100% backed currency, which we may refer to as a “gold standard” monetary system without implying that gold is necessary the merchandise that the market settles upon.

Another essential feature of sound money is the outlawed status of “fractional reserve banking”. All banking institutions will be duly separated in savings banks (which are going to operate with monetary certificates) and deposit banks (which will function like warehouses that hold on to and guarantee the integrity of the goods placed in their care). Under these basic assumptions of a sound money system, *business cycles* could be entirely contained, and the capital structure of the economy would smoothly reflect the time preference of the individuals in society. The growth rate of such an economy will also be in accord with the savings rate and investments that all individuals voluntarily pursue based on their value scales.

In contrast to this, a fundamentally “*fiat*” and “*fiduciary*” *monetary system* implies that the government is unconstrained when it comes to arbitrary increasing the money supply, manipulating interest rates, and encouraging lending by allowing the functioning of fractional reserve banking (de Soto, 2006). The illusive (political) advantage of such a macro-policy is that it enables the direction of resources toward those activities and branches favoured by the governments.

For instance, if a government wants to encourage renewable energy investments in the name of a sustainable future, it can choose from three possible policies. The first one entails directly subsidising the renewable energy sector via a microeconomic measure. The second option implies the recourse to an overall macroeconomic approach like providing cheap credit for the entire economy, thus lowering interest rates and encouraging marginal projects. The third choice comprises a combination of the previous two alternatives; namely, the cheap credit policy is to be complemented by a subsidy scheme to ensure that the state’s favoured projects take advantage of the macroeconomic conditions thus created by monetary authorities.

However, what comes along with money and credit laxity is beyond the powers of authorities to run smoothly. These *boom-bust business cycles* have deep disruptive and distortive force also on the environment (Kahn & Kotchen, 2010; Fischer & Heutel, 2013) when the *boom* of previous frenzy investments transforms suddenly into the *bust* of malinvestment baulk.

Therefore, a cheap money policy that a fiat and fiduciary monetary system allows and encourages does not put the economy on a more sustainable standing just because policymakers can cheaply finance some projects. On the contrary, such a policy distorts the very *prices* that allow for a meaningful and viable intertemporal allocation of real resources, thus leaving behind the bleak images of a failed, bankrupt *economy* to stand over an exhausted, mutilated *environment*.

5. True market-sustainability: depoliticized science, transcendental balance, genuine goodwill, family heritage

Below, some thoughts will be sketched out about further directions consistent with the institutions of individual freedom that may support a coherent SD path.

Depoliticized science

In environmental debates, as in almost all fields of study and policy-making, two paradigms dispute supremacy.

The first one, dubbed “the linear model” (Kealey, 1996), considers that the government is the prime mover of scientific progress. Thus, government-funded academic research develops pure science, which in turn develops applied science and technology. Last, but not least, the latter translates into economic growth. From the point of view of this model, any move away from it amounts to some unfortunate, awful commercialisation/commodification of science (Greenberg, 2007).

The second model views science and the economy as much more integrated (Kealey, 1996).

In a certain sense, from this derives the double advantage of (i) stimulating research for reasons of profit which, in a normally functioning economy, are aligned with consumer satisfaction; and (ii) putting a break on what could be a seemingly never-ending spending stream for a never-ending scientific progress, irrespective of whether this constitutes an improvement in the welfare of society, or not.

Our purpose here is only to draw attention to the fact that not only private funds “distort” research, but so do the public ones. Thus, the pair of alternatives “*government* versus the *private sector*” is not so much one of “*pure*, unadulterated science versus *mercenary* science”. It is rather a comparison of two equally (self-) interested endeavours. Environmental research should at least be treated with the same sane scepticism as any other. The opposite of such “interested science” is not government-funded science, but “silverless” (or “unmercenary”) science, as medicine was with Saints Cosmas and Damian. That is an honourable option, but nowadays both the mainstream environmentalist *science* and the SD dominant *spirit* are a very far cry from this.

Transcendental balance

It has always been somewhat apparent that, in environmental debates, more than just pollution or the efficiency of using exhaustible resources is at stake. The fervour of the debate gave it a quasi-*religious* undertone. From the *Science* journal article of Lynn White Jr. in 1967, “The Historical Roots of Our Ecologic Crisis” (Stoll, 2015), in which Christianity’s man-centred imperialism over creation was seen as causing the problems at hand, to Pope Francis encyclical *Laudatio Si* (2015) or to ecumenical patriarch Bartholomew’s pronouncements on the topic of environment (Chryssavgis, 2012) in which a restatement of the ecological thesis is tentatively refreshed inside the Christian teachings, a challenge and a tension remain clear. Namely, that of avoiding the destruction of our common home, on the one hand, of which we have been assigned as caretakers, and, on the other hand, the temptation of torturing our fellow men with the pretext of saving nature (and themselves and their offspring) from themselves. In this, we all come not only with our doctrinal economic baggage, but also with our ethical, metaphysical and religious worldviews (Graham, 2014). The main danger lurking behind unwisely or frivolously seeking an earthly Eden is to find an earthly hell.

Genuine goodwill

“Corporate charity” is a term closer to the idea of an eminently moral-type of *corporate social responsibility* (CSR). While the *legal* sphere of responsibility problems is entirely solvable in the logic of property rights, the *moral* contribution of enterprises in the community is a separate essential aspect. Nowadays, CSR is suspected of public authority’s abuse because it often extends by force (or threat thereof) the area of the economic agent’s liabilities (beyond the consensual, nonaggressive contractual relations with third parties). Moreover, genuine charity acts have both a “pure” moral valence, and a more or less “investment” one: generosity can capitalize on long-term, the public being able to sanction, by acts of purchase or abstentions, the (environmentalist) (un-)generosity of companies.

Family heritage

That environmental issues are much more than merely economic is also clear when it comes to the *family*. While in the traditional view the family is a moderating and equilibrating factor in the life of the human person, in recent times, in certain circles, explicitly or not, civilization and family are under siege. Either a Rousseau-istic view of the noble, eco-friendly savage is put forward, or the family is seen as a baby factory, and capping “baby production” to reduce the number of “carbon footprint” entities is advocated (Burkeman, 2010). It remains to be seen if family – by *successional rules* un-vitiated by, among others, chance-equalizing *heritage tax* – can provide a far better societal device to ensure inter-generational balances than the state’s parenting/planning on the economy.

6. Conclusions

Private property provides the social law and order in which individuals/persons (producers/consumers) can pursue own preferences while remaining physically unmolested. On the free market, *self-sovereignty* is the rule, and this does not mean anarchy (economic or political), but explicitly makes sense only in the framework of universalizable and sustainable framework of law – of *ownership* and *contract* –, the sole norms capable to (voluntarily, peacefully) mature and bond generations.

SD is not an edict opposable to human society and enforceable by force, it is an offspring of ages-old wisdom and ultimately an act of voluntary will in order to be fruitful. Pursuing SD doesn’t need new pieces of legislation/policy, but more of the good old ones – based on a true meaning of “taking ownership” over our heritage –, appealing to self-sovereign, reasonable and moral beings that can issue and internalize equally grounded scientific arguments and higher spiritual stakes.

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**The Importance of the Quadruple Helix Model in Emphasizing
the Relationship between Higher Education and the Innovation
Process**

Laura WAHED¹, Camelia CANDIDATU², Liliana Nicoleta GRIGORE³

Abstract

The innovation process in the 21st century requires a new framework of interactions and interdependences within a tight cooperation model formed out of four fundamental elements: universities – industries/companies – government – civil society presented in the scientific literature as the Quadruple Helix (QH) model. The purpose of this study is to point out the mutual influences between those elements of the QH model, the potential synergy that can emerge from it and to highlight the prominent role of the Higher Education within this model. In this context, universities are considered to be innovative laboratories of ideas endowed with adequate human resources able to improve the research and development (R & D) activities by capitalizing the knowledge obtained throughout the teaching process and to convert the research output into practice in order to improve the teaching activity.

Keywords: *Quadruple Helix, Higher Education, Innovation, Research and Development*

JEL Classification: *A220, O30*

1. Introduction

In the contemporary global economy characterized by high dynamism and complexity, the academic educational system (considered to be an important part of each national innovation and development network) has become increasingly relevant for the knowledge society. More specific, universities play an active role in producing and transferring the results (in terms of knowledge) at individual or community level, through strong interaction between different scientific areas and between the research activities and economic development.

The importance of higher education institutions depends on their capacity to contribute to the knowledge society, on their ability to give the proper answers to the influences of internal and external factors that configure the environment those institutions activate in. Moreover, all these aspects depend on how universities define their strategic mission.

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In this model, we emphasize the role of Higher Education in the innovation process in the knowledge economy. The objectives of this study are: to present the Quadruple Helix model of innovation and to point out the interconnections between the elements that compose it as well as the synergic effect of their interaction and to highlight the prominent role of the Higher Education within this model. Within this model, universities are considered to be innovative laboratories of ideas endowed with skilled human resources able to improve the research and development (R & D) activities by capitalizing the knowledge obtained throughout the teaching process and to convert the research output into practice in order to improve the teaching activity.

2. Problem Statement

The Quadruple Helix is a metaphor used in the literature to reflect an innovation model in which four components (universities, companies, government and the civil society) interact in order to produce innovations useful for all the stakeholders/partners involved. These innovations may be beneficial for any field, from products and services, to technology and trade (Arknil *et al.*, 2010). Thus, education for research is essential for delivering students the impetus to develop their creativity, gain skills and confidence to acquire practical abilities needed in the innovation process. The philosophy behind the innovative universities is that Higher Education (teaching and research) has a significant contribution to innovation in a knowledge economy (Rebernik, 2009).

The current study brings value added to the literature on academic research and innovation by highlighting the importance of the Quadruple Helix model in emphasizing the relationship between Higher Education and the innovation process in the knowledge-based economy.

3. Research Questions/Aims of the research

The aims of this study are: to present the Quadruple Helix model of innovation and to point out the interconnections between the elements that compose it as well as the synergic effect of their interaction and to highlight the prominent role of the Higher Education within this model.

Within this model, universities are considered to be innovative laboratories of ideas endowed with skilled human resources able to improve the research and development (R & D) activities by capitalizing the knowledge obtained throughout the teaching process and to convert the research output into practice in order to improve the teaching activity.

4. Research Methods

This article was mainly based on the critical analysis of the relevant literature in the field of innovation, with a focus on the Quadruple Helix model of innovation. Therefore we collected data referring to significant role of the Higher Education in the relationship between the four elements of the model and we analysed the interdependencies between the elements of the QH model. As a qualitative study, the aim was to understand and explain the interdependencies between various elements and to add some statistical data in order to defend the argument.

5. Findings

5.1 Theoretical background. From Triple to Quadruple Helix

In order to understand the Quadruple Helix as an innovation model, it should first be placed in the literature on innovation research and policy. The concept emerged in the mid-1990's, a period when universities and companies were urged by the policy makers to cooperate more

intensely for the benefit of the society (Smith and Leydesdorff, 2014) through the production and transfer of knowledge and new technologies. In 1995, Etzkowitz and Leydesdorff identified three major components in innovation: the academia, the industry and the government (Figure 1).

This model was called the Triple Helix (TH) model in which the academic environment (universities), the industries (firms) and the government represent the three helices which cooperate in order to discover new ideas, knowledge, new products or services. The TH concept highlights that the potential for innovation in a knowledge economy relies on the prominent role of universities and technologies developed in this science-based environment.

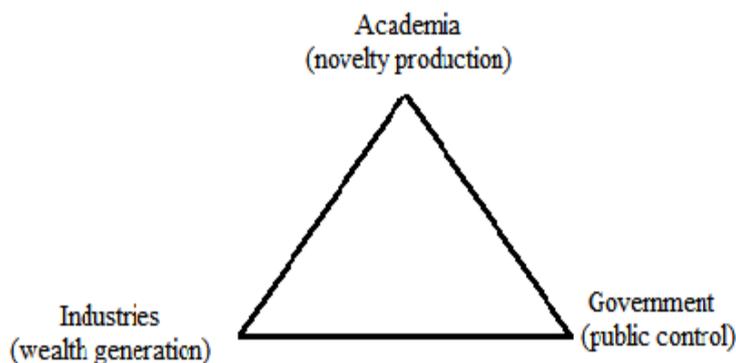


Figure 1. Triple Helix Model

Source: Adapted from Smith and Leydesdorff (2014), p. 2

This model has evolved through different stages: in the first phase, the helices were defined institutionally, in the second phase more attention was given to the communication dimension within the system and the third stage focused on the “hybrid organizations of academia, government and industries” (Tokkeli, 2007 cited in Arnkil *et al.*, 2010). The Triple Helix model which intended to explain “the structural developments in knowledge-based economies” built on the university-industry-government relations (Leydesdorff, 2012), faced some limitations and critiques. Some scholars (Etzkowitz and Klofsten, 2005; Yawson, 2009 cited in Arnkil *et al.*, 2010) considered that an essential element was missing, that is the public (the civil society).

The inclusion of this new helix has become critical since scientific knowledge has been evaluated in terms of “social robustness and inclusion”. This new helix, the civil society, pointed out “new discoveries and innovations that improve social welfare”, such as eco-innovation.

The Quadruple Helix model as a user-oriented innovation model is not yet a “very well-established concept in the innovation research and policy”, but it is an explanatory model for analyzing the knowledge-based economy. The civil society has been added as the fourth element of the model due to the fact that innovation is generated by the need of the users/citizens and it may be perceived as a “shift from technical to social innovation” (European Union, 2016).

According to Arnkil *et al.*, (2010, p.7), the QH model can be defined as “an innovation cooperation model or an innovation environment in which users, firms, universities and public authorities cooperate in order to produce innovations” in any field useful for the stakeholders or partners, from technological to commercial or for products and services (Figure 2).

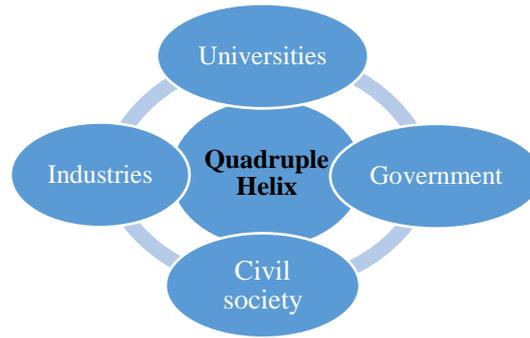


Figure 2. Quadruple Helix Model
 Source: Adapted from Arnkil *et al.*, (2010), p. 7

In compliance with the report issued by the European Union in 2016, the fourth helix is defined as “a collective entity formed by individual users living on a territory and interacting with university, industry and government as customers, citizens and members of a community in order to contribute to build new innovation paths which are able to promote the socio-economic growth of the territory”. Moreover, civil society requests that innovations should be made according to its needs, provides feedback on products and services and bring its own “contribution in terms of knowledge, inventiveness and creativity” (EU, 2016).

5.2 The role of Higher Education within the Quadruple Helix model with focus on the academic research

Over the past decade, the development of intellectual capital through R&D has been of great relevance. This is the reason why it is imperative for a country to rely on its own capabilities in research in order to be independent in tracking its own route in a globalized and competitive world. From this perspective, the developed economies support the creation of dynamic research environments (universities, research institutions etc.) in which actors involved cooperate to generate new ideas and knowledge essential in the innovation process. In addition, developed countries are the most important contributors to R&D projects, financing this sector with substantial funds each year (Table 1, respectively Figure 3).

Table 1. Gross domestic spending on R&D Total, % of GDP, 2000-2015

Year	USA	Canada	Japan	OECD	EU
2000	2,62	1,86	2,9	2,12	1,67
2005	2,5	1,97	3,18	2,14	1,66
2010	2,74	1,83	3,13	2,28	1,83
2015	2,78	1,7	3,28	2,38	1,95

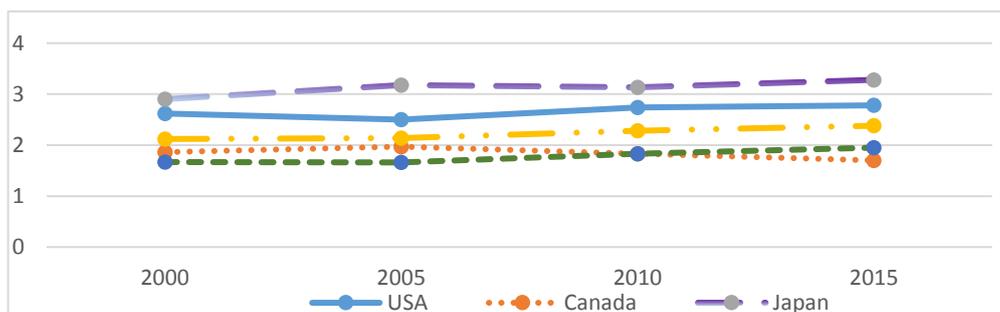


Figure 3. Gross domestic spending on R&D Total, % of GDP, 2000-2015

Source: OECD Statistics, <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm#indicator-chart>

Academic research is considered to bring a great contribution to education as it involves scientific development and implies the innovation-driven factor to foster the innovation process. In general, the academic research is essential from several perspectives: first, for accomplishing the universities' strategic mission to offer a scientific environment for the accumulation of knowledge, improving the learning methods and the development of research capacities (even though in the new complex socio-economic context there are many difficulties in adopting policies, practices and strategies that would not affect their traditional role related to teaching process); secondly, the academic research represents one of the fundamental conditions to sustain and develop an adequate environment for better inter-generation transmission of knowledge and experience. Thirdly, the academic research (with its contribution to the innovative process) generates connections with other High Education institutions, with specialists from different areas, creating an interdisciplinary flow of information. In addition, the academic research has demonstrated the capacity to attract and maintain the university staff of high professional quality as well as the best students. Moreover, the universities' classification systems, when they establish a certain hierarchy, rank them by taking into account a lot of criteria, among which the innovative contribution (throughout research activity) and research results, are considered to be extremely relevant (RAE, 2009).

In order to create an academic environment that stimulates the interest, the participation/implication and serious dedication toward the effective research activity of teachers and students, universities must solve key aspects that configure the academic framework and give them proper answers. As a consequence of this procedure, the high education institutions need first to offer solutions to these questions:

- What is the time of the academic staff allocated both in teaching and research activities?
- How can the universities project and sustain the research framework (using their resources and experiences); and how can this framework be expanded from internal dimension to a larger participation, involving outside actors (private, governmental and civil society)?

In order to answer these questions, it should be taken into consideration that the effectiveness of academic research team members depends on: personal goals/aspirations related to: prestige, national and international professional recognition (using certain evaluation and promotion criteria) and work conditions (LERU, 2004). The majority of high education institutions recognize the need for strong connection between teaching and research; doing all the efforts to plan the strategic mission, the objectives (that are ment to help them to project a new type of organization, more flexible and more able in ex-academic environment involvement), renewing concepts as: education and research (OECD/STI, 2016).

Universities that develop intensive research programs can act also as a powerful catalysts for economic development. These universities have a substantial contribution in attracting funds from private companies, stimulating private initiatives and technology transfer; moreover, they can become important partners for regional governmental agencies. The Higher Education system has proved to be more efficient in terms of costs, and more than that, it has become the best for sustaining the new generations' talents, by a comprehensive and innovative research environment (LERU, 2003).

The absorption of young talents (teachers and students) in universities combined with the great knowledge of experienced teachers has made possible the reduction of research costs, as well as to an unique combination of large offer of study programs and of R & D initiatives.

Taking into account Michael Porter's competitiveness analysis model (Miron, 2003), the Higher Education institutions may concentrate their efforts on 4 forces/strengths, adapted to the research area in order to accentuate the competitiveness and the innovative behavior:

- **Factor conditions:** the proper/adequate infrastructure, financial resources, human resources (in terms of competences/abilities related to research field);

- **Demand conditions:** the relevance and the interest for research activities, the academic research results (evaluated by indicators such as: published studies, articles, inventions and patents or opportunities to capitalize the research results throughout the market or consulting activities);
- **Organization strategy:** management and support services, the decision process and internal procedures;
- **National/regional/global interaction:** participation in innovative networks, cooperation in R&D programs, partnerships with other universities, or with other actors (from business environment, governmental structures or civil society members).

In this context, universities have an important role in increasing their participation to the production and the transfer of knowledge, providing solutions to social problems (the fourth helices of the Quadruple Helix model) such as those related to training the active population and supporting the insertion in the labor market. Moreover, they must develop partnerships with the other helices of the model, respectively the industry (the business environment) by creating business incubators, and the government.

6. Conclusions

The aim of this paper was to we emphasize the role of Higher Education in the innovation process in the knowledge economy. In conclusion, in the knowledge economy characterized by high dynamism and complexity, the academic educational system (considered to be an important part of each national innovation and development network) has become increasingly important for the knowledge society. Nowadays, universities play an active role in producing and transferring the results (in terms of knowledge) at individual or community level, through strong interaction between different scientific areas and between the research activities and economic development.

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The Role of Academic Education in Fostering Students’ Entrepreneurial Spirit and Skills to Face the Requirements of the Business Environment

Liliana Nicoleta GRIGORE¹, Camelia CANDIDATU², Laura WAHED^{3*}

Abstract

Education, or more specific academic education, plays a vital role in the evolution of the society, designing the pathway to the empowerment of people. Beyond transmitting the accumulated knowledge and experience, it helps creating the new knowledge with the active effort and engagement of scholars who constantly challenge the unknown. The educational system has constantly made efforts in order to meet the requirements of the business environment (in terms of teaching specific skills, adjusting the curricula to meet the new labor market needs etc.) and to sustain the aspirations of the working force, as well as the economic growth and general welfare. The purpose of this article is to highlight the role of the higher education system in fostering student’s entrepreneurial spirit and skills in order to meet the requirements of the business environment.

Keywords: *Academic education, business environment, entrepreneurship*

JEL Classification: *I23, M21*

1. Introduction

Education, or more specific academic education, plays a vital role in the evolution of the society, designing the pathway to the empowerment of people (World Bank, 2011). Education is the foundation of professional competences and it supports the development of personalities, abilities as well as the skills of generations of students, stimulating their competitiveness and integration on the labor market. The educational system has permanently made efforts in order to meet the requirements of the business environment (in terms of teaching specific skills, adjusting the curricula to meet the new labor market needs etc.).

Over the latest decades, the business environment has been confronted (in the globalizing world) with significant challenges which forced all the “actors” involved to react promptly to

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the irreversible transformations produced in each and every of its dimensions (economical, technological, cultural, social etc.). At the human resources level, the most remarkable changes occurred on two dimensions: on the one hand, in what concerns the human needs, aspirations, life projections and expectations, and, on the other hand, in everything related to their insertion on the labor market (educational background, professional performance – which increased through training and other type of programs, part of the career strategies etc.). As a consequence of these transitions, the current attention is focused more and more towards the adjustments to the new requirements on two levels:

- at the level of the business environment (related to the companies' vision, mission, behavior, social responsibility etc.);
- at the level of the educational system (related to the new approaches in teaching and research activities, to improve the “package” of students’ abilities, skills, qualifications and to enrich their potential in order to meet in a more efficient manner the new conditions and standards of the labor market and of the business environment in general).

Therefore, the aim of this research is to highlight the role of the higher education in fostering student’s entrepreneurial spirit and skills in order to meet the requirements of the business environment in a globalized world.

2. Problem Statement

Academic education plays an essential role within the complex and dynamic life of the 21st century. Besides providing advanced education and generating new knowledge, it has also the mission to train students, specialists and professionals to meet the requirements of the labour markets in the knowledge economy. In the complex (business) environment, fostering the entrepreneurship spirit and skills represent a necessary condition in order to adapt and adjust to the new labor market requirements. The interest for entrepreneurship has been highlighted by the interdependences which already exist among the business environment – higher education system – the graduates. Moreover, all the challenges of the contemporary world require a high quality and sustainable living environment, innovative and creative solutions, flexibility, as well as a pro-active vision and behavior. All these must be projected, stimulated and developed through entrepreneurial spirit.

The significance of this study resides in its potential contribution to the literature on academic education, as well as to that related to entrepreneurship, by highlighting the importance of education in developing the required entrepreneurial skills so much needed in the current dynamic business environment. The findings of this paper could be of interest to students, researchers as well as to specialists in the business field.

3. Aim of the research

Academic education plays a vital role in transmitting the accumulated knowledge and experience, in generating new knowledge, but, very important, in creating professional competences and skills required by the current complex labour market in the business field. In this context, the aim of this study is to highlight the significant role universities play in stimulating and fostering students’ entrepreneurial spirit and skills in order to meet the requirements of the business environment in a globalized world.

4. Research Methods

Being a descriptive study above all, the methodological approach consists of a critical assessment and analysis of the relevant literature in the field of academic education and entrepreneurship (literature review), as well as on personal theoretical investigations. As a qualitative study, this paper mainly focuses on using the conceptual framework which aims at making connections between all aspects researched.

5. Findings

In their pursuit to obtain the targeted business goals, companies are constantly confronted with many challenges generated by factors such as the complexity of the environment, the nature of competition, the profile of the human resources (on several levels: educational, professional competences, personal experience, responsibility, dedication, creativity, ethics).

The attention and consideration paid by managers to the human resources component are essential for projecting and developing a healthy and realistic strategic approach to obtain greater efficiency on the long run.

The constant focus on the human resources derives mainly from the human needs, aspirations, life projections and the necessity to discover, polish, enrich the complex potential of the persons through education, training, knowledge storing, consulting, proper motivation and promotion. In addition, there is a concern to evaluate correctly the companies' requirements for the labor force, related to volume, qualifications, job design, performance standard (Buller & McEvoy, 2012). Nowadays, human activities, especially those in the business area, require, more than ever, capable, strong, wise, intelligent, dedicated, courageous, well-trained employers and employees.

In the globalized and complex world, the working force not only should possess exceptional personal qualities, but they ought to develop new skills through almost continuous training (long life learning) in order to adopt new approaches, visions over the new working conditions.

In the current economic frame, in order to obtain success and to have a meaningful and useful role at the socio-economical level, it is essential for the working force to be able to meet the requirements of the business environment.

One of the most important requirements would be to develop the abilities, competences, knowledge etc. that are the key-elements of the strategy at organizational level (for example: communication, the ability to solve problems, to manage conflicts, adaptability to change, development of self-awareness, leadership). Another important requirement is to correspond properly to the main criteria under which may be classified the skills and abilities, such as: order and rationality, competitiveness and control, a proactive and emphatic attitude towards developing human relations, entrepreneurial spirit. In addition, it must be given importance to the discovery and development of proper instruments that fit best the human resources domain nowadays. According to Jamie and Sacks (2011), specialists inside and outside companies are involved in revealing the causes of performance problems, to find solutions and the best mix of measures, meant to obtain the success and to work in the benefit of all the "actors" in the business field.

Nowadays, one of the most important trends to receive the entire interest and dedication from the main "actors" (companies, universities, the public sector – Figure 1) is the need to strengthen the cooperation between the business field, educational sphere, community services and others.

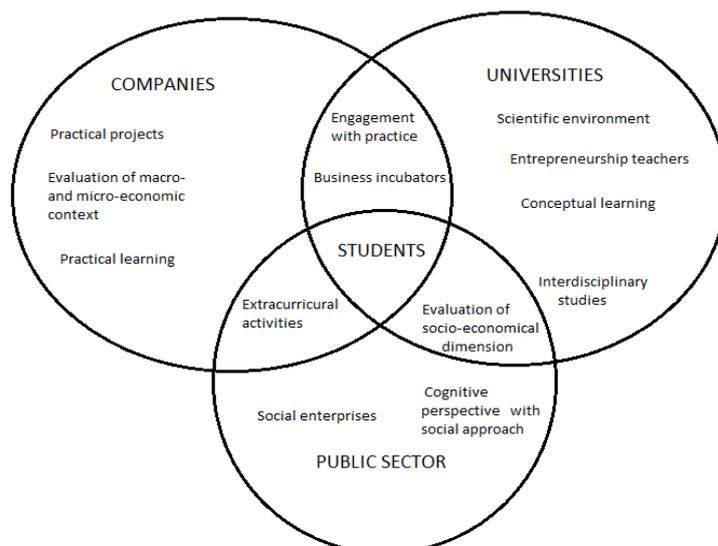


Figure 1. The interdependence triangle: Universities – Companies – Public sector
 Source: adapted from NESTA, NCGE, CIHE (2008), p. 15

This cooperation must connect/link together the missions of all actors involved, through various methods and practical models (ex. incubators, small-sized-enterprises specialized on high-end technologies, on applied knowledge, and principally, that sustain and put efficiently into practice the entrepreneurial spirit and skills of the students who represent the future working force). Many “actors” agree that the real winning combination must obviously rely on the good functioning of the working environment, employing the most suitable working force (well trained, creative, innovative, flexible, etc.), finding new methods of working and functioning on the labor market, adequate both for the employees and for the society in general.

The key word in this process is *performance*, a concept that contains specific abilities (mental and physical characteristics, aptitudes related to personality and other type of skills as well as a certain level and quality of education and training) and motivation (dedication, attachment to work and fulfillment of a task at the imposed standards) (Collings & Mellahi, 2009).

Under these conditions, the mission of the academic system is to offer students the scientific environment to obtain skill competency through permanent conceptual learning, in tight connection with the business world and through behavioral practice. From this point of view, the academic staff must project a strategy, fostering the development of the students’ capacity of thinking, behaving, acting on managerial perspective, fostering the students’ entrepreneurial spirit and skills. This strategy must focus on:

- the students’ perception of reality, values, targets/objectives, self – awareness, motivating factors etc.;
- sustaining the students’ efforts to project their personal career plans as potential entrepreneurs;
- helping the students to get knowledge about: behavioral models, standards in obtaining personal, social and economic objectives, adjustment towards change, leading abilities, way of expressing power;
- teaching them to identify correctly the obstacles (personal and organizational) that may affect their performance and final results; to assume and find solutions to the risk situations, to evaluate properly the micro- and macro-economic context; to confer to the enterprise-tasks more significance and identity and to the employees more autonomy and responsibility; to develop the communication channels, therefore to examine the results, the stage of skill accumulation, the work behavior, the type of rewards;

- offering the students the possibility to acquire and use a multitude of skills, combining them in the most challenging and motivating way (UNCTAD, 2010).

The academic staff has the responsibility to emphasize and develop a system specific to each domain of inter-disciplinary approaches in order to stimulate the students to discover their needs, abilities related to entrepreneurial sphere, to adapt their potential to the requirements of the business environment and increase their competences, their chances to be efficiently inserted on the labor market and their professional perspectives (European Commission, 2014).

In order to respond to external pressures and requirements, the higher education system has to take into consideration the following aspects:

- the need to change the way it has operated until now, focusing on leadership, innovation, creativity, competitiveness etc., as an expression of the trend in the tertiary sector and in the evolution in the society, in general;
- the need to diversify their mission (beyond education and research) in order to develop activities in the service for the community, by attracting the students' attention to the social objectives alongside with their own;
- the need to use the knowledge/information/research-output by creating new forms of "enterprises", for the students' practical activities, for example the business-incubators, in cooperation with the interested companies in developing the entrepreneurship (Moreland, 2004);
- the need to sustain an entrepreneurial culture in society, while stimulating different types of learning, for example: conceptual learning – theoretical knowledge; practical learning – applied knowledge; awareness learning – self-consciousness of one's aspirations; multicultural learning – taking into consideration the ethnic diversity.

Therefore, the universities are forced to develop entrepreneurship programs oriented both to specialize the academics to be able to teach and transmit information in this domain, and also to create a special link with the practical field – the business environment, supporting the students to become potential entrepreneurs able to work effectively after graduation (Volkman, 2004).

Taking into account the above mentioned objectives, entrepreneurship education may be seen more than a learning process about how to run a business, but it should be perceived as a process about developing an entrepreneurial mindset, besides knowledge, regarding special skills, abilities, attitudes that help the students to transform ideas into actions.

So, the learning processes must stimulate students to develop their personal competences and to have as a core aim the educational programs which are required to be very flexible in establishing the study curricula (adapted to the business environment trends, inserting interdisciplinary studies, evaluating the students' learning results through practical projects and extracurricular activities).

In trying to develop an entrepreneurial spirit, the academic life should take into consideration the socio-economical dimension, and thus it may be bring into discussion the fact that the entrepreneurship has also important social characteristics (Jones & Iredale, 2014). In this way it can be mixed the cognitive perspective with the social approach.

Being such a complex phenomenon, entrepreneurship enables the future graduates to play more roles, in an efficient manner, in the business world: the promotor of one's own enterprise, the competent worker, the innovator, the risk taker, the pro-acting oriented manager, the well-trained competitor etc. (Rebernik, 2009.)

6. Conclusions

In the knowledge society, education plays a vital role as it constitutes the foundation for acquiring personal and professional competences necessary on the current complex labour

market, with a focus on the business environment. Therefore, the educational system (in the economic field) has tried to understand the trends and to adapt its curricula in order to instill students the needed intellectual and practical skills required by the business sector. Under these circumstances, fostering the entrepreneurship spirit and skills has represented a necessary condition in order to adapt and adjust to the new labor market requirements. In the globalized and complex world, the working force not only should possess exceptional personal qualities, but they ought to develop new skills through almost continuous training (long life learning) in order to adopt new approaches and visions over the new working conditions. The purpose of this study was to highlight the role of the academic system in stimulating students' entrepreneurial skills in order to be able to meet the labour requirements of the business sector.

Research on this subject show that the mission of the academic system is to deliver students the proper scientific environment in order to obtain knowledge and skills through permanent conceptual learning. Moreover, it should project a strategy in which to stimulate the development of the students' capacity of thinking, behaving and acting on entrepreneurial perspective, fostering their entrepreneurial spirit and skills.

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The Sharing Economy. A Demand for Sustainability

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Abstract

Due to the existing technologies, the information is unlimited in the present society. Through the medium of the internet, the familiarization with concepts like awareness, sustainability, unity, is made very easy. The rise of these notions are changing the world, forcing it to evolve in a healthier way. People are becoming more thoughtful about nature, their peers, and way of living, resulting the emergence and implementation of many new domains, like the sharing economy, a system which aligns with the modern way of thinking, and brings many benefits. The methodological section of this research contains an analysis based on questionnaires responses from Romanian people aged between 25 and 35 years old, regarding sustainability and sharing economy platforms, such as Uber and Airbnb.

The purpose of this research is to acknowledge to what extent the sharing economy is facilitating sustainability. This study is useful for all individuals and businesses concerned about the environment and a healthier, modern life.

Keywords: *sustainability, sharing economy, environment, business*

JEL classification: *B55, O32, O35, Q01, Q55, Z32*

1. Introduction

Sustainability comes along with quality. The latter, being an aspect of sustainability. The Oxford Dictionary defines quality as “the standard of something as measured against other things of a similar kind; the degree of excellence of something”. Better quality feedback encourages entrepreneurs to improve their products and services, which leads towards long-lasting and better working products, resulting sustainability.

Even if modern consumers are more demanding, sophisticated and populate an interactive market, they have a value-centered philosophy that focuses on defining, creating and delivering the value that they want to buy from an organization. The reciprocity of benefits obtained by both parties is recognized, establishing a symbiotic relationship. Managing the new relationship between the organization and the consumer, requires an alternative approach in command and control practices of the production-based era. Consumers look for value because they have “power to see and understand things, imaginative penetration, knowledge and awareness.” The service provider may begin the process of connecting with consumers in a way that will provide

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him a sustainable competitive advantage. This competitive advantage is based on building and maintaining reciprocal relationships that have significant long-term implications and therefore affects the strategic and marketing planning of the firm (Farronato & Fradkin, 2015).

The sharing economy facilitates relationships between people and organizations.

Investopedia defines the sharing economy as an economic system, a peer-to-peer (P2P) based activity of acquiring, providing or sharing access to goods and services that are facilitated by community based on-line platforms. Communities of people have shared the use of assets for thousands of years, but the advent of the Internet – and its use of big data – has made it easier for asset owners and those seeking to use those assets to find each other. This sort of dynamic can also be referred to as the share economy, collaborative consumption, collaborative economy, or peer economy (<https://www.investopedia.com/terms/s/sharing-economy.asp>).

2. Sustainability

In the Brundtland Report, sustainability is defined as the ability to continue a definite behavior over an unlimited period of time. Environmental sustainability is the competence to maintain rates of renewable resources and non-renewable resource depletions that can be continued indefinitely. Economic sustainability is the ability to stand a definite level of economic production in an unlimited period of time. Social sustainability is the ability of a social system, to functionate at a defined level of social wellbeing in an unlimited period of time. Sustainable development is the progress which meets the necessities of the present generations without undermine the ability of the next ones to meet theirs.

2.1 Social capital

The management consultant and philosopher Donah Zohar (2005) interprets social capital as well, as an asset that makes communities and organizations work efficiently for prosperity.

It can be defined as the ability of people to work for common purposes in groups or organizations. Social capital is born of trust and common ethical values and is reflected by the type of relationships the human being builds in family, community and organization, and by the extent to which one fulfills his/her responsibilities towards the community. Therefore, social capital, in the context of a technology information era, and can be associated with the social media. The latter refers to collaborative or media-sharing products and networked communities.

Social media applications are interactive, giving users the opportunity to share their experiences, insights, perspectives about the consumed services. Responsible social and ecologic marketing in business, including the online environment, focuses on meeting the current needs of the environment, consumers and businesses, while preserving the nature and developing the capacity of the next generations to meet their necessities. Starting from the idea that in the digital age business is done on the Internet, Kotler proposes that through social marketing, businesses deliver value to customers through a middle way: to improve and maintain both the welfare of the consumer and society (Kotler & Armstrong, 2012).

3. Sustainable businesses

The digital era is a social force that has created new opportunities, challenges and behaviors in business. It is not disputed that the Internet is a powerful channel of information and sales.

Companies can collect complete and diversified data about consumers, prospects, outlets and competition. (Kotler, 2012, Marketing Management). The technological development and financial crisis of 2008-2009, have led to changes in ownership and transformation of the co-owner model into the co-sharing model. If people were accustomed to the co-ownership model,

they now have to get used to sharing cars, bikes, apartments, washing machines, and so on (Lietaert, 2010), emerging the phenomenon of “product as a service”. The symbiosis between a product and a service creates a sustainable business environment for all parties involved (Kotler & Armstrong, 2012). Big companies such as Philips and Microsoft have embraced this concept because it generates improvements of resource productivity in innovative ways. The sharing phenomenon differs significantly from classical trading prototypes. Because it involves interactions between strangers and surpasses a geographically defined community. Exchange is most often monetary, systematized in a business model and facilitated by technology through platforms. The emergence of these peer-to-peer platforms, collectively referred to as “sharing economy”, allowed individuals to collaboratively use underutilized inventory through cost-sharing. Consumers have so far enthusiastically adopted the services offered by companies such as Airbnb, Uber, Lyft and TaskRabbit. The rapid growth of peer-to-peer platforms was obviously due to two key factors: technological innovation and it demands flexibility.

Technological innovations have simplified the market entry process for suppliers, have facilitated search lists for consumers, and maintained low overall transaction costs. The demand of flexibility is another distinctive sign of these platforms: Uber drivers can add or withdraw themselves from the available offer of drivers with an application, and similarly other vendors can easily list and remove the choice of goods and services they put at service (Zervas, *et al.*, 2016).

There has been an extensive growth of interest, and preoccupation for, corporate governance, in terms of sustainability. Organisation’s activities have great influence concerning the environment and should, thus, be accountable to an extensive audience than just its shareholders. This concerns were determined by Ackerman (1975) who claimed that large businesses acknowledge the necessity to readjust to a new social atmosphere of community responsibility, but the trends of businesses to financial outcomes were diminishing not just instruments of shareholders, but exist within society and implicitly they have responsibilities towards society, and that there is a shift towards greater accountability of firms to all participants. Included within this concern regarding the effects on external environments of the doings of an organisation, is the acknowledgement that there are not just the proprietors of these who have concerns with the actions of that organisation. There are a diversity of stakeholders who have an avocation with those actions, and are influenced by them. Other stakeholders are not just interested in the activities of the company but in a measure of influence upon the framing of those activities as well. This impact is so considerable and it could be sustained that the influence and power of these stakeholders weighs to quasi-ownership of the organization.

Rubenstein (1992) argues that there is a necessity for a social agreement between a organization and its stakeholders. Momentous to this contract is a concern for the future that has become evident through the term sustainability. The term sustainability has become omnipresent both within the discussion of globalisation and within the discussion of corporate performance. Crowther (2002) said that sustainability is a controvertible topic and there are lots of definitions of what is meant by the term. In general, sustainability is alarmed with the consequences of the present actions among the options disposable in the future. If all resources are utilized in the present moment, afterwards they are no longer available, and this is a concern with regards to finite resources in quantity. Extractive nature raw materials, such as oil, coal, and iron, are finite in terms of quantity and once used are no longer available for the future.

Alternatives will be needed at some point in the future in order to fulfil the current functions of these resources. This will take place in the distant future but of immediate concern is the increased cost of acquiring the remanent resources, as they are consumed, and therefore the operational costs of organizations will increase. In Hawken’s opinion (1993), sustainability implies that society must utilize just renewable resources. This can be determined by the carrying capability of the ecosystem and described with input-output models of resource

consumption. For example, the paper industry has a policy to replant trees in order of replacing those harvested, thus, resulting the effect of maintaining costs for now instead of outsourcing them. Volkswagen and other motor vehicle manufacturers have a policy of making their cars recyclable. Greenpeace forced Apple towards innovation in the production of computers. Apple was demanded to take sustainability into consideration in its computer production. A campaign was made in which thousands of Apple fans world wide participated. This pointed the fact that materials should be replaced with green ones. Steve Jobs presented the green Mac nine months later (Bene Editions, 2014).

3.1 The sharing economy and social responsibility

The sharing economy allows individuals and groups to make money from underused assets.

In this way, physical assets are shared as services. For instance, take car sharing services like Lyft and Uber. According to data provided by the Brookings Institute, private vehicles go unused for 95% of their lifetime. The same report detailed Airbnb's cost advantage over the hotel space as homeowners make use of spare bedrooms. Airbnb rates were reported to be between 30-60% cheaper than hotel rates around the world (Zervas, *et al.*, 2016).

The benefits of the sharing economy are facilitating sustainability by reducing the number of cars utilized and thus, pollution, oil consumption etc., by diminishing the development of hotels' infrastructure, and the production of adjacent products and services, and so on. The sharing economy platforms encourages the forming of relationships between stakeholders and a better mutual knowledge, enhancing communication, social life and the appetite for knowledge.

Kotler (2012) defines social responsibility as satisfying present needs of consumers and businesses, while preserving and developing the possibility of the next generations to fulfill their own needs. This attitude is a part of spirituality, by caring about others, mainly linked with one of the ten commandments of the Bible: "Do not testify or fear false witness against your neighbor". More and more companies have included distinct departments of corporate social responsibility by engaging employees in programs and projects related to volunteering and humanitarian causes for disadvantaged communities. Hart (1997) said that viewing a group as a piece of a larger economic and social system, connote that these actions must be taken seriously, not just for the amount of costs and value already created, but as well for the future of the organization. Such concerns are apposite at a macro level of the whole society, or at the level of the nation state but are evenly important at the corporation micro level. At this level, sustainability measures would take into account the pace at which resources are consumed by the organisation in relation to the one at which these can be regenerated. Unsustainable actions can be readjusted for either by enhancing sustainable operations or by planning for a future less consumption of resources required. In practice, groups and organizations mostly incline to choose sustainability by raising productivity in the way resources are used. One example could be energy efficiency programmes (Kotler & Armstrong, 2012).

Pedersen and Neergaard (2006) said that as the canvass regarding humankind's impact on nature has increased, so have attempts to minimize the damage being done. From a business point of view, in the last years, legislation has been enforced with the scope of minimizing waste, as recycling, as well removing harmful materials and substances from products. Sammer and Wüstenhagen (2006) said that non-government regulated initiatives have further expanded, branded products as environmentally friendly, socially sustainable and fairly traded. However, companies are different in terms of time and how they implement these sorts of practice regarding sustainability and as well how these are in connection with the commitment regarding sustainability and the management values. It could be the situation that a company sense institutional pressure and feels that it is more or less "constrained" to recycle or take part in a

3d party branding scheme, and thus there could be less correlation among sustainability practices and management values. But these decisions could be as well based on long term management engagement to sustainability. Aras and Crowther (2007) show that there are four aspects of sustainability needed to be recognised: (1) societal influence, defined as the measure of the impact society makes upon the corporations in terms of the social contract and stakeholder influence; (2) environmental impact, defined as the results of the activities of the corporation upon its geophysical environment; (3) organisational culture, defined as the relationship between the corporation and its internal stakeholders, particularly employees, and all aspects of that relationship; and (4) finance, defined in terms of an suitable return for the point of risk undertaken. These four must be considered as the key dimensions of sustainability, all of which are equally important. It is essential to recognize the realities of the global environment to the extent that the company is firmly incorporated into a global environment which takes into account the past, present and future. Therefore, sustainability necessitates a distribution of positive and negative effects, in a way which removes conflict between all of these and pays interest to the present and future (Roblek *et al.*, 2016).

4. Methodology

The methodology section presents the analysis of the survey type questionnaire answers.

This questionnaire was addressed to Romanian people, and its purpose was to acknowledge to what extent the sharing economy is facilitating sustainability. People started to acknowledge that they could reuse apartments or cars, for example, in order to save money, reduce pollution, consumption etc. They began to think and see things in different ways.

4.1 General information about respondents

The questionnaire is addressed to people aged between 25 and 35 years old. In 2017, Romania had a population of 19.644.350, from which 10.531.255 in the urban environment and 9.113.095 at the country side. The population aged between 25 and 35 years were 2.583.849 in the same year: <http://statistici.insse.ro/shop/index.jsp?page=tempo3&lang=ro&ind=POP105A>.

The number of respondents was 313. They are all from Romania, most living in Bucharest, but not necessarily original from this city. Most of the respondents are from the middle class (84.4%), and are employees (70.3%). Only 30% have their own business or both. The majority of them travel abroad 1 per year (53.1%), in holidays (79.7%).

4.2 Booking methods

According to the chart below, most of the respondents prefer booking.com (68.8%) in their travels. The second preferred method is via agencies (39.1%). Airbnb is preferred just by 20.3% of the respondents. This may be due to the lack of information, trust and education regarding this platform which is part of the sharing economy, being a huge problem here in Romania.

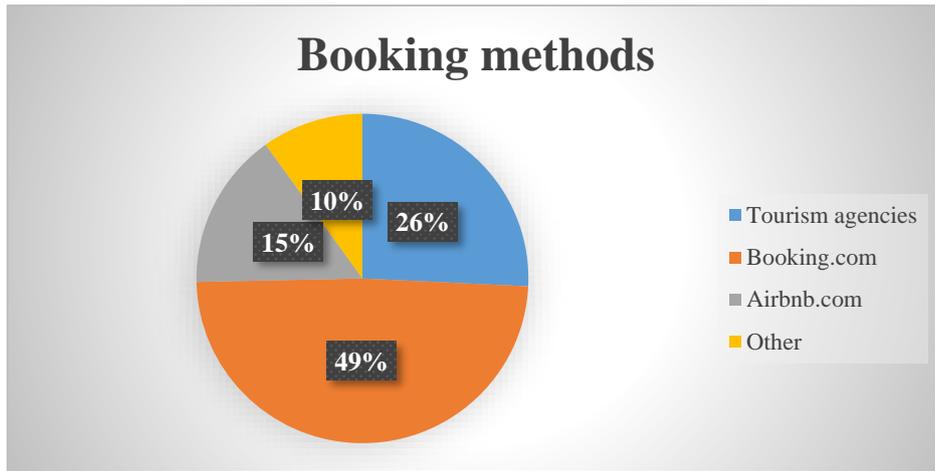


Figure 1. Preferred booking methods

4.3 Transportation method

The most favourite transportation methods are the public transport (59.4%), followed by the personal car (50%), and Uber (28.1%). The demand for Uber exceeded the one for Taxi (20.3%), which means that people prefer to travel in better conditions.

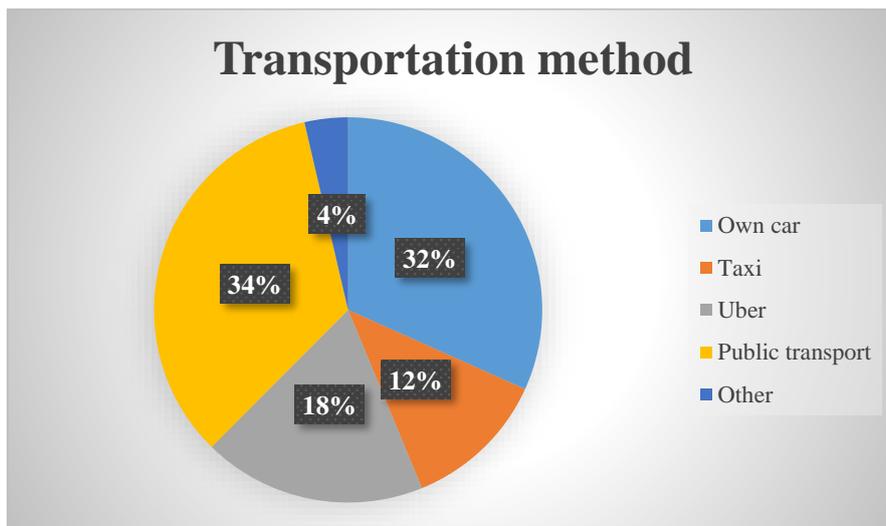


Figure 2. Preferred transportation method

4.4 Other responses

All respondents are pro regarding the environment protection. The majority of them prefer a healthy lifestyle (89.7%), the rest do not care or do not have time for themselves. Although, all of them are looking to improve their quality of life.

5. Conclusions

To summarize, people in Romania are using more Uber than Airbnb, probably because it is within reach. Most of them tested it already so it gives them a sense of security, which has not happen with Airbnb. Due to the lack of experience, there is less trust regarding this platform and the services offered by it. Therefore, Romanian prefer the hotels for now.

In terms of sustainability, it is facilitated by the sharing economy. It reduces oil consumption, pollution, production, and so on, forasmuch this socio-economic system facilitates the use of shared assets.

Due to the technology, people can access multicultural environments and create platforms in order to promote new ways of perceiving reality and lifestyles. Through these platforms it's easier to open towards new trends and information. Which are necessary to be implemented in order to reduce and eliminate the environmental damage. As well, more and more people opt for a healthier lifestyle. Sustainability is facilitated by a healthy society that is implementing this concept in their cultures in order to preserve the environment and be more competitive simultaneously.

The future trends are that the old standardized systems will collapse and new beneficial ones will rise. This is what the sharing economy yields.

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Apple's Business Model in the Context of Internationalization

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Abstract

The main purpose of this paper is to create an X-ray of Apple's controversial business model in the context of internationalization. Fortune states that Apple's annual revenue in FY 2017 was of \$215 B. The Cupertino based company managed to jump from 492nd place in FY 2006 to 9th place in FY 2017 on the Fortune Global 500 list. According to Forbes, in 2017 Apple had a market value of \$752 B being ranked as number one. This is a stunning performance for a company that has as main products mobile phones, laptops and more recently watches and intelligent home assistants. In a business environment where user's retention is directly proportional to the number of the iDevices they have, the main threat for Apple products comes from its very own products. After presenting different types of business models discussed in the literature regarding Apple's business model, the focus will be on navigating through Apple tech-chain and discussing whether the topic of self-cannibalization is relevant for Apple's products. Another insight will be also how the store expansion or internationalization improved Apple's business model. The findings are creating the premises for a better understanding and anticipation of Apple's expansion strategy by a reader which is not familiar with their ecosystem.

Keywords: *Apple, internationalization, business model, iDevice, ecosystem*

JEL Classification: *F20, M20*

1. Introduction

The main purpose of this paper is to create an X-ray of Apple's business model. It is intriguing how a company that sells mobile phones and laptops manages to annually boost its revenue. This is a consequence of the internationalization, of fact that Apple scores high sales in the first two world's economies – US and China. In fact, according to Gartner, in 2015, Apple sold more iDevices in China (71.2M) than the US (70.3M). There was no surprise when Apple decided to invest \$500M in R&D centers in China, at the end of 2017 (Dunn, 2017).

Apple entered the tech industry by producing desktop computers mainly for productivity and entertainment. Apple I was a great piece of technology that created the room for the next iconic product but the company's extraordinary growth since 2001 has come from a series of

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innovative products from the iPod to the iPhone and the iPad that, have made connected digital devices ubiquitous in our everyday lives. (Lazonick *et al.*, 2013)

When it comes to internationalization, there are two big *époques* in the recent history of Cupertino based company – ante-iPhone and post-iPhone. If back in 2001 Apple had only 8 stores within the United States and in 2007 the number of worldwide stores reached approximately 200, only three years after the launch of the iPhone – in 2010 – the number of worldwide stores almost doubled. With a mainstream product to sell and the idea that “there’s no better place to discover, explore and learn about our products than in retail. It’s the retail experience where you walk in and you instantly realize this store is not here for the purpose of selling. It’s here for the purpose of serving” (Cook, 2013) Apple has perfected a true worship strategy among worldwide users and carriers through scarcity. A conclusive example would be the long queues formed at each iPhone launch. Apple is requesting special treatment even from carriers. The so-called Apple corners are present in each carrier store and are imposed and standardized by Apple. Apple is also very keen on bloatware strategy - banning the modification of the proprietary software included in their products in order to prevent the pre-installation of carrier’s applications (e.g. Cost Control, Top-up).

Even so, according to Dediu (2013), the number of visitors to Apple Stores increased from 25 million/quarter in 2007 to 120 million/quarter in 2012. Just to extrapolate this means that only in 2012 half of Europe’s population visited Apple Stores. That’s a perfect example to stress Apple’s ability to extract extraordinary margins due to an ability to maintain high price points by providing a ‘unique’ retail experience (Montgomeriea & Samuel, 2013).

2. Literature review

Introduced by King Gillette, razor and blades is a business model whose central idea was to give away free razors samples and to make a real profit from the high margin on the blades, which is similar to what Apple does with its software and hardware products (Anderson, 2009).

While it may seem a good example, this model has certain flaws. The main weakness of the model is that the protection is granted only by the patent. The risk is that competitors would find convenient to produce auxiliary products for the patented one. This was the case of Gillette when the patent expired. In the case of Apple, this strategy applies to mostly to its software.

An example is the patent battle between Apple and Samsung at the launching of the first Samsung Galaxy Phone. The embedded software had similar touch gestures to the ones found on iPhone iOS.

According to Cuofano (2017), Apple uses a reversed razor and blade model because it makes the real profit on its physical products while offering free or low priced digital products.

According to Reuters (2017), the newest iPhone – iPhone X costs \$357.50 to produce and Apple sells it with a \$999 price tag. That’s a 64.21 percent gross margin due to the fact that Apple successfully managed to combine the low-cost manufacture and assembly model of many electronics companies with a luxury brand marketing and pricing strategy (Montgomeriea & Samuel, 2013). On the other hand, according to Market Watch, in 2017 Apple invested in R&D the equivalent of Albania’s GDP (\$11B). This translates into the further development of the proprietary operating system and hardware improvements. There is also the so-called fishbone business model used hand in hand with iPod Classic according to which Apple partnered with key stakeholders in the music industry in order to create the environment for the direct sale of the overpriced iPod (King, 2012). Currently, this applies to Apple Music platform, the only way of using this service is buying a \$99/year subscription.

Even Steve Jobs indirectly underlined that more complex strategies are better than one, declaring that his “model for business is the Beatles. They were four guys that kept each other’s negative tendencies in check; they balanced each other... And the total was greater than the sum

of the parts. Great things in business are never done by one person, they are done by a team of people” (Isaacson, 2011).

3. Reshaping existing business models

While it can be confusing to talk about various business models implemented by the same company and the way they are applied and interlinked in different situations, paraphrasing Steve Jobs it is safe to say that business is never done by one model, it is done by a mix of them. All the aforementioned business models were and are used in the different combinations. One may think of the iPhone as an expensive piece of technology that costs three times less to produce than the marketed value but the newer models incorporate another business model – making redundant the existing software/hardware. After buying Beats Company, Apple Inc. decided to remove the 3.5 jack connector in favor of a proprietary one. As consequence, all iPhone 7 models and newer no longer have an audio jack so users can use only the proprietary wired lightning headphones or Bluetooth wireless headphones. The same goes with the software.

Usually, Apple drops software support for devices older than 4 years. This was the case of the iPad 3, Apple reporting in 2016 that no updates will be further available for this device, although it had the same hardware as the iPad 4 (except the lightning connector). A recent tweet revealed that Apple purposely is slowing down old devices without notifying users, just to speed up the upgrade to a newer iDevice.

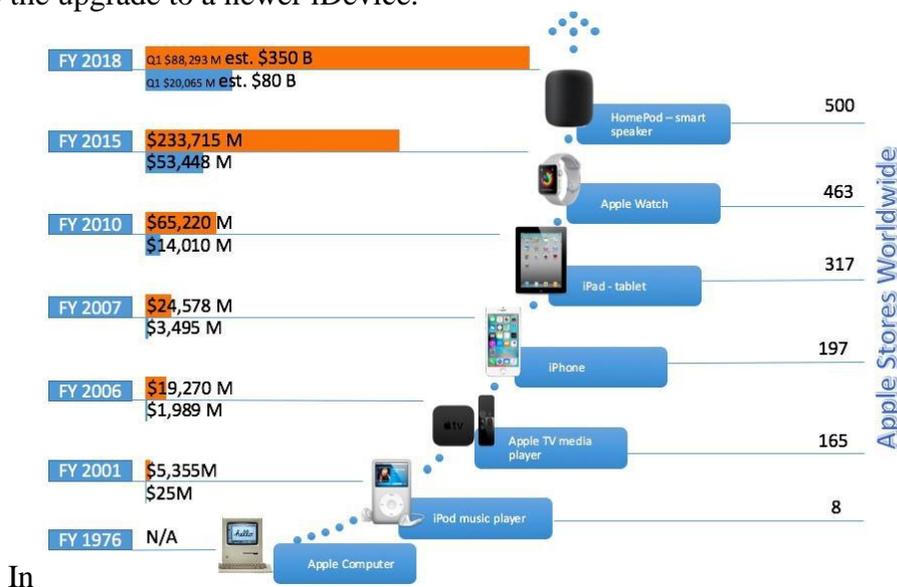


Figure 1 the tech-chain of Apple is correlated with net sales, net income and number of worldwide stores. It is called in this manner considering the fact that each and every new product was meant to fill a gap in the industry caused by the previous one.

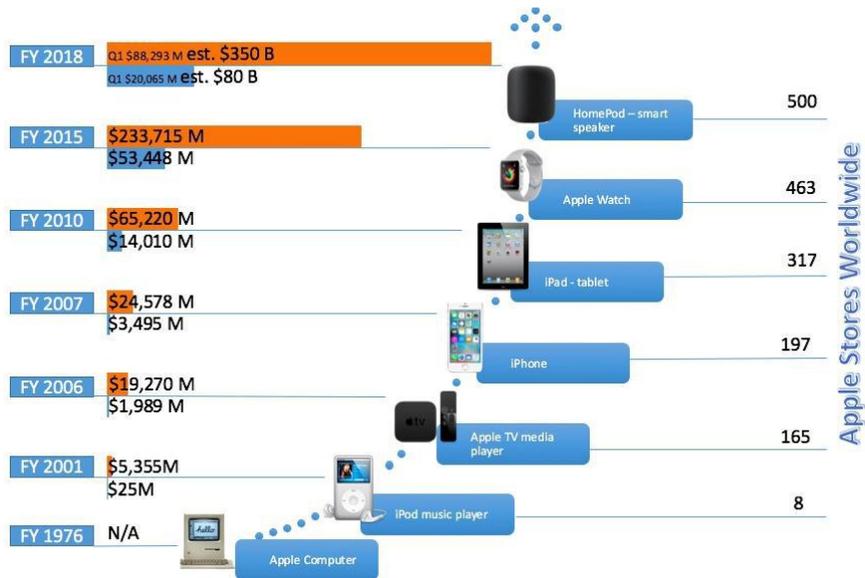


Figure 1. Apple tech-chain correlated with net sales (orange), net income (blue) and number of stores by fiscal year

Source: Data for Apple tech-chain was adapted from Apple (2015). Data for Apple financial statements were collected from Apple Investor (2015). Data for number of stores were collected from Apple Storefronts (2017)

After the Sony Walkman revolution, everyone wanted a more compact device that could store a huge quantity of music, without using tapes. The Cupertino company introduced the iPod – a media player that could download and store a huge quantity of songs. This astonishing device was introduced together with a more complex business model. After buying this device, the only way to copy songs from/to device was through iTunes software. Practically the users were locked to Apple’s proprietary content. When the first generation iPhone was launched back in 2007, the same strategy continued to lure the users. All the media transfers between the iPhone and a computer were being made via iTunes. The software update and data backup also were iTunes dependable. Any application was being installed using cellular data/Wi-Fi via AppStore or using the iTunes software. Despite having Bluetooth any file sharing possibility was disabled and the USB cable had a proprietary form even if back then the mini USB was standard. When Apple TV – the Apple’s media player – was released it was no surprise that the displayed content is reduced only to Apple ecosystem, any streaming from another device besides the iPhone being excluded. The iPad was dedicated to those that tasted the flavor of the iOS software on the iPhone and wanted a bigger display to do tasks like reading, watching videos, writing, painting etc. When it was launched, the iPad lacked also the file sharing possibilities and the mini USB option too. The only port that was aligned to the standards from that period was the 3.5 mm audio jack. The persistence continues even in current times when Apple is using a proprietary port, different from the initial one, the new standard when it comes to cable connectivity being USB type C. Apple Watch was initially released and marketed as a device for active people or for those who want to enhance the experience on their iPhone.

So it was. The watch could not be connected to other devices besides iPhones and what’s newer – Apple Watch cannot be activated and used without an iPhone. In certain cases, the watch can extend the functionality of an iPhone; for example, it introduces the possibility to use Apple Pay – Apple’s proprietary payment system - on older devices without near field communication like iPhone 5 or iPhone 5C. HomePod is the smart speaker/intelligent assistant released in 2018 that can execute various voice-based commands like turning on/off a lightbulb, activating/deactivating the alarm, play music etc. The experts think that HomePod is the pinnacle of the Apple’s effort to retain users in their ecosystem. Not only that the smart speaker

works just with an iDevice but in order to play music on it – the main function of a speaker – the users must have an Apple Music subscription. The speaker has no external port whatsoever, so without a subscription, the only sound played by the speaker will be the voice of Siri – virtual assistant.

When it comes to restricting users in such manner, a threat for Apple products is other Apple products. After the iPhone launching, everybody wondered what will be the role of the iPod?

The only advantage of the iPod over the iPhone – the storage – which disappeared in time, leading to it being discontinued in 2017 (Pierce, 2017). According to Gurman (2017), Apple plans to redesign iPhone and iPad applications too in order to work on MacBook line-up. If the MacBook has the same autonomy of the battery as the iPad, approximately the same dimensions but the possibility to run iPad apps as well as MacOS apps, the iPad pie slice in the revenue share will be thinner. The same with Apple Watch and the iPhone. Recent models of the Apple Watch have a SIM slot and can be used without an iPhone which may lead to a decrease in iPhone sales.

AppStore – another milking cow – was first launched in 2008 and since then Apple has made over \$120B in sales (Heisler, 2018). This is mostly due to the crowdsourcing strategy. The App Store provides developers with a link to users; they set their own price for the application and retain 70% of sales and in-app advertising revenues (Bergvall-Kåreborna & Debra, 2013).

Apple's platform is a semi-closed-source platform, and authorization is required for an application to be sold in the App Store (Yang *et al.*, 2018).

In the above-presented tech-chain, Apple managed to implement complex types of business models, but the common path is that each and every one has as ultimate goal making users stick to Apple ecosystem. Currently, it resembles more a zero-sum game where the participants are the Apple products.

Although it started to produce desktop computers almost a half of century ago, the first store beyond the border was opened after 27 years in 2003 in Japan – Tokyo (Spencer, 2012).

However, in the last years, the expansion was exponentially and currently, Apple products can be bought from approximately 500 worldwide stores.

This expansion occurred not only on vertical by growing the number of stores but on horizontal too. Recently, Apple signed partnerships with different companies like Nike and Hermes in order to grow the notoriety of its products in both corresponding sports and luxury niche markets. Apple Watch is the only product that the company sells in luxury, sports and standard version. The same watch has a starting price of \$349 for the Nike+ sports version and can reach up to \$1399 – the Hermes edition with a leather bracelet (Apple, 2017). All versions share the same internals.

4. Research Methods

The goal of this paper is to make an unbiased analysis of the way the Apple business model was reshaped in the context of internationalization. To examine this, data between 2001 – the launching of the iPod – and 2018 – the HomePod release – was taken into account.

The data related to Apple net sales and Apple net income was collected from the Apple condensed consolidated statements of operations for each respective year, starting with 2001.

The Apple investor database is public and can generate numbers of the last 18 years. The extracted numbers were double-checked with another database – AAPLinvestors.net.

Information related to a number of Apple Stores was collected from the Apple Storefronts database, a project that presents each and every Apple Store by the date of the opening and location.

If the Apple tech-chain chart some of the Apple products like MacBook, MacBook Air iMac, iMac Pro, iMac Mini are missing, those being assimilated to Apple Computer. The same goes

for the iPod Nano, iPod touch, iPhone X and older, those being assimilated to the iPod and iPhone category.

The decision to focus only on the main products has been made in order to avoid the misunderstanding of the core ideas by unfamiliar readers.

5. Findings

One key finding of the study is that there is a direct link between Apple's user retention and the number of devices they have. If at the beginning one had the possibility to simply switch to a Sony USB Walkman instead of using the iPod in current times Apple is making life hard for users that want to migrate to other platforms.

Another finding is the fact that Apple internationalization strategy was not linear. The number of Apple Stores simply boomed just after the increasing demand of first-generation iPhone, when they saw the potential and when they were confident that the product is mature enough and can cope with the fierce competition.

An interesting finding is that for the moment, an important competitor of an Apple product is another Apple product. Having in mind cannibalization between the iPhone and the iPod it remains to be seen how the remaining products will get along.

6. Conclusions

The main aim of this paper is the examination of the Apple's complex business strategy, correlated with the worldwide expansion. There were presented examples of the incipient strategies all the way down to the user's aggressive retention to Apple ecosystem.

This paper created also the premises for a future understanding and anticipation of the Apple expansion strategy by a reader which is not familiar with their ecosystem.

The study has some limitations related to the period used to analyze the business models in the context of Apple's expansion, due to the lack of data in some periods since the company's establishment. However, being a mainstream company, different types of information can easily be found online and analyzed, as well as the multitude of electronic sources.

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Marketing Between Big Data and Behavioral Sciences

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Abstract

In the context of information society there is a remodelling of economic phenomena and of the entire human civilization. Artificial intelligence (AI) is permanently modifying the boundaries between the physical and the virtual reality, and even the texture of reality itself; which involves adapting marketing strategies from the perspective of paradigm change. There are new technologies that enable the creation of high-performance database, and new methods of reporting and modelling consumer behaviour. The analysis of the impact of artificial intelligence (AI) on the evolution of human civilization is becoming an increasingly important preoccupation of the academic environment. Digital technology generates not only new tools and methods for the creation and management of information, but also a new type of knowledge of reality. Moreover, we are witnessing the emergence of a new type of reality.

Keywords: *artificial intelligence, digital marketing, big data, behavioral science*

JEL Classification: *M31, D40, Z33*

1. Introduction

The economic environment becomes the operation of a mix of physical and virtual reality.

The strategies of organizing companies and, implicitly, the marketing strategies must have the strength to predict the changes that will occur in a market that, already, has new features determined by digital technology. Market surveys can operate today with impressive volumes of data, and companies are currently working with the *big data*.

There are studies which consider that a total volume of digital data that will be reached in 2020 on a global level is of 40 trillion gigabytes (http://www3.weforum.org/docs/WEF_GlobalInformationTechnology_Report_2014.pdf).

This will have a considerable impact on the business environment and on the manner in which each company will operate.

The impact that AI will have, in the near future, on the business environment (more precisely in the manner in which a company shall report itself to the market and to its customers) can be set within two coordinates: one, the considerable increase in the volume of data, and two, the

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permanent reconfiguration of what we call *big data* and of the tools and models of data processing. While in the past years, firms which could operate with *big data* had a major advantage on the market, today the difference is made by the way in which these data bases are being processed.

In the context in which digital technology allows more than 3.2 billion people to have internet access (http://www3.weforum.org/docs/GITR2016/WEF_GITR_Full_Report.pdf, pg. 55), a company has new tools to communicate and to boost its status towards a global level.

2. Problem Statement

We intend to analyze the way in which the volume and variety of generated data in organizations creates both a challenge and an opportunity to reach a new potential for business and added value.

3. Research Questions/Aims of the research

Identifying the *big data* potential, still in the emerging, represents a change of paradigm on which any business must take into account for the purpose of commissioning it in business strategy elements. Widespread use of the potential of Big Data in business can lead to a better market segmentation in terms of target group. This will efficiently allocate resources, with great benefits in terms of satisfying consumer needs in a fast, dynamic and flexible way.

4. Research Methods

The research methods used are problematisation and the cause-effect analysis. Thus, the paper emphasizes users who have the ability to build the corresponding infrastructures for the management of information will be able to transform these challenges in a competitive advantage and will be able to lead their business towards performance.

5. Findings

5.1 AI and new approaches of consumer behavior

The specialists in marketing have reacted very quickly to the opportunities offered by digital technology for a more efficient market targeting. A new vision is taking shape in consumer behaviour. The creation of the consumer's profile is not confined to the carrying out of the solid database or to their formation with the aid of the socio-demographic criteria. There are companies that are able to obtain more than 5000 points providing information for each of the 230 million US consumers ([Http://www.corporatestrategy.com/red-ocean-vs-blue-ocean](http://www.corporatestrategy.com/red-ocean-vs-blue-ocean)). At the same time, it was established that people who have similar features might make different decisions (<https://www.blueoceanstrategy.com/blog/six-red-ocean-traps-you-should-know>), which affects significantly both commercial and political marketing.

Therefore, based on cutting-edge methodologies, for the creation of operational consumer profiles, an innovative collaboration between professionals of digital technology and specialists in behavioral sciences becomes necessary. Subsequently, specialists in communication shall draw up appropriate messages for each type of public and choose the right media channels.

Thus, the creation of the consumer's profile involves a multidisciplinary approach which responds to a synergistic view and to some very ambitious goals. The new maps of consumer behavior uses psychographic criteria with which is structured *big data*. This enables a much greater precision in micro-targeting the market. Subsequently, the specialists in behavioral

sciences and communication can create personalized messages to be transmitted on optimized channels, with the aid of professionals in digital technology. Such a vision on behavior creates the premises not only for its thorough knowledge, but also for its change. Thus, a change of content takes place for anticipating the trends of market evolution.

The creation of the profile of the consumer is a consequence of the market relationship between the needs of consumer and economic resources at its disposal. Consumption is the final act of production, which gives the value and profitability of the manufacturer, to the extent that the final products can meet the needs of consumption of individuals. Therefore, we should focus on the primordial relationship between supply and demand and, in particular, on the allocation of limited resources, in order to meet the demand at a higher level as possible. Account must also be taken of the nature and structure of the demand for consumption, in order to identify the volume and the economic structure of the supply of goods. The current society considers that the act of consumption is the key to economic growth. It's about the consumer and not consumerism.

Consumerism is an act of consumption without aiming to maximize the economic usefulness, even if it brings some harm to the environment, to natural resources and, in general, to the economic sustainability. [Balaceanu, 2012] These things occur due to the fact that the consumerism is closely related to maximize profitability for operators, without a sustainable correlation between supply and demand. To satisfy demand is just a matter of economic strategy. Consumerism is just an exercise in marketing, without taking into account to maximize the usefulness of the consumer. He leads the act to an egocentric act, each consumer representing a source of unfair gain.

In modern society, as a result of the process of globalization, the act of consumption has become, not only an expression of the need and economic utility, but also a means of communication between values, economic welfare or wealth. Also, through consumption, companies create relationships of interdependence, subordination or obedience, depending on the purchasing power of the debtor, or the importer. Modern societies are consumption-oriented. People concentrate more on meeting their needs of consumption, even outside of the budgetary restrictions, represented by the income and costs, using often credit, as an instrument.

Even in this situation, (euphoric for some consumers) there are limits to the market which adjusts consumption in accordance with the monetary policy and the requirements of the budget, as well as the level of indebtedness to which a country may be exposed. Normally, consumption is influenced by many economic factors: the size and the variation of income, its prediction for a certain period, the purchasing power, inflation, also the level of employment and social factors, such as traditions and customs of consumption, social status, the environment, the level of culture and education.

5.2 Big data and the use of analytical platforms in marketing

AI generates changes in the organization of the marketing services. For a better knowledge and analysis of the market, more and more companies use digital analysis platforms. Not only these platforms allow communication in real time, but instant analysis, interpretation of data and measuring of the ROI (the return of investment). There is a digital platform that has the ability to monitor over 150 million websites, more than 10 of the most important social networks, while the results can be translated into 187 languages (www.talkwalker.com). The new types of digital platform use technologies for the recognition of images, in the conditions in which more than 80% of the posts contain images (www.talkwalker.com). Therefore, *big data* creates the premises for the implementation of very accurate consumer profiles.

Monitoring the image of a company on a global level can be accomplished in real time and is carried out using a new type of social concepts: *social listening*, *sentiment analysis*, *smart spike analysis*, *spot emerging trends* (www.talkwalker.com).

Beyond the performance of digital technology in market micro-targeting and the creation of the profile of the consumer, new topics are opened for discussion, especially from the legal perspective. The collection of data from the digital environment must respect people's private lives. More important than the concern for performance in marketing, it is mandatory to optimize the legislation for the protection of consumer rights.

The development of IT technologies gives a greater possibility of strengthening economic instruments of information transmission to the markets with regard to the supply of economic goods, production capacity, with the aim of increasing the company's visibility and market share. At the same time, modern technologies type "could" allow closeness in real-time between users. It offers a variety of solutions for storage, processing and use of data remotely via the internet and also gives almost unlimited access to information without a major capital investment, reducing costs, creating favourable prerequisites for increasing the competitiveness of the company. More and more, all over the world, information technology is heading towards the concept of "cloud". [Chandraul, Singh, 2013]

Cloud Computing is a paradigm in production, a model that allows easy access to information stored in a data centre, by any mean of modern communication, from your laptop, PC, tablet or smartphone without limit. The interactional effort is minimal and available for as long as there is a working internet connection.

The information technology type "cloud" enables increasing performances at the company level by connecting the means of production/technology to the Internet using a system which processes the data and information with the character of specificity for a particular industry or industry sector of activity; having as a goal the matter of making a decision towards helping the managerial activities. Thus, the cloud system creates the premises of adopting a modern management and organisational method conferring plus value to the company and to the act of production.

In order to improve the economic performance of a company, managers use modern, computerized and high-tech production methods, with the role of improving a system in which the entries (natural resources, human capital, the system of data and information, elements of taxation, the legislation, the financial resources) must generate certain outputs in order to keep for the company a high level of competitiveness on the market. In the framework of this mechanism, maintaining a high level of performance in spite of the reduction of production costs, pursuing with priority the level of training of the human resources, increasing the levels of productivity and permanent development of the system of quality of products made are relevant. "Cloud" type technologies implement a system of indicators of efficiency and profitability which are both compatible with sustainable development strategies and with the policies of sustainability.

In our vision, the use of modern technologies based on intelligent systems to assist managerial decisions, constitutes a consequence of progress and an important argument from the perspective of increased competitiveness. At the level of the European Union, Romania is placed on a modest place in relation to the use of "cloud computing" technologies. Only 5% of the undertakings use cloud systems, while the European average is of 18%. 33% of the businesses use CLOUD applications, while the European average is of 35%. The result is a favourable one, which shows increased potential of human capital in terms of awareness of the need for the implementation of software solutions, for increasing the managerial efficiency and performance towards becoming a high level economic entity.

The use of "Big Data" gives a number of advantages to economic processes, like facilitating access to data to interested parties in a transparent manner, reducing the time to search and

process, in order to initiate new products on the market or recovery top of supplies of the products, improving the quality of the existing process and increasing the performance of the production process. The use of data in a digital format, gives organizations the ability to operate with real data, adapted to current needs, which gives rise to immediate advantages on the market, regarding the marketing or the risk analysis. In this way, the information reaches the consumer in the specific form, structure and quality compatible with its needs, without having losses or redundant areas.

6. Conclusions

AI allows, obviously, the remodelling of marketing strategies. With the help of “big data” it makes it possible to build more complex images of the market, easy to monitor. The companies might get to know the consumers much better and may pass personalized messages instantly to them. The consumer would communicate more intensively using digital media, which allows the new digital platforms to carry out the creation of high complexity behavioral profiles.

The marketing strategies performance is based not only on “big data”, but also on new methods of analysis and interpretation of the monitoring data, methods created on the basis of a multidisciplinary approach.

The knowledge of the consumer and its preferences involve the execution of patterns of behavior which permit an unusual meeting between digital technology and behavioral sciences.

At the same time, it is necessary to create clear rules to ensure that the collection of data about the consumer shall respect its rights, primarily the private character of life. In fact, people must be regarded not only from the perspective of the buying potential, but also from that of their personal rights.

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Growth, Climate Change and Intergenerational Valuation

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“The paradox is that we have to use our power to preserve a sense of what is not in our power. Anything we leave untouched we have already touched. It will no doubt be best for us not to forget this, if we are to avoid self-deception and eventual despair.” (Williams, 1995)

Abstract

The problem of intergenerational equity assumes solving a conflict between present and future needs. The utilitarian approach, the economists’ habitual yardstick, found eventually its temporal neutrality obsolete and gave way to arguments accepting rational significance in dealing with differences in timing (or location). A social discount rate serves to devise practical arrangements which will correct defects in one part of the system – future generations – without causing more serious harm in other parts – present generations. If the economic (monetary) importance can be equated by updating at a discount rate, the broader context of the climate change challenge demands a “negotiated” equivalence regarding the reciprocal nature of utility and harm in intertemporal valuations, mediated by moral deliberation. Against this background, we deconstruct the rationale behind several competing expressions of sustainable growth pathways – green growth, a-growth, degrowth – with the help of a three-pronged conceptual framework: (1) the means and objectives of our action; (2) the existence of a conflict as to what is good to do; and, finally, (3) the institutional solution for legitimizing our choices. Our analysis leads to the conclusion that the compounding agenda of Nature – Market – Society relations asks for an integrative resolution that would most probably emerge from adding a cultural accent to current disciplinary or technological breakthroughs.

Keywords: *Cost-Benefit Analysis, fairness, growth, valuation, intergenerational*

JEL Classification: *A13, B41, Q51*

1. Introduction

As four of the nine planetary boundaries have been crossed today (i.e. climate change, ecosystems degradation, land-system change and biochemical flows alteration, see Steffen *et al.*, 2015), there is a strong need to reconsider the impact of economic activities on our lives and especially the lives of future generations. We entered the geological period called Anthropocene, in which human beings shape their environment. There is recognition of our moral responsibility towards the future of our planet and the very existence of future generations. Our way of living has a tremendous impact not only on the future of human species, but also on planetary biota. As Georgescu-Roegen poetically expressed it: “Perhaps, the destiny

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of man is to have a short, but fiery, exciting and extravagant life rather than a long, uneventful and vegetative existence. Let other species – the amoebas, for example – which have no spiritual ambitions, inherit an earth still bathed in plenty of sunshine.” (Georgescu-Roegen, 1972).

The prospect of future generations’ welfare has taken almost stealthily center stage of the economic debates on growth scenarios. The once dominant concerns about environmental protection and finite resources have been supplemented of late with controversies related to the measure of sacrifice that we have accept to ensure the equivalence of living standards between the present and the future. This paper contributes to this direction of thought with a discussion on the role of moral deliberation in intertemporal valuations affected by (de)growth scenarios.

In sections 2 and 3, the problem of intergenerational equity is introduced against the analytical issue of valuation: How do we value events based on their placement over time?

Similarly, we can ask about their placement in space: The most geographically distant from us counts as much? The parallel between the two types of computation, over time and space, is important because it draws attention to a defining question for discounting future values: *why* and *how* can distance acquire rational significance in dealing with differences in timing (or location)? A social discount rate (SDR) serves to underpin policy options which will correct defects in one part of the system – future generations – without causing more serious harm in other parts – present generations. As we argue in this paper, the reciprocal nature of utility and harm in intertemporal valuations is mediated by moral deliberation which may or may not outweigh the economic (monetary) value of the discounted equivalence. Discounting for the more remote effects of our policies seems to make sense not because the event occurs in the future; rather it would be because there are reasons to be stated and judged separately, on their merits.

In sections 4 and 5, we deconstruct the rationale behind several competing expressions of sustainable growth pathways – green growth, a-growth, steady-state growth, degrowth – with the help of a three-pronged conceptual framework: (1) the means and objectives of our action; (2) the existence of a conflict as to what is good to do; and, finally, (3) the institutional solution for legitimizing our choices. Our analysis leads to the conclusion that the compounding agenda of Nature – Market – Society (NMS) relations asks for an integrative resolution that would most probably emerge from adding a cultural accent to current disciplinary or technological breakthroughs. Social equity is at the core of the ecological economics’ scenarios. The degrowth paradigm calls for equitable downscaling of production and consumption focusing of human wellbeing and ecological preservation at the local and global level, in the short and in the long term.

2. Valuing economic action between calculation and process

Social sciences are dominated by the issue of valuation – to confer or to recognize a value: what matters and how much does it matter in the study of society, market, and the state?

Economists embrace a straightforward approach to economic valuation by which they mean a calculation of the benefits and costs when we make changes in the use of resources. While most of the profession agrees on the equivalence of this reasoning with a moral principle (Graafland, 2009) in the footsteps of Mill’s utilitarian philosophy, some opponents would assimilate economic judgment with a process of deliberation within a moral science and therefore driven first by value judgments (Kolm, 2009, Alvey, 2011). In this section, we ask how we rationalize about valuing economic actions, while in the next section we try to explain how the case of inter-temporal valuation is affected by moral deliberation.

Valuation as an expression based on utilitarian philosophy is commonly understood to satisfy three criteria (cf. Graafland, 2009): (1) Consequentialism: our judgments are results-oriented; (2) Welfare: the overarching goal is individual welfare aspirations; and (3) Measurement: socially maximization of cardinal preferences. This way of expressing value – in this case, of economic decisions – has been taken up in formulations, including those of John Stuart Mill himself, which observe that strict calculation can make the analysis irrelevant from a social point of view if some socially accepted facts are disregarded as necessary under certain circumstances.

This concern received ample attention in Coase's (1960) reflection on social cost. Coase's approach, supported by multiple references to jurisprudence, is based on the finding that market arrangements – contracts, universal rules, agreements – cannot be optimal in the presence of transaction costs. Due to these costs, economic actors find themselves under the influence of some administrative decisions that are not internalized in their optimization of utility functions.

However, Coase does not suggest a correction equal to the loss suffered, in the Pigouvian tradition. Coase considers instead the reciprocal nature of valorization:

“What has to be decided is whether the gain from preventing the harm is greater than the loss which would be suffered elsewhere as a result of stopping the action which produced the harm.”

Utility or benefit, therefore, must be equated in alternative scenarios with its opposite, disutility or harm. However, Coase leaves us with just a proposal on the correction we need to take into account, not the procedure by which it would become part of the valuation of social action. In this section, we propose to show that the strict equivalence of valuation with calculation is insufficient from a rational viewpoint even in the absence of moral aspects and, therefore, cannot provide a generally accepted practice of valuing economic decisions.

Foster (1994) observes that there are some degrees of commensurability of value. The first, usually adopted by economists, is of a strong form, whereby we work with a cardinal, that is quantifiable interpretation of value. The other two forms become important when measurement is not possible or not relevant. In the former case, the weak form of valuation, we give value an ordinal interpretation – under certain conditions, one event is more desirable than the alternatives; in the latter, the discussion is about the incommensurability of values of social action (e.g. credibility, honor, reputation, care, but also freedom, equity, justice), which are largely expressions of our subjectivity.

The problem of discriminating between the varying degrees of valorization rests on the contradiction, as Boudon (1992) explains, between the rationality postulate of the social actor and of the economic actor. “A richer ensemble of rationality” (Boudon 1992) would be a better alternative to deal with this apparent contradiction, whereby we appeal to a conglomerate rationality – utilitarian, teleological, axiological, cognitive and traditional. What is normative and what is positive becomes relevant by merging, not by disjunction between these varying instances of judgment. These different components of rationality are found simultaneously in the conduct of the social event – maximizing the value of an engineering project may be affected by the finding that the work does not respect the values of the community in which it is located, as is the case with the construction of hydropower plants in fragile ecosystems. As Boudon points out (1992), in social sciences it is necessary to accept that “the rationality postulate is a methodological principle, not an ontological assertion.” Most visibly, the methodological principle of rationality is manifest in the transition from each of us (the individual) to all of us (the social) through the effects of the composition of social action. The social act, dependent

on the aggregation of individual choices, leads to complex events – unexpected, undesirable or perverse (Boudon 1992). Unlike the purely objective interpretation specific to calculation, value adjudication in social action is a process which includes:

- A conflict of *concerns* about our future acts and the values we are willing to accept;
- A conflict about *forms of equivalence* in understanding social action; deciding what is, and not how much is, the value seems to be the quintessence of the valuation process (Graeber, 2001: 88).

The structure of social action as thus described eliminates the risk of either determinism or relativism in value judgments. Valuation far from being either an abstract or relative concept becomes a working one, in a pragmatic sense, to be revealed in “specific life circumstances” (Foster 1994).

3. Moral deliberation in inter-temporal valuation

Inter-temporal computation assumes a conflict between present and future needs: how do I value events based on their placement over time? But, as Parfit notes (1984, p. 486), we can similarly ask ourselves about their placement in space: the farthest geographic of us counts as much? How much? The parallel between the two types of calculation is important because it raises a defining question for the moral deliberation in inter-temporal valuation: can distance, temporal or spatial, have rational significance that is apart from the logic of valuation itself, and, if yes, how can moral deliberation affect it?

In time, a good devaluates itself in a period characterized by inflation or any other event that can reduce its value. Its discounted value in the future is

$$S = S_i / (1+r)^i,$$

where S is the present value, and S_i is the value over i years and r is the discount rate (e.g. the inflation rate). For example, the value one year later is $S*(1 + r)$.

If r involves a scenario in which we can accept the value difference, then this scenario has an opportunity cost lower than any other possible scenarios. We discount less those future benefits that matter more to us and, for that matter, accepting that alternatives for returns greater than r do not actually exist. The use of CBA highlights the relevance of discounting when only monetary values are at stake. The problem we are asking is what happens in situations when we substitute monetary values for values in weak or incommensurable form?

The utilitarian calculation abstracts not only for the composition effects of social action, but also for the temporal distance – it is temporally neutral: the consequences are positive or negative in a way that we can absolutely evaluate. Distance is introduced with the help of a Social Discount Rate (SDR), with $SDR > 0$. Applying SDR often implies the hypothetical case of making sacrifices to keep a certain standard of living level of future generations. For example, we need to redistribute money from other uses to support technologies that reduce greenhouse gases considered to be the main driver of environmental degradation. But CBA can show that the same amounts of money can get other destinations considered beneficial to us now. We can decide to prioritize the interests of certain people: strangers, children, parents, grandchildren, although it is sometimes possible – for moral reasons – not to be able to do it.

The weighting we assign to different interests depends on a choice of means and a choice of objectives (Parfit 1984, p. 117), on the conditions of *actions* and the preferences for *outcomes*, both premises left out of the calculation.

The lesson we draw is that discounting future values seems to make sense not because the event occurs in the future but because there are arguments based on a moral deliberation about it: to accept a present sacrifice, to weigh inter-personal relations etc. All these different reasons must be stated and judged separately, depending on merit, otherwise, Parfit (1984, p. 486) concludes, “we become blind from a moral point of view.” The impact of our decisions on future people is a moral issue that most of us recognize. This is the case, for example, when addressing the issue of (de)growth – the leitmotif of the discussion in sections 4 and 5. We have seen that moral deliberation includes references to (1) a conflict of *concerns* about our future acts and the values we are willing to accept, and (2) a conflict about the *forms of equivalence* in understanding social action. We will treat each of them in turn.

3.1 A conflict of concerns

The theme of degrowth is defined by barely commensurable values: environmental concern, care for future generations and justice regarding the distribution of welfare between present and future generations. Scientists have clear evidence showing that keeping the heating trend, with and without human intervention, leads to very poor future conditions of existence.

Analyses should open up to the means and actions with which we can achieve our goals.

This is done by discounting the temporal difference by two parameters with an ethical function: the delta discount rate (δ) and the elasticity of marginal utility according to consumption (η), which allow for a discussion of welfare equivalence between generations.

Near zero values for delta bring us results that indicate excessive current savings to maximize total, present and future utility. In alternative scenarios where delta takes greater value, most of the costs are placed in the future and excessive sacrifices are avoided at present; correspondingly, high values would suggest the application of principles that do not correspond to the current practice of redistribution by asking for excessive austerity from future generations (see Hampicke, 2011). Inevitably, we ask: how can we justify the choice of any rate of discount?

In addition to utilitarian reason, the parameters also serve an egalitarian judgment, by which we try to establish an order of necessity among the priorities so that this order about the results we reach is accepted by all of us. In this process, we are also evaluating our own options at individual level about how to exercise individual freedoms in this process. In their entirety, the considerations of care, responsibility, justice, equality, well-being formally mirror the correspondence with the elements of the social actor's rationality postulate.

3.2 A conflict about the forms of equivalence

Concern for goals and means requires us to consider a conceptual framework that adds to the utilitarian vision a variety of motivations – impersonal, universal, which renders implausible a solution for moral deliberation. Peacock (2016) points out that the original meaning of value equivalence in Aristotle refers to the “conscious act” rather than to the consequences of individual action: valorisation is the result of a process of social interaction on the resolution of problematic situations. We cannot rely on a given solution because the deliberation involves the circumstances of the given case in which there is “a whole range of specific and personal aspects of the alternative policy choices ... appropriate consultations and discussions ...

evaluating the opinions of others ... expressions of meanings, positive or negative.” (Foster1994)

The resolution is a specific result of deliberation, by which we “harmonize to a certain extent the different values we face” (Johnson, 2015, p. 114) and by which “we cultivate ... strategies to deal with it” (149); it goes beyond the reductionism of imperative moral solutions, as well as against the danger of radical relativism (everything is possible).

It is our inner aspiration to find “an area of value ... that is protected against arbitrariness” (Williams, 1995, p. 241). An intermediate or rather provisional solution in economics at least was to delimitate between positive and normative in scientific investigation, a solution that puts us in the logical error of deriving *what ought to be* from *what it is* (Williams, 1995, p. 101).

As Hampicke (2011) notes, the stalemate of the debate on finding an action policy to limit the adverse effects of global warming originates in the ambiguity caused by the inability to distinguish between empirical variables (observations of facts) and normative assertions (value judgments).

It has probably become apparent so far that the effects of our decisions on the people of the future implies a moral issue that cannot be circumscribed to a general principle; there is no rule that can give us certainty about the justice of moral judgments. Morality is “conditioned by the retrospective view on deliberative processes’ rather than some results we find (Williams, 1981, p. 35), and individual character and personal relationships thus place themselves in the moral experience (p. 5). At the same time, deliberative processes are culturally conditioned: we cannot overcome in our deliberations the limits imposed by the history of our lives. The responsibility and legitimacy of our resolutions are anchored in the experience of the practice community we have participated in and we know we will be participating.

4. Sustainable growth under scrutiny

Since the 1970s, there was a progressive rise in awareness about the need to reconsider our economic model based on endless growth. The publication of Georgescu-Roegen’s *The Entropy Law and The Economic Process* in 1971 faced a *fin de non-recevoir* on the part of the economic profession. Georgescu-Roegen’s analysis sounds “prophetic” today (see Bonaiuti, 2011) as he foresaw the failure of the sustainable development project. The problem of the sustainable development paradigm is that it tries to harmonize simultaneously three apparently irreconcilable goals: social welfare, environmental protection, and economic growth. Since the late 1980s, the degradation of our climate, the financial crises, the accumulated debts and the overuse and exploitation of resources worsened.

Sustainable development has been replaced by a new term, more in tune with the growth paradigm, called “green growth”. The “greening” of economic growth is supposed to repair environmental damages. Scricciu *et al.*, (2013) argue that orthodox economic thinking in economic modeling of climate mitigation policies brings insufficient support to green growth claims. Moreover, mainstream climate economics considers that immediate de-carbonization of the economy is too expensive. Ambitious climate targets are unnecessary burdens in their view, so the best thing to do is ... nothing. Humanity should just “wait and see” as the invisible market hand will fix all problems (Storm, 2016). When carbon prices will go up sometime then de-carbonized alternatives will become attractive for investors. This “climate policy ramp” is given by the expectations of cheaper options for GHG mitigation in the future. Against this passive attitude, some authors call for value judgments (Storm, 2016) to be incorporated in economic analyses, following the innovative work of Heal and Millner (2014) on “normative

uncertainty”. Storm argues that dynamic integrated-assessment models (IAMs) fail to deal with multiple “unknown unknowns” of climate change. According to Scricciu *et al.*, (2013, p. 157): “economies are highly complex non-linear systems and it is impossible to accurately predict their future evolution”. Here we find a combination of “scientific” and “socio-economic” uncertainties (Heal and Millner, 2014).

On the other side of the economic theory spectrum, interventionist policies of a sort of Green New Deal argue that a global carbon tax, regulatory policies will help align market incentives with social goals and climate mitigation taxes. They emphasize the eco-efficiency gains with normative policies fostering green standards and the redistribution of cost burdens by welfare states. (Stiglitz, 2008, Barbier, 2009, the Green New Deal Group, 2013). The problem with this argument is that it will not engender a structural change on a global scale (Storm, 2015) and it fails to address the eco-efficiency rebound effect (Schneider *et al.*, 2010). As if it was not bad enough, to this uncertainty climax in economic modeling we add the moral storm associated with climate mitigation policies.

5. The “perfect moral storm” of the degrowth scenario

The problem with the global governance and climate change policies is multifaceted (political, social, economic, ecological...). However, the moral dimension plays an important role. According to Gardiner (2011, 2006), climate change is a “perfect moral storm” because it raises very difficult ethical questions. Ethics is at the core of political decisions. The convergence of independently harmful factors may result in a catastrophic outcome. the present moral storm has three dimensions: global, intergenerational and theoretical. The climate is a common resource that has to be equitably distributed in the intra and intergenerational context.

As Gardiner puts it, if we privilege the global storm solution to the intergenerational storm solution this will facilitate “a strategy of procrastination and delay” (Gardiner, 2006, 405).

Consequently, the intergenerational equity should be put forth as the pivotal concern.

The complexity of the problem is something that we, the present generation, may find convenient: “For one thing, it provides each generation with the cover under which it can seem to be taking the issue seriously – by negotiating weak and largely substanceless global accords, for example, and then heralding them as great achievements – when really it is simply exploiting its temporal position.” (Gardiner, 2006, 411) Present, exploitative generations tend to give up responsibility towards future generations without acknowledging it. They can take advantage of the future without overtly admitting this either to others or to themselves. Moral corruption turns into distraction, complacency, unreasonable doubt, selective attention, delusion, pandering, false witness and hypocrisy (Gardiner, 2006, 411). As Storm rightly puts it, the problems we need to address are normative and cannot be solved by more empirical knowledge.

To achieve this normative turn in decision-making we need to emphasize, to revive the moral dimension of environmental problems. But how can we explain the strong resistance to it? This apparently insolvable moral equation is due, in our view, to our addiction to economic growth.

We seem unable to give away “growth mania” and if we accept to make sacrifices and limit greenhouse gas (GHG) emissions we still call this “green growth”, hoping that efficiency gains will save us in the long term. But in this respect, the rebound effect, a reformulation of Jevon’s paradox, demonstrate that eco-efficiency gains are usually reinvested in new consumption and production, thus counterbalancing the initial improvements. So, what if the solution to the moral problem was giving up our endless growth illusion and its benefits? What if the so-called “sacrifices” for present generations were in fact irrational resistances to a deep transformation

of our socio-economic systems? What if we took seriously the Easterlin paradox that GDP per capita no longer correlates with happiness above a certain level of basic needs satisfaction? We could imagine that despite GDP decrease we could experience a good, happy life.

The “degrowth” or “a-growth” scenario is the alternative to “sustainable development” and “green growth”. Degrowth theorists pointed out the contradiction between sustainability and economic growth (Asara *et al.*, 2015). While the “a-growth” scenario is a complete indifference to GDP, considered as a poor indicator of welfare and social progress, “degrowth” has a more explicit commitment towards the downscaling of the economy. In his Encyclical “Laudato Si” (2015), Pope Francis called for degrowth in some parts of the world in order to share resources more equitably with poor countries. Degrowth is “an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global level, in the short and long term.” (Schneider *et al.*, 2010) Its objective is socio-ecological transformation towards more intra and intergenerational equity, and not reduction of GDP per se (it is an arbitrary indicator). It is not a negative growth of GDP or just the dematerialization of our economies (see Sekulova *et al.*, 2013; Kallis *et al.*, 2014). This is why it should not be assimilated to a “sacrifice” that would be asked to present generations. It is not doing with “less”. Instead, it is an opportunity for a “different” project: “different activities, different forms and uses of energy, different relations, different gender roles, different allocations of time between paid and non-paid work and different relations with the non-human world” (Kallis *et al.*, 2014).

As Asara *et al.*, (2015) asked, “if we are to guarantee a sustainable and just future for present and future generations, why should our economies grow?” An important pitfall is associating degrowth with inequitable distribution of poverty, waste, resource depletion and ecosystem degradation in the name of climate change policy. Or, another risk is applying austerity measures as necessary sacrifices that will bring “green growth” back as present neoliberal policies actively try to propel. To avoid this pitfall, theorists have called for “socially sustainable degrowth” that includes social justice. They differentiate it from “unsustainable degrowth” that is economic recession and downgrading of social condition through poverty, unemployment, war and environmental hardships. Our situation is tragic in the sense that high-consumption, Western-style lifestyles that cause our environmental damages often fail to keep their promises for a good, meaningful life. Many people, while wealthy, feel alienated from their communities, disconnected from nature, unhealthy, overworked (Hamilton and Denniss, 2005; Lane, 2000). A worth trying, mindful alternative to consumerism is ‘voluntary simplicity’ (Elgin, 1998, Alexander, 2009, Ioncica and Petrescu, 2016), which stipulates that a ‘good life’ goes hand in hand with simplicity, moderation, sufficiency, frugality, non-materialistic lifestyles. Voluntary simplicity is a philosophy of life perfectly in line with the sustainable degrowth scenario. Alexander and Garrett (2017) claim that voluntary simplicity is a robust moral and ethical position to guide our lives and our societies.

6. Conclusions

The prospect of future generations’ welfare has become a practical preoccupation of primary importance, for example in the case of global warming. In terms of value judgments, we are quite restricted by the tool economists use, the cost-benefit analysis. To estimate the extent of concern for society in the future, the measure of sacrifice that we accept to do – at least in terms of redirecting funds to clean technologies or the equivalence of living standards between the present and the future, are some of the questions that are not completely considered in that

framework, and we have to find a resolution in the end. Our discussion proposes a deliberation on the values involved in three stages.

First, we are called upon to understand that valuation does not exist as a process independent of how we relate directly to social action, including how we are affected by decisions of others.

We have to decide not only on the results – which may result from individual preferences, but also on the means to achieve them – which result, rather, from a perspective of social preferences; not just a moral judgment for everyone, but for all. Difficult tasks, which are revealed in a deliberative process similar to “common law,” based on precedents motivated by action and not a universal code of action. Second, by moving from computing to trial in moral deliberation, our resolutions take up as many forms of social action as they are coexisting and which, therefore, must not be neglected. From the simple upgrading of value, we come to focus on events that can change our understanding of what is important: how much we are personally affected, how likely the event is, what alternatives exist, etc.

Finally, inter-temporal valuation draws more attention than other instances of social action to the fact that the social sphere is confined to the cultural patterns we recognize, and which lend legitimacy to our resolutions. Conflict of opposing values remains to be negotiated through negotiated solutions, but accepting a value is above all a process embedded in a cultural system.

Degrowth requires a transformation, not simply a transition (Asara *et al.*, 2015).

A transformation of our systems by a radical diversion towards a “post-capitalist” future opposed to the transition-oriented, reformist attitude of keeping the pre-existing trajectories and the end goals of economic growth and neoliberal governance. The transitions are slow and affected by moral corruption. These reflections of work we have reached will be enriched and reoriented according to how the process of social science development itself will unfold.

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International Mobility for Work: The Case of Romanian Youth

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Dorel PARASCHIV⁵

Abstract

Labour mobility is by far the most common mobility type in the case of Romanian youth, The purpose of the paper is to provide a description of the Romanian mobile youth, aged between 18 and 29 years, based on their characteristics, and also to identify their common features and to classify them by applying multi-dimensional statistical techniques. Using descriptive and cluster analysis, there were identified three clusters corresponding to three types of mobilities: a short-term mobility, preferred by young respondents which was associated with seasonal work; a medium-term mobility in countries like UK, Northern countries or outside the European Union; and a long-term mobility in European Union countries, with high wage profiles like: Germany, Austria, Belgium, etc. The analysis uses data resulted from the recent MOVE European project and covering 8706 respondents from six countries, including Romania.

Keywords: *international mobility, labour, Romania, youth, cluster analysis, survey*

JEL Classification: *J61, F22, C38, R23*

1. Introduction

With Romania switching from a totalitarian regime to a market economy in 1990, the Romanians freedom to travel, work or live abroad was opened (see Anghel *et al.*, 2017, for a detailed description of Romanian recent migration). The migration and mobility process intensified after January 1st 2007, when Romania became a member of the European Union.

Labour mobility is by far the most common mobility type in the case of Romanian youth, as a consequence of the existing wage gap between Romania and the destination countries. The National Agency for Employment currently mediates temporary labour emigration through bilateral employment agreements.

The high scientific interest and the need for research in the field of migration and mobility is proven by the results of the research project *Mapping mobility – pathways, institutions and structural effects of youth mobility in Europe (MOVE)*. The project is funded through the European Union HORIZON 2020 programme, and it studies the national and international

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factors which influence the mobility of young people in Europe, with the aim of proposing ways to improve the conditions in which youth mobility is taking place and to reduce any negative effects these may have. This paper uses the recent data obtained in the MOVE project for producing new evidence on Romanian youth mobility.

2. Problem Statement

In 2013, the UN Report on Migration indicated Romania to Italy (2000-2013) and Romania to Spain (2010-2013) within the top 10 bilateral migration corridors with the largest number of international migration per annum. Then it is not surprisingly that, according to the next UN Reports on Migration (2015-2017) Romania enters the top 20 states with the largest diaspora, with over 3.6 million citizens living in another country in 2017.

As highlighted by the major theories of international migration, the factors that underlie the migration phenomenon are classified into push factors (low standard of living, poverty, lack of employment, ethnic issues, the financial crises, the political and social conflicts) and pull factors (a higher standard of living, higher wage level, the possibility of finding a better job, the experience of social networks, individual freedom) (Piracha and Vickerman, 2001). More recently, the motivations for migration diversified. Reichlova (2005) pointed out, one of the present-day's motivations for young Romanians to go abroad is improving the social status and attainment of fame.

Measuring the socio-economic impacts of migration – the positive and negative effects – is another well discussed and researched topic. Roman and Voicu (2010) argued that one of the most important social problems refers to the temporary abandonment of minors by their labour migrant parents. The specialists note that many Romanian migrants are aged between 25-40 years, and so the migration affects the demographic structure of the country of origin (Bradatan, 2014, Andren and Roman, 2016). This has an important implication on the labour force structure of the home country, confronted with higher dependency rates.

The literature also reveals a set of positive effects in the country of origin: increased household incomes and consumption through remittances, higher degree of specialization and career development through youth mobilities, reducing the unemployment rate and the social spending paid by public authorities (Nicolae and Radu, 2007). Keeping diaspora close to the country of origin, migration facilitates the technology and knowledge transfer, increased investments into the sending country, increased access to educational and health services for migrant families and also a transfer of social remittances (Nikolova *et al.*, 2017). In fact, the networks built in the destination countries play crucial information and supporting roles (assisting or assuring places for living, temporary jobs, lending money to the newcomers or the potential comers from the home country) (Ciobanu and Elrich, 2009).

As the large majority of international Romanian migrants are of working age (Manafi *et al.*, 2017), the mobility can contribute to inclusive and sustainable growth and development both in the country of origin and the destination countries. Therefore, the migration and mobility phenomenon is a constant subject in political debates and constitutes a major concern for public authorities and international organizations.

3. Aims of the research

While most of the existing literature deals with Romanian migration, this paper considers a different type of geographical mobility: that specific for Romanian youth that have a working experience of at least two weeks in a foreign country. The purpose of the paper is to provide a description of the Romanian mobile youth, based on their characteristics, and also to identify

their common features and to classify them by applying multi-dimensional statistical techniques.

The paper provides recent evidence that allows for identifying the most recent patterns of Romanian labour mobility.

4. Data and research methods

The data used in this research are subtracted from the two datasets resulted in the MOVE project. The first one was obtained via an online panel survey, while the second one was obtained through a snowball-sampling survey. The respondents were young people aged between 18 and 29 from the six countries involved in the project: Germany, Hungary, Luxembourg, Norway, Romania and Spain.

The original merged data set contains 8,706 respondents, including 1330 mobile and non-mobile Romanians.

Since the research focus is on Romanian youth, the subsample includes the respondents originated from Romania that had a first mobility experience longer than two weeks for other purposes than tourism or visiting relatives. More specifically, we have only kept in our subsample the respondents that have declared work as the mobility purpose. This concept was used as a general definition of mobility under the MOVE project setting, allowing for the analysis of work mobility, mobility for study or for other purposes, such as volunteering. The final subsample contains 277 respondents, 27% resulting from the snowball survey and 73% from the panel.

The main method applied in this research is cluster analysis, which allows for classifying our respondents into three clusters, according to specific characteristics. We applied the K-means partitioning method, using the “within cluster variation” as a measure to form homogeneous clusters (the within cluster variation being minimized). The reason to apply this method was because it is recommended in the case of the large samples and it is also suitable when working with ordinal variables (Mooi and Sarstedt, 2011). The same clustering method was successfully applied for a similar purpose by Eurofound for identification of the job clusters in the European Working Conditions Survey (Eurofound, 2012).

5. Results

This section provides a detailed perspective on the main results obtained. Before presenting the patterns obtained from the cluster analysis, the sample is described according to the demographic characteristics, using correlation analysis and descriptive statistics.

5.1 Variables and descriptive statistics

The sample of Romanian youth with a mobility experience is described using a number of variables divided in the following three categories:

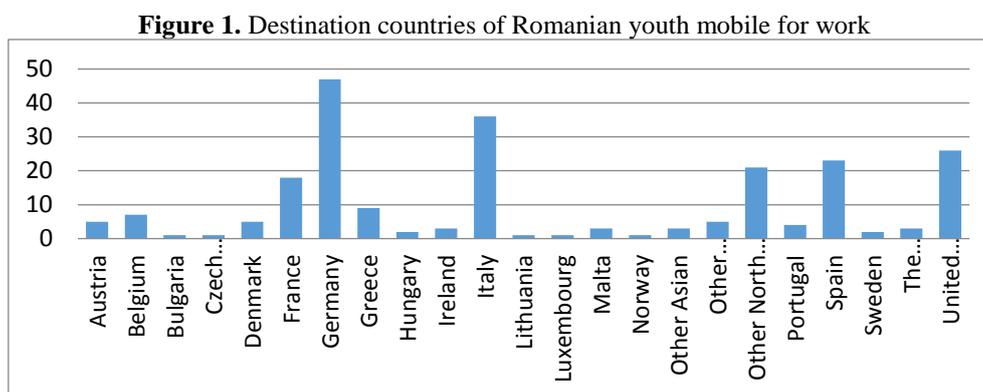
- Demographic characteristics: age, gender, size of the location where the respondent has lived most of his/her life, respondent’s education, father’s education.
- Mobility experience: destination country, rate for mobility experience, length of mobility and obstacles faced to moving abroad.
- National identity: the score for measuring the identification with country of origin

The sample used is remarkably gender balanced, the share of males being 48.5%, and the average age is 24,84 years (std. dev. = 2,89).

Considering the size of the locality where the respondents have spent most of their life, the largest share of the respondents lived in a city with 150,001-800,000 inhabitants (32%),

followed by those who lived in a city with 20,001 to 150,000 inhabitants (23%) or a town (from 1.001 to 20.000) (21%). (see Annex 1 in the Appendix for details).

Most of the respondents have a university degree at undergraduate or post graduate level, while a large share (39%) have upper secondary education. This confirms the high quality of the human capital of Romanian mobile youth. When looking at the family background, as captured by the education of the respondent's father, the situation is slightly different: only about 16% of the respondents have a father with a university degree and 10% have a father with a lower secondary education.



Source: Authors' calculation

The mobility experience was perceived as being good or very good by the great majority of the respondents, as presented in Annex 1. The main obstacles faced by Romanian youth are related to the lack of sufficient language skills, support or information. A remarkable share of 16% of the respondents did not face any obstacles or difficulties when moving abroad.

Romanian youth identify themselves with the country of origin to a large extent, and this could have consequences on their future plans for returning home.

The most preferred destination countries from continental Europe are Germany and France, then Italy and Spain from southern Europe and The United Kingdom, as well as other non-European countries from Asia and America.

5.2. Results from cluster analysis

When performing the cluster analysis a larger number of variables or combinations of variables were initially used for best covering the three dimensions of interest: demographic characteristics, mobility experience and national identity. We excluded those variables that were strongly correlated, such as father's education and mother's education, maintaining the ones which had the lowest rate of non-responses; we also excluded those with a high number of non-responses (such as the one referring to incomes), and those which did not differentiate among participants, such as English level, since most of the respondents declared they had a good level of English knowledge. Eventually, we have kept the most stable configuration of the clusters in which initial cluster centers were close to the final cluster centers (see Mooi and Sarstedt, 2011).

From the total sample containing 227 individuals, 2 were having non-responses for the chosen variables and were excluded from the analysis.

Applying K-Means clustering method, three independent clusters were obtained; this representation differentiated best among respondents, ensuring the homogeneity inside the clusters. The results are presented in Table 1.

Table 1. Main characteristics of the identified clusters

Clusters	Cluster 1: Brain drain outside EU	Cluster 2: Seasonal work mobility	Cluster 3: Brain drain inside EU
Age	26	23	29
Sex	1	2	2
Destination countries	Countries outside EU	Mediterranean Countries	High income level countries in EU
Length of stay	Medium term mobility	Short term mobility	Long term mobility
Rating of the mobility experience	4	3	4
Obstacles faced to move abroad	No barriers	Insufficient language skills	Insufficient language skills
Size of place where they lived most of their life	Cities within 800001 and 3 million inhabitants	Small towns	Cities within 300001 and 800000 inhabitants
Identification with country of origin	No/small identification	Complete identification	Good Identification
Father's education level	Short tertiary or BA	Upper secondary-school	Upper secondary school
Highest educational level achieved	Master or eq.	Upper secondary-school	Master or equivalent
No. of respondents	65	95	65

Source: Authors' calculation

Three clusters were identified: **Brain drain outside the EU**; **Seasonal work mobility** and **brain drain inside the EU**. These labels are in accordance with their characteristics. The first cluster: **brain drain outside EU** mainly consists in males aged 26. They choose their destination countries mainly outside the European Union, with a high wage level, but they also might choose countries inside the EU, such as the UK or Northern countries. They have a high education level, rating high their mobility experience. Their families also have high educational profiles, living most of their lives before the mobility in large cities. They do not identify themselves with the country of origin and they do not have to overcome any obstacles to move abroad. Usually their mobility is around one year and a half, with a focus on gaining experience.

The second cluster, labelled **Seasonal work mobility** consists mainly in very young individuals, choosing their destination from the Mediterranean countries (Italy, France, Spain, Greece). In their short-term mobility they must overcome language barriers. They lived most of their lives in small towns (usually characterized by high unemployment rates) and they completely identify themselves with the country of origin. Both they and their fathers graduated from upper secondary schools, rating their experience as fair.

The third cluster: **Brain drain inside the EU** mainly consists of 29 years old youth. The main destination countries selected by them are Germany, Belgium, Austria or other developed EU countries. They have a high educational profile, but still must overcome language barriers.

They lived most of their lives in small cities and they have a good identification with the country of origin. Their mobility is a long-term mobility (usually more than 5 years).

6. Conclusions

The aim of the paper was to provide a description of the Romanian mobile youth that have work as their main mobility purpose, and to identify common features of their mobility experiences, based on three categories of characteristics.

After performing a cluster analysis, several patterns of work mobility could be identified for the Romanian youth. There are mainly three types of mobilities:

- short-term mobility, which was associated with seasonal work. The destination countries are the Mediterranean countries. This mobility type is preferred by very young respondents coming from small towns characterized by high unemployment rates;
- medium-term mobility in countries like UK, North countries or outside the European Union. The respondents opting for this mobility type usually come from large cities and are characterised by a high educational profile;
- long-term mobility in European Union countries, with high wage profiles like: Germany, Austria, Belgium, etc. Romanian respondents choosing this type of mobility are not so young anymore (around 29 years old) and they lived their entire life in small cities having a high educational profile.

The paper provides new insights into the various mobility types by considering not only the length of mobility, but also geographical destinations and other characteristics as well.

Identifying the mobility patterns of Romanian youth working outside the EU has a certain novelty since this particular group is rarely observed. Their low level of identification with the country of origin could signal a lower intention to return compared to the individuals in the other two clusters.

From a policy perspective, our conclusions could serve for better targeting the policy measures devoted to attract Romanian mobile to the country of origin in order to ensure a more sustainable economic and social development.

Acknowledgment

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Appendix

Annex 1. Frequencies of the selected variables

	<i>Frequency</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Size of place lived most of life			
Village (from 500 to 1.000)	13	5,7	5,7
Town (from 1.001 to 20.000)	48	21,1	26,9
City from 20.001 to 150.000 inhabitants	55	24,2	51,1
City with 150.001-800.000 inhabitants	73	32,2	83,3
City with 800.001-3 million inhabitants	21	9,3	92,5
City with 3 million - 7 million inhabitants	6	2,6	95,2
City of more than 7 million inhabitants	7	3,1	98,2
DK/NR	4	1,8	100,0
Total	227	100,0	
Highest educational level achieved			
Primary	1	,4	,4
Lower secondary	5	2,2	2,6
Upper secondary	88	38,8	41,4
Post-secondary non-tertiary	9	4,0	45,4
Short-cycle tertiary	7	3,1	48,5
Bachelor or eq.	70	30,8	79,3
Master or eq.	46	20,3	99,6
PhD or eq.	1	,4	100,0
Total	227	100,0	
Father's education			
Early childhood Education	1	,4	,4
Primary education	5	2,2	2,6
Lower secondary education	23	10,1	12,8
Upper secondary education	108	47,6	60,4
Post-secondary non-tertiary education	36	15,9	76,2
Short-cycle tertiary education	8	3,5	79,7
Bachelor or equivalent	24	10,6	90,3
Master or postgraduate graduate	11	4,8	95,2
Doctoral or equivalent	2	,9	96,0
DK/NR	9	4,0	100,0
Total	227	100,0	
Rate experience			
1 Very bad	3	1,3	1,3
2	11	4,8	6,2
3	44	19,4	25,6
4	71	31,3	56,8
5 Very good	98	43,2	100,0
Total	227	100,0	
Obstacles faced to moving abroad			
Lack of sufficient language skills	86	37,9	37,9
Lack of support or information	30	13,2	51,1
Difficulties to register in education/training	8	3,5	54,6

Obstacles or differences in recognition of qualifications	13	5,7	60,4
Difficulties finding a job abroad	16	7,0	67,4
Difficulties to obtain a work permit abroad	6	2,6	70,0
A worse welfare system (pensions/healthcare)	2	,9	70,9
My partner is not willing to move	9	4,0	74,9
Psychological well-being (fear of suffering from stress/loneliness/sadness)	10	4,4	79,3
Financial commitments in my current place of residency (e.g. bank loans or owning a property)	2	,9	80,2
Lack of financial resources to move abroad	8	3,5	83,7
I did not experience any barrier or difficulty	37	16,3	100,0
Total	227	100,0	
Identification with the country of origin			
1. No identification	20	8,9	8,9
2	25	11,1	20,0
3	50	22,2	42,2
4	48	21,3	63,6
5. Complete identification	82	36,4	100,0
Total	225	100,0	

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The Impact of Celebrity Endorsement in Advertising

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Abstract

In an information overloaded society, one of the biggest challenges of advertising is to catch the attention of the consumers. Celebrity endorsement is one of the ways by which the attention of the consumer is drawn. Most of the consumers are fascinated by the public behaviour and the way of being of celebrities and therefore, they are attentive to their behaviour. Both the practical experience and also researches in the field of consumer behaviour show us that celebrity endorsement in advertising can increase the attention of the consumer, it can influence their attitude towards the advertised product and therefore determine the consumers' purchase intention. This increased attention towards the celebrity in advertising, may also have a negative effect, in the sense that the consumers pay too much attention to the celebrity and neglect hereby the advertised product. In our article we present the results of an eye-tracking experiment about the attention of the consumers to different elements in an advertising with endorsed celebrities. The results of our research show that the female film industry celebrity gains most the attention of the consumers. She is preferred in comparison to the male sports celebrity and to the advertised product. Both celebrities gains more the attention of the consumers in opposition to the advertised product hold by them.

Keywords: *advertising, eye-tracking, celebrity, celebrity endorsement, consumer*

JEL Classification: *M37*

1. Introduction

Nowadays, in the age of intense competition, where all companies aim to stay in the consumer's mind and encourage them to buy, celebrity endorsement is a real opportunity. The celebrities can be a catalyst for a brand and increase their sales. "Celebrities as brands" is a challenge in the sales area. The current concept of celebrity management is far from ideal. Now, this phenomenon is only seen as a business instrument that brings benefits to a brand. The marketers have to be careful, so that the testimonials fit together with the by them promoted products. The presence of celebrity in an advertisement should be contextual and not random.

Different researches show that celebrity endorsement in advertising has positive influence on consumer attitudes and purchase intentions (McCormick, 2016) and consequently in the sales of a brand. In order to obtain an efficient celebrity endorsement, several studies show that

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there should be a relation between the endorser credibility, the brand attitude and credibility (Wang *et al.*, 2017). Especially for the young generation, there can be observed a stronger connection to the brand (Popa, Pelau, 2016) and also a need for a match between the celebrity endorser and the advertised brand (McCormick, 2016). A congruent match can be determined both by the preference of celebrity and brand for each other (Zamudio, 2016). In opposition to this, there are also researches, who state that the celebrities have a negative effect on the attention of consumer, because of overshadowing (Erfgen, *et al.*, 2015).

In this article there are presented the results of an eye-tracking experiment, having two advertisements with endorsed celebrity as object of analysis. The main focus of the analysis is to emphasize the attractiveness of the elements of the advertising, more precisely to compare in how far the consumers have watched the endorsed celebrity or the advertised product.

2. Problem Statement

In the last years a new, strategic communication direction has been developed, referring to the endorsements of celebrity brand ambassadors for the promotion of certain products. This new tool refers to the developing of an advertising strategy, where a public figures or celebrity promotes different products and brands. The advertisings endorsing celebrities have an influence on the consumers and on their buying decision by attracting more the attention of the consumers. Different researches have shown that the influence of the advertising endorsing celebrities is higher, if the social norms of the consumers correspond to those of the celebrity and if there is an identification of the attitudes of the two (Albert *et al.*, 2017). For instance, the question is if the consumers in Romania will drink more, a certain brand of mineral water just because this product is promoted by a beloved Romanian tennis player. The phenomenon goes beyond the borders of our country and we can as well ask if women around the world will buy a certain brand of mascara just because it is recommended by a famous actress or will the consumer buy more a certain drink just because some football players appear in the advertising for this drink with a bottle of it in their hands (Lazar, 2017).

The effect of the celebrities on consumers is determined by the identification of consumers with the famous people (Albert *et al.*, 2017). People around the world consume the same products as the celebrities in the commercials, as they believe that by this they will ultimately be closer to them, they will be as beautiful, famous and charismatic as these. All these questions are very interesting and set the basis for a new phenomenon called Celebrity Endorsement. A celebrity is a famous person who enjoys a special recognition from the public. For this reason, using famous advertisers in international advertisements is very successful as they attract consumers' attention through their name and image. (McCracken, 1989). With a few characteristics like attractiveness, charisma or an exceptional lifestyle, the celebrities enjoy a high recognition and are different from the normal people. A celebrity endorser is known by the public for his or her achievements in certain areas. Compared to other endorsers, the famous people always manage to touch a higher level of attention, recognition and loyalty from the side of the costumers. The question that arises is, if indeed consumers have today so much faith in public figures, like athletes, singers, or actors, so that they truly believe that the product they recommend satisfies their needs or is it just way to gain social value and impress their social circle (Lazar, 2017).

Celebrity endorsement is also valid as money-spending. This happens because today the consumers pay a lot of attention to their social position. They always want to wear the right clothes, drink the right drink, and buy the right perfume. If a person sees two different advertisements for two different products, one with a celebrity and the other one without a celebrity, than this person think that the product promoted by the celebrity is better, that this has a higher value. This fact has an influence on his purchasing decision (Puja, 2007). The stars

also serve as a signaling strategy for the companies. They have the ability to increase market acceptance and sales by media exposure (Mitrut *et al.*, 2015), so making advertising more efficient. Add to this the fact that the celebrities bring their own experience, which leads to a closer and more familial relationship between them and consumers (Hoffstätte, 2007, pg. 8).

3. Research Questions

The objective of the research is to determine the effect of the presence of a celebrity on the attention of the consumers. The aim is to determine if the celebrities are really a catalyst in advertising or not, if they really attract the attention of individuals and encourage them to buy different products and services. We want to test whether the celebrities with their reputation, beauty, charisma, popularity are beneficial in the promotion of a brand or not. It is interesting to analyze if an advertisements with familiar personalities stay easier and longer in the minds of consumers. In our nowadays competitive society, the consumers are daily being in contact with all kinds of commercials, which can lead on a long run to an attention deficit.

Consequently, it is important for an advertisement or commercial to attract people’s attention. They should be impressed by what they see in the advertising material, so that the product should remain in their minds for a long term.

4. Research Methods

In order to analyze the attention of the consumer, we have organized an eye-tracking experiment, having two commercials from a renowned champagne producer as object of analysis. Both advertisings contained a celebrity: a women from the film industry holding the advertised bottle of champagne in her hands and a male sportsmen also holding the bottle of champagne in his hands. The sample of the experiment contained 25 participants (16 female participants, 9 male participants, with ages between 20-30 years) who have watched the two advertisement for 10 seconds on the same screen, while the eye tracking data have been registered by the eye tracking tool. In order to analyze the results of the analysis we have defined the following areas from the print as presented in table 1.

The defined areas are the following: the product with the name of the brand in the hands of the female celebrity (AOI 001), the face of the male sports celebrity (AOI 002), the product with the name of the brand in the hand of the male celebrity (AOI 003) and the face of the female celebrity from the film industry (AOI 004). For each of the four defined area, the key performance indicators have been calculated and analyzed.

Table 1. Description of variables

Variable	Description of variable
AOI 001	Product in the hands of the female celebrity
AOI 002	Face of male sports celebrity
AOI 003	Product in the hands of the male celebrity
AOI 004	Face of female film industry celebrity

Source: Own determination of variables

Eye Tracking is an instruments and a tool that helps researchers to analyze and understand the visual attention of an individual. With the help of this method one can determine, where a user of the device on an advertisement looks, how long he keeps his eye on a certain point and also it can follow the path of his eyes (Rosca, 2017; Pelau, 2009). With the help of such a research, we can understand the whole experience of a user, while viewing an advertising, we also notice what the user cannot describe, because it is unconscious for him. Several key

performance indicators have been used for the measurement of the impact of the celebrity endorsement in advertising.

5. Findings

In order to measure the impact of the advertising with endorsed celebrities on the consumer, we have calculated with the help of the eye-tracking system several key performance indicators as it can be observed in table 2. The sequence shows the moment in which the consumer watches a certain element in the advertising. It is calculated based on the average entry times in milliseconds (ms) of all participants, from the moment the advertisement is seen by the consumer. As it can be observed in table 2 the most attractive element in the two advertisements is the face of the female film industry celebrity, having an average entry time of 499.4 ms. The second most attractive element in the two images is the product in the hands of the female celebrity, with an entry time of 1666.6 ms. The male sports celebrity was less attractive by having an average entry time of 1712.8 ms and also the product in his hands (having an average entry time of 1859.1 ms) was less attractive than in the hands of the female film industry celebrity.

The total average time for the first fixation has had the longest value for the face of the female celebrity (382.6 ms) followed by the product in her hands (334.6 ms). For the average time of the fixation the male celebrity has been also less successful, by having an average first fixation time of 329.3 ms and 228.0 ms for the product in his hands. The total average fixation time includes both the times for the first fixation and the time for the revisits. In this case the attractiveness of the elements in the advertising have changed. The face of the female celebrity continues to be the most attractive one, with an average fixation time of 517.7 ms followed by the face of the male sport celebrity with an average fixation of 432.3 ms. The consumers have watched the product and the name of the brand for a shorter time. The product in the hands of the female celebrity has been watched for 379.3 ms and for 272.1 ms in the hand of the male celebrity.

Table 2. Key Performance Indicators for the Eye-Tracking Analysis

Variable	Sequence	Entry time (ms)	Average fixation (ms)	First Fixation (ms)	Dwell time (ms)	Dwell time (%)	Hit ratio (%)	Revisits
AOI 001	2	1666.6	379.3	334.6	1798.8	17.0%	92%	20/23
AOI 002	3	1712.8	432.3	329.3	1342.5	13.4%	88%	16/22
AOI 003	4	1859.1	272.1	228.0	1598.3	16.8%	96%	20/24
AOI 004	1	499.4	517.7	382.6	2733.3	27.3%	100%	21/25

Source: Own results research

The dwell time represents the total time in which the eyes of the consumers have passed over a certain element of the advertisements. We can observe that again the female celebrity was the most attractive one, having a dwell time of 27% (2733.3 ms). It was followed by the product in her hands with 17% of the time (1798.8 ms) and the product in the hands of the male celebrity with a dwell time of 1598.3 ms (16.8%). The shortest dwell time has been for the male celebrity with 13.4% of the time (1342.5 ms).

The number of participants, who have watched the analyzed elements in the advertisements and the number of revisits are other important indicators for the analysis. It can be observed in table 2, that the female celebrity has been watched by all participants, having a hit ratio of

100%. Out of the 25 first time visitors, 21 of them have re-watched the female celebrity. For the two products the hit ratio has been of 96% for the product in the hands of the female celebrity and 92% for the product in the hands of the male celebrity. Both products have had 20 re-visitors. The male sports celebrity had a hit ratio of 88% and 16 re-visits, having by this the lowest hit ratio score.

6. Conclusions

The key performance indicators calculated in the eye tracking system can give us valuable insights in the unconscious reaction of the consumer. They show us not only the attractive elements the consumer's watches, but also for how long or how often he/she watches them. By knowing this, there can be determines which are the eye-catcher of advertising and increase the efficiency of the creation of advertising. In opposition to classical research methods, such as surveys, the eye-tracking system allow us to know some of the unconscious reactions of the consumers.

The results of this eye-tracking experiment show us the fact that the film industry female celebrity has the highest attraction in the analyzed advertising. Moreover the product hold in her hand surpasses, for all analyzed indicators, the attention for the product hold by the male sports celebrity. Consequently, it is interesting to research for the future what exactly makes the female celebrity so attractive. Our future research will focus on analyzing if the attractiveness is given only by gender (female vs. male), by the industry in which the celebrity activates and the popularity of that industry (film industry versus sports field) or is it only the charm of each of the celebrities endorsed in the advertising.

Another important observation is the fact that for most of the indicators, the celebrities in the advertising attract more the consumers' attention than the advertised product. Both celebrities have the first fixation prior to the fixation of the advertised product in their hands and both celebrities have a longer first time fixation. Based on these results, it is interesting to analyze the efficiency of endorsing celebrities in advertising. On one hand, they attract the consumers' attention towards the advertising, but on the other hand they distract the attention from the advertised product. Consequently, in the future research it is important to analyze with the help of the eye-tracking tools the efficiency of the design of an advertising.

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**The 1st International Conference on Economics and Social Sciences
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**Differences in the Perception on
Artificial Intelligence Depending on Age**

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Abstract

In the past decade, smart phones and other smart devices have become part of our life. For most of the activities done by the consumers, there is an application or program which help us improve our lives. On one hand, the use of such intelligent devices has a lot of advantages by increasing the efficiency of the activities done by the consumers. On the other hand, there are also disadvantages such as the access and storage of personal data about the consumer. By knowing and using personal information about the consumers, it is much easier to manipulate their behaviour. The objective of the research presented in this article is to determine the perception of different segments of consumers regarding the use of smart devices and forms of artificial intelligence. By applying the discriminant analysis, we have tested the impact of demographic characteristics such as age, gender and income on the perception on situations in which artificial intelligence is used. The results of the research show that analysed perception is different depending on age, in the sense that the younger generation rather accepts artificial intelligence. For the demographic factors gender and income no significant difference has been observed.

Keywords: *artificial intelligence, smart devices, internet, consumer, consumer's perception*

JEL Classification: *M30*

1. Introduction

From smartphones and smart watches all the way to smart homes, the various artificial intelligence forms have taken over our public and private lives. The intrusion of AI and its subtle influence is getting harder and harder to get noticed now more than ever, as we are living times of great changes as result of disruptive technologies emerging in every moment. What ten years ago may have been hard to even imagine or was part of science fiction movies, is nowadays seen as normal or even a “must”: self-driving cars, fridges that are updating your grocery list automatically or even ordering food by themselves, physical shops where you do not need to worry about paying (see Amazon Go Shop). All these are possible through major investments in business intelligence support systems, which have been recognized as one of the top priorities of most CIOs all around the world.

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Despite of the growing use of the different forms of automation, the technology that selects and transforms data and that is able to make decisions and to control processes (Lee and See, 2004), there is an on-going discussion about the general readiness of the society to accept these changes and technological trends. Professor Roland T. Rust emphasizes during the European Marketing Academy's 8th Regional Conference (Sept. 20-22, 2017, in Timisoara, Romania) that "while the evolution of artificial intelligence is very good for the companies, it is not that great for people" (Rust, 2017). This is because while companies will be making more profit, more and more people will be losing their jobs, as most of the analytical jobs that are currently done by human beings will be soon done by machines. This creates not only a feeling of uncertainty among people, but is also one of the reasons why automation projects within the firms are being welcomed with scepticism. A study conducted by McKnight *et al.*, analysed the influence of disruptive technologies implementation on the readiness of the subjects to use these technologies. He emphasizes the crucial role of the initial trust in the early phase of the implementation, that is over time shifting to dependability and ultimately to faith, seen as the ultimate stage where the subject is not only accepting, but also relying on the technology (McKnight *et al.*, 2002). Lee and See bring their contribution to this theory as well explaining that if a system is not initially trusted, it will not be used and if it will not be used, the subject will not make contact to its capabilities and hence, the initial trust is unlikely to grow anymore (Lee and See, 2004). However, there are many factors that are directly influencing the subject's initial resistance to change, from the external factors such as the way of introducing the technological innovation (MacVaugh and Schiavone, 2010) to the personal experience and characteristics of the individuals.

This paper gives an overview upon the differences in the perceptions of AI depending on socio-demographic criteria such as age, gender and income. First, we review the existing literature, in order to expand our understanding of the researched aspects. Then, we offer an overview of the research methods used in our study. Finally, we present the results of our study, which aim to verify three hypotheses: the acceptance of artificial intelligence is higher (1) for people younger as 30 years old, (2) for men in contrast to women (3) for people with higher incomes in contrast to the ones with lower incomes. The scope of the paper is to bring a contribution to the researched field by focusing on the impact of artificial intelligence on various categories of people and to better understand and anticipate the customer reactions and behaviour towards intelligent technology.

2. Problem Statement

The fast evolution of Artificial Intelligence (AI) is currently one of the most debated topics in both academic and popular circles. The idea of "singularity", defined as the moment when artificial intelligence surpasses the human intelligence, is creating both excitement and anxiety.

With every step forward, there is a growing fear that our own creations might be able to exceed our intellect and turn against us (Rinesi, 2015). While some state that there is still a long way until humans will be able to design artificial consciousness, since there is still no documented understanding of how to model human-like motivation, empathy and social reasoning in an artificial intelligence system (Haladjian & Montemayor, 2016), others seem to believe that it could simply be an engineering challenge and once the technical boundaries will be overcome, the artificial autonomous thinking will be possible (Graziano, 2015). This subject is being addressed not only in scientific conferences and studies, but in mass media and movies as well, which actively influences the willingness of people to get accustomed and accept these changes. Lee and See state that scepticism is more likely to emerge towards applications where human decision making is replaced or supplemented by an autonomously acting machine (Lee

and See, 2004). The more advanced is the autonomous function of a machine, the harder it is to be accepted without restraints by humans.

The degree of artificial intelligence acceptance is a major point of interest for most companies that are investing in “intelligent automation” systems, defined as decision making-processes employed in technology based on inherent artificial intelligence (Hengstler *et al.*, 2016). Business Intelligence and analytics refers to the combination of databases, analytical tools, methodologies, architectures and applications to aid in decision-making processes (Turban *et al.*, 2011; Schebesch *et al.*, 2010) and they are being applied in many industries, from healthcare to CRM and behavioural profiling, as result of the competitive advantages that they offer in matter of differentiation in discovering and solving business challenges (Minelli *et al.*, 2012). It is on the list of priorities for most of the companies to analyse and understand both the benefits and risks of implementing smart technologies. While the advantages would usually prevail, the real challenge comes with the level of preparedness that the company has, in order to take the risk of rejection from its stake holders, as a result of the lack of trust in machine-made decisions.

In order to tackle the matter of trust in artificial intelligence, we must first define what “trust” implies. Similar to the Principal-Agent theory (Jensen & Meckling, 1976), one common approach defines trust as “willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that party” (Mayer *et al.*, 1995). Lee and See define trust as “an attitude toward automation that affects reliance and that it can be measured consistently”, as people will ultimately accept and rely on technology they trust and reject the one they do not. They conclude that the key to automation acceptance is by guiding reliance (Lee & See, 2004). Following the study of Hengstler *et al.*, (1) the operational safety, understood as operating according to well pre-defined standards, (2) the data security, understood as correct algorithms and well-guarded data privacy, (3) the usability, meaning that technology should be easily and intuitively handled and (4) the design are the main factors that influence trust in technology.

However, different individuals will be differently impacted by the same external factors. The propensity of trust was analysed by Rotter through an Interpersonal Trust Scale, which differentiates between high-trust individuals and low-trust individuals, making no correlation with the measure of intellects (Rotter, 1980). As, for example, for some people, trust in automation is directly linked to the artificial system’s level of capability, other people are not substantially influenced by this factor. (Lee & Moray, 1994). This can be explained through individual differences such as people’s cultural backgrounds, previous experiences, personal beliefs or resistance to change.

This paper offers an empirical approach on the socio-demographic characteristics that influence the trust and hence, boost the acceptance of the artificial intelligence systems. There are previous studies which have analysed this correlation. Liu and Wilson brought in discussion four main challenges that contribute to the creation of an unbalanced situation between gender’s different disposition to operate in Science, Engineering and Technology sectors: gender stereotyping and societal attitudes, family responsibilities, working time constrains, lack of confidence in completing tasks (Liu & Wilson, 2001). These factors can influence the acceptance of new technologies and the level of readiness and ability for women to cope with the pressure of constantly adapting to disruptive AI systems. However, a more current analysis

comes in hand in order to find out to which extend some of these factors suffered changes in the past two decades.

Another study based on the socio-demographic factors conducted by Mollenkopf *et al.*, confirmed that the use of technology is directly impacted by subject's age and income. The results show that "the usage of some of the new technologies by older people is really low, especially people with low income and low education level use new technologies less than people with a high income or a high education" (Mollenkopf *et al.*, 2005). However, the study refers to two categories of persons: people aged 55 to 74 years old and 75 years or older, while the current paper is setting the age reference at 30 years old, in order to analyse the fine line between single individuals and young families lifestyles.

3. Objective and Methodology of the Research

The objective of this research is to determine the perception of the consumers towards different aspects regarding the use of intelligent technologies and artificial intelligence and its acceptance by the consumers. For this a quantitative survey has been carried out on a sample of 140 respondents. The questionnaire contained Likert scale question, with seven answer possibilities, whereby 7 has represented total agreement and 1 has represented total disagreement for 14 affirmations regarding the use of artificial intelligence forms. The survey has been carried out in the December 2017 in the urban population of Romania.

The hypothesis on which the research was based is that there are differences in the consumer's acceptance and use of different forms of artificial intelligence, depending on age (H1), depending on gender (H2) and depending on income (H3). Therefore we have formulated the following hypothesis, based on different observations and discussions:

- H1: People younger than 30 years are more likely to agree and accept the different forms of artificial intelligence;
- H2: Men are more likely than women to accept and use different forms of artificial intelligence;
- H3: People with higher incomes are more likely to accept and use different forms of artificial intelligence.

In order to determine the differences between the demographic groups for which the hypothesis are built, the discriminant analysis has been used.

4. Research results

The differences between the perception between the young and the older generation have been determined with the help of the discriminant analysis and the F-test. The respondents have been divided into two groups: group G1 with consumers younger than 30 years containing 86 respondents and group G2 with consumers older than 30 years, containing 51 respondents. The discriminant analysis has been carried out for the two groups and the results are presented in table 1.

The highest differences between the two age groups can be observed regarding the means of communication and interaction through social media networks such as Facebook, having $F_{Q08}=10.359$ and $p_{Q08}=0.002$. The young generation considers social media networks a better way of interaction ($M_{G1-Q08}=5.16$) in comparison to the older generation ($M_{G2-Q08}=4.33$). The two generations of respondents have also different perception on the anthropomorphic aspect of different machines and robots and their impact on the accessibility ($F_{Q16}=9.124$ and $p_{Q16}=0.003$) and the communication ($F_{Q17}=8.369$ and $p_{Q17}=0.004$). The younger generation prefers the machines with human-like aspect ($M_{G1-Q16}=4.97$, $M_{G1-Q17}=4.87$) in comparison to

the older generation ($M_{G2-Q16}=4.17$, $M_{G2-Q17}= 4.07$). The two generations have also different opinions on the way in which the smart-phones and other smart devices use our private information ($F_{Q11}=7.716$ and $p_{Q11}=0.006$). The young generation ($M_{G1-Q11}=6.04$) is more aware of the fact that our private information is used in comparison to the older generation ($M_{G2-Q11}=5.31$).

Average differences can be observed for the total time ($F_{Q05}=4.525$ and $p_{Q05}=0.035<0.05$) and the spare time ($F_{Q07}=5.566$ and $p_{Q07}=0.020<0.05$) spend with electronic devices and the issues that can be solved with the help of the mobile-phone ($F_{Q10}=5.162$ and $p_{Q10}=0.025<0.05$).

The persons younger than 30 years spend more of their total time ($M_{G1-Q05}=5.73$) and more of their spare time ($M_{G1-Q07}=5.38$) with the intelligent devices. They also prefer to use their smart-phones in order to solve different administrative issues ($M_{G1-Q10}=5.05$). An acceptable perception difference can be observed for the affirmation regarding the impact of robots and artificial intelligence on our quality of life ($F_{Q03}=3.571$ and $p_{Q03}=0.061<0.1$). In this case also the young generation rather believes that we will have a better quality of life because of artificial intelligence ($M_{G1-Q03}=5.29$) in comparison to the people older than 30 years ($M_{G2-Q03}=4.78$).

Table 1. Results of the discriminant analysis for two age categories

Affirmation	Mean Total	Mean G1	Mean G2	F(1,135)
Q03-Technology development and artificial intelligence will increase the quality of life	5.1022	5.2907	4.7843	3.571***
Q04-The implementation of artificial intelligence several processes will be more efficient	5.7591	5.6860	5.8824	0.667
Q05-I spend a lot of time using different forms of technologies like the smart-phone	5.5328	5.7326	5.1961	4.525**
Q06-Smart-phones help me in the professional activity	5.6204	5.7442	5.4118	1.860
Q07-I spend a big part of my spare time with application or the internet	5.1533	5.3837	4.7647	5.566**
Q08-Social media networks like Facebook are a good mean of interaction with other persons	4.8540	5.1628	4.3333	10.359*
Q09-I feel comfortable to solve administrative issues with automated vending machines	5.4234	5.5233	5.2549	1.099
Q10-I feel comfortable to solve administrative issues with the phone and robots	4.7956	5.0581	4.3529	5.162**
Q11-The internet access through smart-phone, laptop or other technologies uses many personal information	5.7737	6.0465	5.3137	7.716*
Q12-With the help of cookies the internet has access to our consumer behavior	5.8759	6.0233	5.6275	2.288
Q13-With the help of cookies, the internet influences our consumer behavior though the displayed advertising	5.5839	5.6977	5.3922	1.309
Q14-We are dependent on different intelligent technologies as smart-phones or the internet	5.9416	6.0233	5.8039	.845
Q15-Smart-phones are a fashionable accessory and improves the owner’s image in the society	4.7153	4.8953	4.4118	2.451
Q16-The anthropomorphic aspect of different machines is more accessible to consumers	4.6788	4.9767	4.1765	9.124*
Q17-The anthropomorphic aspect of machines and robots makes communication easier	4.5766	4.8721	4.0784	8.369*

* for $p<0.01$, ** for $p<0.05$, *** for $p<0.10$

Source: Own research results

No significant differences can be observed for the other tested affirmations. The two groups of consumers agree on the fact that all the internet connected devices have access to our online behaviour ($F_{Q12}=2.288$, $p_{Q12}=0.133>0.1$ and $M_{T-Q12} = 5.87$) and that it influences it, by the shown advertisings ($F_{Q13}=1.309$, $p_{Q13}=0.255>0.1$ and $M_{T-Q13}=5.58$). There are no significant differences in the perception of the two generations regarding the use of smart-phones or other devices as a fashionable device ($F_{Q15}=2.451$, $p_{Q15}=0.120>0.1$ and $M_{T-Q15}=4.71$) and the consumer's dependence on these smart devices ($F_{Q14}=0.845$, and $p_{Q14}=0.360>0.1$). It can be observed that both generations believe that we are dependent on these devices ($M_{T-Q15}=5.94$).

Both generations have similar perceptions on the help and increase of efficiency by using intelligent devices. Both generations feel comfortable by using automated vending machines in order to solve administrative issues ($F_{Q09}=1.099$, $p_{Q09}=0.296>0.1$ and $M_{T-Q09}=5.42$), for professional issues ($F_{Q06}=1.860$, $p_{Q06}=0.175>0.1$ and $M_{T-Q06}=5.62$) or to increase, in general the efficiency of different processes ($F_{Q04}=0.667$, $p_{Q04}=0.416>0.1$ and $M_{T-Q04}=5.75$).

Taking all these in consideration we can confirm that hypothesis 1 is confirmed and that people younger than 30 years are more likely to agree and accept the different forms of artificial intelligence. We can observe that there are issues where the two generations have similar perception, but there are also several items, where the young generation is more likely to accept the situations in which intelligent devices are used.

The discriminant analysis having the gender as grouping variable showed no significant differences. The F-values for the items presented in table 1 are in the interval $F_{1,138} \in [0.000; 1.602]$, with the according values for $p \in [0.208; 1.000]$, having all values higher than 0.1.

Consequently, hypothesis 2, referring to the fact that men are more likely than women to accept and use different forms of artificial intelligence, is rejected.

For hypothesis 3 referring to the fact that people with higher incomes are more likely to accept and use different forms of artificial intelligence, the F-values for the tested items are $F_{1,138} \in [0.008-1.970]$, with the according values for $p \in [0.162; 0.931]$, having all values higher than 0.1. Based on these results, we can conclude that that hypothesis 3 is rejected and that there is no difference in the consumer's perception depending on income.

5. Conclusions

The results of this research about the consumer's perception on artificial intelligence show that age is one of the demographic characteristics that makes a difference, while there cannot be observed a difference of perception depending on gender and income. For the tested items, no significant differences in the perception have been observed between men and women or people with different incomes. For the two tested generations (people younger than 30 years and people older than 30 years) there have been items with higher significant differences and items with only small differences. Some of the items with a gap in the perception of the two generations refer to the means of communication, the anthropomorphic aspect of intelligent devices and the awareness about the use of personal information by our smart-devices or the internet. Aspects like using the smart devices or other intelligent vending machines for an increased efficiency of the consumer's activity are similar for both generations. Consequently, one of the tested hypothesis has been accepted, while two of the tested hypothesis have been rejected.

The results of the research have a significant implication consisting in the way in which companies will use intelligent devices and intelligent algorithms to increase their performance

in the future. We, as consumers, must be aware of the fact that companies have started already to use these intelligent techniques and algorithms for analysing consumer data, to provide individualized offers or even to replace human activity, as robots are faster and more efficient.

For the consumer it is also convenient to use these techniques as they are fast, efficient and available at any time. But, for the future it will be interesting to research in how far these devices will develop faster than the human mind and for how long we will be able to control them. The fact that the young generation is more willing to accept and use intelligent devices shows that their potential in the future is huge and that they will gain an important place in our everyday life.

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**The 1st International Conference on Economics and Social Sciences
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**Analysis of the Climate Change Framework
International, EU and National Level**

Daniela ZĂNESCU¹

Abstract

Through this paper, I present the current situation of the national legislative and institutional framework in the field of climate change, compared to the international framework and the EU policy/institutions. To this end, I depict the actors involved at EU and national level in the development and implementation of climate change policy, but also how this concept evolved within the EU Treaties, given that up to the Treaty of Lisbon the concept of “climate change”, was subsumed to the environment. The Treaty of Lisbon will provide the Union with the appropriate tools to meet the complex challenges of the 21st century, including the negative effects of climate change. I also want to elaborate on the literature with information on how the carbon market works at EU level, as well as the implementation in Romania of EU ETS and other instruments to reduce greenhouse gas emissions.

The purpose of the material is to identify the existing national bottlenecks. At the same time I propose how overcome them. Here I will refer to concrete proposals for modifying/adapting the legislative/institutional framework that will ensure a good implementation of environmental aquis and international requirements.

The constant presence of climate change on the political agenda at global and EU level, led to the establishment of the Climate Change Directorate within the European Commission in 2010. At the level of several Member States, there are national ministries / national authorities whose portfolio covers this policy while at national level there is only a dedicated unit within the Ministry of Environment. Policies and measures to reduce greenhouse gas emissions and adapt to the negative effects of climate change require an integrated approach to ensure an effective and effective implementation. Efficient monitoring and implementation of an integrated national policy, linked at all times to the international negotiations and European /global developments and to the political agenda, represent a challenge due to the current institutional national framework (inappropriate in terms of structure, personnel involved). Institutional reorganization as well as increased capacity building is urgently needed. At national level should be set up a “climate network” and a unique structure within a ministry responsible with the climate change national agenda. For the bottlenecks at EU level on the carbon market, I think that the “carbon pricing” should be further discussed and see whether it can represent or not the trigger for the behaviour change in the non-ETS sector during the post 2020 period.

Keywords: *climate change, environment, greenhouse gas emission, EU emission trading scheme, non ETS*

Q54 *Climate; Natural Disasters and Their Management; Global Warming*

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1. Introduction

The environmental term (in French “environnement”, “milieu”) has been used since the nineteenth century, in the biological sense as the natural environment of the creatures; then, in the field of geography, it is defined as the inhabited and influenced space of man. At its origin, the term environment originated from the English word “environment”, then taken up in French as “l’environnement”, and it was meant to designate the space around man. Definitions given to the environmental term are very numerous, so this concept has been called “chameleon notion”.

Emerged on the European agenda in the early 1970s, environmental protection concerns gained a distinct character alongside the signal from the Club of Rome on the reduction of natural resources and the deterioration of water, air and soil quality. The creation of the environmental Community policy was carried out two years later (1972). Its importance is due to the fact that environmental policy has become the most horizontal policy of the European Union, and environmental aspects are considered binding for other Community policies.

The theme of climate change has been identified as one of the four priority directions of the European Union’s Sixth Environmental Action Plan entitled “Our Future, Our Choice”. This Plan reiterates the EU’s commitment to reduce greenhouse gas emissions in the period 2008-2012 by 8% compared to the base year, as established by the Kyoto Protocol to the Framework Convention of Nations United on climate change; in the long run these emissions will have to be reduced by about 70% compared to the base year.

2. Problem statement

Here I present the current situation of the national legislative and institutional framework in comparison with the international framework and the EU policy/institutions. I also want to further elaborate on the literature with information on the functioning of the carbon market at EU level and the implementation in Romania of “economic instruments”²/mechanisms for reducing greenhouse gas emissions.

INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS

The United Nations Framework Convention on Climate Change (UNFCCC) was signed in Rio de Janeiro in 1992. The main objective of the Convention is to stabilize greenhouse gas concentrations in the atmosphere at a level that prevents the dangerous anthropic disturbance of the climate system.

According to Oatu (2002) “The greenhouse effect is the phenomenon by which the earth’s atmosphere retains part of the solar radiation that it receives, due to the presence of carbon dioxide and other gases (such as methane and chlorofluorocarbons), which can cause a reheating of the atmosphere.”³

In 1997, at the third Conference of the Parties to the Framework Convention, the Kyoto Protocol to the UNFCCC was signed in Kyoto with a view to establishing clear measures, targets and clear periods for the reduction of greenhouse gas emissions. At international level, the Kyoto Protocol has entered into force on 16 February 2005.

In December 2007, at international level, the Bali Action Plan provided a roadmap for the negotiations to be concluded in December 2009 (COP 15 in Copenhagen) with a global agreement for the post-2012 period, which will have continued the Kyoto Protocol.

² Oatu Carmen (2002). *Economia mediului/Aplicații și studii de caz [Environment Economics/Applications and case studies]*. Bucharest: ASE Publishing House, ISBN 973-594-119-8, p. 126.

³ Oatu Carmen (2002). *Economia mediului/Aplicații și studii de caz [Environment Economics/Applications and case studies]*. Bucharest: ASE Publishing House, ISBN 973-594-119-8, p. 148.

In preparation for its position for the Copenhagen conference, the European Union committed itself in March 2007: to reduce by 20% the EU-wide greenhouse gas emissions by 2020 compared to the level reached in 1990; to increase by up to 20% the share of renewable energies in total energy consumption; to increase energy efficiency by 20%.

However, in December 2009, international negotiations failed to reach an agreement. It was finalized in Doha in December 2012. The amendment to the Kyoto Protocol (the “Doha amendment”) provides for a global greenhouse gas emission reduction target for Annex I Parties of at least 18% below 1990 levels in the commitment period 2013-2020.

At the level of the European Council in October 2014, the Heads of State and Government decided on the EU’s contribution to the Paris Agreement by adopting the 2030 Climate and energy framework. The EU contribution is reflected by the commitment of Member States to achieve a “mandatory reduction target of at least 40% of greenhouse gas emissions by 2030 compared to 1990”.

On 12th December 2015, in Paris was adopted the Paris Agreement/PA. It imposes legal obligations on all Parties and how to achieve the long-term global objective of maintaining global warming below 2 °Celsius by 2030 compared to the pre-industrial, depending on their capabilities and responsibilities and capabilities. The unique element of the Agreement is the 1.5 °Celsius target to limit global average temperature increase and the possibility of achieving a global target of maintaining global warming below 1.5 °C. This is the first legally binding multilateral agreement with universal participation in the field of climate change and to be applied starting 2020.

The Paris Agreement entered into force on 4 November 2016. The ratification of PA by the EU triggered its entry into force worldwide.

On June 1, 2017, the US Presidential Administration announced its withdrawal. At EU level, the European Council has consistently delivered a message from European leaders on the EU’s firm commitment to implement the Paris agreement.

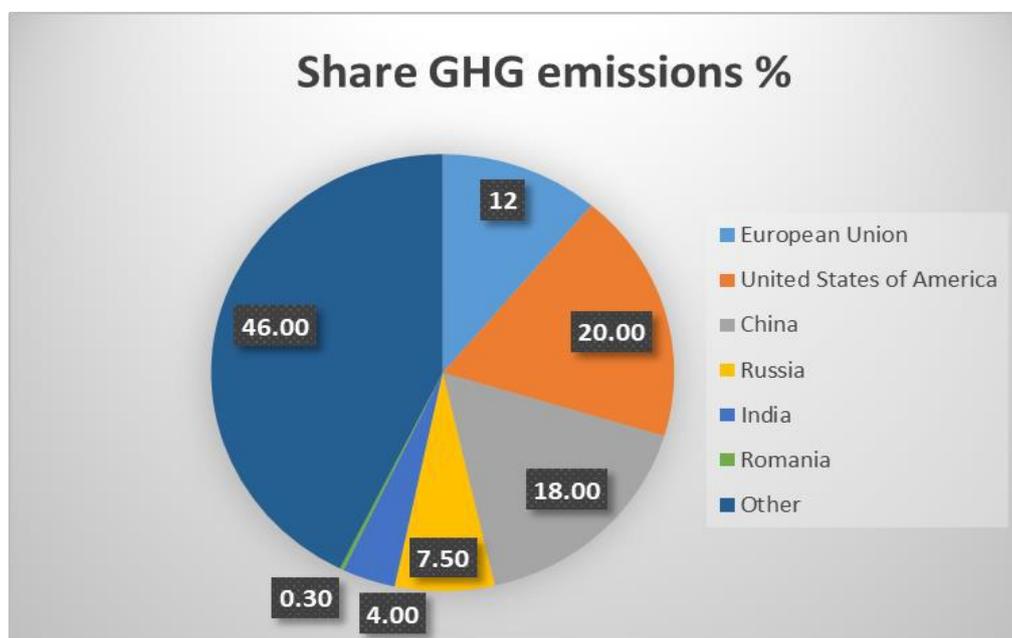


Figure 1. Share of greenhouse gas emissions at international level

Source: data adapted from http://unfccc.int/files/paris_agreement/application/pdf/10e.pdf

Tools for implementing climate change policy

Under the principles governing sustainable development, the Kyoto Protocol provided for 3 flexible mechanisms to achieve the proposed targets, so that efforts to reduce greenhouse gas

emissions are achieved with reasonable financial costs. The three flexible mechanisms are: Joint Implementation (JI), Clean Development Mechanism (CDM) and International Emissions Trading (ETS), the first two being concrete project-based instruments to promote technology transfer to reduce gas emissions greenhouse effect.

THE EU CONTEXT

Articles 174 to 176 of the European Community Treaty/EC Treaty originally constituted the legal basis for EU environmental policy; to these were added Articles 6 and 95.

Article 174 sets out the objectives of environmental policy and contains the purpose of this policy (ensuring a high level of environmental protection taking into account the diversity of situations existing in different regions of the Union.) In addition, Article 175 identifies the appropriate legislative procedures to achieve this goal and determines how to make decisions in the field of environmental policy; Article 176 allows Member States (MS) to adopt stricter standards. Article 95 (completing Article 176) is intended to harmonize legislation on health, environmental protection and consumer protection in the Member States (a derogation clause allows them to add national legislation in order to better protect the environment). Article 6 promotes sustainable development as a horizontal policy of the European Union and underlines the need to integrate environmental protection requirements into the definition and implementation of sectoral European policies.

To these articles are added to over 200 directives, regulations and decisions which constitute horizontal legislation and sectoral legislation in the field of environmental protection *environmental aquis*.

Under the Treaty of Lisbon, the legal basis for environmental protection and climate change is Article 192 of the Treaty on the Functioning of the European Union (TFEU). Until the Treaty of Lisbon, the concept of “climate change” was subsumed to the environment. Then through art. 191 of the TFUE, the “fight against climate change” is recognized as one of the appropriate instruments to meet the challenges of the 21st century. The Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community was signed on 13 December 2007 in Lisbon. It includes the Treaty on European Union (TEU) and the Treaty on the Functioning of the Union (TFEU), which are the core treaties of the Union and have an equal legal value. It entered into force on 1 December 2009, after it was ratified by all Member States. Romania was among the first states to ratify the treaty on 4 February 2008.

The Rome Declaration, signed on 25 March 2017 on the occasion of the 60th anniversary of the EU’s captures the theme of climate change and how important it is to EU; under Priority 4 “A stronger Europe on the world stage”, it states the commitment of the EU states and institutions to contribute to the creation of a committed Union, together with the United Nations, which [...] promotes a global positive climate change policy.

For the period 2021-2030, the 2030 Framework provides for a greenhouse gas/GHG reduction target of at least 40% compared to 1990, which is divided as follows: the EU ETS sectors, shall reduce greenhouse gas emissions by 43% by 2030 compared 2005; the non-ETS sectors shall reduce greenhouse gas emissions by 30% by 2030 compared to 2005. For non-ETS, each MS must contribute to the EU’s 30% target; national target varies for each MS according to GDP/capita between 0 and -40%.

For the period 2013-2020, the 2020 Climate – Energy Package was adopted to achieve the 20% reduction target for greenhouse gas emissions by 2020 compared to 1990 at EU level. For this purpose, the ETS sectors have a 21% reduction compared to 2005, while the non-ETS sectors have a 10% reduction as compared to 2005.

For the ETS sector, the 21% reduction targets is a EU-wide target. Given the differences in economic development and taking into account the need for economic growth in the new MS,

the 10% reduction for non-ETS sectors was reflected by different national targets for each MS ranging from - 20% to + 20%.

Institutional actors

The European Union's environmental policy is supported by a large number of institutional actors involved in its development, definition and implementation. Also it implies consultation on a regular basis with Member States governments, employers' and professional organizations, non-governmental organizations and think-tanks. Through their various attributions, these institutions contribute to the comprehensive nature of environmental policy and ensure the achievement of its objectives (both at the legislative level and during its implementation).

The European Commission. Its role is to initiate new normative acts in the field and to ensure that the adopted measures will be implemented by the MS. The European Commission promotes the general interest of the European Union. The European Commission's Directorate-General for the Environment was set up in 1981 and is directly responsible for developing and ensuring the implementation of environmental policy. On November 27, 2009, President Barroso announced the creation of the Climate Action Directorate-General of the European Commission and the structure began its work in the first half of 2010. The mission of this Directorate-General was to develop and to ensure the implementation of international and EU policies/strategies, participation in international negotiations and implementation of the EU Emissions Trading Scheme/EU ETS but also monitoring the implementation of Member States' reduction targets emissions from non-ETS sectors. DG CA is one of the Commission's most important directorates-general. This is not only because it manages the sensitive climate of climate change but also because it is related to all economic sectors (the different branches of industry, energy production, the construction sector-housing, agriculture, transport, financial affairs) while complying with ambitious emission standards.

The Council of Ministers for the Environment is a member of the Council of the European Union (EUC) and meets four times a year and at informal level twice a year (2 councils and one informal council during a presidency) to coordinate policies environment/climate change of MS. Decisions of the Council are adopted by a qualified majority in co-decision with the European Parliament.

The work of the Council of Ministers for the Environment is prepared by the **Permanent Representatives Committee of the Member States of the EU (COREPER)**.

COREPER, the French acronym under which the Committee of Permanent Representatives is known, includes two bodies, namely Coreper I and Coreper II.

Coreper I, composed of the deputy ambassadors of the Member States' permanent representations to the EU, discusses environmental and climate change as well as competitiveness, agriculture, fisheries, culture, youth, transport, energy, health and social issues.

Coreper II, consisting of the Ambassadors of the Permanent Representations of the Member States alongside the EU, focuses on foreign policy, financial and civil protection issues.

There are two **Working Groups on Environment/Climate Change working in the Council**: the J1 Medium Working Group and the International Working Group on the Environment – J2, groups preparing COREPER 1.

The **Council Presidency** is rotated over a period of 6 months by each Member State. During a Presidency all Council meetings, COREPER, working groups, and all intergovernmental bodies are chaired by the same state.

The **European Parliament** – elected every five years and representing the citizens of the EU Member States; is the main decision-making body alongside the EU Council. In 1973 the Parliament set up an Environmental Committee.

The **Court of Justice of the European Union (CJEU)**, which includes the Court of Justice itself and the specialized courts, will continue to be the institution responsible for the interpretation and application of European law, including the environment.

The Citizens' Initiative – The Treaty of Lisbon provides that at the initiative of at least one million Union citizens coming from a significant number of Member States, the European Commission may be required to submit a proposal for a Community normative act to a specific field.

The **Economic and Social Committee** has an advisory role in decision making and illustrates the general nature of environmental policy. This Committee was created by the Treaty establishing the European Economic Community in 1957 in order to represent the interests of various economic and social groups.

Tools for implementing climate change policy

In order to achieve the main objective of UNFCCC and to fulfill the commitments under the Kyoto Protocol, in 2003 EU established a scheme for trading greenhouse gas emission allowances across all Member States/EU ETS. This instrument aims at promoting the EU's greenhouse gas emission reduction in a cost-efficient manner and is based on the "cap and trade" principle.

The first phase of EU ETS was for the period from 1 January 2005 to 31 December 2007 and the second phase of ETS took place between 2008 and 2012. The current phase of ETS (Phase III) refers to the period of 1 January 2013 and December 31, 2020. The fourth phase refers to post-2020 period and will be applied between 1 January 2031 and 31 December 2030.

For the period 2013-2020, emissions reduction in non-ETS sectors was regulated in a harmonized manner with targets at each member state level. This approach has also been used for post-2020 period.

THE NATIONAL LEVEL

Romania ratified the UNFCCC by Law no. 24/1994. Romania is included in Annex I to the Convention – the Annex refers to developed and transition economies with a high contribution to greenhouse gas emissions in the 1990s.

Romania was the first country included in Annex I to the Convention, which ratified the Kyoto Protocol (KP) by Law no. 3/2001. Under the KP, Romania had a commitment for a reduction of 8% between 2008 and 2012 compared to its base year (1989). The level of our target was established with a view to harmonizing it with the European Union's commitment with the same reduction.

Romania also ratified the Doha Amendment and, in June 2017, the Paris Agreement.

With regard to the transposition of EU climate change legislation, Romania has fulfilled its obligations as MS.

Furthermore, in 2016, the National Climate Change Strategy and the National Climate Change Action Plan for the 2020 horizon were adopted.

As far as the Governance Program 2018-2020 is concerned, climate change policy can be found in both the "Energy Policies" chapter and the "Environmental Policies" chapter. Waters and Forests.

Regarding the institutional framework at national level, the main institutions responsible in this field are: Ministry of Environment – coordinator of ETS implementation; Ministry of Finance – RO's auctioneer for EUA auctions; Ministry of Energy – implementing derogations for energy sector.

Regarding the implementation of the international/flexible mechanisms under the Kyoto Protocol, although these were "voluntary mechanisms", Romania successfully implemented them, mainly Joint Implementation projects for the GHG reduction. Romania has initiated

bilateral cooperation with various states to develop such projects, for the first commitment period of the Kyoto Protocol (2008-2012).

Regarding EU specific mechanisms, starting 2007 – the year of Romania’s accession to EU – Romania has successfully participated in the EU Emissions Trading Scheme⁴, according to Alberola *et al.*, (2008).

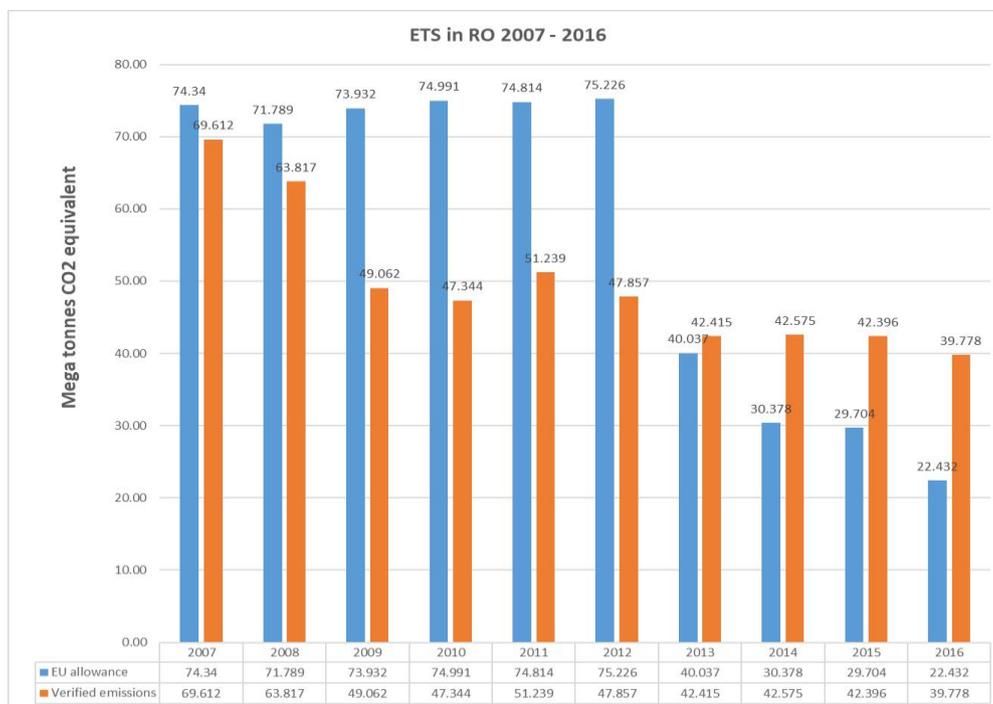


Figure 2. Status of EU ETS in RO

Source: data adapted from <https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1>

Non-ETS sectors are not subject to EU market. Thus, MS must design, monitor and implement integrated policies at national level in order to manage GHG reduction a cost effective manner and maximize non ETS benefits (environmental, economic, social, cultural, etc.). In this respect, at national level there is a legislative draft. The scope of the proposal is to establish the necessary legal and institutional framework for the operationalization of the “non-ETS market”.

3. Research Questions/Aims of the research

The aim of this paper is to identify the existing national bottlenecks as well as to improve the carbon market through concrete proposals in order to modify/adapt the current national legislative/institutional framework.

This approach takes into account the fact that ensuring a proper implementation at national level allows a coordinated, harmonized and efficient function of ETS “carbon market”, at EU level, across all 28 MSs.

⁴ Alberola Émilie, Julien Chevallier& Benoît Chèze (2008). *The EU emissions trading scheme: The effects of industrial production and CO₂ emissions on carbon prices. International Economics 2008/4 (n. 116)*, pp. 93-125, “Note that Romania and Bulgaria have joined the EU ETS on January 1, 2007”.

4. Research Methods

Data sources for greenhouse gas emissions were documents produced by different ministries, as well as European and international institutions (sites and publications), such as the Ministry of Environment, the European Environment Agency, the European Commission, the UNFCCC Secretariat.

Through the process, I have created an electronic database by collecting data on:

- ❖ total emissions generated by EU ETS installations in Romania and, EUA allocated for free during the period 2007-2016;
- ❖ emission allowances auctioned by Romania in 2017 on the European Energy Exchange/EEEX;
- ❖ total greenhouse gas emissions generated by different states, at global level.

In this regard, I used the “EU ETS data viewer” (available on the European Environment Agency website) to determine the total ETS emissions generated by the ETS sector and the volume of free allowances. The EU ETS data viewer provides an easy access to emission trading data contained in the European Union Transaction Log (EUTL). The EUTL is a central transaction log, run by the European Commission, which checks and records all transactions taking place within the trading system. The EU ETS data viewer provides aggregated data by country, by main activity type and by year on the verified emissions, allowances and surrendered units of stationary installations reporting under the EU emission trading system, as well aircraft operators.

5. Findings

1) Romania has ratified international agreements in the field (United Nations Framework Convention on Climate Change, Kyoto Protocol, Doha Amendment, Paris Agreement) and transposed EU legislation.

2) As regards the functioning of the carbon market, “ETS market” is fully operational at EU level for 2013-2020 period. Since 2007, the EU ETS has been successfully implemented in Romania.

As regards the “non-ETS” market, it is not functioning at EU level. It is very unlikely that the non-ETS trading mechanisms will be used in the current period, given that Member States will overachieve their targets, including Romania. However, at national level, a legislative draft is under development in order to allow the operationalization of the “non-ETS market”.

Having all these considered, for medium and long term we should pay attention to the possible option of “carbon pricing”.⁵

3) Climate change policy is on the European agenda on a regular basis, including at the level of Heads of State and Government. At the same time, the European Commission approach is an integrated one in the field of energy and climate change policies.

At the national level, within the Ministry of the Environment there once was a general directorate dedicated to this policy, but at the moment there is only a unit responsible for climate change. Through the 2018-2020 Governing Program, most of the actions that ensure significant GHG reduction are assigned to the Ministry of Economy.

In this context, a specialized structure must be reshaped by linking the personnel with tasks in the field of climate change from the two institutions, either at the level of the Ministry of Environment or at the level of the Ministry of Energy.

⁵ Atefe Zakeri, Farzad Dehghanian, Behnam Fahimnia, Joseph Sarkis (2015). *Carbon pricing versus emissions trading: A supply chain planning perspective. International Journal of Production Economics*, volume 164, June 2015, pp. 197-205.

Regarding the strengthening of the administrative/institutional capacity in the field of the environment, assumed at national level as the coordinating principle of this policy, we have to consider the enhancement of capacity building and appropriate/constant training for experts involved in this area. Each ministry should have its climate change structure responsible both for the negotiations at EU and international level and at later stages, for transposition and implementation process. Thus at national level should be set up the “climate network” and a unique structure within a ministry responsible with the climate change national agenda.

4) Depending on the progress achieved in implementation, but also on the EU and international dynamic, it is necessary to update the national strategic documents and their objectives: the National Strategy of Romania on climate change and the draft of Energy Strategy. It is also necessary to evaluate how the objectives of the Action Plan on Climate Change for the period 2016-2020 will be achieved.

6. Conclusions

Romania’s commitments to reduce GHG emissions due to EU’s legislation and international agreements are the following:

- ❖ for the period 2013-2020, ie the period before 2020: contribution to the EU’s target of a 21% reduction in emissions in the ETS sector by 2005; at national level, in non-ETS sector the possibility increase the GHG emissions by 19% compared to 2005.
- ❖ for the period 2021-2030, under Framework 2030 and implicitly under the provisions of the Paris Agreement are: reducing GHG emissions by 43% compared to 2005 for the EU ETS sector – a single EU target; at national level, in non-ETS reducing greenhouse gas emissions by 2% compared to 2005.

With regard to the proposal to modify the institutional framework by developing an appropriate structure at the level of one ministry, I emphasize that this policy is managed by a dedicated institution (ministry or agency responsible for implementing EU ETS) in several Member States such as UK, the Netherlands, Denmark, Poland, Germany.

Regarding “carbon pricing”, this tax can be either “incentive” or “fiscal” or a hybrid one in order to trigger the necessary behaviour change in the non-ETS sector during the post 2020 period⁶.

The historical outcome of the Paris Climate Conference creates the premises for a global sustainable development, while ensuring the transition to a low-carbon economy and a society resilient to the negative effects of climate change. Romania has to be part of this process, which, although difficult, is the only alternative of humankind in its current development phase.

According to World Bank forecast “To achieve a target of at least 40% reduction of GHG emissions in 2030 at EU level, other investments are needed for emission reduction measures, especially in the energy sector, which is the greater contributor to GHG emissions ...” (Annex I to the Governmental Decision no. 739/2016).

⁶ Oatu Carmen (2002), *Environment Economics/Applications and case studies*, Bucharest, ASE Publishing House, ISBN 973-594-119-8, [...2. *incentive charges* – designed to change the behavior of producers and/or consumers and which are directed to the Environmental Fund; 3. *environmental taxes* – designed primarily to increase budget revenues; ...][...They can provide incentives for changing consumers and producers behavior in an environmental friendly one; they can also stimulate innovation and structural changes and improve compliance with legislation].

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Site

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Including the Ecological Dimension in Enterprise Strategies

Monica PETCU¹, Iulia DAVID-SOBOLEVSCHI², Irina Diana IORDACHE^{3*}

Abstract

As a component of the economic-socio-human metasystem, complex and non-linear, marked by fundamental transformations, inherently chaotic, expanded by globalization on a planetary scale, in the sense of inducing absolute corrections necessary to interact with the natural system, the enterprises face real difficulties in approaching their own activities. The regulations imposed by the gravity of the phenomena, the increasingly difficult access to resources, the concentration of capital force companies to develop viable strategies based on well-founded decisions. The complex analysis of the current state and the correct design of the coordinates of the future development are conditions for the adoption of solid decisions to preserve its activity. In this sense, the present approach proposes tools that answer the questions: where should I position myself, what activities, products, services to develop, what future evolutions are to be expected in consequence of the adopted decisions. Thus, a strategic diagram to diagnose the position of its activities/products/services has been proposed to enable it to focus on those that meet the environmental, community and human requirements with a profitability designed to ensure development; an improvement of the value analysis with the inclusion of the ecological component in the function-cost reasoning for adjustment in ecological function-cost, in the context of the integration of the economic value and social value concepts, as well as the observation of the possible evolutions of the economic efficiency correlated to the ecological efficiency, the consequences of the various hypostases and the identification of the measures possible to avoid failure.

Keywords: *ecological efficiency, social efficiency, human efficiency, economic efficiency*

JEL Classification: *D04, M14*

1. Introduction

Recent history recorded an unprecedented development, catalyzed by the stimulating interaction between the needs of the population and the ability of mass production industries to meet them, in a relative balance, based on high entropy resources. The conjugal effect of the two ascendant spirals, however, has created the great problems of mankind consisting of population growth and pollution, amid the exhaustion of natural resources and induces their disjunction. The efficient and parsimonious use of resources and significant reduction of pollution are primary goals of the contemporary world.

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“Today, however, (Europe) faces the double challenge of stimulating the growth needed to secure jobs and welfare for its citizens and to ensure a sustainable future through the quality of growth. In order to approach these challenges and turn them into opportunities, our economy will need a fundamental transformation within a generation – of the energy, industrial, agricultural, fishing and transport systems, as well as the behavior of producers and consumers” (The European Commission, 2011). The envisaged transformations cover all major systems: social, human, economic and environmental. So far, the relative balances of the first three have generally been provided by the fourth with stronger self-preservation resorts. The natural environment with its material and biodiversity components has intrinsic resorts of durability.

“Of all the phenomena existing in the Universe, the most strange, the most difficult to understand, even today still remains the ability of matter to think of itself” (Dulcan, 2009), the living world of the planet presents amazing adaptive conduct, instinctive and deliberate, without affecting the planet’s great balances. These two components, including mankind, are now in difficulty through the irrational actions of man, the only one irrefutably accredited with reason.

The economic, social, human systems, complexly and nonlinearly, are chaotic, and “transformations in the system, its transitions from one state to another, are all inherently chaotic. All we can do is to create conditions for such fundamental transformation to become possible” (Scarlat & Chiriță, 2005) through the characteristic nonlinear feed-back mechanisms.

In this reality, enterprises face, on the one hand, with the unpredictability dynamics of the complex and non-linear systems on a long term and, on the other hand, with the need to set performance levels on a more distant horizon without which they cannot be adopted appropriate short-term decisions. A key landmark in business development is increasing resource efficiency and including eco-innovation.

The present approach aims to provide specific models to the analysis needed to orient the enterprise’s efforts to increase resource efficiency towards the most favorable activities/products which are best positioned in the space of interaction of the four major systems, to the integration of the ecological component in the technical value analysis and to avoid waste on the whole economy.

2. Problem Statement

The development of the society at the macro and micro level is conditioned by the efficiency with which resources are used to maximize benefits with the existing technology. The whole of the economic literature treats exhaustively efficiency based on the relationship between effect and effort in its various hypostases. The ecological efficiency is a complex indicator, aggregated from sectoral environmental performance indicators: reduction of emissions, reduction of water, soil, waste degree of pollution, expressed as the level of achievement of an optimum, being related to the costs involved.

At the social level, efficiency is treated as the ratio between effectiveness and costs involved (resource expenditures and losses involved). (Zamfir & Vlăsceanu, 1993) Limited to the present discourse, social value is considered in consensus with the UN’s durable development goals, which measure the impact of the enterprise’s activity on all stakeholders (investors, employees, suppliers, customers, etc.) as well as on the community.

In the case of human efficiency, it is assessed as a ratio between the contribution of an activity/product to the quality of life and the necessary costs. Human efficiency is the ultimate efficiency of all socio-economic activity and the way in which the social progress is assessed. (Zamfir & Vlăsceanu, 1993) In the present paper it is considered that the indicators of measuring the quality of life are indicators of the state of its components (environmental, labor, personal development, including free time), and the contribution as a difference between the previous and the post status of the intervention of the enterprise.

In this context, the economic efficiency of resource consumption is considered throughout the life cycle of the product, including waste. N. Georgescu-Roengen (1971) stated that “The economic process consists in transforming low entropy into high entropy” irrevocably and that “the material product of the economic process is waste; they are the inevitable result of this process and, ceteris paribus, grow in higher proportion than the intensity of the economic process.” The activities/products/services of an enterprise may be at the intersection of the four major systems considered, three or two of them.

3. Aims of the research

In a system marked by fundamental transformations, the enterprises are forced to find coordinates to ensure their own development on a sufficiently long-term horizon with benefits for themselves, society, the individual and the environment. This approach aims to provide the necessary references for decision-making. The hypotheses of the research are:

I1. Placing activities/products in a strategic chart defined by the four systems considered allows the company to properly assess its position and adopt strategies accordingly.

I2. The ecological components can be integrated into value analysis to improve the social and economic efficiency of their activities/products/services.

I3. The introduction of the ecological component can generate different economic performance, with implications for the development of the enterprise.

4. Research Methods

The specificity of the introspective domain required a phenomenological approach by using fundamental, qualitative research methods, which involve deductive reasoning. In this context, the basic principles considered were that of cognoscibility (the possibility of phenomena observation), of realism (objective existence of phenomena) and of determinism (the holistic interaction of phenomena). The constructive nature of research is highlighted by the formulation of hypotheses and their validation through a comprehension-explanatory integrative approach. The efficiency assessment is conducted on the basis of specific indicators, customized on the four systems of interest: economic, human, social and environmental, with epistemological developments. The methodology of value analysis and strategic positioning analysis has been improved on the coordinates required by the ecological component.

5. Findings

5.1 The analysis of the strategic positioning of the activities/products/services

The strategic models allow the graphical evaluation, based on certain variables considered, of the position of an entity as a whole, of a strategic activity sector detected in the entity’s portfolio, of a product or service, according to the degree of inclusion of the analysis. For strategic positioning analysis, a stellar diagram is proposed in which the variables considered relevant are: ecological efficiency (which expresses the share of ecological components in the item), social efficiency (which expresses the level of orientation towards social aspects), human efficiency (which expresses the measure of orientation towards growth of the standard of living, the development of human personality), economic efficiency (expressed through profitability).

These variables are represented by triangles.

Each sector described by the different intersections of the triangles has certain meanings given by the variables that define it (Fig. 1), which is a reference in the development of the future strategies of the enterprise. Thus, five types of sectors were identified:

- Type 1 – is defined by the intersection of all triangles $[EC \cap EE \cap ES \cap EU]$, being positioned in the central octagon of the figure. The activities/products/services placed in this sector (11) meet all the current environmental, community and human requirements with a profitability designed to ensure development;
- Type 2 – is defined by the intersections of the ecological efficiency and economic efficiency triangles in which one of the social or human components can intervene, considering their complementarity (by customizing the concept of N. Bohr, we can admit that human efficiency and social efficiency, as distinct descriptions of the phenomena, independent and exclusive, complement each other). In this typology the following sectors are included: 2 $[EC \cap ES \cap EE]$, 3 $[EC \cap EE]$, 4 $[EC \cap EU \cap EE]$. In strategies targeting environmentally and economically efficient activities/products/services, priority have those that also present valences related to the social or protection and development of the individual aspects;
- Type 3 – is defined by the intersection of the ecological component with the social and/or human component, in the absence of economic profitability. In this category are included the sectors: 1 $[EC \cap ES]$, 5 $[EC \cap EU]$ and 6 $[EC \cap ES \cap EU]$. Basically, no enterprise can produce anything ecologically, socially and humanly useful but unprofitable without eroding its development capacity and even its existence. However, products with these characteristics have cert potential, the strategies for activities/products/services in these sectors being circumscribed by profitability objectives of the processes and flows on the whole value chain;
- Type 4 – defines the sectors in which are included the activities/products/services that do not involve ecological components but are profitable and may include human and/or social efficiency: 9 $[EU \cap EE]$, 8 $[ES \cap EU \cap EE]$ and 10 $[ES \cap EE]$. Eco-innovation is still in the emergence phase and the coexistence of classical products, which are cost-effective and proven on the market, with eco-innovative products will last longer, which ensures stability in the forecast over a sufficient period of time;

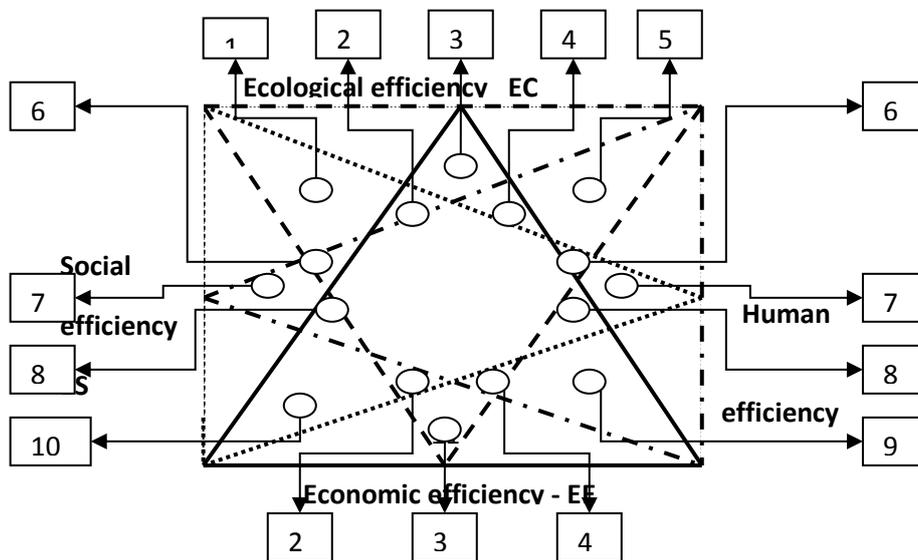


Figure 1. Strategic diagram

Source: authors

- Type 5 – is defined by the exclusive intersection of human and social components. It includes sectors that do not involve ecological components, do not generate profit, being incurred to the extent possible: 7 $[EU \cap ES]$ (Community activities, humanitarian

actions, in line with the aspirations of solidarity, corporatism, which can be suspended when they exceed the possibilities of the enterprise).

The positioning in the proposed strategic diagram allows making the right strategic decisions and focusing on the activities/products/services by type 1, 2 and 3, validating hypothesis one (I1).

5.2 Value analysis – inclusion of the ecological dimension

In the context of the above-mentioned efficiency requirements, the value of the activities/products/services needs to be redefined by integrating the economic component of the value with the social one that includes along with the client, the environmental protection.

The present model aims to integrate the ecological dimension into value analysis by adjusting the level of importance of product functions according to the ecological behavior adopted. It is evaluated based on criteria that are assigned equal weights and are evaluated using a 5-step Likert scale. As an example, we mention as relevant criteria for ecological behavior, at the level of each function of the product: renewable materials, intensity of energy consumption, rate of recycling and degree of pollution.

Table 1. Adjustment determination

Ecological criteria	Grade 1-5 (n)				Ecological behavior adjustment
	a	b	...	r	
Function	p%	p%	p%	p%	
A	nAaxp%	nAbxp%	nAcxp%	nArxp%	AjA
...					

Source: authors

In order to determine the adjusted importance of the functions, the quadratic matrix for determining the level of importance of the functions is elaborated, taking into account the adjustment related to the ecological behavior.

Table 2. The adjusted level of the importance of the function

Function	A	B	M
A	1	0	0	0
...			1	0
Level of the importance	NA	NB		NM
Ecologic behavior adjustment	AjA	AjB		AjM
Adjusted level of importance	NaA	NaB		NaM

Source: authors

Determination of the adjusted level of the importance of the function:

$$x_i = \frac{Na_i}{\sum Na_i} \times 100 \tag{1}$$

i = function; Na_i = adjusted level of the importance of the function;

$\sum Na_i$ = adjusted use-value the product/service

The correlated analysis of the level of importance and the adjusted level of importance allows the inclusion of the ecological dimension in the decision making process and the appreciation of the social value of the product/service, validating the hypothesis two (I2).

Table 3. Strategies based on the importance level (N_i) – adjusted importance level (Na_i) correlation

	N _i	high	low
Na _i			
high		function maintenance and improvement function for which there is a pro-ecological attitude	
low		efforts in the field of environmental protection	Abandon / replacements

Source: authors

Assessing the economic value of the product involves determining the cost of each function using the value analysis principles. It is determined the cost of functions by summing the consumption of the values for all expenditure items spread by adjusted importance, as well as the share of the function in the total cost of the item.

$$y_i = \frac{C_i}{\sum C_i} \times 100 \tag{2}$$

y_i = function weight in the total cost of the item; C_i = cost of function; ΣC_i = total cost of the item.

The strategic process involves analyzing the proportionality of functions-costs. The link between the two variables is linear, the increase of the variable xi determines a relatively proportional increase of the variable yi. The equation of the straight line passes by origin, considering that a function with zero importance in the value of the product must cost 0.

The deviation from the real level (actual costs) of the adjusted value requires the analysis of the gap and the substantiating of the strategy. In this respect, the costs set according to the model, considered as target costs, become decision-making reference. The ecological component can generate significant deviation, which may require that the product is re-examined throughout its entire life cycle in an ecological approach: eco-design, eco-production, eco-distribution, eco-consumption and impactless destruction environment.

5.3 The scissor effect

Including the ecological dimension in business strategies may have different consequences on economic efficiency (I3). The optimal is determined by the proportional and in the same sense evolution of two indicators, the closed scissors effect, which will ensure the sustainability of the projects and the durable development of the enterprise. The opposite of this situation is to achieve an increase in ecological efficiency with the decrease of the economic one or the increase of the economic efficiency in the circumstances of minimizing the ecological one, the open scissor effect, projects with these characteristics being destined for failure. In practice, the following situations are more common: increasing ecological efficiency under the conditions of economic efficiency remains constant, which means that the efforts to introduce eco-innovation are validated by the market and are fully recovered without affecting the business development capacity; the faster increase of the ecological than economic efficiency is beneficial under the conditions of additional profit for development; increasing ecological efficiency and reducing economic efficiency-several situations have occurred: if the measures taken are a consequence of the regulations, the enterprise must find endogenous factors of profitability; if ecological efficiency is a consequence of the enterprise's own research with a macro-positive effect, it may be considered the involvement of the authorities and the possible external capitalization of research results to compensate for possible losses and to support implementation; if the increase of the ecological efficiency results in the decrease of the

economic efficiency without the possibility of corrections in a reasonable time, it leads to failure. A special situation is to increase the ecological efficiency under the conditions of obtaining the products with a lower relative profitability due to the change of the inputs or processes. If the volume of sales is large enough to generate enough profit to sustain the development, the projects are viable. In this situation, efforts will be directed towards the ways of reducing costs on all levels.

6. Conclusions

The reorientation of socio-economic-human systems towards respect for nature and biodiversity as a sine qua non condition of future development induces complex approaches at the enterprise level, marked by constraints and phenomena with divergent developments. The development of strategic diagrams, on appropriate coordinates to the objectives of the enterprises, allows them to realistically fit their activities/products/services according to the existing parameters, the level of efficiency obtained and to establish strategies in consequence.

The diagram proposed in this approach has the capacity to allow enrollment on ecological, economic, social and human efficiency coordinates and is limited by the impossibility of highlighting their size, which is a direction of model development.

The inclusion of the ecological component in the value analysis through the development of the methodology and the integrated use of the economic value and social value concepts offers the possibility to improve the efficiency at the level of the activities/products/services of the enterprises.

The arbitrage between economic and ecological efficiency reveals that the preponderant development of one over the other may lead to failure either due to the inability to sustain an inefficient economic process or to the exclusion induced by the absence of eco-innovation. It is essential that the primacy of ecological efficiency be respected in addressing future strategies.

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The Energy Strategy from the Perspective of Transition to Clean Energy. Comparative Analysis of the Bioenergy Field in Romania and Germany

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Abstract

The energy sector represents, for Romania, a pillar for the economy, with an important contribution to the gross domestic product, while being at the same time a national security component. The energy sector is faced with new technological standards which need to be met and services are required to transition to a cleaner energy. Referenced in three of the main five intervention areas of the strategy, renewable energy obtained from biomass represents a priority for the Romania and is also the topic of our research. The strategy was published in 2016, but is yet to be implemented, which is why we considered it appropriate to contribute through the findings of this research, with key points for a successful future implementation. The paper presents relevant factors to a successful energy transition process to a clean energy which may be implemented in the Romanian biomass case, through a review of the German renewable energy strategy in the biomass field. The theory of transition is used as a framework to promote this assessment in Romania. The research methodology is based on a special action research design with four phases that enable to identify the key points that need to be addressed in the implementation of the biomass energy strategy of Romania. After reviewing the specialized literature in regards to the importance of biomass for the clean energy, the implications of the use of this alternative energy resource and the global context at the current date, we have used the method of comparative analysis to underline best practice elements, which can also be applied in the Romanian strategy implementation.

The comparative assessment of the German and Romanian biomass strategy identifies key factors for the future estimation of the Romanian transition pathway.

1. Introduction: Biomass as clean energy resource in the Romanian and German Energy Strategy

On 19 December 2016, the Ministry of Energy has published the “Energy strategy of Romania 2016-2030 with perspective of the year 2050” and the coordinators of the project have presented the objectives along with the action plan in a public workshop where the authors participated. The goal was to initiate the debate on the implementation of the strategy in the upcoming period.

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The energy sector brings an essential contribution to the development of the country through its social, economic and ecologic impact, thus making the debate of this strategy crucial for the strategic evolution of Romania in the future years. This paper aims to tackle some of the objectives mentioned in the strategy by comparing them to the experience of another country, i.e. Germany, considered a leader in the promotion of renewable energy in Europe (Laes *et al.*, 2014).

This comparison is relevant, as in Germany a strategy of transition to renewable energy is already in progress of implementation and can underline the aspects to be considered in its upcoming implementation in Romania.

According to the Global Status Report on Renewable Energy in 2017, bioenergy (in traditional and modern uses) is the largest contributor to global renewable energy supply and its proportion in consumed energy is continuing to grow with approximately 2.5% per year.

This industry can be divided into three important sectors, which are structured as follows: **The Solid Biomass Industry**, which is involved in the delivery, processing and use of solid biomass in order to produce heat and electricity – in Europe, the trend is to convert large-scale power station capacities from coal production to wood pellets. The **Liquid Biofuels Industry**, which is concentrated between a number of important companies which have dominated the market.

The Gaseous Biomass Industry is focused mainly on the anaerobic digestion of agricultural wastes, which include animal manures, and also on the digestion of recovered food wastes. The evolution of the biofuels market also represents an incentive for the commercial activity around the world. (Global Status Report, 2017)

The fundamental objectives of the Romanian energy strategy are: energy security, competitive markets, clean energy, the modernization of the energetic governance system and the reduction of energetic poverty and the protection of the vulnerable consumer.

The above-mentioned objectives should be achieved through the following strategic intervention areas: the renewal (through replacement or upgrading) the energy production capacity parks, the development of the infrastructure and insuring the gas supply, enabling a central role of biomass power in heating the households, developing the high efficiency cogeneration and the modernization of the centralized heat supply and improving the energy efficiency of the households as a solution for reducing the energy poverty.

As a first observation regarding the priorities of the strategy, three out of five areas of intervention refer to the households and their role, especially by using *biomass* – as being the renewable energy alternative to the traditional heating facilities.

According to the Energy Strategy of Romania, almost 90% of the households from the rural area and 45% at national level utilize predominantly wood for heating. The heating is usually just partially turned on, using stoves with insufficient burning capacities and high costs. As a result, the improvement of the quality of life has become a strategic priority from the perspective of delivering high quality energetic services. The goal for 2030 is for all the households in the rural area to have access to alternative heating sources, such as – photovoltaics as an alternative for heating water, increasing the storage capacities, using electric stoves, etc. Another important goal will be to develop the cogeneration of high efficiency while also modernizing the centralized heat supply systems. The actual cogeneration capacities use natural gas, but the purpose is for the new ones to use biomass, biogas and geothermal energy and the proposed deadline for these changes is 10 years. These goals can be achieved through a detailed planning of the transition process to a more clean energy taking into consideration the actual situation and the needed legislative measures and investments for the next years. The above-mentioned objectives must also consider the social context – which is that of energy poverty because of the reduced income in comparison to the increased energy prices. In Romania, the energy required to heat a household is generally significantly higher than ideal,

due to the fact that the housing is not heat insulated in the majority of the cases. Therefore, one of the main aims of the strategy is to address the households in order to achieve a maximum energy efficiency impact as well as number of consumers addressed, meaning also insuring a significant social and budgetary impact.

Considering this, the paper will focus mainly on biomass and its role in the energy strategy of Romania, by highlighting the experience and the results achieved in a relevant and comparable environment.

The German Renewable Energy Strategy is based on the transition process to cleaner energy.

For this process (“Energiewende”) was set out an target of 80% of electricity to be provided by renewable energy sources by the year 2050 (Energy Concept 2010). The transition process in Germany is supported by public engagement and household commitment to install renewable energy facilities.

2. Problem Statement: Defining the transition perspective. Steps for a clean energy in the biomass field

Renewable energy is a very often approached matter by numerous researchers, from various perspectives. For the purpose of obtaining an overview of the literature relevant for the research, the literature reviewed is focused mainly of transition to a clean energy using biomass as type of renewable energy resource, and the context reviewed is the one of Germany and how their strategy was designed, respectively which were the results to be taken into consideration in the case of Romania.

The transition perspective has its roots in the transition theory, which synthesis major ideas and concepts that are identified in the research in socio-technical transitions and explains some general characteristics of the transition process. There are numerous approaches of the transition process presented in the literature. From a historical point of view transition refers to a new way of acting from the principles perspective to a business one (Laes, *et al.*, 2014).

Transition is a long term process due to its complexity but also due to its rigidity (Solomon&Krishna, 2011). Energy transition is defined “as a change in the state of an energy system as opposed to a change in individual energy technology or fuel source” (Grübler *et al.*, 2016, Cherpa *et al.*, 2018). In this assumption the transition to a clean energy is a complex one, influenced by the specificity of different energy markets. The transition theory applied to the energy sector is based on a multi-level analysis. For an electricity system the main dimensions are a) technical with production, grid infrastructure and other technological resources b) organizations such as utilities, consumers and public institutions and c) procedures based on regulations (Chapman&Itaoka, 2018, Verbong&Geels, 2010). A transition process has an influence over these dimensions in a specific way. For specialists in transition theory is important to develop new quantitative but also qualitative methods and approaches for exploring this process from a social, economic and also ecological perspective (Gismondi, 2018).

A main principle that has to be taken into account for a transition process is the sustainability (Markard *et al.*, 2012). So, the transition perspective is a complex one and has to take into account the economic and social dimensions as well.

The economic dimension refers to the economic growth and the difficulty to link it to renewable energy, unlike the case of non-renewable energy, making it an imperative to include the economic growth in any energy strategy from now on for it to be compatible with the future development of the country (Tiago *et al.*, 2015). Another economic approach is that of the costs involved in developing renewable energy and how they affect the prices (Millinger&Thran, 2016).

The social dimension is concerned with studying the effect of promoting renewable energies on value added and on disposable income. It has led to the alarming conclusion that the generation of electricity from renewable sources itself leads to small positive impacts on industries, but leads to a significant drain on household income and has regressive distributive effects (Tobbern, 2017).

In the transition process to a clean energy in EU, studies indicate that this transition is in a pre-development phase due to small scale initiatives and the exploring of new solutions for complex problems (Laes, *et al.*, 2014). Additionally, renewable energy can and *should* be analyzed from the perspective of the technologies involved, the ecological impact and its potential for policies to be developed. The transition process to a cleaner energy has to be managed based on measurable targets and objectives in order to see the progress and quantify also the impact of the new bioenergy system (Huge *et al.*, 2011). An superior level of transition can be obtained when the transition process is supported by a entrepreneurship perspective that capture value from technological but also social innovations in business practices or financing mechanisms (Chesbrought&Rosenbloom, 2002, Tantau&Fratila, 2018). The debate regarding both the measures, which need to be enforced, as well as the expected results for the transition to a more clean energy is still open. Rather than deciding that one of the approaches identified in the specialized literature, or one of the already implemented transitions models are the suitable alternative for Romania, this paper aims to avoid a unitary approach and develop a multidisciplinary overview of one of the most important aspects of the energy strategy in Romania. The findings will bring forward a centralized view on the relevant aspects of the energy strategy which need to be considered in the transition process – from economic, social, and ecologic perspective.

3. Research Methods: The comparative analysis in the action research design

The results presented in this paper are based on an *action research design* in order to identify the key points that need to be addressed in the implementation of the biomass energy strategy of Romania. During the research period, every topic was debated in the form of a **comparative analysis**. This form is maintained throughout the four phases of the model. The action research has implications from science and also from practice perspectives, as it allows the development of theoretical knowledge using the expertise of practitioners (Shani and Pasmore, 1985).

Through initiating and analyzing targeted debates with the stakeholders of the energy strategy and maintaining the collaboration with them during the research, important knowledge derived from practical perspective can be acquired. The aim is to gain information in a structured manner, so that it can be subsequently used for a better implementation of the strategy.

The action research will follow a **4-Phase Modell**. The first phase is represented by the initial workshop when the strategy was presented to the public and was launched for debate.

Through this first phase, consisting of the attendance to the initial workshop, the main research focus was set – namely the biomass sector, and the context and main objectives of the strategy were defined. The second workshop was held with Ph.D students of the Business

Administration Doctoral School from the Bucharest University of Economic Studies, Romania. Students who study the energy sector from various perspectives have highlighted the findings they have come across while conducting their research, thus allowing a diversified data collection, as well as a visualization of the status of the energy sector. This represented the background for the third phase of the action model. During this phase, former students of the Faculty of Business Administration, in foreign Languages (FABIZ), who have started a business in the energy field, as well as German investors who have implemented renewable energy projects in Romania have underlined the issues which they have come across during the

development of their investments, as well as the opportunities they have identified along the way.

The last phase consists of interviews with specialists of the Romanian Ministry of Economy, who has participated in developing the procedures of applying for European funds financing for renewable energy projects, as well as in evaluating and monitoring the projects in the previous implementation period. This fourth step of the action model has the role of concluding over the clean energy approach from all perspectives – research, business and administrative, in order to sum up the most relevant findings.

This approach is appropriate in the context presented, as it will allow obtaining an overview of the social impact of the objectives debated for the transition process to a clean energy, which is a suitable purpose – given the role of an energy strategy and its impact on the society.

In order to perform a scientific research, Durkheim argues, that the work must transcend a preoccupation with detail and a continuous search of general laws. This can only lead to “conceptual nominalism and methodological individualism”, both of which are considered antithetical to a science concerned with the study of society. The generalization is equally unacceptable to Durkheim, as it only brings gross simplifications of situations, avoiding essential elements. Comparative analysis is useful when performing social research, because it provides solutions to one of its main issues: the need to reach a generally applicable conclusion when studying complex phenomena. Durkheim reconciles this controversy by using an ontological arguments about the subjects at hand, that surpass simple assertions about the uniformity or diversity of social organizations. (Ragin and Zaret, 1983)

There are two main aspects defining a comparative analysis: an interest in the explanatory question of why the observed similarities and differences between cases exist; the reliance on the collection of data on two or more cases, ideally according to a common framework. (Smelser, 2002)

In order to avoid generalizations which can lead to erroneous conclusions when it comes to social impact of a measure plan, and in order to also insure that the complexity of the subject will be encompassed in the conclusions, while also offering a useful insight for the further implementation of the strategy, the *comparative analysis* was used. The reason was precisely its capacity to reconcile “*competing claims of complexity and generality*” in research, and therefore to bring forward precisely the aspects which cannot be identified through different research methods.

4. Workshops on biomass investments: challenges and opportunities (Findings)

4.1 Workshop on the approach of renewable energy on the market

Defining the context of the research, alongside of the key perspectives to consider, has been facilitated by the workshop organised in an academic environment – the Bucharest University of Economic Studies. The total capacity of the operational investments in renewable energy in Romania represents only the added capacity to the German network every 2 or 3 months, so a comparison to the German energy strategy would not necessarily put Romania in the best light possible. Anyhow, given the known fact that Germany has invested significantly over the years in renewable energy – 3rd ranked in the global status report on renewable energy, they can be a suitable benchmark to evaluate some of the objectives of the Romanian strategy in order to conclude regarding its future implementation.

In order to achieve this, we have organised a workshop, where not only Ph. D Students were invited, but also representatives of important companies in the Oil and Gas industry, German investors and researchers who have been actively involved in the renewable energy sector in the last years and professors from different universities from Europe.

In the energy strategy of Romania the biomass is considered one of the most important renewable energy source, with the main resource being the fire wood. The usage of wood for this purpose is estimated at 36 TWh and the expected evolution until 2030 is a decrease in usage of 20% up to 39 TWh after introducing cogeneration alternatives. The biocarburants and biogas production are considered to be of great potential (with a production of 1,500 GWh of the first and of 450 GWh of the latter). For 2030 the modelation results show an increase of 4,100 GWh of biocarburants, necessary to reach the target for 2030. Although considering the actual status quo and the local past experience is crucial, a good point to be considered in the romanian strategy could be the german approach regarding biocarburants. According to the World Energy Resources Report from 2016, in Germany, Europe's largest producer of electricity from biomass, total bio-power capacity increased 2%, to 7.6 GW, and generation was up 2.5% to 52 TWh.

Biomass is the most important renewable energy resource in the heating sector and it was subject to a significant and dynamic development in the last years. There is a clear advantage of its usage, like the reduced costs of avoiding CO₂ emissions and the limitation of the pollution during the combustion.

Therefore, insuring the durable biomass production is a key factor in Germany's strategy, as it is viewed as a transformation of waste from a substantial cost for the society to a durable and sustainable investment. Anyhow, the traditional use of biomass for heat involves the burning of woody biomass or charcoal as well as dung and other agricultural residues in simple and inefficient devices. Given the informal nature of the supply, it is difficult to acquire accurate data on the use of these biomass materials and centralize all the issues faced by the investors/producers.

Its strategic role is facilitated by the large amounts of wood pellets which are produced, respectively consumed in Germany, accompanied by the common acceptance of their use for heating and cooling.

The widespread forest areas and developed woodworking industries have also had a contribution to this situation. The market is composed of more than 70% small investors, concentrated in the South and South-West of Germany, where low mountain ranges can be exploited and where the wood industry is well developed, as the German Biofuel Portal reported in 2016.

The cultivation of biomass must also not take place in the detriment of the nature or the environment, but on the contrary, it must contribute to its protection. For this purpose, measures like the promotion of a better and more efficient heat use – through combination with electric generated heat, biogas and microgas installations included in the local heating systems as well as decentralised heating plants were promoted as alternatives to the society. Changing the mindset towards the resources involved is a key factor in implementing any strategy and should also be considered as a factor in the romanian strategy. The dispositions regarding the professional best practices in Germany referred to: standards of durable cultivation in the federal law, certification systems, limit authorisations to be respected as per german legislation and the potential to reduce CO₂ emissions must be clearly specified. Germany is also mentioned by the European Commission on its biomass dedicated page of procedures and recommendations as best practice example: a biogas plant with a production capacity of 500 kWe electricity and 500 kWth heat, based on energy crops was built with a permit granted in 6 months and a premature start of construction. (<https://ec.europa.eu/energy>)

The keys for success were the following:

- the placement was previously agreed with the authorities and the choice was made after evaluating other possible three alternatives;

- the authorities have been involved from the beginning in the informal discussions before the official application and have provided assistance and support in finding the location;
- the stakeholders have been considered from the start and gaining their trust was a main objective; there was a contact person permanently preoccupied with improving the communication and maintaining it efficient and the consultant for obtaining the permit has had previous experience.

Nevertheless one of the issues which was highlighted and can be faced by biomass producers was the lack of clear procedures to obtain access to the energy grid and the *local resistance in the investment or support of bioenergy related projects*.

4.2 Impact of the legislation on the renewable energy investments

In order to offer an incentive for the continuous expansion in this sector, in the transition period, Germany has introduced a law which is applicable since 2007. It refers to the obligation of the actors who offer fuel on the market to have a fixed percentage of biofuel. Additionally, based on the CE directive, the biofuel can be tax exempted.

This is just an example of reglementation which takes the form of an incentive, but the european commission has issued recommendations on the sustainability criteria for biomass, meant to apply to energy installations of at least 1MW thermal heat or electrical power, as follows: using biomass which is obtained from an area where a forest used to be, or other high carbon sources, as well as from biodiverse areas is not permitted; the biofuels must emit min. 35% less greenhouse gases in comparison to fossil fuels. These amounts rise up to 60% in 2018 and national biofuels support schemes need to be developed in order to support capacities of high efficiency. All the biomass consumed in the EU must be monitored in order to ensure their sustainability. The main legislative initiatives regarding the renewable energy field in Germany was the Renewable Energy Act. At first this law introduced the concept of “feed-in tariff” to promote the renewable energy investments. In its version from 2014 the law generated the transition to an auction promotion system for the renewable energy systems.

The last version of this law was published in 2017 as the renewables have become the most significant energy source over the last 10 years. Tenders were introduced for the purpose of changing the funding from the existing grid – which consisted of tariffs set by the administration or from the government to prices set by competitive auctions. This results in a change from the Feed In tariff to a use of market instruments. As the German Federal Ministry for Economic Affairs and Energy presented in 2017, the aim for this measure was to further reduce the costs and to obtain a more operative response to the market developments. As a result, funding will be granted for biomass for 150 MW production, with the perspective of increasing this value up to 200 MW per year.

The tendering scheme has the following features: 3-4 auctions will take place per year and will be conducted by the Federal Network Agency, the decision for awarding a contract will depend only upon the **price**, as a result the bids will be starting from the lowest amount and will continue until the amount of the auctioned capacity will be reached. It is expected that the funding amount will correspond to each individual bid. Another means of financial support is represented by the subsidy program “KfW Bankengruppe”, which consists of loans with interest discount of up to 50% for amounts up to 150,000 EUR granted by the federal state.

Following the same principle, of an open market to support the renewable energy investments, a legislative measure was adopted in Romania as well, regulating the process of trading green certificates. Green certificates represented titles vouching the production of energy from renewable sources and were granted for each MWh produced. Therefore, the issue faced by the investors in Romania is similar to the one highlighted by the European Commission

(mentioned above). Not the lack of legislative measures needs to be addressed, but the difficulty in developing efficient procedures and administrative instruments to enforce the existing laws, as well as the deficiencies in communicating the vision to other actors on the market – banks, entrepreneurs, beneficiaries, consultants, etc.

4.3 Financing renewable energy projects

However, one of the main challenges underlined by the investors was the difficulty of accessing capital for bioenergy projects. The energy strategy of Romania identifies substantial investments necessary for the modernisation and the retechnologisation of the energy system in the next 15 years. The analysis of alternative scenarios has resulted in an estimation of total investments to be made in the energy sector of 15-30 Bn. EUR for the period 2017-2030.

Regarding the investments in the distribution system, the strategy states that more than 60 areas with functional centralised heating systems require substantial modernisation resulting in estimated investments between 1.3 and 2.6 Bn. EUR, representing 87-175 Mio EUR invested annually. In combination with the investments in the distribution, the old plants which have reached the end of the utilisation period will have to be replaced, which also translates into a necessary investment between 1 and 1.5 Bn. EUR.

Additionally, amounts between 45 and 60 Mio. EUR annually will be needed for the replacement of the boilers and 90 Mio EUR annually will be directed towards new cogeneration capacities.

The required investment amounts presented above were determined by the team of specialists and were tailored for the needs of Romania. In order to reach these targets, the access of capital is a necessary condition. In the Romanian strategy, the approach regarding financing alternatives refers to sources “other than private capital”, namely European funds (which until 2018 have had low, respectively non-existing absorption rates), investment and development banks (European Bank for Reconstruction and Development, European Investment Bank) and public-private partnerships, as well as project financing alternatives.

What can be observed in the experience of Germany is that the most successful projects were the result of financing from private banks. The capital requirement is of 20-30% and the evaluation method is based on estimated future cash flows, which translates in the need to mitigate risks efficiently and to prove the financial profitability of these types of investments.

This is a result of the strategy adopted by certain banks, eg. Umweltbank AG, DZ Bank, DKB Deutsche Kreditbank, which have opted to finance renewable energy projects as a result of the concerted effort of legislative incentives, public support and policies developed which have built trust and stability.

Through financing by investment funds, only a few projects were realized, whereas the contracts in the production area – namely for biogas were rarely finalized. As it can be observed, the strategy of Romania contains few references regarding the financing methods for the investments mentioned.

4.4 Interviews regarding the measures to be implemented in Romania

The last phase of the research consisted of interviews with representatives of the Energy Organism of the Ministry of Economy. Once the results of the first phases were summed up (please see the main points in the table below), the expertise of the engineers who have evaluated more than 50 energy projects in different stages in order to highlight the essential findings of the research.

Key Matters	Germany	Romania
<i>Mentality</i>	Waste represents a resource, which can be invested with the purpose of generating energy, and represents a source of income for both companies, as well as for small investors/for households.	Waste is deposited in landfills, which are poorly managed by the authorities and require high maintenance costs – from financial, as well as from ecological point of view.
<i>Legislation</i>	With initiatives like the Renewable Energy Act, Germany’s administration aims at encouraging every potential investor to choose renewable energy alternatives.	The green certificates represent incentives for every renewable energy producer, as well as a penalty method for the companies who generate pollution.
<i>Financing</i>	The main financing source is the private banking system – and renewable energy projects are considered viable generators of future cash flows.	Reluctance of the banks to finance renewable energy projects – especially biomass, as they are not perceived as cost-effective investments.

This paper aims to contribute to the successful implementation of the energy strategy of Romania developed in 2016, for the transition period to a more clean energy, in special for the bionergy field, and the method chosen in order to achieve this, was a comparative analysis to the measures adopted by Germany for the same purpose. Our findings refer to the following main points:

1. The approach on the topic “waste” needs to be shifted, from the mentality of perceiving it as a cost for the society with the entrepreneurial perspective that it represents an investment. Referring to the German model, this involves not only legislative measures, but also social and mass-media initiatives, adequate policies and an education geared towards alternative energy resources. These are all necessary to build a different mentality which would encourage investment in such bioenergy projects.
2. Legislative measures which will incentivize investing in biomass power plants are one of the keys of the German strategy and should also represent a focus point for the implementation in Romania, especially as it is also one of the recommendations of the European Commission. These measures should consider not only the potential for biomass production and consumption, but also the issues which can appear in the production of alternative energy from biomass. These need to be considered beforehand, so that the risks can be minimised. Although unexpected changes can always interfere in an innovative investment, having a proactive approach, especially when developing the strategy, is crucial for its success.
3. Another important aspect which was only shortly described in the strategy of Romania, but represents an essential condition for its implementation, is the access to capital for the future investments. Although project financing and public-private partnerships were mentioned in the German strategy, the experience of Germany has shown that the majority of the successful projects which were finalised have had private bank’s financing. This shows the importance of building trust through measures described in the previous three points, so that the risks associated with the investments can be mitigated and the banks can obtain the assurance they need, in order to support projects which involve renewable energy resources.

5. Conclusion

Our proposal, after reviewing the challenges and the opportunities identified from the theoretical, business and administrative points of view, is to improve the access to capital and expertise in order to facilitate the implementation of possible future projects. This can be achieved through a targeted action plan for the execution of 3 biomass plants with different

biofuels according to the specific of the areas (solid, liquid, gaseous). The plants can be built with the collaboration of universities (with the necessary expertise) and entrepreneurs, organized in form of clusters, which can access structured investment options, in form of European funds through The Large Infrastructure Operational Program (LIOP), which aims to contribute to the sustainable economic growth and to the safe and efficient use of natural resources. The three plants should be monitored in order to conclude over the potential pollution risks and the financial results of an investment in biomass, which can then represent a benchmark for both the technical, as well as the financial sector stakeholders. In the situation of a project being evaluated for financing purposes by a bank, the financial indicators can only be reliable if they can be traced to historical data and to comparable variables.

These were only a few brief, but essential points, which should be considered, if not at the design, then at least in the transition process to a more clean energy and the implementation of the Romanian energy strategy. If it did not develop as fast as in the case of countries like Germany, it should at least consider past experience in order to avoid issues which can be prevented.

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The Role of Educational Services in Reducing Poverty and Social Exclusion

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Abstract

Education provides a stable foundation for developing the societies of tomorrow, having a dual function since it fosters economic growth and represents a crucial instrument also for ensuring the stability of a society in terms of human welfare. Given its social role, coherent policies must be implemented in order to enhance its transformative features on the long term. To perform this, it is necessary to understand how teachers, who are the leading points in transmitting information to students, perceive the impact of education on fighting against social imbalances such as poverty and social exclusion and what needs to be further done to facilitate the mission that education has within a society. Having these aspects well established, the article addresses the influence of education in minimizing negative social phenomena and measures that have to be implemented in the field so that the end beneficiaries of education can be offered high quality services targeted to their needs. The research was carried out through an econometric analysis based on a questionnaire as a quantitative measure. Through this study we intended to identify the standpoints of teachers activating in the Romanian pre-university education system and who activate in Bucharest and Prahova, on the research subject as well as correlations that exist between the study variables. Some key issues addressed by the study were determining the extent to which teachers believe that education can reduce poverty and social exclusion, measures that can minimize poverty and strategies for reshaping the educational services to improve their suitability for students. The results have shown that education can indeed promote the reduction of social issues but it steadily needs to be reformed to fulfil its scope. The findings can be of interest for institutions that establish legislative procedures in the educational field and can help to regenerate Romanian education.

Keywords: *educational services, education, poverty, social exclusion, Romania*

JEL Classification: *I24*

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1. Introduction

For the present-time societies, enabling social and economic wellbeing is both a target and a challenge, due to the persistent need of remaining competitive and the ongoing legal and economic reorganizations that appear during every country's existence.

Education is a valuable instrument for the enhancement of social progress hence investments in education are vital. The young people of today, or in other words, the beneficiaries of educational services, are the ones who will play an active role in developing the societies of tomorrow. Thus, active policies need to be formulated in order to shelter the thriving of its end users on the long term and to reduce social occurrences like poverty and social exclusion.

In order to promote the minimization and even eradication of social imbalances, the educational system has to find itself in a persistent need of being reshaped in accordance with the needs and aspirations of the present-day citizens. Ardashkin (2015) emphasizes that education is an integrated social element and a solid pillar in shaping individuals' subsequent existence. Similarly, Păunescu (2017) views education as a resource that people must benefit from without any constraints in order to access a good living. Nevertheless, education has to be profoundly adapted to the globalization phenomenon which makes everything to be rapidly changed. Moreover, Burja and Burja (2013) claim that education can bring value to a society through fostering economic growth, by improving the capabilities of the people who participate in the academic process and making them to obtain a high quality output in their tasks.

The paper's objective is to analyze the role played by education in diminishing negative social phenomena such as poverty and social exclusion. Moreover, we aim to identify the extent of the need for redesigning the educational services in Romania and measures that can be implemented in order for education to better fulfil its social mission, meaning to instruct young people and to prepare them for their future. The research will be conducted through the usage of a questionnaire, namely a quantitative measure, while the sample consists of teachers from the pre-university education, who undertake instructional processes in the following sub-levels: primary, secondary, high school and post-high school. Furthermore, the geographic target chosen selecting the research participants is represented by Southern Romania, more exactly Bucharest County and Prahova County.

2. Problem Statement

2.1 Education and its social problem-solving dimension

According to Mosora and Mosora (2013), education represents an indispensable driver for expansion from the economic point of view, on one hand and for people's lives, on the other hand. Furthermore, the authors claim that individuals' opportunity of benefiting from education is obstructed by negative social phenomena such as poverty. Poverty involves economic hardships at the personal level which trigger social exclusion of underprivileged groups. There is a bidirectional link between poverty and education, since the absence of education results in poverty and the vice versa is applicable, too.

In a similar manner, Awan *et al.*, (2011) recognizes poverty as a barrier towards economic advancement and perceives education as a critical instrument in the eradication of poverty, outlining the negative correlation between educational accomplishment and the occurrence of poverty. In addition, attending higher education institutions decreases an individual's probability of being affected by poverty. Verner (2004) underlines the strong need for taking measures in the educational field, as poverty makes students unable to obtain good grades or even to attend school. Besides this, there is a vicious circle produced by education of a poor quality which triggers low financial gains that contribute further on to the deepening of the

poverty status. A minimal educational attainment can also impede growth by making people to obtain a poor productivity of labor, thus education is essential for mitigating poverty.

Statistical evidence provided by the GEM Report (2013) issued by UNESCO shows that the poverty rates have followed decreasing values since 1990 but at the current moment the share of people affected by extreme poverty at a global scale is of 21%. The European Association for the Education of Adults (2010) details the alarming situation of worldwide poverty claiming that 1.40 billion individuals have daily earnings of less than \$1.25, which is translated into 20% of the global population. Concerning the educational situation, the number of people who were illiterate was of 776.164 and this is not a good sign since an increased illiteracy rate for a country is a favouring circumstance for persistent poverty. Besides a poor education, other factors that promote the acceleration of poverty are political uncertainty and corruption, prejudices related to gender, a deficient life expectancy and a reduced society participation from the citizens' part.

According to Save the Children (2016) poverty and social exclusion are phenomena that also threaten children to a very high extent in Europe, as more than 26 million children are the subjects of these phenomena on this continent. If added up, these children would be of the same number as the country that is ranked on the seventh place in terms of population size in the EU.

At the European Union level, one out of four children (28%) face the poverty and social exclusion risk, whereas Romania exceeds the EU average by far, having a share of 51% in terms of children influenced by these imbalances.

Moreover, the report highlights the fact that educational poverty tends to spread from one generation to the next and that it makes its effects visible from the first years of living, this justifying the requirement for early education and caring. Despite this thorough necessity, Romania has a poor development in this sense, as the investments in childcare and early childhood education have a coverage below 10%, the same being true for Slovakia, Poland and Czech Republic.

Parziale and Scotti (2015) sustain the inverse link between poverty and education and claim that contributions made in the educational field can aid economic welfare and social stability at the same time provided their goal is the minimization of social exclusion of individuals. Moreover, Fernandez (2014) asserts that programs undertaken at the level of the European Union prove the education's positive impact on fighting against social exclusion.

In addition, Weber *et al.*, (2007) argue that two measures for decreasing poverty can be the refinement of the educational services' nature, quality and worth as well as determining students not to leave the educational domain. Merce *et al.*, (2015) highlight school withdrawal as a serious problem that affects Romania, this issue being influenced by aspects such as learning hardships, absence of needed motivating factors, assistance and counselling for undertaking education, or social obstacles. More precisely, these aspects can be assigned to three categories: student and family determinants (the income owned by the family as well as the instruction that parents provide to the child), society determinants (employment opportunities; absence of dialogue between teachers and parents) and school determinants (deficient school results).

Ushadevi (2001) asserts that children who quit school become a vulnerable group, one that is very difficult to reintegrate and that they form a true and accurate measure of poverty.

Regarding the influence of the family factor upon school dropout, Mihai *et al.*, (2015) state that the schooling of children who belong to families with a defective economic situation is compromised by the fact that they have to work in order to improve the family's income.

However, this produces a vicious circle, as the renouncement to education determined by poverty does not raise the individual or family wellbeing, on the contrary, it intensifies its wrecking and impedes a person to financially sustain his living.

Education also has to fulfil the function of supporting students to easily access the labour market and to be socially included from this point of view. In this sense, Müller (2005) affirms that if educational institutions are concerned with ensuring training oriented towards developing

particular skills, the students will be better prepared for the labour market inclusion and a minimum effort will be required from the employers' part.

The research was carried out as an extension to the aspects identified in the literature review regarding education as an instrument of reducing social disparities. More precisely, it brings added value to the field of research as it collects the opinions of teachers who carry out pedagogic activities within the Romanian pre-university level of education, more precisely within the primary, secondary, high school and post-high school education, upon the research topic investigated and provides an integrated image of it. The reasoning behind the paper's approach is the absence of concluding literature studies concerning the education's impact on poverty and social exclusion which have as a basis the beliefs of the previously mentioned category, at the level of Romania.

3. Research Questions/Aims of the research

The methodology section of the paper aims to illustrate and to understand the standpoints held by the Romanian teachers activating in the pre-university educational system, as providers of these services, with respect to the function met by education in minimizing social imbalances such as poverty and social exclusion. Given the fact that teachers represent the channel through which information is conveyed to students, they are a critical starting point in the students' learning process. As a consequence their attitude towards the analyzed issue is highly constructive and needs to be assessed so that improvements can be reached in this domain both for existing and future generations. We base our research on the assumption that the subjects of the analysis consider education as having an essential role in the improvement of social aspects like poverty and social exclusion, and they believe that Romanian education has to be reorganized to better meet the demands of its stakeholders.

With respect to this premise, the research hypotheses that constitute the basis of the study were formulated as follows:

- *H1: There is a correlation between the absence of motivational factors, assistance and counseling and students' deficient school results.*
- *H2: Creating student counseling cabinets for finding better jobs can help to reduce poverty.*

4. Research Methods

The research hypotheses were investigated by having as a basis a questionnaire, whose purpose was to determine the viewpoints of the educational services' providers in Romania, namely teachers from the pre-university education, regarding the role of education in reducing social issues and measures that need to be further implemented in the field.

The questionnaire has firstly aimed to find out whether the respondents were aware of magnitude of poverty and social exclusion at the level of Europe, in terms of number of children affected. Further on, the aspects that we have aimed to investigate through the questionnaire were as follows:

- the quantification of the respondents' level of agreement or disagreement with the following statement: "The educational services offered to an individual can help to reduce poverty", based on a Likert scale from 1 to 5, where 1 corresponded to a strong disagreement and 5 to a strong agreement;
- finding out the educational measure that the respondents thought to be the most important in reducing poverty, from a set of two possible options: improving the nature and quality of the educational services; encouraging partnerships with the business environment, universities and schools, at the local and international level;

- assessing the participants' opinion on whether the link between school results and parents' occupation had an impact on school dropout;
- determining the level of importance assigned by the respondents to a list of measures for improving the educational services on a Likert scale from 1 to 5 (1-not at all important; 5-extremely important): (a) applying new and innovative teaching methods/allocating enough time to know the students at the individual level; (b) modernization of the school syllabus to make it more relevant for children's lives and the abilities they need/promoting a more pleasant learning style; (c) offering supplementary support for learning (offering writing materials, providing free tutoring for children from disadvantaged groups); (d) improving the school infrastructure and offering meals (brighter and colorful classrooms, arranging study classes, offering free meals for children from poor families, free access to Internet, printers, offering camps); (e) creating counseling cabinets both for the children and parents from these families, with support for finding better jobs;
- identifying the frequency of access to computers during school, and the frequency of receiving and being offered help in fulfilling school tasks;
- the respondents' rating of 6 school dropout factors, from 1-not at all important to 5-extremely important: (a) family income; (b) education level received within the family; (c) absence of dialogue between teachers and parents; (d) deficient school results; (e) learning difficulties; (f) absence of motivational factors, educational assistance and counseling.

Additionally, the research involved demographic considerations concerning the respondents: their age, gender, the educational level and the county in which they teach.

The questionnaire was constructed by using Google Docs and it was held available online in February 2018. It was sent to a number of 120 pre-university teachers from Bucharest and Prahova and the final sample was formed of 115 conclusive responses, the response rate being of 96%.

The hypothesis analysis was carried out through an econometric analysis, namely regression analysis. The software used for processing the primary data was Microsoft Excel.

5. Findings

The validity of the first research hypothesis according to which there is a correlation between the absence of motivational factors, assistance and counseling and students' deficient school results is assessed by using a simple regression analysis. In this analysis, the absence of motivational factors, assistance and counseling represents the independent variable or regressor (X) whereas students' deficient school results have the role of dependent, incontrollable variable (Y). Thus the hypotheses is formulated as follows:

Null hypothesis (H0): There is no correlation occurring between the absence of motivational factors, assistance and counseling and students' deficient school results.

Alternative hypothesis (H1): There is a correlation occurring between the absence of motivational factors, assistance and counseling and students' deficient school results.

The extent to which the two variables are correlated is tested by using R Square (coefficient of determination) and Adjusted R Square (adjusted coefficient of correlation). According to Table 1, R Square has the value of 0.1660111, hence we may observe that 16.60% of the variation in student's deficient school results is explained by the absence of motivational factors, assistance and counseling, taking into account the fact that other influence factors are held constant. Furthermore, Adjusted R Square is 0.158630667, therefore 15.86% of the variation in student's deficient school results is explained by the absence of motivational

factors, assistance and counseling, knowing the fact that the impact of other potential factors is taken into consideration.

After having established the level of correlation that exists between the two variables of the study, we can establish the model, which, in its general form, is:

$$\hat{y}_i = b_0 + b_1x_i \quad (1)$$

If we proceed towards formulating the model with respect to our studied variables and Table 2, the econometric equation is:

$$\text{Deficient school results} = 2.57 + 0.39 * \text{Absence of motivational factors, assistance and counseling} \quad (2)$$

Table 1. Regression statistics for the first research hypothesis

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.407444597
R Square	0.1660111
Adjusted R Square	0.158630667
Standard Error	0.579130844
Observations	115

Source: author’s own findings

Table 2. ANOVA for the first research hypothesis

	df	SS	MS	F	Significance F			
Regression	1	7.544121808	7.544122	22.49341	6.20376E-06			
Residual	113	37.89935645	0.335393					
Total	114	45.44347826						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95%	Upper 95%
Intercept	2.570253843	0.375041623	6.85325	4.01E-10	1.827228771	3.313278916	1.827229	3.313279
Absence of motivational factors, assistance and counseling	0.393814802	0.083035611	4.742722	6.2E-06	0.229306285	0.558323318	0.229306	0.558323

Source: author’s own findings

In addition, the above equation tells us that there is a positive relationship between the two variables and apart from this aspect, there is also a positive slope that takes place. Furthermore, when assessing the coefficient of the independent variable, which in our case is 0.39, it tells us that this is the extent of the change in students’ deficient school results when there is a 1% change in the absence of motivational factors, assistance and counseling. In other words, the greater the absence of motivational factors, assistance and counseling, the greater the deficiency of student’s school results.

However, establishing the validity of the model can be done by analyzing the value of Significance F, displayed in Table 2, and making a comparison between it and α , which is 5% (0.05). In our case, it has the value of 6.2 and since it is greater than 0.05, we may not reject H0 and we may say that the model is not applicable in 95% of the cases.

The second hypothesis that is to be tested is the one which claims that creating student counseling cabinets for finding better jobs can help to reduce poverty. We state the analysis as follows:

Null hypothesis (H0): Creating student counseling cabinets for finding better jobs cannot help to reduce poverty.

Alternative hypothesis (H1): Creating student counseling cabinets for finding better jobs can help to reduce poverty.

We acknowledge that creating student counseling cabinets for finding better jobs is the independent variable (X) and reducing poverty acts as a dependent variable (Y).

The coefficient of determination (R Square) displayed in Table 4 is 0.27, which means that 27% of the variation in reducing poverty is explained by creating student counseling cabinets for finding better jobs, given the fact that we do not consider any influence from other possible factors. By difference, the adjusted coefficient of correlation, Adjusted R Square, shows that only 7.2% of the variation in reducing poverty is explained by creating student counseling cabinets for finding better jobs, taking into account other factors of influence.

The next phase after having depicted the correlation is to build the econometric model, starting from its general form:

$$\hat{y}_i = b_0 + b_1x_i \quad (3)$$

Applying the general equation of the model to our variables and considering Table 5, we obtain the following model:

$$\text{Reducing poverty} = 3.58 + 0.23 * \text{Creating student counseling cabinets for finding better jobs} \quad (4)$$

Table 4. Regression statistics for the second research hypothesis

SUMMARY OUTPUT	
Regression statistics	
Multiple R	0.269806179
R Square	0.072795374
Adjusted R Square	0.064590024
Standard Error	0.54415635
Observations	115

Source: author's own findings

The type of relationship that takes place between the variables is a positive one due to the form of the previously stated econometric model. Besides that, the independent variable's coefficient, 0.23, is positive too, so from this we may judge that the reduction of poverty takes place with 0.23 when the creation of counseling cabinets is raised with 1%. If we restate this fact, the greater the creation of counseling cabinets, the greater the reduction of poverty. When evaluating the validity of the model based on Table 5, Significance F is 0.03 and its is smaller than the value of α (0.05), therefore the null hypothesis can be rejected and it can be said that creating student counseling cabinets for finding better jobs can help to reduce poverty. In addition, the model is valid in 95% of the cases.

Table 5. ANOVA for the second research hypothesis

	df	SS	MS	F	Significance F		
Regression	1	2.626964	2.626964	8.871695715	0.003545255		
Residual	113	33.45999	0.296106				
Total	114	36.08696					
	Coefficients	Standard Error	t Stat	P- value	Lower 95%	Upper 95%	Lower 95%
Upper 95%							
Intercept	3.5814116	0.363056	9.864626	6.23384E-17	2.862132236	4.300690964	2.862132236
4.300690964							
Creating student counseling cabinets for finding better jobs	0.229734451	0.07713	2.978539	0.003545255	0.076926199	0.382542704	0.076926199
0.382542704							

Source: author's own findings

6. Conclusions

The study pointed out the critical impact of education in advancing social welfare and providing the basis through which societies of tomorrow can thrive. What is more important is that one of the initial research hypotheses were validated by the regression analysis.

Furthermore, the research also displays a solid belief from the respondents' part that Romanian education has to be reorganized to better meet the demands of its stakeholders, by changing the paradigm towards a more student-oriented approach through ongoing collaboration with the business environment to fight social imbalances.

Relevant aspects that need to be further studied are the opinions of students, parents and psychologists from the educational field, due to the fact that they are key beneficiaries and participants in the educational chain and their point of view is also valid in the analysis.

In what concerns the research limits, one of them is the short period of time for obtaining questionnaire responses and the other refers to the relatively small teacher database the authors had access to and the narrow geographical target selected (Bucharest and Prahova).

The results of the inquiry are applicable at the current moment only to the sample under study, meaning the pre-university teachers from Bucharest and Prahova and cannot be extended to the entire population. Moreover, there is a strong need for extending the research to other counties from Romania and perform comparisons in order to understand the issue at large.

Another aspect to be mentioned is that the applicability of the results is valid for legislative bodies within the educational domain, which can develop educational policies aiming at improving the quality of educational services in Romania and their performance in reducing social phenomena like poverty and social exclusion.

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**Rebranding in the Tertiary Sector – Successful Experiences in
Gaining Competitive Advantages**

Rodica PAMFILIE¹, Adina-Gabriela CROITORU^{2*}

Abstract

In the current global economic context, brand has become an extremely important element, offering companies in all areas the opportunity to obtain important competitive advantages. According to studies conducted over time, consumers are usually willing to pay more for their favorite brand than for a competing brand, so the benefits of a strong brand can be economically measured. Branding is, at this time, one of the key factors in the marketing strategy, and building a strong brand is turning into an extremely important process, designed to strengthen the image of a company on the market and attract consumer sympathy. The branding effort does not, however, ever end, not even when it comes to the most well-known brands. In the context of a dynamic, ever-changing economy, where consumers are becoming more and more informed and demanding, it is essential that a brand is permanently aligned with the market trends existing at every moment. Thus, rebranding may perhaps turn into an even more important process than branding itself, with new and new ideas being permanently needed, both in form (for example, logo, naming etc.) and in substance (improved or new and innovative products and services). The hospitality industry is one of the areas where these things are extremely clear; hoteliers are aware of the necessity of rebranding and already apply it successfully, all the more so as it is an area in which everything relies on experiences, feelings and emotions, and the relationship with consumers can easily be managed through the brand.

Keywords: *Branding strategy, competitive advantage, performance in the hospitality industry, rebranding*

JEL Classification: *L83, M30, Z31, Z33*

1. Introduction

Globally, brands are an extremely important element both in the culture of different countries and in the business environment, supporting the decision-making process. In short, brands can be defined, in fact, as the ideas, perceptions, expectations and beliefs in the minds of consumers or any person who can have an influence on the company.

In Philip Kotler's view [1], it must be kept in mind that the brand:

- is a promise;
- represents the totality of perceptions of a product, service or company;

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- holds a special position in the minds of consumers, based on past experiences, associations and future expectations;
- represents a summary of attributes, benefits, beliefs and values that differentiate, reduce complexity and simplify decision-making.

In a more and more interconnected society, the evolution of new communication technologies has brought more transparency, so that, nowadays, a person, a company, a brand or even a country are becoming more accessible and exposed to the observation of people around the world. In this context, strong brands are no longer only confronted with the need of increasing their notoriety on the market, but also expose their identity, principles and brand promises so that these are known by everyone.

At present, the Internet provides everyone with a variety of products or services, and without the existence of reliable brands, consumers would be overwhelmed by the huge amount of information they receive regardless of what they are looking for.

According to Philip Kotler, any brand goes through two crucial moments. The first one is that when consumers choose or buy that product/service after evaluating all the offers of the competition. The second moment coincides with the use or experimentation of the brand, after which consumers may or may not be satisfied. Thus, the brands for which both moments are positive gain the customers' confidence, and the likelihood that they will remember and buy the brand again is higher. Kotler also states that the value of trust gained by comparing the brand promise and the accomplished brand experience is the basis of any sustainable trade move. [1]

A brand embraces emotion and wins the heart and mind of consumers, so that strong brands survive in front of the attacks of competitors and of market changes due to the strong link they have with consumers.

If traditionally the brand is defined as a set of mental associations that people make regarding a product, service or company, the brand now represents much more: a long-term promise, a commitment of respecting the offered value, which has the capacity to influence the so competitive environment.

Branding is not just a small part of marketing management; given the fact that brand is reflected in all company actions, a holistic approach requires a strategic perspective, and the branding process must start from top management. It is essential that a business strategy and brand vision are aligned, and the brand should be viewed as a strategic asset, as a basis of competitive advantages and long-term profitability. In order to create and maintain the competitive advantages offered by the brand, companies need to concentrate their resources, structure and financial responsibility around this asset.

2. Problem Statement

Building a brand is extremely important, but not enough. As time goes by, even the strongest brands erode, following the fact that the product, service, set of values, image or even communication model is no longer up to date or no longer conforms to the business strategy, moment at which rebranding is necessary. If in the past companies and brands were revising their identity once every 7-10 years or even more, this period gradually decreased, at the same time with the increasing pace of change of the economy and society in general. The need to reinvent the brand, to refresh the identity, to align products or services to current needs and trends has become increasingly important. Rebranding may be necessary, for example, in the following cases:

- the company undergoes major changes, such as mergers, acquisitions, internationalization or access to new markets – the goal of rebranding is to homogenize

different market segments or even create a brand that can target more different markets from the cultural point of view;

- changing the product or service portfolio – the link between the corporate brand and the product or service brands, as well as the need for brand extension are analyzed;
- in the case of a new category or niche positioning;
- to adapt the company's activity and image to the current technology and the online environment;
- when the image is morally obsolete, and the logo and visual identity generally do not correspond to the present anymore – rebranding aims to reinvigorate the image and brand experience in terms of first contact with consumers;
- in the absence of a strong emotional bond with consumers;
- in case of any reputational problems on the market, that are negatively reflected in the company's results.

As we can see, rebranding is not a mere re-design of the logo or a mere revival of visual identity, and involves, in most cases, a redefinition of the whole strategy, but also a review of the brand promise, so that this demarche will be reflected positively in the achieved results. The more superficial version of the rebranding process is that of reviving/“rejuvenating” the brand, which this time involves minor surface changes, such as: restoring the logo or optimizing it, updating or completely changing the slogan, changing the color palette and typefaces, re-designing the marketing materials.

When discussing rebranding, it is important to note that different consumers appreciate things differently. For example, consumers in North America may not respond to a rebranding process in the same way that Chinese consumers would do. If in the United States, as a result of the recession, the demand for ostentatious clothing and accessories, overloaded with logos has fallen, in Asia, this style is still highly appreciated, hence the increased success in the region of some brands such as Louis Vuitton, compared to the United States.

In the hotel industry, perhaps surprisingly, the importance of branding has been more difficult to recognize, with many question marks when it comes to the value created by branding and the way branding determines customer loyalty. Over the past 25 years, the hospitality industry has begun to consider and accept the value of branding as an essential element of the marketing strategy, especially as a result of the expansion of hotel brands' segmentation. The hotel segmentation strategy is based on the idea that a brand name is part of the process of conferring tangibility, that this provides essential information about the product or service to consumers. By establishing a set of consumer promises, the brand creates a differentiated identity for hotels where the functional features of products are not fundamentally different.

Specialists in the field claim that the personality of a brand is the one that could be the reason why consumers choose a brand to the detriment of another. It has the ability to more specifically design a brand in their minds and, thus, reduce the degree of intangibility associated with the hotel industry. [2]

Starting from the idea that the brand creates a personality for an intangible entity, it is obvious that this is related to consumer emotions. Surface aspects of branding, such as visibility, function, ubiquity, are not negated, but the major significance of branding lies in establishing an emotional bond in the mind of the consumer, bond for which the brand promise is the starting point. Generally, tourists make choices based on the brand name in order to reduce the risks associated with accommodation in hotels without renown.

Although its importance is now increasingly appreciated in the hospitality industry, branding is being approached distinctly by companies in this industry even at the level of the brand name.

Thus, if Marriott International, for example, includes the name of the parent company in the name of most of its brands (except for Ritz-Carlton, which is an extremely powerful brand even before being purchased by Marriott), there are companies, such as Choice Hotels International

or Starwood, which believe that the name of each brand is an element of its own, not related to the parent company name.

A properly built brand and a correct positioning are key points for the success of any hospitality company. Therefore, sometimes, especially when the company does not prove anymore to be as effective in meeting the requirements of the market to which it is addressed, hotel owners decide to initiate a rebranding (the passing from a brand and a hotel chain system to another) or resizing (passing from a brand in one market segment to another) process.

Changes in brand and size may affect the average daily rate (ADR), the occupancy rate, the RevPAR (the most important indicator for the hotel industry), the profit, but also the operational and capital costs. Thus, perhaps the most important question in the case of a rebranding process is whether it will lead to an increase in financial performance as much as to cover its costs. [3]

3. Findings

According to a study conducted in 2009 [3] regarding the impact of rebranding on hotels' financial performance, it was found that this improved in the second year after brand changes, but, until then, in the first year, the net operating income decreased. The average daily rate and occupancy rates have also increased after rebranding, with the magnitude of this positive evolution resonating more strongly two years after this process. To make sure that these changes are directly related to rebranding, the authors of the study compared the performance trends of those hotels with those registered in the same period in similar hotels, but where a rebranding process was not undergoing, and the initial assumptions have been confirmed. The rebranding process may also involve investments in renovation, additional staff training or marketing costs, so that the decrease in the net operating income during the first year is justified, with recovery coming starting with the second year. As a result, the conclusion of the study is that the rebranding effect translates into a long-term improvement in the net operating income.

Other studies conducted over time in the hospitality industry show that rebranding does not have a positive influence only on the financial performance of hotels, but also on tourists' consumption preferences, satisfaction and loyalty.[4] In the case of satisfied and loyal customers, it is not only more unlikely that they will be attracted by short-term offers of competing companies; they are also less price sensitive and are more willing to pay premium prices for certain products and services. Customers who are loyal to a brand will always make choices and recommendations based on long-term vision and attitude towards the hotel, so that the marketing costs associated with attracting new customers will be reduced.



Figure 1. Hotel chains in the context of the increasing importance of rebranding

Source: made by the authors

In 2007, for example, Intercontinental Hotels Group (IHG) announced the global rebranding of the Holiday Inn brand family (Holiday Inn, Express by Holiday Inn and Holiday Inn Express), a one billion dollar project.[4] This initiative originated from an IHG research applied

among 18,000 tourists and it was expected that Holiday Inn hotels would generate a significantly higher RevPAR, but would also provide a greater return on investment to the chain's owners. The re-launch program, implemented until the end of 2010, included, among other things, a redefined welcome experience for guests and branded bath products. In addition, a redefinition of the hotel group culture and the definition of a new promise for the offered services – “Stay Real”, was desired. Promoting this service culture, objectified through training, aims for the team to develop a behavior and skills to serve guests in the best possible way and to enable them to consistently provide the services for which the Holiday Inn brand is recognized. Upon completion of the rebranding process, Holiday Inn hotels have also received a new logo that offers the brand a new look, a contemporary brand image.

In line with the global rebranding process, the hotel in Singapore, the Holiday Inn Park View, which is over 25 years old, has undergone a complete renovation of the rooms and common areas, but also of the café, the lobby and the business center. The re-launch of this hotel cost about 25 million dollars and was completed after 16 months, being reopened in November 2009, under a new logo and a new name to highlight its location and strengthen its marketing position – Holiday Inn Singapore Orchard City Center. In 2010, Pingshan Huang conducted a study to look at the impact of the rebranding process on the performance of the hotel in Singapore, considering a comparison between the pre-rebranding period of this hotel (November 2007-March 2008) and the period after this process (November 2009-March 2010). The findings of the study [4] applied at the Holiday Inn Singapore Orchard City Center were as follows:

- the rebranding process has not significantly influenced the performance regarding customer satisfaction;
- the financial performance, seen from the occupancy rate and RevPAR point of view, has evolved positively after rebranding; both indicators have increased significantly in the period following the rebranding process, most likely due to the increase of visibility by changing the name of the hotel and the design of a new logo;
- there was no direct link identified between rebranding and the increase of the average daily rate.

Starwood Hotels & Resorts, another important hotel chain, has proven, as well, over the years that it values rebranding, seeking to constantly align its brands to the market demands. In 2014, for example, they introduced, together with the new design schemes for the new generation of Westin hotels, the strategy for reviving the upper-upscale brand, Le Méridien.

Starwood focused the rebranding of the two brands around a “Destination Design” theme, characterized by a new marketing and advertising campaign, but also by a new visual identity, aimed at providing a different perspective on global destinations. The revitalized positioning of the two brands was based on offering special experiences, centered around the culture and cuisine specific to key destinations in the world. [5]

Le Méridien's rebranding is addressed to creative tourists, who may not have the time to explore the cultural landmarks when they are visiting a destination. Thus, Starwood's strategy aims at incorporating local cultural aspects into each Le Méridien hotel, taking into account the fact that tourists are looking for experiences. The design team of the Le Méridien brand focused on arts and did not lose sight of the legacy of French culture, since the first hotel belonging to this brand was opened in Paris.

In the case of Westin hotels, the emphasis is on design, which is meant to promote and enhance the brand's core value – the well-being of guests facing challenges in maintaining their health and physical shape during travel. The rooms of the Westin hotels in some destinations were redesigned during the rebranding process in 2014, and in 2015, the public spaces were also modified. Natural items, such as vertical gardens on the lobby walls, were used, while in the rooms, massive furniture was replaced by smaller, more flexible and adaptable objects created by the Starwood design team. The new rooms have increased sustainability by 60%,

through the use of eco-friendly materials, such as LED or CFL or carpets made of recycled materials. [5]

In 2015, the Best Western chain went through a rebranding process, repositioning itself as Best Western Hotels & Resorts. A new core logo was also introduced and the launch of a new hotel brand in the portfolio was announced. The last “revival” of the brand had taken place in 1993, so that the management of the chain saw rebranding as an essential step forward in the brand’s development, in order to keep it relevant to current consumers. The rebranding effort does not translate into altering existing products in the Best Western chain, but rather into increasing the relevance of the transmitted message. [6]

Changing the name of Best Western International in Best Western Hotels & Resorts was not a coincidence, it was meant to better communicate the diversity of products existing in the Best Western portfolio and, at the same time, to communicate better with consumers. Currently, Best Western Hotels & Resorts encompasses the following distinct brands: Best Western, Best Western Plus, Executive Residency by Best Western, Best Western Premier, BW Premier Collection, Vīb, GLō, SureStay, SureStay Plus and SureStay Collection.

The new brand introduced in 2015 was GLō, a midscale boutique hotel, based on a suburban lifestyle, while relying on value for money. Even though the development plans for this brand are aimed at the whole world, the emphasis has been sought from the start in Asia, where the management of the Best Western chain has forecast the greatest potential. GLō did not intend to target a new segment of consumers, but only to introduce a new way of experiencing the Best Western brand, while the basic principles of the trademark are kept.

The need for differentiation among the Best Western brands was transmitted through the individual logos, introduced alongside the name change and the new hotel brand. The new logos keep the colors used in the old Best Western visual identity, but the different shapes and handwriting-like typeface uniquely identify each one.

Another example of successful rebranding is the former Steigenberger Hotel Group, the largest hospitality company in Germany, which changed its name, logo and brand strategy in 2016. Deutsche Hospitality continues the tradition of Steigenberger in creating exceptional hotels with widely appreciated services and is positioned as a benchmark for German hospitality and innovation in the field, with plans to expand to new regions of the world. The combination of the German word “Deutsche” and the English word “Hospitality” was meant to turn the name of the company into a more accessible one for foreign-language markets, but, at the same time, to keep the link with its rich history. In addition, by separating the management company name from that of the main hotel brand, Steigenberger Hotels and Resorts, Deutsche Hospitality has the flexibility to rapidly expand its portfolio of brands, services and properties. The rebranding process was designed and developed by QUO, a hotel branding company, which built the new brand architecture for Deutsche Hospitality after a thorough analysis of the key assets, the company’s long-term goals and the market trends. The visual identity was inspired by a new dynamic brand culture, with an emphasis on innovation and a cosmopolitan approach to German hospitality. In the opinion of Deutsche Hospitality’s management, the new name and the new identity are stronger, and also more attractive to all stakeholders and allow for an international expansion marked by innovation.

4. Conclusions

The importance of brands in the hospitality industry is undeniable and hoteliers have understood that they can be successful in the long run through a well-established brand strategy.

Moreover, it is essential that they maintain their brand visible, but especially aligned with the changing needs and requirements of the ever-changing market. In an increasingly competitive society, where differentiation is important for any company, rebranding does not

only help in gaining competitive advantages, but also helps companies stay in the minds of consumers. Rebranding is also one of the main strategies by which hotels earn consumer loyalty, based on a continuous process of brand building and capitalization.

Practice demonstrates that rebranding is not limited to simply changing the name or logo, moving it further and having a major influence on the offered products and services, all the more so in an area that relies on experiences and feelings, on the emotional relationship with the consumer. Given the many examples of the use of rebranding in the hospitality industry and the scale of these steps, it is obvious that, in the current economic environment, this is one of the important ways to achieve success. Brand refinement must be a permanent concern for any organization in the hospitality industry. Of course, ongoing investigation of the market trends and the ever-increasing demands of tourism service consumers represents a basic tool for determining brand improvement needs.

At the same time, hotels that look after rebranding should take care and avoid four capital mistakes:

- not accounting the costs correctly – some costs like those of new computer systems or fees determined by the termination of certain services connected to the old brand might not be very visible when the rebranding plan is elaborated, but they could have an unexpected impact and affect the rebranding process;
- rebranding without renovating – renovation itself may contribute to a higher occupancy rate and therefore it should be considered even before thinking about rebranding;
- ignoring the power of the media – replacing all signage and items related to the hotel's brand is supposed to bring more new clients and increase the trust of loyal customers, but promoting the change in the media is another way of making the hotel more visible to the large public; local and central media and press might work equally well;
- forgetting to update the hotel's online presence – outdated information could have a negative impact on customers and create a huge discomfort to them, which will make them avoid the respective hotel and spread the word about their negative experience.

By avoiding such errors, the management team might help the rebranding process to reach the proposed goals.

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**Medical Hotel – Connecting Hospital and Hospitality in an
International Context**

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Abstract

Medical tourism is a niche of the health tourism industry considered to have a rapid development in the last ten years. Studies related to this new concept have started to be published and researchers still analyze definitions and particularities. Considering the fast evolution of the medical tourism industry, the article focuses on the need for research on the medical hotel concept, one of the elements with a substantial contribution of this business. This paper aims to identify if the characteristics of medical hotel are regulated by national or international norms and to study the coherence of health hotel classification criteria in European context. We applied qualitative methods by exploring second data provided by several published researches results, books, articles, by visiting hotels related to the medical tourism industry, interviewing professionals and joining forums and seminars organized by medical/health tourism associations and clusters. The results revealed the lack of harmonized hotel classification at European countries level and the lack of medical hotel regulation in European context. In addition, Romania, a country recognized for its tradition in balneary tourism fails to align and implement the European criteria equally from the point of view of general hotel classification and the definition and regulation of the health or medical hotel.

Keywords: *medical tourism, hotel, health tourism*

JEL Classification: Z320, Z310, L830

1. Introduction

The concept of hospitality and travelling for healing purposes has existed for thousands of years. Ancient Greece and the Roman Empire had taverns providing food and shelter for travellers and other great empires, such as Persia, the Chinese Empire and Japan, also developed similar establishments for travelling notables and wealth people (Jafari, 2000, p. 284). The Sumerians (4000 b. Chr.), built a place for healing around a thermal spring and India still remains well known today as a medical tourism destination for Yoga and Ayurveda healing techniques. Other information about medical tourism and hospitability appears in Greece, where pilgrims used to travel to Epidauria, the “Sanctuary of the healing God – Asklepios” (Connell, 2006).

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Considering the long history of travelling and accommodation, the role and relationship of host and guest are changing and improving in the modern world, mainly by tourism industry's involvement. In this context, medical tourism providers have to understand its guest particularities correlated to international changes and challenges of the tourism industry.

Considering the definition of Bookman and Bookman (2007), medical tourism is “representing a merge of at least two economic sectors: tourism and medicine” and we have to take into consideration specific influencing factors related to the medical area: the international accreditation of medical services, quality assurance, the cost of medical services, good reputation, innovations, state of the art medical technologies or the high professional medical employees are just some examples of an entire complex of interconnecting factors.

Regarding the international medical tourism destinations, since 2014, a new ranking instrument published by Tourism Management Journal contributed to the promotion of medical tourism destination, with an estimation of the industry of USD \$100 billion (Stephano and Fetscherin, 2016). The report ranks 41 countries all over the world including seven European states (UK, Germany, France, Italy, Spain, Poland, Turkey and Russia) based on three criteria: “country environment”, “medical tourism industry” and “facility & services”. The report highlights the importance of tourism infrastructure for the medical tourism destination. The development of the necessary infrastructure is one of the key strategies implemented by countries for medical tourism and refers to the modernization of roads, transport, communications, construction of hotels, hospitals, etc. (Andrei *et al.*, 2014).

2. Problem Statement

Considering the globalization and internationalization of the healthcare system, medical tourism has a continuing increasing trend implying economic features regarding both receiving and source countries for medical tourists.

Medical tourism literature is well represented by studies on non-European regions, with very few broad studies on medical tourism in Europe (Lunt *et al.*, cited in Mainil *et al.*, (2017)).

Cohall *et al.*, (2013) consider the health and wellness industry in Europe as old tradition, starting to Rome, over 2,000 years ago, engaging typically the health treatment using thermal water. The authors remark the European Spa tradition existence in France, Belgium, Germany, Austria, Switzerland, Italy, Czech Republic, Slovakia, Hungary, Romania and Poland.

To define medical tourism, we have to start from the health tourism concept. The definition stated at the 9th National Health Conference from Rostock/Germany (2013) found health tourism as being “the branch of health and tourism economies that contributes to maintaining and restoring health and holistic well-feeling by using medicine-based services”. Munro (2012) defines health tourism as the broadest of all possible categories of health-related activities that involves travel and, in consequence, medical tourism is a subset of health tourism. There are different positions in defining medical tourism and medical tourist concepts, starting from a journey to get medical, dental and surgical care in other country looking for identical or greater medical services, affordability, better medical facilities and amenities or shorter waiting lists.

Bookman and Bookman (2007) do not consider medical tourism just a “journey in order to improve health” but “an economic activity implying service trade”, by joining “at least two economic sectors: tourism and medicine”. A more complex definition and more suitable to the tourism industry belongs to Smith and Puczko (2014) and refers to medical tourism as a “trip outside one person's place of residence for the purpose of receiving a medical treatment, investigation or therapy, the tourists making use of the destination's infrastructure, attractions and facilities”.

Considering the medical tourist concept, there are also various definitions. Johnston *et al.*, (2011), define medical tourists as persons who travel from the resident country to another

country “to receive medical, dental and surgical care while at the same time receiving equal to or greater care than they would have in their own country, and are traveling for medical care because of affordability, better access to care or a higher level of quality of care”. Han and Hyun (2014) sustain that medical tourism is associated to “patients travelling across national borders to achieve better health through operations, treatments and relaxation during a type of holiday”.

Considering the definitions and main concepts in the field of medical tourism, we need additional research related to the mechanisms of the industry, in order to improve the understanding of the connection between the business elements. The medical tourism industry connects various industry’s providers working in the benefit of the medical tourist: healthcare providers (clinics, hospitals, sanatoriums, etc.), facilitators, specialized travel agencies, accommodation and food providers or transporters, working in different countries under diverse legislation and economic frameworks.

Medical tourism’s globalization generates the opportunity of a new hotel concept appearance, by associations of the functions of hospital, hotel, and healthcare or aesthetic centres into one single unit operation (Han, 2013). Medical hotels offer a large diversity of hotel services and products by merging the typical hotel services with health services using the same location. We must think of a crossing of skills and abilities: on one hand, hotel services should apply the healthcare skills and on the other hand, the medical tourism hospital must understand and offer hospitality specific services.

Tourists buy packages including medical treatment services, accommodation, and meals determined by the convenience of using the services of a single property. Interpreters and coordinators having the role of assisting international patients are regular staff in medical tourism clinics, while in the medical hotel they can improve de concierge team. Additionally, the discretion and confidentiality due to the medical hotel’s nearness to medical facilities and the safety due to the proximity of medical personnel and post-care services, are other reasons for tourists to choose medical hotels(Hume *et al.*, cited in Han and Hyun, 2014). Due to the tourism based trained staff, the medical hotel is able to offer more personalized services than a typical clinic based on an advanced medical technology and equipment and a minimal waiting list (Han, 2013). The availability and diversity of medical hotel packages are more competitive compared to those offered at medical/healthcare clinics (different sorts of hotel rooms, high standard nutrition and international food and beverages, room service, concierge service, business center, valet parking, accommodation for relatives and friends under the same roof).

3. Research Questions/Aims of the research

Han (2013) stated that the healthcare hotel is still one of the least well-known categories in the hotel industry, its conceptualization continuing to be rare in the academic literature. The same author considers the healthcare hotel as a superior substitution for usual medical clinics which could make a tourist destination more efficient. Regardless of their importance, healthcare hotels have not been well documented in the existing academic literature. We consider the medical hotel a typical healthcare hotel, with technical and architectural structure, services, staff and customers correlated to medical tourism industry. Our exploratory research objectives are related to highlight the main characteristics of accommodation providers in medical tourism industry and the necessity of criteria harmonization of hotel classification at European level.

4. Research Methods

The main objective of this paper is to identify if the characteristics of medical hotel are regulated by national or international norms and to study the coherence of health hotel classification criteria in the European context.

In order to achieve this objective, the authors have applied mixed qualitative research methods:

1) Documentary analysis

a) Exploring secondary data provided by several published researches results, books, articles, internet searching of medical tourism web pages with related content of accommodation providers;

b) Normative research on European criteria of hotel classification – international and national regulatory guidelines – HOTREC (the umbrella Association of Hotels, Restaurants, Pubs and Cafes in Europe) with Hotelstars Union criteria for hotel classification, ESPA (European Spas Association);

2) Observation – by visiting Romanian balneary hotels associated to medical tourism and also by joining forums and seminars organized by medical/health tourism associations and clusters over one and a half year (2017 and 2018).

3) Unstructured Interviews– informal, open ended, flexible and free flowing discussions with professionals in the tourism industry.

The research results are organized on two main levels: (1) the European context of classification system; (2) particularities of Romania regarding medical hotels.

5. Findings

5.1 *The European context of classification system*

Considering the voice of the hospitality industry in Europe – HOTREC (the umbrella Association of Hotels, Restaurants, Pubs and Cafes and similar establishments in Europe which represents 40 National associations in 29 countries) position, the requirement of a standardization of the hotel classification criteria in the European Union has become more obvious. Since 2004, HOTREC and its associations have been working on bringing the hotel classification systems in various European countries closer to one another. Starting with 2009, seven HOTREC members decided to use almost identical criteria for their national hotel classification and created the Hotelstars Union with the support of HOTREC. Since then, 10 other European countries chose to agree with this classification.

The harmonized hotel classification provides common criteria and procedures for the joining countries. The Hotelstars Union objectives are related to improve the “reputation and quality of the hotel industry in the participating countries by creating transparency and security for the guests and thereby encouraging hotel marketing”. According to HOTREC (2009), classification criteria should be regularly adjusted to market requirements and the classification systems should always involve the hospitality industry and the public authorities that must work in close partnership with the private sector.

Considering the market requirements and the involvement of the private sector in setting the classification regulation, we found that the health and medical tourism sector does not have a contribution in setting the specific criteria of services or equipment, as the criteria are general

requirements just for the level of service quality and doesn't consider the accommodation typology based on segments of clientele or main touristic product. We may mention several criteria (Hotelstars.eu Criteria 2015-2020) that could be appropriate to a health hotel setting such as:

- Facilities for disabled persons (barrier free for wheelchair, blind or visually impaired, deaf or hearing impaired);
- Competent and identifiable staff./Multilingual staff;
- Cleanliness/Hygiene;
- Concierge (separate personnel);
- Ergonomically adjustable bed system/Noise control;
- Dietary-kitchen and Regional kitchen (The majority of used products is from the region);
- Quality management system;
- Sport facilities and equipment;
- Spa/Wellness (Massages, Separate relaxation room, Whirlpool, Sauna, Beauty farm, Spa or Swimming pool).

The other European organization in charge with classification is ESPA – an umbrella association for national spa associations in Europe (www.espa-ehv.eu). The ESPA mission is to bring into line health resorts within the European healthcare market, to promote more equality in competition by quality and to promote a strong distinction between health resort therapy and recreational services. ESPA separate the medical and wellness spa from wellness services providing the concept of medical spa hotel, wellness hotel and spa hotel. Working together with the association “Quality in Health Prevention” founded by representatives of tour operators, associations and operators of medical spa hotels and facilities (www.quhep.org), ESPA provides the certificate for medical spa providers called *EuropeSpamed*, a label for medical spa hotels, spa clinics, facilities for mother-child medical spa, hotels with medical wellness offers. “EuropeSpa med” is an international quality system for national and international services in ambulatory health prevention across Europe which, by now, certified several providers from: Czech Republic, Germany, Hungary, Iceland, Lithuania, Poland, Romania (one balneary hotel), Slovakia, and Spain. Regarding the European harmonization, the two European systems of classification, Hotelstars Union and EURESPA, do not apply to all European members given that systems have to be officially recognized by national classification and licensing bodies. Additionally, the systems must synchronize each other and act unitarily.

5.2 Particularities of Romania regarding medical hotels

Romania is a country with good evidence on health tourism, integrated in the Central and East European medical tourism emerging industry. Following Bookman and Bookman (2007) medical tourism typologies, Romania could classify its medical tourism services in three categories: Invasive medical tourism (dental procedure and plastic surgery, eye surgery, bariatric surgery and joint replacements), Diagnostic medical tourism (tests of blood, bone density, heart stress, lipid analysis and electrocardiograms) and Lifestyle medical tourism (wellness, nutrition, stress reduction, weight loss, anti-aging, etc.). The health providers of all these medical service categories do not assure also an onsite accommodation possibility, except the lifestyle medical tourism suppliers belonging to balneary or spa hotels located in balneary resorts or cities.

According to the professionals questioned, we observe a slight progress in working under the medical tourism organizations and medical clusters umbrella. According to the specialists

who responded to our interviews, the medical tourism providers still need to organize by working together on professionalizing the medical tourism product and packages.

Roman *et al.*, (2016) consider Romania with a medical tourism potential from two points of view: resorts and top-quality health services. Considering resorts, the main aspect of Romanian medical tourism is concentrated on the balneary medical tourism, a typical health tourism developed based on natural healing sources (thermal and mineral water, mofettas, salt caves, therapeutic mud, thalassotherapy, air therapy). The history of Romanian balneary tourism reveals a tradition in the use of thermal and mineral springs for healing purposes since the time of the Roman Empire with an intense development and modernization during the Austrian Empire. Additionally, the communism epoch has contributed by a comprehensive development strategy and licensing of balneary Romanian resorts, acting on the background of centralized management. Consequently, the accommodation structures evolved from pavilions and villas to huge hotels, designed especially for mass tourism. Today, Romanian spas challenge the problem of occupying these hotels in conditions where state support is reduced to social tourism, subsidized especially for retired and chronically ill tourists. The characteristics of balneary hotels are designed to serve particularly the segment of medical balneary tourists.

These hotels provide accommodation and restaurants structures mainly grouped around a medical treatment building and providing directly protected access. The advantage of this type of complex buildings is related to saving costs and also to a unitary and concerted medical offer based on a kind of natural healing resource. We may find also characteristics of the single unit structure comprising the accommodation, the food and beverages and recreational spaces together with balneary medical structure, under the same roof. Considering the certification norms, we observe the lack of the health or medical hotel definition and regulations, despite the fact that the Romanian law offers a distinction of accommodation providers by segments of tourists (hotels, villas, apartments, cottages, pensions, camping, holiday village, apartments or rooms in dwellings, accommodation on fluvial boats). Lupu & Nica (2010) consider there is a risk of infringement of consumer's rights bearing in mind their protection concerning the hotel services.

Considering the quality health services, Romania recorded an accelerated development in the last 10 years, through national network of clinics and hospitals, internationally recognized and accredited. They promote Romania as medical tourism receptor, due to high quality services, professional staff and low costs of medical procedures. This segment of medical tourism generally called invasive (dental, surgical, orthopedic, esthetic or bariatric) generate for Romania income from international patients and medical tourists. These clinics and hospitals provide services related to medical and patient assistance for travelling by their own international departments or by facilitator's services on basis of agreements and arrangements including accommodation and airline fares and facilities. In this context, Romania should remember its pioneers in the segment of city medical hotels: Flora Hotel and Parc Hotel from Bucharest, developed in the '70th- '80th year. Flora Hotel offered beside accommodation in 155 rooms, restaurant and bar, two small conference rooms, swimming pool and a medical section of the Institute of Geriatrics and Gerontology, known as the Institute's luxury clinic where only personalities from outside the country were accepted. The clinic promoted geriatric treatments based on Gerovital H3, an innovation of the Romanian physician and researcher, Ana Aslan.

The Parc Hotel situated in the area of Flora Hotel also housed a medical center managed by dr. Ionescu-Calinesti, the Romanian inventor of sapropelic mud extract called Pell-Amar.

Having in mind these examples of hotels, we find that Romania has the expertise to reconsider the features of medical hotels and to prioritize the development of medical city hotels and medical balneary hotels based upon European harmonized classification criteria and a national strategy regarding medical tourism. Last, but not least, professional associations,

including FIHR, should be involved in developing the classification criteria of accommodation units, so that the segment of medical hotels is officially recognized.

6. Conclusions

In our research we found that a consolidated regulation in the tourism field regarding classification of medical hotels is missing. The European unitary stars system classification is essential, but considering the dynamic market requirement, professional organizations have to bring up-to-date the classification by main product and hotel specialization. According to professionals interviewed, the Romanian classification system provides the classification of hotels on the basis of a system promoting norms far beyond the criteria in other European countries, making it difficult to follow. In our opinion, the European harmonization of hotel classification considering the quality revealed by the number of stars is an insufficient condition regarding all tourism segments in terms of credibility and transparency, the certified specialization of a hotel having a decisive role in hotels differentiation. Our research is limited to the characteristic and classification criteria related to Romanian balneary hotels, but new investigations could offer more evidence about the added value of potential hotels developed and connected to Romanian medical tourism clinics or about the city medical hotels with clinics incorporated.

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Migration Phenomenon and its Effects on the Romanian Labor Market

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Abstract

Migration is a complex phenomenon with an impact on economic and social growth for the benefit of the individual and society. It is multidimensional, referring mainly to labour migration. In the current conjuncture, many countries are at a turning point in terms of the international migration movement. The effects of massive retirement and the demographic decline of the population have begun to be felt in almost all countries of the world. There has been a decline in long-term labour immigration in favour of family and humanitarian reasons. Also, the free movement of persons in countries where this type of regime exists has contributed to the expansion of the workforce. Globally, there is even a consensus about the opportunity for immigration of highly skilled people and, at the same time there is a concern about the costs and risks associated with immigration of the less skilled labour force. The liberalization of the movement of labour to the European Union area greatly increases the possibility of migration to the developed countries. This phenomenon puts its mark on economic growth both in the short and long term. Hence occur the need to adopt some measures for migration control, as well as the use of techniques and models of prognosis of this phenomenon in order to assess the economic, demographic and social effects determined by it (Dobrescu E., Albu L.L, 2005). This paper presents an analysis of the migration phenomenon in Romania in the period 2012-2016 and its consequences on the labour market. The labour market being in a continuous process of diversification, has to consider the continuation of the process of adaptation of the vocational training services, starting from the realities and needs of the Romanian labour market.

Keywords: *migration, emigration, immigration, internationalization, the labour market*

JEL Classification: *J11, J17, O15, R23*

1. Introduction

Migration, whether it is internal or external, is caused by the imbalance between and within the sectors of a national economy, between and within regions and countries.

The mobility of people and especially of the workforce can influence differently the quality of the human capital of the country of origin, but also of the country of destination.

Quantification of the socio-economic impact of labour mobility both in the country of origin and in the host country is a very complex process involving the knowledge of the costs and

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benefits of mobility at the individual, local, national and international levels, as well as analysis of the global conjuncture in which this process takes place.

The emergence of the labour force crisis has generated not only a volume problem, but also a typology of the worker.

In the current socio-economic context, analysis of labour migration is a necessary step, given that it can turn into definitive migration.

Migration is basically a form of human capital mobility, with socio-human adaptability and flexibility. It has existed all times, as a result of man's desire to have a better life. Migrants want to improve their standard of living and are willing to bear, in the country of destination, discriminatory costs and treatment related to payroll. (Zaman Ghe, 2005)

Due to external migration for the country of origin, the most significant loss is the non-recovery of investment in emigrant education and the loss of budget contributions, represented by the taxes and fees which they would pay if they had not left the country. The advantage that emigrants give to their country of origin, is that they send money to their relatives left behind at home, which contributes to raising of their relatives living standards.

In the destination country, immigrants can influence the socio-economic situation by reducing residents' incomes and increasing social services and health insurance. (Vasile V. *et al.*, 2005)

Overall, specialists believe that the global net economic impact of skilled and unskilled migrants is positive, even if of relatively small size in terms of national income of the host country. (World Economic and Social Survey, 2004).

The size and structure of migratory flows vary from one country to another, depending on many factors (both in countries of origin and destination). Although migratory flows are relatively modest as a planetary dimension (about 3% of the world's population), for some areas and countries of the world it has become an important variable of macroeconomic balance, a basic factor of the labour market supply.

2. Migration in Romania during 2012-2016

Romania's accession to the European Union on 1 January 2007 has led to profound changes in the structure and sizing of migratory flows. The dynamics of migration are influenced by demographic, economic, socio-cultural, political and ecological factors.

Labour is the main factor in achieving economic performance. Through these are made lower or higher intensity adjustments of the productive apparatus and/or the substitution of other factors of production which are becoming increasingly rare, thus ensuring the sustainability of economic growth. The distribution of the employed population within different activities provides indications about the degree of social-economic development of a country, about the way of integration into the continental or world economy, and on the possibilities for development in the future. (Albu L.L. *et al.*, 2008)

In the period 2012-2016, from Romania a definitely gone, 85889 people, in all the countries of the world, according to the data in Table 1, and in our country and moved permanently 133,181 persons (Table 2).

Table 1. Distribution of emigrants by emigration countries

The country of destination - no. persons	Year				
	2012	2013	2014	2015	2016
Austria	1032	981	569	804	1347
Canada	846	954	688	1184	1086
France	660	663	495	628	886
Germany	1907	2283	2008	2780	3959

Greece	162	110	60	129	169
Hungary	355	346	286	420	390
Israel	2292	2506	22	43	75
Italy	2097	2607	1553	2033	3575
Slovakia	6	12	6	5	16
Spain	4605	4968	3134	3375	5361
Sweden	29	44	51	104	167
Switzerland	88	130	114	165	234
USA	1073	819	536	802	1281
Other country	2757	2536	1684	2647	4150
TOTAL	17909	18959	11206	15119	22696

Source: <http://statistici.insse.ro/shop/>

In Figure 1 it can be noticed that during the analysed period (2012-2016), the country that absorbed the most immigrants was Spain (24.97%), followed by Germany (15.06%) and Italy, with an absorption of 13.81%.

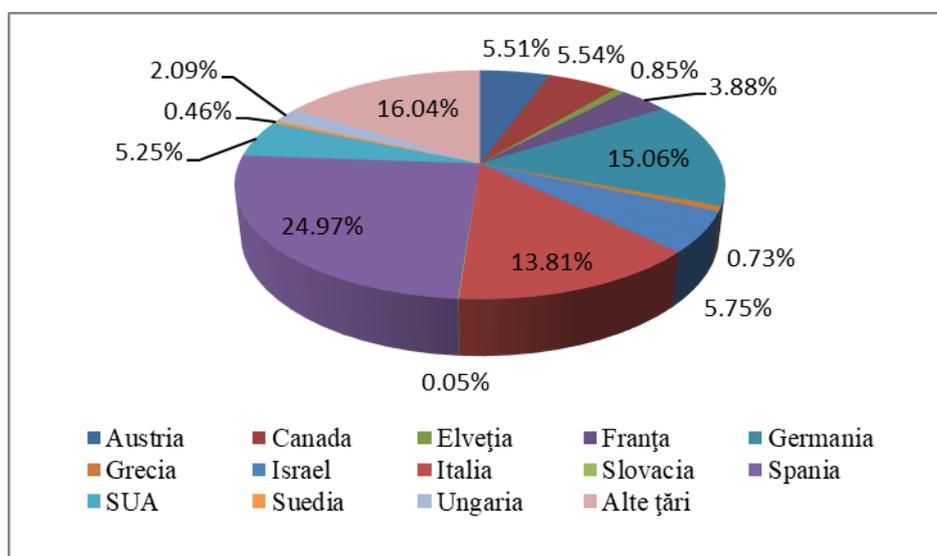


Figure 1. Share of migrants by destination countries 2012-2016

Higher economic opportunities offered by other countries largely explain the migration decision. The analysis of Romania’s economic and social development level shows that low level of living, periods of economic decline in the early years of transition, increases of restructuring processes, fluctuation in unemployment rate, highly presence of long-term unemployment have pushed more and more people to go abroad. Moreover, our country is attractive for residents in less developed countries than Romania (like the Republic of Moldova) and for investors from developed countries who open their businesses in Romania and decide to move permanently here. (Table 2)

Table 2. Distribution of the number of immigrants by country of origin

Country of origin	Years				
	2012	2013	2014	2015	2016
	UM: No. of people				
	No. of people	No. of people	No. of people	No. of people	No. of people
Austria	50	62	69	129	135
Canada	132	153	202	299	308

France	83	85	160	202	243
Germany	280	669	269	465	596
Hungary	166	158	163	227	228
Israel	64	98	106	142	149
Italy	473	553	879	1315	1282
Republic of Moldova	16931	20066	20125	14340	17727
Ukraine	492	684	1090	1221	1157
USA	298	325	369	477	582
Other country	2715	1044	13212	4276	5456

Source: <http://statistici.insse.ro/shop/>

Analyzing the dynamics of the number of immigrants and emigrants in the period 2012-2016, in Romania it can be seen that, the number of those who have permanently moved to Romania is higher than those who left, for each analyzed year, with a significant increase in 2014. (Figure 2)

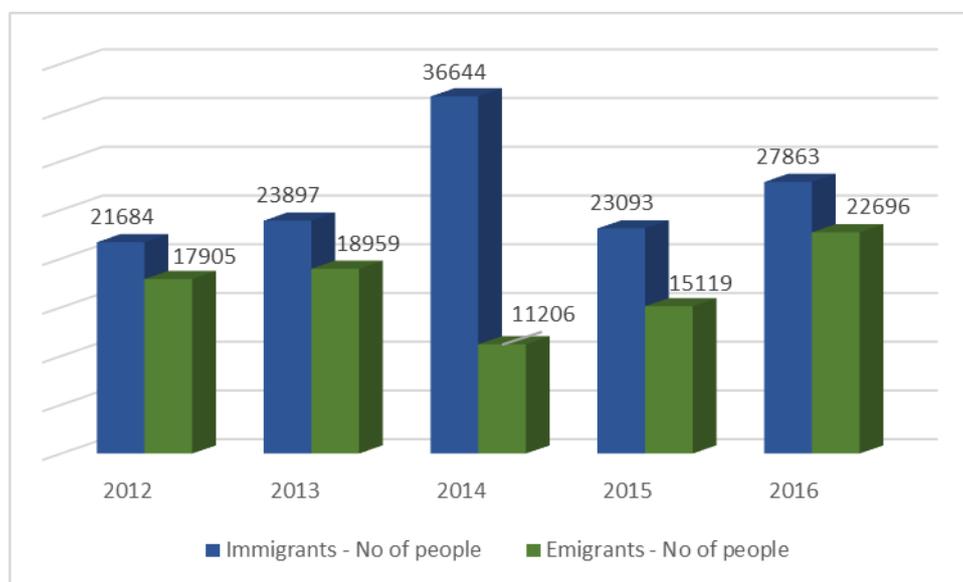


Figure 2. Migration in Romania, 2012-2016

For destination countries, the influx of foreign labour is beneficial to support economic activities that the domestic labour market cannot cover, either due to the lack of qualified personnel in those areas, or because of the lack of interest in the domestic workforce for those sectors of activity.

Also, the much more diversified offer in terms of qualifications and skills allows employers to find the most suitable people for various economic activities.

For native land, the work done by migrant workers has positive effects as a result of revenues and output. The main channels through which migration exerts a favourable impact on the development of the country's national economy are remittances (sums sent to the country of origin) and the repatriation of the know-how accumulated by migrant workers. In conclusion people who decide to migrate accumulate different types of capital – knowledge, abilities, experience and savings. (Grosu, R.M., 2015)

As for Romania, the increase in the volume of migration will also lead to increased remittances, these being a stable source of financial support. The unemployment rate may be

diminished as a result of the possibility for Romanian workers to find a job in the territory of (another) a member state.

In the same time, the migrant worker who returns to Romania can benefit from the experience, having higher chances of employment or becoming an employer for other people, while also leading to the flexibility of the workforce.

3. The influence of migration processes on the population, the main resource of formation of labour supply

The issue of employment is particularly complex and delicate, in the period after 1989, in the Romanian economy were structural major changes, which were more or less desired by the population, but fully felt by the evolution of its standard of living.

The Romanian labour market underwent profound transformations generated by economic reforms, being induced direct influences on the quality of the human factor. Another problem is a higher rate of brain drain, as a consequence of the quality of life and the low level of wages. (Suciu, M.C., Florea C.A., 2017)

Social conditions have determined the reduction in natural demographic growth and increase permanent migration, which was caused, in the same time, a steady decrease in the population and, implicitly, in the active population.

Migration, both domestic and external, has positive and negative effects on the labour market. Among the main positive effects of international migration on the country of origin are:

- reducing unemployment;
- the possibility of increasing the incomes of the employed population;
- the possibility of raising the standard of living of the remaining relatives in the country by the amounts sent home by emigrants.

Regarding the negative consequences of the phenomenon of international migration, we can say:

- emigration usually deprives the country of origin the best human resources;
- non-recovery of expenses incurred by training of the people who leave;
- loss of expense to the state budget due to the fact that those who leave no longer pay their taxes and fees.

The effects of migration in destination countries are multiple. Immigration can cause changes in the host country's cultural, racial and political structure. Immigration is a profitable source for employers and a conflicting one for the resident population, because immigrants are willing to work by accepting lower wages than the native population. (Nicolae M., Albu L.L., Pana C., 2005)

Therefore, labour migration is a complex process, which generates costs and benefits which must be properly managed on a social, community and individual scale.

4. Conclusions

Migration issues have evolved considerably in recent years, being much more complex than in the 90s. These were mainly generated by the contradictions between social and economic realities on the one hand and the control policies applied on the other. Migration policies can become credible viable and sustainable only if it will be move from a punctual approach, limited to present, of migration, to a "lifelong" approach of migrators and only if they take into account the interests and experience of all social partners involved.

Several countries now recognize the existence of shortages in the unskilled labour market, which is why they have taken a number of measures to better manage the flow of workers.

In the last period there is another trend of migration: the return to the country of origin. For many immigrants, their return remains a prospect and which became an extension of their migratory trajectory. (Albu L.L. *et al.*, 2008). Migrants arriving recently or temporarily within some programs are in the dynamics of returning. Of these, some will return to their homeland, some will migrate to a new destination, or others will begin a cycle of circular migration.

Due to the fact that the size and structure migratory flows differs from one country to another depending on many factors (both in the countries of origin and destination), migration for work is considered by many specialists as positive for both the country of origin and for the host.

From the demographic point of view, through the effect of social redistribution of the population as a result of increased social mobility, differences about fertility and mortality, migration has long-term effects on the direct loss of population in the country of origin and in deterioration of age structure of population of this country.

The increasing importance of migration transformed its approach and management, from a conjectural concern, for response to “crisis/specific conditions” in a field of analysis, management, forecasting and coordination through policies and strategies at national, regional and international level.

Labour force is the main factor in achieving economic performance. By means of it, are made adjustments lower or higher intensity of the productive apparatus, and/or the substitution of other factors of production which becoming increasingly rare, thus ensuring the sustainability of the economic growth. The distribution of the population employed in different activities provides indications on the degree of economic and social development of a country, on how to integrate into the continental or world economy, and on the possibilities for development in the future.

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**The 1st International Conference on Economics and Social Sciences
Challenges and Trends in Economic and Social Sciences Research
[16-17 April 2018] The Bucharest University of Economic Studies – Romania**

Investigating and Assessing Romanian Students' Perceptions of E-Learning

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Abstract

Against the backdrop of rapid change and technological progress, and in the context of the globalization trend of university education, new perspectives have been opened for the higher education. Thus, the educational practice was enhanced with modern methods of teaching-learning-evaluation. One of these methods is e-Learning, that refers to learning and training opportunities or educational programs provided with the help of electronic means. Currently, e-Learning has become a viable alternative to traditional education methods, so it has been adopted by many of the higher education institutions. In this context, we have chosen to address in this paper the issues related to the adoption of e-Learning in higher education, the purpose being to emphasize the role of e-Learning in Romanian higher education environment, as perceived by undergraduate and graduate students.

Thus, in the first part, the paper presents the main theoretical approaches related to the use of e-Learning in higher education, in order to highlight the main opportunities and challenges that e-Learning involves. Understanding that student's perception regarding e-Learning is one of the most important steps in developing and implementing a successful e-Learning system, we conducted a research among students of The Bucharest University of Economic Studies. Results of the research, presented in the second part of the paper, have shown the favourable perception regarding e-Learning, considered by the respondents an effective learning method that contributes to the quality of higher education.

Keywords: *e-Learning, blended learning, traditional education, higher education, Romania*

JEL Classification: *I23, O33*

1. Introduction

The exponential development of the Information and Communication Technology (ICT) in the past decade has led to a real revolution in the field of computer-assisted training. e-Learning has emerged as a form of technology-mediated education and a dominant term to describe the use of technologies to help people learn. e-Learning involves diversified educational materials that imply not only listening and viewing the content, but also, interactivity and the possibility to access this educational content from anywhere, anytime, with the help of the Internet.

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Also, among the main advantages are the individualization and flexibility of the learning process, the ability to assimilate information at its own pace of each learner, and formative and summative assessments, in an easy way and with real-time feedback from the instructors.

Considering all these advantages, application of e-Learning tools in higher education is becoming more and more popular and is no longer a component of the educational process only for university distance learning programs; its resources, applications and technologies are systematically integrated into the learning experience of the students from campus-based universities.

In the context of such an issue is our paper enclosed, summarizing the relevant literature about the importance of technology-mediated higher education and presenting the results of a study regarding the perception of the Romanian students and graduates about e-Learning. In this sense, our paper contributes to a better understanding of the e-Learning environment in Romania, considering that the perspective of the Romanian students and graduates regarding the efficiency of this method of teaching and learning was approached to a small extent in the literature.

2. Literature Review

e-Learning is the interaction between the teaching and learning process and ICT, covering a wide range of activities, from computer-aided learning to online learning (Brut, 2006). Initially, the e-Learning concept replaced the classical distance learning methodology in the university environment, the written materials provided to learners being transferred on CDs. Later, the possibilities of connecting to the Internet facilitated the achievement of some collaborative environments, Web based learning, virtual classrooms, synchronous and asynchronous training etc.

Nowadays, universities rely more and more on Learning Management Systems (LMS), which automates learning management and serves as a platform for delivering services such as launching learning content, tracking the progress of learners, conditional sequencing of content delivery (lessons). LMS manages the access of users (trainees, instructors etc.) registered in the system, administers the course catalogue, creates and launches online learning events, tracks the activities and results of those who learn and provides reports in this regard. LMS systems can be hosted locally (for example, on a physically located server at an educational institution) or “in cloud”, by specialized companies on their platforms (Moodle Rooms, Blackboard etc.) that manage all aspects. These systems can also include Learning Content Management Systems (LCMS) and Course Management System (CMS).

e-Learning became an excellent tool for the academic environment. Many studies (El-Seoud *et al.*, 2014; Favretto *et al.*, 2005; Rashida, 2017; Wani, 2013) have shown that effective use of e-Learning in higher education could help increase student motivation, engagement, implication and attendance and improved behaviour and performance on core subjects. Also, e-Learning in higher education is associated with just-in-time access to timely information, improved collaboration among students and efficient interactivity between students and teachers.

Despite its popularity at the university level, e-Learning faces certain limits. For example, Liaw (2008) shows that some students are uncomfortable while accepting it, considering that e-Learning system depends on self-efficiency and flexibility of the learner. Obstacles in implementing e-Learning are also identified in literature (Ashraf *et al.*, 2016), such as resistance provided by faculty members or students depending on their abilities and perception, the conservative nature of the organization, the lack of administrative and technical support, limited funds, inadequate technological infrastructure, poor staff development etc.

Some of these limits can be exceeded in the case of combined learning. When information and communication technologies adopted for learning and communication outside the classroom are used to replace some (but not all) forms of face-to-face training, by reducing time spent in class, the result is a mixed course. In this context, we can define Blended Learning as the combination of traditional face-to-face learning systems and distributed learning systems (Graham, 2005). It is therefore supposed to combine the benefits of both learning systems (online and offline) and it is expected that this blend will improve the learning process. The potential benefits of the online part may be opportunities to include more multimedia training materials as well as various learning activities (such as short recapitulative tests, self-tests and self-assessments). In addition, blended learning can include activities that guide and support learners in their learning space, and they have control over the learning process, and this control might enable them to tailor learning materials to their individual needs or preferences (for example, they can work at their pace, they can choose which materials to review and they can choose when and where to study) (Yang, 2012; Yapici and Akbayin, 2012).

Student involvement in learning activities in physical locations other than the classroom can also mean the use of mobile devices for fast access to information and multimedia content, in order to improve communication, interactivity and collaborative learning, to support teamwork and get quickly feedback from instructors. Thus, an extension of the e-Learning concept is m-Learning (mobile learning) with regard to the use of mobile or wireless devices for “on the move” learning (Park, 2011). Above all, this mobility allows omnipresent, ubiquitous learning in formal and informal contexts, by reducing dependence on fixed labour and study points, and therefore changing the way we work and learn (Peters, 2007).

Thus, the development of communication technologies, especially mobile, pave the way for a ubiquitous learning or u-Learning, that involves learning in an environment where all learners have access to a variety of digital devices and services, including computers connected to the Internet and mobile devices, whenever and wherever they need it (Van't Hooft *et al.*, 2007).

3. Research Methodology

In order to identify the students' opinion regarding the e-Learning system, an exploratory research was conducted among the undergraduate and graduate students of Faculty of Business and Tourism from The Bucharest University of Economic Studies.

The objectives of this research were as follows:

- Quantifying the level of e-Learning knowledge among the sample surveyed;
- Knowing the perceptions of the respondents about the efficiency and contribution of e-Learning to the quality of higher education in Romania;
- Highlighting the students' preference for the method of learning that they consider the best;
- Investigating if the e-Learning can provide additional skills and equal opportunities with regards to recruitment chances.

In this study four research hypotheses were examined as follows:

- H1: Majority of the respondents have heard about e-Learning before this survey;
- H2: Students prefer e-Learning system instead of traditional education;
- H3: There are no significant differences between the perceptions of students regarding the e-Learning effectiveness and its role in improving the quality of higher education in Romania.
- H4: There are no significant differences between students who think that e-Learning improves the quality of higher education and those who believe that e-Learning provides more skills than traditional education.

A quantitative research was adopted for this study. The questionnaire was posted on website iSondaje.ro and was distributed as a link by e-mail to the students. The survey ran between 15 December 2017 and 15 January 2018.

The data was entered and analysed using SPSS Statistics software package, which was used to create descriptive statistics such frequencies and crosstabs, to measuring the correlation between variables using Pearson coefficient and to perform paired samples statistics.

The sample consisted of 449 students who agreed to respond to the survey. 75.5% of the participants was bachelor students, and the rest was master students. Most of them (80.4%) was female and the rest was male.

4. Findings and discussion

Research results show that 83.5% of the respondents heard about e-Learning before completing the questionnaire survey (Table 1). This may be because the participants of the study were graduate students and students from the last year of study and most of them already used the blended learning platform of The Bucharest University of Economic Studies. From the entire above, hypothesis H1 had been accepted.

Table 1. The distribution of responses related to previous knowledge about e-learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	375	83.5	83.5	83.5
	No	74	16.5	16.5	100.0
Total		449	100.0	100.0	

The findings also indicate that is a significant difference between employment status and level of education. While 54.3% of the undergraduate students was unemployed, only 21.8% of the master students find themselves in this situation (Table 2).

Table 2. Crosstab level of education – employment status

		Employment status			Total
		Working full time	Working part time	Unemployed	
Undergraduate	Count	73	82	184	339
	% within level of education	21.5	24.2	54.3	100.0
Graduated	Count	66	20	24	110
	% within level of education	60.0	18.2	21.8	100.0
Total	Count	139	102	208	449
	% of Total	31.0	22.7	46.3	100.0

Table 3. Correlation between level of education and employment status

Variable	Pearson's correlation
level of education	1
employment status	-.352**
	1

** . Correlation is significant at the 0.01 level (2-tailed).

One of the most surprising results of the research was the students' preference regarding different types of learning. 69.1% of the respondents choose fully face-to-face teaching with support materials available online while only 8% prefer to study entirely online (Figure 1). This may be due to fear of uncertainty, resistance to change and the low expectations of e-Learning programs. These findings also show that students want to interact with teachers and classmates,

to get explanations and examples and to ask for more clarification than provides supporting materials. In that respect, hypothesis H2 was rejected.

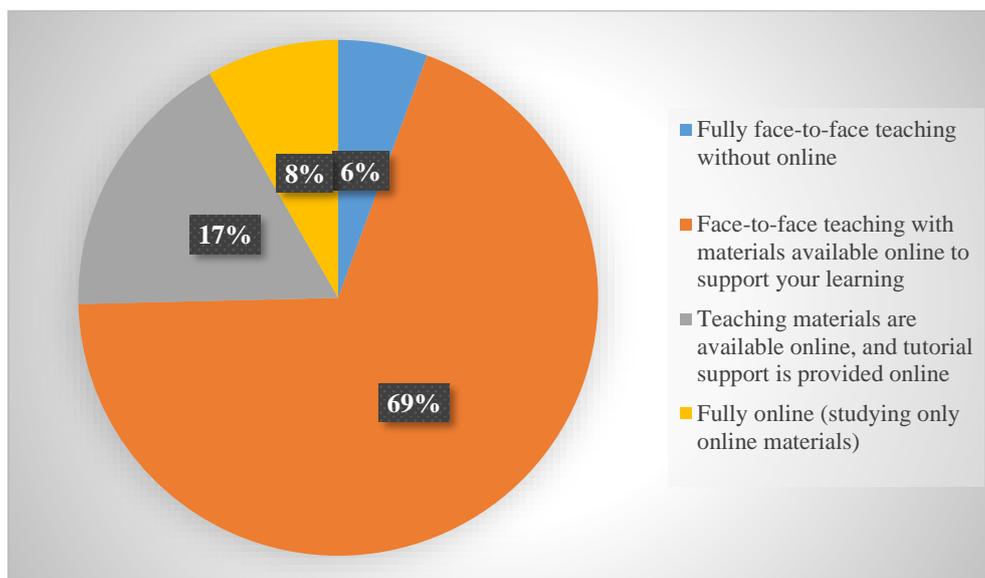


Figure 1. Students' preferences regarding learning modes

To investigate the relationships between variables, we compare the means from four groups of respondents. The values for paired samples statistics and for t test can be seen in Tables 4 and Table 5.

Table 4. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	e-learning is an effective way of learning in higher education	1.11	449	.318	.015
	e-learning can improve the quality of higher education in Romania	1.11	449	.315	.015
Pair 2	e-learning can improve the quality of higher education in Romania	1.11	449	.315	.015
	e-learning graduates will gain more skills than traditional education graduates	1.40	449	.490	.023

Table 5. Paired Samples Test

	Paired Differences		95% Confidence Interval of the Difference			t	df	Sig. (2-tailed)
	Mean	Std. Dev.	Mean	Lower	Upper			
Pair 1	.002	.369	.017	-.032	.036	.128	448	.898
Pair 2	-.287	.522	.025	-.336	-.239	-11.669	448	.000

To explore the relationship between the groups of respondents who believe that e-Learning is an effective way of learning in higher education and those who think that e-learning can help in improving the quality of higher education in Romania (Pair 1) we used the paired sample t-test method. The significance level test was $p=0.898 > 0.05$ and we had to retain the null hypothesis that there are no differences between the two groups. In addition, the Pearson correlation coefficient value (namely 0.320) confirms that there is a weak positive correlation between these variables at a significance level of 1% (Table 6.).

Table 6. Correlation between e-learning efficiency and its contribution to improve quality of higher education in Romania

Variable			
e-learning is an effective way of learning in higher education	Pearson Correlation	1	.320**
	Sig. (2-tailed)		.000
	N	449	449
e-learning can improve the quality of higher education in Romania	Pearson Correlation	.320**	1
	Sig. (2-tailed)	.000	
	N	449	449

** . Correlation is significant at the 0.01 level (2-tailed).

The respondents assumed that e-Learning is an effective way of learning in higher education and can contribute to increasing its quality. Over 88% of them agreed both of these statements. Therefore, the research hypothesis H3 was accepted.

The second pair analysed (Pair 2) was the same group of students who think that e-learning can help in improving the quality of higher education in Romania and the group who agree that e-learning graduates will gain more skills compared to traditional learning. T-test value of $t(448) = -11.669$, $p < 0.001$ led to the acceptance of the hypothesis of the existence of differences between the two statements. Frequencies indicated that 88% of the respondents consider that e-Learning can improve the quality of higher education in Romania while only 60% agreed that e-Learning graduates may gain more skills than traditional on-campus education graduates. Thus, the hypothesis H4 was rejected.

5. Conclusions

Although the results presented here cannot be generalized to the entire population of Romanian students, our study has reported some important findings about Romanian students' perceptions regarding e-Learning. Four research hypotheses were examined and two of them was accepted and two was rejected. More than eighty percent of students said that they have heard about e-Learning before completing the survey. However, fifty-two of them would like traditional learning if they had the opportunity to choose the learning method. Moreover, sixty-nine percent of respondents indicated the preference for face-to-face learning with online supporting materials. This illustrates the resistance to change and the need for direct interaction with teachers and classmates.

The study also revealed that the Romanian students had positive attitudes towards e-Learning and technology-mediated education. They believed that e-Learning is an effective way of learning and can improve the quality of higher education in Romania. In addition, respondents think e-Learning graduates may gain more skills and they will be acknowledged and accredited as equally as traditional learning students by professional bodies and employers.

The most significant limitation of this study is that it focused only on business students from The Bucharest University of Economic Studies. This survey should be expanded to include a population of other Romanian universities to provide a better understanding of students' perception regarding e-Learning effectiveness and their readiness to its adoption.

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Beyond the Functional Dimension of the Innovative Product Design: What other Features do Consumers Value?

Roxana PROCOPIE¹, Magdalena BOBE², Maria-Alexandra TOMA^{3*}

Abstract

Companies develop products and services that fill the consumers' more and more demanding needs and wishes, putting functionality, technological innovation, superior quality and special design in one product, and the consumers can give valuable information as regards the prospective needs and the ways they can be met.

Design, as it is perceived nowadays, is a relatively new specialty, which came out of the problems raised by the industrial production in the market economy, taking into account the signals coming from the consumers, against a fierce fully competitive background, necessarily innovative and thus risky.

Thinking about the role of the industrial in the past century as well as in the future and about the impact of contemporary technological progress on the innovative product design, the present paper aims to underline the actual status of design going beyond the functional value. Reconsidering the "design type" shapes requests in conceiving innovative products and a more and more deeply consumers' involvement in the design process are given by the present socio-economic conditions.

Keywords: *product design, innovative product, aesthetics, functional value, consumer*

JEL Classification: *L 15, M10, O 39*

1. Introduction

Designing a product is in between technological innovation, economic conditions, the changes in the needs of the society and the evolution of art and architecture. All these factors taken together influence and challenge the constant transformation of the design. Thus, on one hand, last generation technology dematerialized objects, and, on the other hand, globalization and the global opening of the markets involve the design of the same product for people from all walks of life (Kotler, 1997). *Do we have to create a new global cult of the objects, or, on the contrary, should we take advantage to differentiate?*

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New technologies are more and more present in the surrounding environment. In industrial design, the CAD systems, as well as the tridimensional design facilitate and ease the conception processes. These computational applications are nothing but tools that use technology in the process of looking for new solutions before giving answers to questions related to man's relation with the world of objects, to the social responsibility of the designer.

Redesigning and modernizing technologies pursue to give a new shape to the environment and to support the design's ability to protect the interests of the communities connected among them on a global scale.

2. Theoretical and practical perspectives on the functional value of product design

What is industrial design? A simple answer is that industrial design is everything that is related to the industry, all that has been conceived for the industry, as well as the process itself.

The phrase "industrial design" does not designate a certain profession or just a style or way of doing things. We have to understand very well that design itself is more complex process that involves a detailed knowledge of the necessary materials, the consumers' wishes or needs, of using the space as economically as possible, of the implementation of utility in all the manufactured products, as well as their production in such a way that allows their use for many years afterwards. For a designer the manufacturing materials and methods are the same as colour, brush and paint for the painter (Heath, Heath&Jensen, 2000).

We have to make the difference between design without a program and design with a program based on a philosophy and general principles (beyond purely stylistical criteria), such as ecological design (Figure. 1).

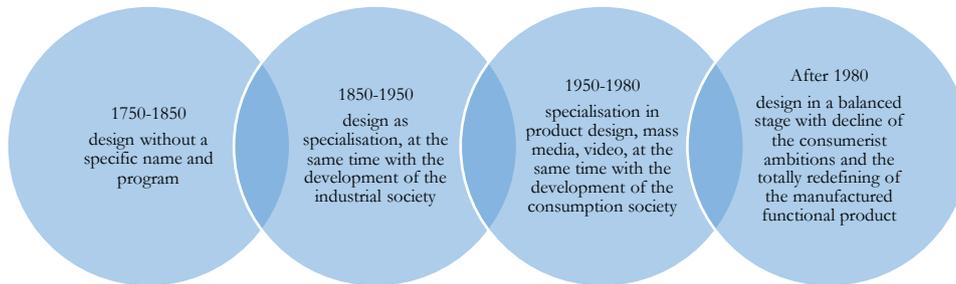


Figure 1. Industrial Design Stages

The 20th century design was dominated by "utopic" images that make it different from the 18th century producers who relied on the archaic models in their effort to resist innovation.

There was no hindrance for progress, which was synonymous with industrialisation and an abundance of products, with innovation that brings changes (difficult for the craftsmen that could not adapt to something that they did not know). The design of the industrial products brings stylistic and formal changes, overpassing the judgment "form follows function" (according to which the products with the same function should also have the same design).

Functional tradition plays an important role in the history of design because it lies at the basis of the discipline called design. Many of the useful things in the everyday life are ordinary, so that we do not pay enough attention to their beauty and originality. For example, the camera registers the development of industrialisation step by step, getting products of very high precision. Furniture design started by analysing the way in which furniture can be placed and how the space can be used so that there is a very good utility of it, use it as economically and accessibly as possible. All furniture design was accompanied by a series of studies of people's dimensions and movements, and these studies have helped in establishing the size and shapes of space.

Industrialisation led to the production of specialised equipment for laboratories and plants, also available to the wide public. Much more products than one can imagine were created like this, their design and real functions being often based on real needs. It took 300 years to adapt professional instruments to the general market. Such examples are the thermometer and the computer.

2.1 Relationship between form-function-material in designing the functional product

Although historically design is considered one of the prodigy kids of technology, its rapport with the present design-technology is more complex than a mere relation of descendance.

Technology – having a specific autonomy – needs design's contribution in order to attract interest.

It seems that technology limits creativity, but there are many cases when it was stimulated.

An obvious example is the sculptural design of the plastic objects, their shape being imposed by the necessity that the material flow easily through the injection mould.

As regards the design's contribution to the development of technology, it is materialised into the latter's customisation and its revelation. *Pure technology is anonymous*. Purely technological objects are almost identical, irrespective of the producer. It is not a coincidence that the shapes that result from mathematical calculus cannot be licensed as they are universal shapes, and the intellectual royalty belongs to mankind. It is obvious that the bevel belongs to the interior mechanism upon which design has a minimal influence, *but in the case of the body there is the anonymity of the pure technology as well*. A car body must have an optimal aerodynamic shape, but it does not happen like this. The reason is the important weigh of the representative function within the general context in which the car must develop.

Nowadays more and more accelerated technological advance leads to the appearance of numerous phenomena. A range of new materials were invented that offer designers new formal possibilities. *Memory shape materials* can come back, if controlled, to former shape and *nanofibres* are used to manufacture cloths with superior practical and aesthetical properties.

The development of electronics and information technology permitted us to produce smaller design objects. If there are no mechanical constraints, the shrinking of objects does not have any limits. We can even discuss about the dematerialisation of objects. However, design and ergonomy set limits according to the human capacity to perceive and manipulate. An electronic watch can have very small dimensions, but the eye cannot see the numbers, and the fingers could not wind it.

From a psychological point of view the technology-design rapport has known a gradual change:

- In the beginning, design had to soften the shock produced by the unprecedented rise of technology. Some industrial products used to raise fear because of their relative autonomy and used to be considered “ugly”, being manufactured by a new industry that had amplified unemployment;
- Nowadays, with or without justification, society trusts technology very much, trust which later turned into affection. This is why the high-tech trend has as its main objective the visual exploitation of the elements that suggest technology;
- At present industrial production massively claims aesthetic rights. Shooting cameras, type writers, coffee grind machines, tooth brushes, all these common objects are proof that the industrial product cannot and does not have to be only useful, but also beautiful. We don't have to forget about the social and ecological aspects, which are equally important dimensions;
- Aesthetic design is a concept often applied and the consumers enjoy looking and using aesthetically pleasing design because it satisfies the senses, it gives them pleasure. Due

to our perceptual system, preferences related to the aesthetical aspect of the product are often dominated by social, cultural or economic influences.

The present economic context stimulate creativity, the opportunity to think and act in an accelerated way:

- In the industrialised sector of the design, that of the “*mechanism and body*” products (a sector that include groups from computers to domestic devices, from the devices for professional work to those for spending free time) the shrinking tendency continues; the body is no longer a beautiful shape that covers the mechanism, but a more and more adherent conformity that tends to get more and more reduced. Also, the microprocessor is always present in the everyday use products and everything is put into practice so that its insertion is even more important. The advantages brought by it are obvious: it allows the increase in the product use, reducing its volume to minimum. Thus, the so-called “latest generation” objects do not cease to increase their capacities, reducing their shape considerably. Confronted with this surplus of formal freedom, the designer should, due to the present multidisciplinary of their work, make technology more human and change the man-object relation (Fiel l& Fiell, 2002).
- The designer benefits from technology development in order to renew their vocabulary, adding formal and material phrases. Designers go for less costly solutions, becoming more and more sensitive to factors such as: price, utility, safety, security, easy access or the recycling possibility. There already appears the tendency and the designer’s interest in creating products based on “speculative” concepts, using new materials, new types of experimenting the relationship with the surrounding environment or new ways of giving technology beautiful shapes.

3. How the consumers perceive the product design value

Through the constant comparison of the existing literature, two value dimensions (functional and esthetic) were found that are consistent with the traditional form and function characterization of product design. A third major self-expressive dimension that includes social and altruistic aspects also emerged (Kuma & Noble, 2016).

In most companies, the design teams tend to focus on performance and functionality – tangible attributes of products – two things that can be measured and quantified. Thus, these teams do not pay much attention to the intangible attributes related to: how the product is going to be used, where it is going to be used, who is going to use it or how is it going to look like, and most of the times these are the attributes that make the difference.

Ever since 1964, David Pye, a designer himself, author of the work *The nature of Design*, thought that the design-type shapes are characterized by the consistency shown towards some conditions that involve, from the very beginning, a certain design, a certain way of being produced, based on the use of very high technologies and improved equipment.

All the surrounding objects have been designed, this being an intrinsic quality of the nowadays society. But not all objects have been well designed. A well designed product is not defined only according to the degree of its practical utility. At the same time it should communicate, it should be liked, and differentiate itself from the competitors’ objects having the same functional value. One of the most important ingredients of success is the consumer’s involvement in the design process. The consumers can give valuable information as regards future needs and ways of filling them. As there so many risks related to the aesthetical design of products, because their success cannot be guaranteed, companies should test the reaction of the prospective consumers to the new product using prototypes. Product design influences on buyer behavior and the value discernment depends on consumer characteristics, too.

3.1 Identifying main features which add value to the innovative product design

Product design delivers benefits that go beyond functionality by offering less tangible – yet potentially more valuable – aesthetic and symbolic benefits (Candi, Jae, Makarem & Mohan, 2017). If aesthetic design permit to demonstrate how a product design appeals to the sense – going far away from the pure beauty of the form (Liu, Li, Chen & Balachander, 2017), symbolic dimension involve self-image, personality, social status and role of the consumer (Seva & Helander, 2009). Beyond *the technological nucleus* of an innovative product, the capacity to work well of this, from the consumer’s point of view, the value-adding attributes of the product refer to (Fig. 2):

- **Emotion** – the experience the consumer has when they use a product may include the sense for adventure, independence, security or sensuality.
- **Aesthetics** – stresses the sensorial perception, including the visual shape, touch, hear, smell and taste.
- **Product identity** – declaration of the individuality and personality of the product, expressing unicity and style.
- **Impact-social effects upon the environment** that are directly connected with the consumer’s value system and can consolidate brand loyalty.
- **Ergonomy** – the basic qualities of the product must underline the easiness in use, both from a physical perspective, and a cognitive one; also, the product must be safe and comfortable to use.
- **Quality** – durability, precision, and the accuracy of the manufacturing process, the material components and the assembly methods must rise to the consumer’s expectations.

In order for a product to resist on the market, it has to “*persuade*”, based on its physical aspect, it has to “*last*”, due to its characteristics and must have such a style that it can “*seduce*”.

The added value of the product is given by its total perceptible and imperceptible features, including the socio-cultural ones that, in the exchange process of the merchandise, leads to its being chosen and influences the consumer’s preference. Therefore, changing the exchange value and attracting attention particularly on the aesthetics of the merchandise, on the ecological or social particularities, in an honest and transparent manner, designers have chances to promote the new products. The environmental impact includes those attributes affecting the environment, and from this point of view, we can group all consumers into two segments, ordinary consumers and green consumers (Zhang, Hafezi, Zhao & Shi, 2017).

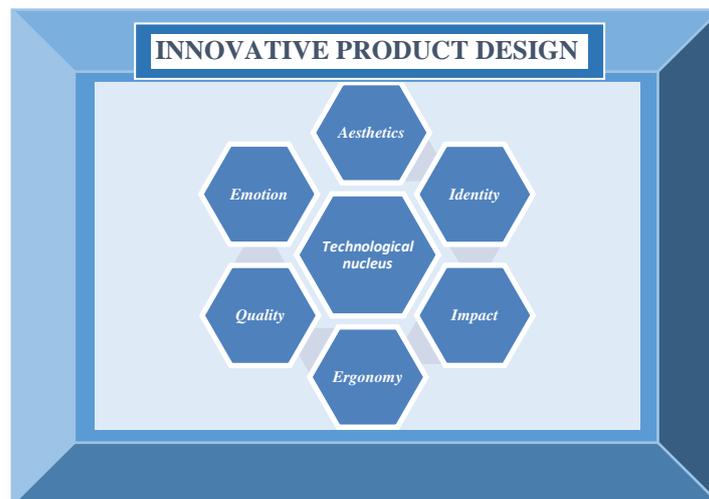


Figure 2. Conceptual model: main features which add value to the innovative product design

On such conditions the designers try to adapt themselves more and more to the technical and economic restrictions and realities.

Thus, segmentation of the market in post-recession economy, according to a study carried out by *Decitica-Marketing Strategy and Research* in the USA, research that can be extended globally, divides consumers as follows:

- *Steadfast frugalists (20% in the population)*, are the most disciplined in their behaviors and seriously committed to self-restraint; marketers will find this group to be the most challenging;
- *Involuntary Penny-Pinchers (29%)*, are the most severely affected-financially and emotionally by the recession; marketers will find this group to be quite challenging to influence mainly due to their lower/diminished capacity to spend;
- *Pragmatic Spenders (29%)*, have the greatest capacity both financial and psychological to willfully resurrect their past spending patterns; will be the most attractive to marketers given their above-average financial wherewithal;
- *Apathetic Materialists (22%)*, are less perturbed by the recession. They are the least changed in terms of their spending habits and future intentions; will be an attractive target for youth-oriented marketers.

Consequently the change in demand led to an appropriate offer, and the economists and designers think that certain changes are as radical as perennial (Srinivas, 2009).

From the electronics industry to the automotive one, for example, the functional object has to be a presence capable of pleasing people's sight, by means of its harmony and balance hints, without resorting to aesthetical solutions that are not necessary from the point of view of the use. On the other hand, the replacement rate of the products is falling. Sociologists, as well as economists think that people are becoming more and more conservative and less exhibitiv in their attitudes, and the consumers change their purchasing behaviour.

It is thought that in the future people will buy those objects that would remain valuable for a longer time, and investment in authentic art, for example, proves to be an effective way of saving for those who still have cash and, at the same time, a method to select artistic values.

Unfortunately the crisis context proved favourable for fakes' proliferation. For a wide segment of consumers the criteria based on which they choose products will still be the quality/price ratio, special offers in the shops and, according to each and every situation, the previous experience they had with the product, more than the symbolical attractiveness or fashion.

Design, as a creative industry is one of the main keys of the durable economic development.

Promoting design means to promote the economy, especially for the small and medium enterprises; the real challenge consists of conceiving new business models, based on solutions generated by design. Designers will have boosted responsibilities as regards the barrier-free products, information and systems that meet everybody's necessities and aspirations, irrespective of their age and educational background.

The more designers communicate more subtly with the consumers, the more their cultural and social responsibility equally extend, from the point of view of a user oriented towards value, multi-functionality, cross-functionality. Given the present context it is necessary that designers, engineers and economists use their intellectual curiosity creatively, co-operate, discover and outline, imaginatively and convincingly, the future of the product design.

4. Conclusions

The new name of competition reflects the more and more international of the design domain.

New trends in design take into account: ecological projects, redesign, using new and beautiful shapes to express sold functionality, adapting products so that each user can feel comfortable, conceiving new interfaces between the user and the product.

Modern technologies change consumers' customs; the demanding, decisive consumer, who needs quality more and more, knows to use technologies that appear overnight and that create them a standard that they are not ready to give up. If pure technology tends to create an alienated habitat, design becomes a human interface between man and their artificial environment.

Product design can communicate value to consumers that is based not only on form (esthetic value) and function (functional value), but is also conveys a self-expressive value (Kumar & Noble, 2016).

In terms of functional value, besides the customization of technology, design indicates the object technology to the future user. That is why it is necessary that the most modern technology be revealed by means of an innovative design. In terms of esthetic value, product design is no longer related only to aesthetics, but is used to reshape some experiences; the objectives of design evolution vary from the focus on pure aesthetics – related to perception of attractiveness and pleasure – to a wider discipline, that includes branding, services, ergonomics, sustainability.

And finally, in terms of personal value, social and altruistic dimensions define the ability of the product design to increase the self-esteem and the self-identity in our society.

Universal design refers to inventing products that every consumer can use. The companies that think beyond the future marketing plan know that innovative products generate money that will come back ten times more, and the strategic use of design can lead to the increase of the economic value.

Change in consumer behaviour is influenced by the market evolution and the income rise.

Taking into account and meeting the consumers' needs is a challenge both for the producers and the traders. Innovative companies are careful to teach their consumers to use the purchased product sat full capacity, so that they last as long as possible. These have the capacity to identify the impact of the value on the consumers' basic reactions and to elaborate feed-back mechanisms to measure their needs and satisfaction level.

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Improving the Quality of Air Transport – A Current Problem

Bogdan GEORGESCU^{1*}, Daniel MOISE², Irina MAIORESCU³, Liliana NICODIM⁴

Abstract

The article tries to capture the main problems that may arise for an airline and how to solve them. Another aspect addressed is a classification of a company's passengers and finding more ways to keep them and attract others. Increasing the volume and practical importance of air transport services in recent decades has also prompted the intensification of the theoretical concerns in this area, many of the traditional industrial-specific approaches not being adequate for the present service period. The success of the process of implementing the air-service quality concept offered to the customer depends on the awareness of current ideas and issues, trends, policies, strategies and laws that can directly affect the quality of consumer relationships.

Keywords: *air transport, quality, relationships, services, loyalty*

JEL Classification: *M1Business Administration/M16*

International Business Administration http://www.aeaweb.org/jel/jel_class_system.php

1. Introduction

In air transport, inseparability is a strong feature, the contact between the provider and the client being practically permanent, both in the case of airport services and in the actual transport services (Alexa, 2003). It also involves direct personal-client contact. This has consequences for the service provider. There is a need for permanent adaptation to numerous and varied contacts, each client having his own personality. Being closely linked to the presence and participation of the service provider, the quality of the service depends on the level of the staff qualification, talent, skill, fairness, passion with which the service is performed. This results in the difficulty of standardizing services and the existence of virtually limitless possibilities to differentiate the offer.

2. Problem Statement

Another feature of services is their variability (Cetina, 2009). This should be understood both for the service as a whole and for each and every one of the services as a variation depending on the provider's specificity, the user's involvement and participation,

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environmental conditions, etc. In other words, the service is unique, practically it can never be repeated in exactly the same way. The feature has the advantage of adapting the service to each individual customer, to the extent that the provider has such a degree of adaptability. Some authors add to the features presented, another one derived from their intangible character. This is the impossibility of approaching or lacking ownership. The services cannot therefore be the property of the seller when the commercial transaction takes place, and even less can be the property of the buyer after he purchases them (Blythe, 2005).

To simplify the understanding, we propose the following scheme in Figure no. 1.

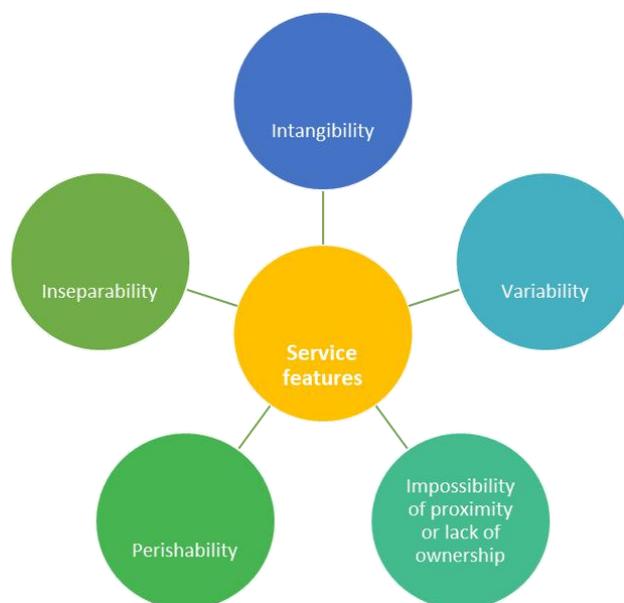


Figure 1. Service features

3. Findings

The main issues to be addressed by an airline regarding the improvement of their own services offered to the passenger are:

- the efficiency of the company's services to its customers; for example, all procedures need to be revised and developed to respond to passengers in a personal way of the company and to try to approach the customer and his/her problems;
- how to use the company's human resources; for example, there must be a balance between contact staff, who have a leading role, and clients, because the staff must adapt their behavior according to the latter who may have different cultural levels, different ages, nationalities, etc. (Catoiu & Teodorescu 1997);
- the manner of providing special services to problem passengers and resolving the complaints related to them. The airline must have trained personnel for such situations so that physical and behavioral barriers are eliminated and be able to assist such a person with tact and understanding without causing any discomfort to him. It is important to eliminate the perception of disability, so that these people should be treated as normal passengers, being both an economic and a human issue. It must be ensured that there is adequate assistance from the airport staff, carrier staff through the presence of a wheelchair on board in order to facilitate the movement of those passengers in the cabin and on the ground in the event of a stopover when the passenger's wheelchair cannot be removed from the plane hold.

Elaborated regulations and a particular attention should be also paid to other categories of passengers that do not qualify as disabled passengers:

- electro-sensitive passengers, or those who have biochemical sensitivity, i.e. they are allergic to odors or substances that can be released in the cabin during the flight (e.g. perfumes);
- overweight passengers for whom extra cabin seats are to be given. In the relationship between the contact staff and this category of passengers, the focus should be on the person as such and not on his disability so that the handicap does not become an obstacle for the company, but a challenge, in the sense of making all the company's facilities available and commensurate with these categories of passengers;
- what differentiates a company on the market, by educating its clients, is accomplished by altering the perception of the client, in the sense that he perceives that he receives more than he assumed he would receive, thus the company may exceed the expectations of the clients. In essence, the world's leading companies do not want satisfied customers, but customers delighted with the services they receive. This reduces the sensitivity of customers to product prices and increases the sensitivity of perceiving the quality of services received through the maximum satisfaction that can be achieved by the customer and by the company, as well.

In the field of aviation competition, experience has shown that positive results are due to the quality of the staff, the quality of the services provided to the clients, the business experience, as well as the maintenance and support of the progressive ideas for the ascending market evolution (Leingpibul *et al.*, 2009). Especially for a smaller company, a change is needed to cope with the new conditions, new techniques, and the strategic challenges of other competing companies. The biggest obstacle to change is our own resistance, that is, our mentality. To act in this direction, it is necessary for managers, at all levels, to modify their organization, create the necessary framework for change, prepare all staff in the same direction and employ new resources for this purpose, introduce technological progress to improve the company's performance.

The development of the internal regulations of each airline on the transport of disabled passengers is mandatory for aligning the company's services to international standards (Caraiani *et al.*, 2004).

In the relations with the passengers and the services provided, the ways to solve the complaints received from the passengers have an important role. The primary purpose of resolving a complaint from a passenger is to make an appropriate response so that he remains the customer of the company. The contact person must meet basic criteria: to have a clean, neat, pleasant look; be effective; to have a polite behaviour; to give the passenger confidence. He has to be right to the passenger, or rather to allow the passenger to be wrong, not to be right, but in a dignified way, so that the behaviour of an employee does not seem superior to a customer.

The primary objective of responding to a complaint should be to retain the passenger, for the remedy of the problems in the areas mentioned by him, and develop forecasts of failure to provide the passenger with service. Passenger retention is done by respecting his conviction that he is right and following 4 steps in addressing a complaint:

- apologize and the passenger is assured that his problem will be looked into;
- the complaint must be resolved as quickly as possible (24 hours recommended);
- the passenger must be assured that the problem has been remedied (passengers who are convinced that their problem will not be repeated, will be turned into loyal customer);
- a very effective way is to answer by phone (80% of the problems can be solved by phone) and the passenger feels he is being paid attention.

By studying the types of passengers, an appropriate marketing strategy can be defined – in which the development of the service process will transform the weak points into trumps – where it is necessary to start from the inventory and defining the needs of the passengers (Doyle & Stern 2006). The techniques through which this stage can be achieved are: marketing studies based on customer information that have the effect of improving the company's image and customer orientation, questionnaires and opinion polls, dedicated customer centers where specially trained teams stand talking to a representative sample of 15 customers selected from customer databases, complaints databases and statistics. The values taken into account when designing the marketing strategy must be to offer unique products and services, indisputable quality at a good price and meeting customer-specific needs.

The successful achievement of the international air transport service presupposes the consideration of 4 elements: the customer, the purpose, the service, the framework and the rendering of the service. A part of the airline's staff must be dedicated to retrieving customer information for transmission to the company's management. This specialized staff must be aware of the client's needs, stereotypes and emotions. The purpose of the service is safety, courtesy and efficiency. The framework in which the service is provided, or the decor, can bring something extra to the service and contributes to its improvement (a less performing service in a pleasant environment impresses the client and alleviates his discontent).

The staff that provides these services must adapt to the customer's requirement, using their spirit of observation, gesture and inflection of voice to impress the customer. In addition to the human resources involved, great importance should be attached to the technical systems that support the provision of these services and the technical endowment of the company. A great challenge today is the Internet, which can be used in air transport services for effective communication with the passenger, but also for inter-company communication.

From the point of view of the company, through the Internet, activities such as product distribution, electronic purchases, contracts with distribution companies, and product promotion can be performed by publishing product/service information and price communication.

Also, telephone calls are not charged on the Internet in the manner in which the telephone system operates, these being included in the payment of the facilities available to the network, thereby reducing the costs incurred by them. Establishing the internal quality concept of the product, taking measures to implement it, and continuously tracking the results obtained fall within the attributions of the organization's marketing department. The main action in this area is currently linked to the establishment of a team that has as main task the pursuit of product quality (these teams exist in all airlines). The basic principle of the existence and functioning of the team is to consider the company's client as its main capital.

The implementation strategy should be developed around 4 axes:

- customer knowledge;
- authenticity and transparency in dealing with the customer or customer care;
- respecting the quality standard and creating a company style;
- adaptation and innovation for all products.

There is a classification of customers in four categories:

- “heroes” passengers who remain loyal to the company regardless of the positive or negative phase through which they pass; they are active in setting the company's quality standards;
- “quarrelsome” passengers who are dissatisfied with the services they have received in relation to the price they have paid, but who remain loyal to the company, though;
- “deserters” customers are those dissatisfied who leave without complaining.

- “missing customers” are the ones who criticize the company and leave, i.e. for the next trip they choose another airline;

A more concrete and effective way to determine the quality level of airline service is to send “mysterious customers” to the company’s flights and to record accurately all the irregularities encountered during the journey. Company service delegates may also report on the quality of the service they have received. It is possible to carry out a monthly analysis of all the flights, with final reports to be analysed both by the management of the company and by the entire staff of the company.

There are a few other basic principles regarding the process of dealing with the customer care: in the case of a dispute between the customer and the company, it is preferable to let the customer win because the revenue will also come from the unsatisfied customers who return to the company's flights (in fact, it is the company that makes the profit eventually). Passengers must be encouraged to write, and the reply to the letter must be quick, to show the passenger that there is interest in his problem, possibly calling the customer to show that his problem is being solved.

In the case of large airlines, it was found that 50% of the dissatisfied passengers who contacted the office responsible for pursuing the quality of the service remained loyal to the company, preferring not to choose the flights of the competitors.

4. Conclusions

The airline must know to “seduce” its customers, using both technical arguments (the fleet age of newly acquired planes, the route network) and marketing arguments. The satisfaction of the passenger must be checked before, during and after the flight, the aim being to satisfy him overall. The goal is not to increase the number of clients as much as it is to turn the current passengers into loyal customers.

Loyalty is in high-ranking companies at strategic priority, concentrating loyalty efforts on the most profitable customers. High-value customer loyalty requires differentiated services for boarding, accommodation, car rental, flight cabin upgrading, private departure-lounge, TV and on-board drinks, dinner in a private restaurant, or breakfast, for the next morning in the case of night trips. The tourist clientele is difficult to become loyal because they seek mainly tariff advantages but, respecting each passenger in a unique way, it is possible to achieve the loyalty of this type of passengers.

For each new product, customer needs must be anticipated, quality being an ongoing process: maintaining standards does not bring any extra passengers, but on another hand their degradation leads to loss of customers.

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**Online Reviews: Measuring the Quality of Services on the 5*
Hotel Market in Bucharest**

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Abstract

The ever increasing demand on the Bucharest hotel market leads to new investments and, in general, to a strong market dynamics. At the top 5 star category, there are 10 hotels, most of which belonging to international hotel chains (through management and franchise contracts) or enclosing into the category of boutique hotel units. The purpose of this paper is to identify the main strengths and weaknesses of the units rated at 5 stars in terms of customer comments. For this, the opinions expressed on the website www.booking.com were reviewed for the period March-August 2017. Moreover, according to sources inside the industry, in 2017, hotels in Romania receive around 41% more reviews compared to last year. In addition to total scores (between 9.30 and 7.90 on a scale from 10 to 1), as well as for a number of well-established categories (between 9.05 for cleaning and 6.7 for paid WIFI, for all hotels), the authors identify the detail issues that led to those grades. Thus, the customer reviews allow not only to identify the perceived pluses and minuses, but also the ranking of hotels according to the different categories, giving an overview of the Bucharest's 5 star hotel market.

Keywords: *hotel, online reviews, consumer generated communication, customer satisfaction*

JEL Classification: *Z31, Z30, D12*

1. Introduction

The development of the Internet and mobile solutions has led to an exponential growth of customer reviews of various companies and products or services. Whether we look at reviews on Google, Facebook, etc. or on ecommerce sites, clients show a growing tendency to share their own opinions or give grades to business or brand they used.

In the travel industry, online reviews (ORs) can be considered as electronic versions of traditional word-of-mouth and consist of comments published by travellers on the tourism products, services and brands they experience (Filieri & McLeay, 2013). In this area of travel industry consumer can rate destinations, accommodation, restaurants and bars, tour operators

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as well as transport companies. There are a lot of dedicated websites where consumers can write personal opinions on most aspects related to vacation like TripAdvisor, Tripcase, Hopper, TouristEye, etc.

On the other hand, there are websites dedicated to hotels, restaurants, bars or entertainment.

The hotels reviews are closely related to online travel agencies (OTAs). Websites like Booking.com, Airbnb.com, Hotels.com, Expedia.com or Agoda.com are linking costumers to accommodation providers in a very easy and comfortable way. When booking a room, clients are using online reviews more frequently than other sources of information (O'Connor, 2009).

Clients are searching for best prices, location, pictures, amnesties and other useful information and decide to a specific accommodation unit. After spending vacation of specific location they are required to post a review to share their own experience.

2. Problem Statement

Hotels reviews and their importance are covered for multiple point of views. We have the customer perception and business perception. Business side is related to how reviews are influencing consumer choice and to understand the relation between online reviews and overall hotel performance. Ye, Law and Gu (2009) showed that positive online reviews can significantly increase the number of bookings in a hotel and hotels with higher star ratings received more online bookings. A 10% improvement in reviewers' rating can increase sales by 4.4%. User-generated content create opportunities for hotels to gain a better understanding of their guests (Barreda & Bilgihan, 2013). Also, management could also potentially benefit from online comments to report service strengths and weaknesses, making them of considerable utility when studying customer relationship management (Cho, Im, & Hiltz, 2003). With regards to the hotel industry, it has been shown that the type of hotel influences the effect of online reviews on business performance (Blal and Sturman 2014). Ögüt and Onur Taş (2012) found that online sales of hotels increases significantly due to a higher customer rating. The study results show that sales per room increase by 2.68% (for Paris) and 0.62% (for London) at 1% increase of online customer rating. Higher stars do not increase the sales, contrary to expectations. Phillips *et al.*, (2017) showed also that social by people sharing positive experiences regarding the hotel, have the greatest impact on hotel performance expressed by occupancy and RevPAR.

Customer side is related to information search, information adoption, decision, buying, image or reputation. Sparks and Browning (2011) suggested that consumers, in process of evaluating a hotel based on online reviews, tend to rely on easy-to-process information. Positive reviews regarding interpersonal service generates higher levels of trust. Other studies (Dickinger 2011; Fotis, Buhalis, and Rossides 2012) found also that higher credibility is connected to guests online reviews. Therefore, consumer reviews are seen as relatively unbiased and independent from marketing of the business. So, this comments are more reliable for future customers (Li & Bernoff, 2008). Nowadays, consumers are relying more and more on reviews and ratings, price not being the single element taken into sole consideration when selecting a hotel (Noone and McGuire 2013).

Filieri & McLeay (2013) found that overall ranking of an accommodation may be an indicator of product quality and appears to be more important than product popularity when adopting information from ORs. The categorical information about a hotel ranked in first position, which has been reviewed for example by 20 users, will be more influential than the information on a hotel that is ranked 10th and has been reviewed by 80 reviewers.

Consequently, a larger number of reviews is not always favourable.

Some studies focused on areas of reviews and guests comments using text mining to find words that describes hotel activity and customer perception about quality provided. Sparks and

Browning (2010) revealed that most of hotel reviews analyzed were targeting two areas: core functions of the hotel (dirty rooms, deteriorated equipment) and customer service (unpleasant staff).

Berezina *et al.*, (2016) found that some common categories are found in positive and negative reviews. Place of business (e.g., hotel, restaurant, and club), room, furnishing, members are elements that can be found in positive and negative reviews. Satisfied customers refer more often to intangible aspects than unsatisfied customers which mention more often the tangible aspects of hotel stay (furnishing, finances).

Ekiz *et al.*, (2012) investigated the online complaints in the luxury hotel context. They identified two main categories in online consumer complaints: room for improvement (room and its physical attributes; in room amenities and their quality) and staff attitudes (misconduct, wrong attitude, lack of knowledge, qualification, and staff passion).

In the same area, O'Connor (2008) conduct a research for 100 hotels in London and found that most comments in the reviews are related to: guest room, breakfast, staff, location, bathroom, bed and shower. In another paper (O'Connor 2010) revealed most frequent subjects addressed in online reviews, based on a qualitative analysis of London hotels. He discovered that: location, size of the room, staff (good service), cleanliness, breakfast, in-room facilities, comfortable, temperature, dirty, and maintenance are top 10 most used words in online reviews.

Barreda and Bilgihan (2013) conducted another content analysis of hotel online reviews. Bedroom and bathroom had the highest number of comments. More than 42% of comments referred to bedroom.

In line with some of the articles above, but on a smaller scale (Bucharest, 5 star hotels on booking.com) we conduct our analysis to identify positive and negative attributes in guest reviews.

3. Research Questions/Aims of the research

Bucharest hotel market has grown from 33 hotels in 1995 to 123 hotels in 2016, counting for 9900 rooms and 19400 bed places. The ever increasing demand on the Bucharest hotel market leads to new investments and, in general, to a strong market dynamics. At the top 5 star category, there are 13 hotels, most of which belonging to international hotel chains (through management and franchise contracts) or enclosing into the category of boutique hotel units. 10 of these hotels are selling rooms on booking.com.

The aim of the paper is to identify areas where a hotel could improve customer satisfaction. It will help hoteliers to understand the factors that contribute to high or low ratings. We wanted to see if, over time, and for those 10 hotels, guests are using the same benchmarks to evaluate service quality.

In addition we wanted to see if the hotel with the smallest average grade has the highest number of reviews related to occupancy and if the average grade of hotel influence the weight of reviews with comments in total number of reviews.

The results of this paper will help hoteliers to focus on the areas with problems as identified by guests. By channeling resources to those areas the management can improve service quality to improve guest satisfaction.

4. Research Methods

Data used in this paper were obtained from reviews posted on booking.com for 10, five stars hotels in Bucharest. During 10 and 12 of September reviews (and comments) for all 5 star Bucharest hotels, listed on booking.com, were collected. The cover period was March-August 2017.

Booking.com is one of the largest travel e-commerce companies in the world. The Booking.com website and mobile apps are available in over 40 languages, offer 1,659,327 properties, and cover 127,761 destinations in 228 countries and territories worldwide. There are over 144,790,000 verified guest reviews for reservations made through this website. Reviews older than 24 months are archived to keep the rating score and review content relevant for future clients (Booking, 2018). Booking is accepting reviews from travellers who have booked and paid for a reservation for that accommodation through their website. Overall satisfaction is rated from 1 (terrible) to 10 (superb) as an average of 9 categories. Travellers can also post comments to describe their experience as a way to justify the grades.

Several programs can be used for analysing guest reviews. We have text mining software, data mining software and content analysis software. But those programs are best used when huge amount of data are to be analysed. We wanted to observe guest experience only for 5* Bucharest hotels. In order to do that, we used Excel. This tool was used in similar researches by: Tian *et al.*, (2016), Berezina (2016) to count the reviews and register comments. We recorded 1450 reviews of which 686 had comments attached. After, the extraction process consisted in identify unique words. Similar references were grouped depending on the problem identified by guest in order to have, for each hotel, a top three strong/week points.

For each hotel the reviews and comments were counted and compared to an estimated number of occupied rooms for the period analysed. Estimation was made based on 72% occupancy for 5* hotels according to STR Report. In order to verify hypotheses mentioned before was necessary to have the weight of reviews in the number of occupied rooms.

5. Findings

At the beginning we centralised ratings for each of the 10 hotels listed on booking.com by several common criteria. The results are shown in table 1.

Table 1. Average ratings

Hotels	Breakfast	Cleanliness	Comfort	Location	Facilities	Staff	Value Money	Free Wifi	Paid Wifi	Average
Athénée Palace	8,3	8,9	8,7	9,3	8,3	8,7	8,1	8,9	NA	8,7
Casa Capşa	NA	8	7,7	9,1	7,2	7,8	7,6	7,6	NA	7,9
Epoque	8,3	9,7	9,6	9,1	9,3	9,4	8,9	9,2	NA	9,3
Grand Contin	8	9,3	9,1	9,5	8,6	8,6	8,6	9	NA	9
InterContinent	8,7	9	9	9,4	8,7	8,8	8,1	8,4	7,3	8,8
JW Marriott	8	9,3	9,1	8,5	8,8	8,7	8,4	NA	6,1	8,8
Marshal Gard	7,7	9,3	9,2	8,8	8,7	8,9	8,7	8,9	NA	8,9
Premier Palace	7,7	9	9	6,7	8,8	8,2	8,5	8,9	NA	8,4
Radisson Blu	8,3	9	8,9	9,1	8,8	8,5	8,1	9,3	NA	8,7
Sheraton	7,8	9	8,8	8,8	8,4	8,6	7,9	8,9	NA	8,6
Average	8,1	9,1	8,9	8,8	8,6	8,6	8,3	8,8	6,7	8,7

Source: booking.com

From this table we can observe that Bucharest 5* hotels are slightly above average for cleanliness and comfort but under average for breakfast and value for money. In this area only Intercontinental, for breakfast and Epoque, for VfM scored more points than the average grade of 8.7. It seems that tourists are considering 9 of 10 hotels a little bit expensive for what they offer. Epoque hotel is also considered best 5* hotel in Bucharest with an average grade of 9.3.

On the last place we have Casa Capsa Hotel with an average grade of 7.9 at 1.4 points behind the leader. In terms of reviews this difference represents a huge gap between those two hotels.

In order to see if the hotel with the smallest average grade has the highest number of reviews related to occupancy and if the average grade of hotel influence the weight of reviews with comments in total number of reviews we centralized all the necessary data in table 3.

Casa Capsa Hotel has the lowest grade from reviews – 7.9 on a scale from 1 to 10. The weight of reviews in estimated occupancy is the highest from all 10 hotels analyzed – 5.4%.

Booking.com allows its customers to write a reviews after staying in hotel. Assuming that the number of rooms contracted by booking.com to each hotels has the same share in number of available rooms and taking into account that Casa Capsa Hotel has only 30 available rooms/day we can see a connection between the average grade of a hotel and number of reviews.

Low guest satisfaction is translated into a high number of reviews confirming that peoples tend to share bad experiences more than excellent ones.

As related to weight of comments in total number of reviews we found that there is a small variance, from a minimum of 41% (Intercontinental) to a maximum of 50.7% (Hilton). People tend to comment especially when they are very pleased or unhappy about their experience.

When the experience is line with what they expected or previous experience with the hotel they tend not to post comments on their personal review.

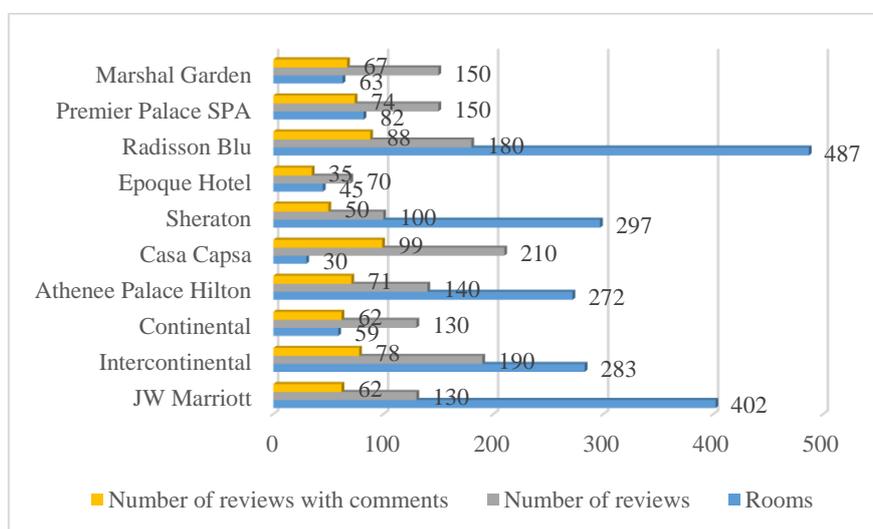


Figure 1. Number of reviews and reviews with comments related to available daily rooms

Besides sharing their staying experience at hotel by filling a short questionnaire guest can comment on positive and negative aspects. They are free to relate the aspects which like/dislike them.

By analysing words mentioned in reviews in relation with different areas of the hotel we found out that the main strengths of those 10 hotels are: location, staff, breakfast and the main weaknesses are: staff and diverse technical problems (air conditioned, room card). In table nr. 2 we have the main 3 positive and negative guests remarks for each of the hotel analysed. We mentioned also the number of times the word or area appear in guest comments.

Table 2. Top 3 positive and negative guest remarks for 5* Bucharest Hotels

Hotels	Strengths	Weaknesses
Athénée Palace Hilton	Location; Staff; Breakfast	Technical problems; Breakfast; Odd interior
Casa Capşa	Location; Architecture; Bed	Room; Staff; General maintenance
Epoque	Staff; Spa; Room	Breakfast; Spa; Balcony
Grand Continental	Location; Staff; Room	Bathroom; Staff; Breakfast
InterContinental	Location; Staff; Breakfast	Staff; Cleanliness; AC
JW Marriott Grand	Staff; Bed; Executive Lounge; Cleanliness	Staff; Location; Paid Wifi
Marshal Garden	Staff; Room; Breakfast	Breakfast; Noise; Fitness center
Premier Palace Spa	Spa; Room size; Breakfast	Staff; Location; Cleanliness; Front office
Radisson Blu	Staff; Location; Breakfast	Staff; Breakfast; Reservations
Sheraton	Staff; Location; Room	Room; Staff; Paid parking

Source: based on guest comments on booking.com

This result confirm previous studies showing that luxury clients are sensitive to topics like: location and staff followed by are topics like: breakfast, room, technical problems and general maintenance. Staff, as a subject mentioned by many guest has an ambivalent dimension being mentioned as positive and negative. It's related, most of the cases, to personal experience to one specific employee. Some of the comments, especially positive ones, mentioned the name of the employee that leaved a nice impression.

As shown by previous studies, is a direct link between ratings and occupancy and profitability. This table can help managers to improve activity in deficient areas in order to increase the average hotel rating. A higher hotel rating would result in a higher occupancy and RevPAR with direct impact on profitability.

6. Conclusions

Some of the results are in line with previous studies (Ekiz, 2012; O'Connor 2008 and 2010) showing that the main areas mentioned by clients of 5* hotels in Bucharest are similar with other luxury clients mentioned.

The results presented previous in this paper are recorded for a limited period of time. But hotel market is very dynamic in terms of guests, employees and number of new hotels or complete renovation of already opened hotels. Athenee Palace which was rebranded Hilton in 1996 had the las major upgrade in 2005. The age is seen in guest comments, in which technical problems and interiors are two main negative aspects. But, for 2018 is announced a major investment in full refurbishment and modernisation completed with a new extension of 70 rooms and one conference hall (HORECA, 2016).

In terms of limits, this paper analyse 10 of 13 5* hotels in Bucharest. It is known that 5* market has some peculiarities in terms of prices, locations, previous guest experience in traveling and related to brand, loyalty programs, customer typology. The result has are strong connected to 5* market but can't be generalised to all hotels categories in Bucharest. Being especially a business market, 5* market is different from hotels that address leisure or SPA&Wellnes for example.

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The Role of Employees in Food Safety – a Matter of Attitude, Knowledge and Behaviour. An Exploratory Study among Those who Directly Interact with Customers in Public Catering Units in Bucharest

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Abstract

Food safety has always been a crucial matter for organizations providing catering services. The present research paper aims to identify the role played by the employees in public catering companies in Bucharest in insuring food safety for customers. Besides aiming to highlight the demographic characteristics of people working in this industry, the present study is also targeted to identify employees' level of knowledge on food safety, taking into account general aspects related to personal hygiene and complying with the hygienic and sanitary rules at the workplace, as well as aspects related to employees' attitude and behaviour at the workplace regarding the safety of the food served to customers. The paper presents the results of a questionnaire based survey, highlighting the opinion of 394 employees working in public catering companies in Bucharest. The results present the profile of the employee in different types of public catering companies, indicating the influence of the level of education, experience and involvement in training programs to the positive attitude and correct behaviour in terms of respecting and complying with food safety regulations. The findings of the present study can represent the basis for future, more comprehensive research on the ways to enhance and insure food safety in public catering units.

Keywords: *Food safety, employees, public catering, hygiene, trainings*

JEL Classification: *L66, L83, L15*

1. Introduction

Public catering companies, through both their ownership and personnel have the responsibility of ensuring that the food served to customers is safe, prepared and delivered in ways not risky for customers' health. Both people working in this business sector and customers

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should be interested in this subject. Since is obvious the latter may be putting their health at risk when eating outside their home, the first should understand the importance of complying with food safety rules: as nowadays social media is gaining more and more power, should a public catering company ever be associated with any kind of food poisoning or a problem related to hygienic and sanitary issues, it will find itself involved in a public relations nightmare which probably will not come easily to an end. These being said, the paper firstly presents a brief literature review on the research regarding food safety in the food-service sector. The second part of the paper is dedicated to presenting the results of an exploratory study targeting employees in public catering companies in Bucharest.

2. Problem Statement/Literature review

Important health and hygiene concerns about the employees working in the food-service sector emerged in different studies, research and regulation initiatives. Food safety is a crucial matter, especially in this industry.

The European Union has established a “rich legislative body on food safety” (Dinu, 2018, p. 5). EU implemented general hygiene principles applicable throughout the food chain (Hertzman & Barrash, 2007; Dinu, 2018) in order to prevent food contamination and other health issues.

In spite of these regulatory efforts, there is a high number of people affected by food-borne illness. In EU, more than 23 million people fall ill from unsafe food every year (World Health Organization, n.d.). The number of the diseases that occur in restaurants is unknown, but it is clear that the food-service industry plays a vital role in the food safety practices. One important step that can be taken by restaurants’ managers to reduce the risk of food-borne illness is training employees on proper food safety practices (Neal *et al.*, 2012).

In a recent study, Clayton *et al.*, (2015) explored food workers perceptions of impediments to food safety practice. They ran in-depth interviews to examine a series of health and hygiene issues and concluded that there are some social factors that support the proper health and hygiene practice such as relationships with family and friends and relationships with co-workers and management. Moreover, Clayton *et al.*, (2015) point out that employees named staffing and work schedules, policies for resources, worker absenteeism and illness as barriers to proper food safety practice. Finally, the absence of good jobs, the long distances to work and some transportation problems appeared as relevant impediments to proper practice.

Green and Selman (2005) also used qualitative research to analyse safety practices and food workers’ views on factors that impact the safe preparation of food. They organized several focus groups with food service workers and managers in which they considered food preparation practices and factors that hindered their implementation. Examples of food preparation practices included in the discussion are related to hand washing, glove use, holding, cooling and reheating food or cross contamination prevention. The results are synthesized in Table 1 which reveals that time pressure and structural environments were identified as the two main factors that impacted food preparation practices, followed by management/co-worker emphasis on food safety and workers characteristics.

Table 1. Factors impacting food preparation practices

Factor	Hand-washing	Cross contam.	Glove use	Food doneness	Hold	Cool	Reheat
Time pressure/high volume of business/staffing	√	√	√	√	√	√	√
Structural environment, equipment, resources	√	√	√	√	√	√	√
Management/coworker emphasis	√	√	√		√	√	
Worker characteristics	√		√	√	√	√	
Negative consequences	√	√	√		√		
Education and training	√	√			√		√
Restaurant procedures	√			√	√		
Gloves and sanitizers	√	√					

Source: adapted from Green and Selman (2005), p.987

Note: A check mark is used when the factor was mentioned in discussions of that practice.

According to Green and Selman (2005), some factors have a positive impact on food preparation practices while others have a negative effect. In the first category the authors included equipment and resources (e.g., accessible sinks, good space allocation, and availability of cutting boards, gloves or soap), emphasis of managers and co-workers on food safety, age, experience, and workers preferences for clean hands, education and training and restaurant procedures that facilitates food safety. In the latter category, participants named time pressure and the improper use of some sanitary supplements.

Education is one of the primary factors that affect safe preparation of food (Cotterchio *et al.*, 1998; Green & Selman, 2005), increasing food safety knowledge (Neal *et al.*, 2012). When the food-service workers miss knowledge or training about food safety, there will be a noncompliance with the food safety guidelines (Pilling *et al.*, 2008). Clayton *et al.*, (2015) mention that lack of training may encourage insecure health and hygiene behaviours. The improper food safety training may significantly influence the risk of food-borne illness (Hertzman & Barrash, 2007).

On another hand, food safety education is not sufficient to motivate employees to employ proper food safety and hygiene procedures (Clayton *et al.*, 2015; Clayton & Griffith, 2004; Clayton *et al.*, 2002; Green and Selman, 2005). The food safety initiatives must do more than just training; these programs should deal with the factors that affect food preparation behaviours (Green & Selman, 2005). Our study aims to address this research gap in addition to examining the food service workers' general attitudes and knowledge of safe food practices.

3. Research Questions/Aims of the research

The present paper aims to identify the role of employees in public catering industry in insuring safe food products to customers in Bucharest. By conducting an exploratory study, the following objectives were targeted: a) identifying the employees' knowledge concerning products' safety, taking into consideration general aspects of personal hygiene and respecting the hygienic-sanitary rules at work; b) determining public catering employees' attitude concerning aspects related to the safety of the dishes served to customers; c) determining public catering employees' attitude concerning the need of training for insuring the safety of dishes served to customers. The methods used to attain these objectives are presented below.

4. Research Methods

The research was conducted using a questionnaire based survey. The study group has been represented by employees working in the public catering industry in Bucharest, selecting for the interview only those who directly interact with customers. The study group consisted of 394 persons, corresponding to a sampling error of $\pm 4.9\%$ as well as a probability of guaranteeing the results of 95% ($t=1.96$). The structure of the sample researched includes 57.6% males and 42.4% females, interacting with the public in restaurants offering table service (39.8%), self-service restaurants (9.9%), fast food restaurants (18.3%), bistros (9.9%), vegan restaurants (4.1%), coffee shops and tea houses (14.7%), or in other type of units (e.g. clubs, 3.3%).

The questionnaire used for the current study has been structured into several sections aimed at highlighting: socio-demographic aspects, employees' knowledge on food safety regarding general aspects of personal hygiene and respecting the hygienic-sanitary rules at the workplace, as well as employees' attitude and behaviour at the workplace related to insuring the safety of the dishes served to customers. There have been applied scaling methods such as Likert scale and semantic differentiation (1 - complete disagreement; 5 - total agreement with the respective affirmation). The interpretation of the results has been achieved according to the evaluation scheme of the absolute data (SEDA) which allows changing the initial appreciation into the "SEDA zones", important for the diagnosis process of a social system (Emilian *et al.*, 2004): considering a 5-point scale and the calculated value (weighted average) of the variable, the significance of the analysed system can be serious (for values of 1.00-3.00); normal, but with critical points (for values of 3.01-3.50); normal, with aspects needing attention (for values of 3.51-3/75); normal, good (for values 3.76-4.00); very good (for values of 4.01-5.00). The findings will be presented below.

5. Findings

First of all, the demographic profile of the respondents should be presented. Based on the results, it could be noticed that highly educated employees are significantly less in number within the fast-food restaurants as well as self-service restaurants. We noticed that waiters are considerably of 2.2 higher in proportion (45.2%) than that of the following position – of a bartender (20.3%). The third place in the hierarchy of positions is taken by the waiter help with 13.5%. Almost 12% of the occupied positions are taken by the maître d'hôtel.

People older than 35 years are rarely working as waiters, bartenders, waiter's help as compared to the total sample. Those who occupy the position of maître d'hôtel are significantly more, as compared to the general sample, being older than 35 years, with higher studies and over 6 years' experience on the same job. People occupying the positions of waiter and waiter help have less higher education.

As for distribution based on seniority on the occupied position, at the level of the entire sample we notice that approximately three out of ten respondents have less than one year experience, while five out of ten participants have an experience between one and five years.

The percentage of those having six and ten years of experience on the same job is of 14.5%, while the percentage of those having between 11 and 15 years of experience is of 5.3%. Those with less than one year of experience, aged 24 years maximum, are mainly working in the fast-food units and mostly working as a waiter help. The persons having between 1 and 5 years of experience at work are mostly working in coffee shops and tea houses as bartenders, while the proportion of those above 35 years is significantly more reduced as compared with that of the total sample. The respondents having an experience of 6 up to 10 years are generally between 25-35 years old, while those with an experience higher than 10 years are older than 35 years old.

Considering the participation in training programmes for food safety, approximately 55% of the respondents declare that they have attended such a programme, while 45% say they have never attended such an event. Those who are younger than 24, having less than one year experience are dominating, occupying mostly positions of a waiter help. The employees who have attended special professional programmes, are generally over 35 years in age, and have more than 6 years of experience at work, mostly working as maître d'hôtel.

The majority of the investigated employees are between 18 and 24 years in age (52%), followed by those between 25 and 35 years (34%) and those between 36 and 45 years (9%).

Those below 18 years old or above 45 years old represent only 2% of the total sample.

Respondents between 18 and 24 years in age have typically less than one year experience, predominantly occupy positions of waiters and are significantly more as compared to those who do not take part in food safety training programs.

As for the number of inspections regarding the hygiene and food safety in the past 12 months, one can notice that 26.7% of the respondents declare that these have been done at least once, 23.4% of respondents declare that more than two inspections have been done, and 19.3% declare that only twice such actions have been done in their work unit. One of five respondents declare that they do not know how many actions have been done in the last year, and one of ten respondents declare that in the past 12 months no such action has been done. Among those who declare that no inspection regarding the hygiene and food safety has been done in the last 12 months, those working in coffee shops and tea houses and who participated less in food safety training programs are significantly more as compared with the total sample. Employees who declare that they do not know how many actions have been done are, typically, 24 years old, occupy positions of help waiter, have less than one year of experience and have participated less in food safety training programs. Those who declare that such actions have been done twice in their work unit are rather persons older than 35 years, occupying positions of maître d'hôtel, participating more in food safety training programs.

The research took into account 28 behaviours for employees working in public catering. The results are presented in figure 1.

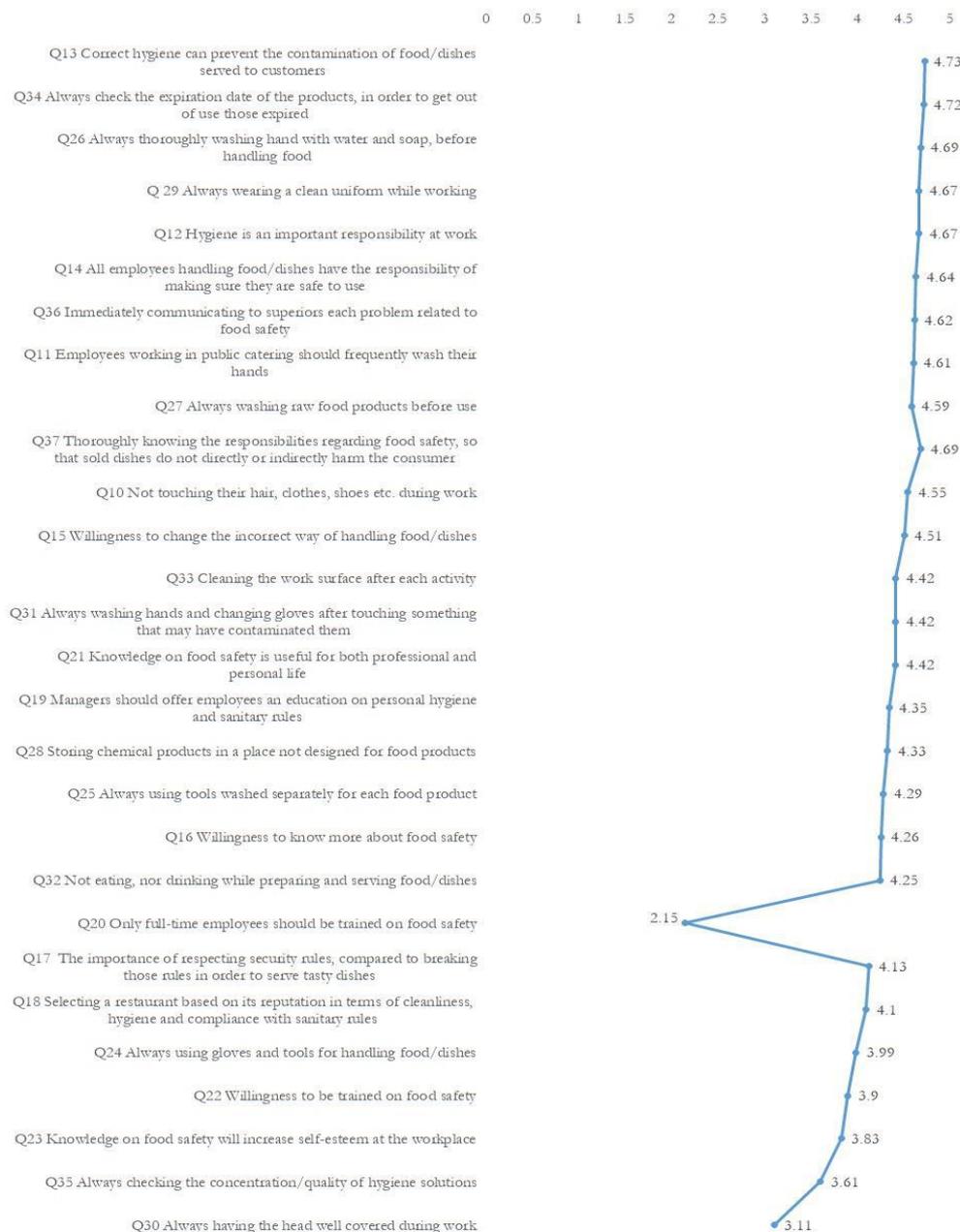


Figure 1. SEDA graphic

Source: research performed in May-July 2017; variables are shown in the decreasing order of the average

Applying the SEDA, one can notice the fact that:

- 82% of variables, according to the SEDA zones, are in a very good situation;
- 11% of variables present a good situation;
- 7% of variables present a situation that require attention.

It should be mentioned the fact that in the case of the variable registering the value of 2.15, although the average is within the limits of the critical situation, its significance is a positive one taking into account the design of the question. The managers of public catering units should pay more attention to the requirement that employees have their heads covered at work (3.11) and to make sure that they always verify the concentration and quality of substances with which they maintain the hygiene at work (3.61). Typically, when we look at the habit of having the head covered on the workplace, employees from table-service restaurants score a reduced

average (2,8) as compared with the average of those working in self-service restaurants (3,67) and fast food restaurants (3,67). This might be due to stricter rules regarding the employees' behaviour in these restaurants as compared with those in self-service and fast food restaurants.

It seems that concerning this aspect the participation in food safety programmes has no significant impact if we compare the average of the total sample with the one of the participants in such programmes: 3.11 versus 3.33, which means an improvement of 7% for participants in food safety programmes in terms of the employees having their heads covered at work.

However, if we compare the score obtained by the employees who participated in such programmes with the score obtained by those who did not participate in such trainings, one can notice a higher average for participants: 3.33 versus 2.84. The difference of 0.5 points is not to be overlooked, as it represents an improvement of 18% for those who have been trained in food safety as compared with those who did not participate in such programmes.

It is important to note that seven of ten employees use gloves or tools for handling food and are willing to be trained in food safety, being convinced that a solid knowledge concerning food safety will bring them more confidence at work (Figure 1). A heavy impact on the improvement of the above-mentioned aspects have courses regarding food safety rules in which have been enrolled the employees working in public catering units. The average of the employees who have been involved in such training programmes and are willing to participate in such courses is 14% higher as compared with the average of those who did not participate in courses concerning food safety. One can notice the stimulating effect of food safety training programmes, those who participated in them being more aware about the risks to which are exposed consumers by not observing certain basic rules. Knowledge obtained in courses brings employees more confidence at work, their average being 12% higher as compared with the average of those who did not take part in such programmes (4.02 versus 3.59). Using gloves for preparing food is 14% higher among participants as compared to those who did not take part in such food safety programmes (4.24 versus 3.70). The impact of food safety training programmes on participants is, typically, of 6%, as compared with the impact on those who did not take part in training courses. On the whole, this percentage might seem small, but on aspects which require attention (Q30 and Q35) the average is of 15%, and on those aspects in which the situation is good (Q23, Q22 and Q24) the average is 13%, which means more than double the general average in both situations.

6. Conclusions

The present paper aimed at identifying the attitude and behaviour of employees working in the public catering industry in Bucharest, related to a series of aspects concerning food safety and work procedures. The results of the research show that almost half of the persons involved in the survey have never been involved in training programmes for food safety, and those who have been are mostly employees with significant seniority on the job. This could be unfortunate, since the research also highlights the stimulating effect of food safety training programmes, as those who participated in them are more aware about the risks to which consumers are exposed by not observing certain basic rules. However, 69.4% of the respondents mentioned that they or their work unit were involved in at least one inspection regarding the hygiene and food safety in the past 12 months. The research took into account 28 food-safety related behaviours of employees working in public catering units. The results, analysed by applying the SEDA, suggest that 82% of variables are in a very good situation and do not raise concerns. However, the results suggest a series of behaviours that should be improved, such as the requirement that employees have their heads covered at work and the need to make sure that the concentration and quality of substances with which hygiene at work is maintained are always verified. The research has a series of limitations, mainly based on the fact that it only focused on the

Bucharest food-service market. However, the findings of the present study can set the basis for future more comprehensive research.

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**The 1st International Conference on Economics and Social Sciences
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General Overview of Gastronomy Tourism

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Abstract

In recent years, gastronomy tourism has increasingly been a distinctive form of travel with a significant impact on local economies, leading to important flows of tourists internationally. The international experience in the field is ample and has led to continuous concerns for shaping the model of gastronomic consumption behavior and which is a starting point in the dimensioning of tourism development policies. At the same time, gastronomy tourism is an important factor for the differentiation of the international tourist destinations that are in a continuous and strong competition, a way of asserting and increasing their competitiveness on the tourist market. In this respect, international trends research provides important information to tourism service providers increasingly concerned with the needs of tourists. Last but not least, gastronomic tourism also has a strong social impact, helping to increase the quality of community life and to affirm cultural identity and diversity as a factor of social cohesion.

Keywords: *culinary tourism, gastronomy tourism, consumer behaviour*

JEL Classification: *L81, O11, R10*

1. Introduction

Travel purposes can be different, they take into account fashion, knowledge horizons, tourist experience, the need to meet a certain necessity, and more. In many cases, tourists value what they “feel” in a tourist destination using one or more of the 5 basic senses that the human species has been endowed with. Perceptual sensors play a major psychological, psychosocial role in the appreciation of culinary preparations, just like other tourist experiences at other destinations.

Consuming food and beverages, especially when dining out in the city, is a pleasant sensory experience, whether the pleasure or “feel-good” factor as a result of eating at a particular destination is a marketing tool that does not need to be underestimated.

Some of the elements that can be analyzed through the basic senses when analyzing the offer of a tourist destination are those related to the gastronomic offer. As it is known, gastronomy

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has its origins in all great and classical civilizations. However, in the context of the Romanian hospitality industry and tourism, gastronomy is a new component.

Practice has held that the relationship between gastronomy and tourism is real. We find that the image of a tourist destination includes, alongside culture, its gastronomy; moreover, public catering services strive to provide replicable experiences and feelings that tourists should discover when traveling in one area or another, all the more so from one country to another.

As a result, a growing number of tourist destinations are frequented by tourists due to the particular gastronomy they offer. These destinations are known as holiday destinations dedicated to culinary products and wine. More and more gastronomy is an important part of holiday experience, its role is one of the cultural tourism sphere, gastronomy being able to shape a new form of tourism (World Tourism Organization, 2017).

2. Gastronomy Tourism – a Comprehensive Approach

The increasing volume of travel and, on this basis, registering changes in the tourism consumption behavior generate permanent efforts of the providers to diversify the tourist supply to meet the ever-increasing needs and focusing more on novelties and on acquiring unique and attractive travel experiences where learning and knowledge have a central place. In these conditions, gastronomy is more and more manifested as holiday motivation, knowledge of local cuisine, traditions and lifestyle specific to the population of the tourist destinations visited, leading to the formation of new tourist flows.

A notable definition was developed by Hall and Sharples in 2003, according to which Food Tourism encompasses a trip focused of experiencing local cuisine, in a gastronomic region; the main objectives of such trips include entertainment, with visits to food producers, food festivals and fairs, events, markets of farmers, tastings and any tourism activity related to food (World Tourism Organization, 2012).

The *World Food Travel Association* (WFTA) defines Food Tourism as the one that looks for near and far experiences related to enjoying food and drink and “food travelers” as those people that have been part of a food and beverage experience, not as a part of eating out, in a period covering the last 12 months. The experience can relate to visiting a cooking school, taking part in a food tour, grocery shopping in a gourmet shop. As part of the experience, as food travelers are considered also explorers, other activities can be taken into consideration, such as visits to F&B factories, tastings of different kinds, tours at bakeries, gelato stores, etc. According to the Food Travel Monitor (2016), 93% of travelers can be considered “food travelers”.

By 2012, the WFTA has used “culinary tourism” which afterwards dropped as a result of a research among English speakers, which revealed that the term “culinary” although more technical is perceived as “elitist”.

Often, Food Tourism is appreciated to be of greater importance in rural areas as an important factor for rural diversification, by engaging the efforts of numerous regional development agencies (Hall, 2006). Currently, Food Tourism has an important role in travel motivation and tends to turn into a mass phenomenon (Laing *et al.*, 2016).

In some countries, such as France, Italy, Food Tourism is indeed the main motivation to travel (Stanley and Stanley, 2014). Additionally, there are other recognized tourist destinations with renowned international gastronomy value: Spain, Greece, Belgium, Portugal, USA, Brazil, Peru, Mexico, New Zealand, South Africa, Japan, China etc. For example, Mediterranean cuisine in Spain, Greece, Italy and Morocco was included o UNESCO’s list of Intangible Cultural Heritage of Humanity in November, 2010 (World Tourism Organization, 2012).

Regarding the impact of Food Tourism on the local economy, WFTA estimates that visitors spend about 25% of the travel budget on food and beverages. The figure can reach up to 35% in more expensive destinations and up to 15% in more affordable destinations. According to

the WFTA, Food Tourism's benefits include a rise in the number of arrivals, in sales, an increased media coverage, new competitive advantages or USP, a rise in the awareness and pride levels of the local communities (World Food Travel, 2018).

Taking into account the economic role that Food Tourism holds, it can be said that it constitutes a chance to relaunch some of the emerging areas (Yeoman and Meethan, 2015). At the same time, Food Tourism can be a sustainability element with a major economic, social and environmental impact (Hall, 2016). More and more, the importance at the social level is growing (Hall *et al.*, 2004).

Recently, UNWTO (World Tourism Organization, 2017) has conducted a research among its members to clarify a number of issues related to issues such as promotion, strategies, ways of measuring the tourism experience, types of impact that gastronomy holds within the community, alongside the perceived opinion on gastronomy tourism (the term food tourism being replaced by gastronomy tourism). In the period of June-September 2016, a number of 29 countries were pooled, obtaining 77 responses: 67.5% of them were from Europe, 22% from the Americas, 7.8% from Asia and the Pacific and 2.6% from Africa. The target group was made up of governmental departments (41.5%) and not-for-profit organizations (28.5%); as well as educational institutions (15.5%) and private sector businesses (14.5%).

Respondents appreciated the importance of gastronomy in tourism development with an average of 8.19, where 10 was "strongly agree". According to the study, 70% of the respondents have considered the market segment of gastronomy tourists, a very low percentage consider that there is not enough promotion done in this domain. Therefore, 65.5% think that gastronomy tourism, although promoted, the level is not sufficient. The respondents have also identified the main reasons for a low level of promotion of gastronomy tourism: a limited budget, insufficient travel motivation, gastronomy is not a distinct product, but is part of cultural tourism. Also, none of the respondents considered that gastronomy tourists had a negative impact or experience. Other research findings refer to strategy, actions, promotion and impact on local communities as well as a series of clarifications on tourism demand (World Tourism Organization, 2017).

Therefore, it can be said that Food Tourism favors sustainable economic growth, social inclusion, employment and poverty reduction, the promotion of cultural values, diversity and heritage.

Given the importance of Food Tourism in the international tourism market, there is a need to step up the concerns of tourism service providers to meet demand. In this context, an important role can be played by the gastronomic circuits that can be stated as elements of the competitiveness of tourist destinations in the conditions of increasing competition.

3. International Gastronomy Trends

Many websites presented at the end of 2017 or beginning of 2018 the trends in gastronomy for this year. We have dedicated websites like GoodFood, Eatthis, FineDiningLover, Food producer (Unilever), general magazines like Forbes or Fortune and even a global financial services firm (JP Morgan Chase and Co). This diversity shows the importance of food and gastronomy this days. It's a shift from 10 to 20 years ago when gastronomy was addressing a niche of customers. Nowadays it seems that more and more people are interested in what are they eating in restaurants or buying from (super)markets.

Table 1. Top gastronomy trends worldwide

Author or magazine	Trends
Forbes	Mindfulness ¹ , Tactile, Farming, NeuroNutrition and BioHacking, Technofoodology, Advertising, Security, Politics And Food, Future Supermarkets;
Eatthis	Plant products, Flowers, Mushrooms, Middle Eastern Foods, Shell-less Tacos, Airy Snacks, Filipino Cuisine, Root to stem recipes, Superfood Powders, Transparency, Sugar Alternatives, Traditional Bread, Cannabis Snacks, Sparkling Waters;
BBC Goodfood	Gut-friendly food, Booze-free beverages, Hawaiian Food, Timut pepper, Specialised tea, Hyper-loacal Food, Heme ² , Plant-based protein, Everyday food tech, South American cuisine, Foreign farming in Britain, The fourth meal, Nootropics ³ , Craft butter;
JP Morgan Chase and Co	Plant-based protein, Farm-to-table menus, Gut-healthy food, Arctic cuisine, Communal table dining, Cowboy cooking, Comfort food;
Unilever	Poke bowls, Hybrid food (fusion), Plant-based dinning, Fermented food, Coloured edibles & Floral flavours;
Travel Market Report	Plant-based food, Filipino food, Avocado dishes, Flavor injectors, One-item restaurants, Liquored desserts, The next ramen ⁴ ;
Fortune	Tea flavors and mocktails, plant-based proteins, new cultural dishes, Hyper-local and low-waste;
FineDinningLovers	Savoury deserts, Arepa ⁵ , Flour power, Modern Indian, Food waste, Taste Transparency, Food as Medicine, Sugar Alternatives, Equality, Deep Fried, Mushrooms, The Noma influence;
Dicover Global	Root to leaf, Rise of local, All day Breakfast, Korean Cuisine, Hybrid food, Plant-based dinning, The sober scene, Striking Colours;
INews	Japanese izakaya style dining, Reducing food waste, Less sugar, Simple & short menus, Less protein and more farm-to-table, Homemade kombucha ⁶ , Rise of vegan food, Informal setting, seaweed, fish, Portuguese and new Mexican Cuisine, Pasta comeback, Turning away from chains, More Latin American Cuisine, Food and Fashion Collaboration, Discreet dinning;

Source: Travel Market, 2017

These magazines presented gastronomy trends for 2018 based on discussions with chefs, restaurant managers and specialized bloggers. To summerize the trends presented above we have some common elements:

- Food waste – presented by using all the elements of a plant or some unusualt cuts from animals, short menus;
- Plant products – a shift from animal products. We will see a rise in consumption of mushrooms, flowers, super food powders or vegetables, vegan food, tea, bread;
- Mindfulness – seen as the quality or state of being conscious or aware and manifested in care for what we are eating, traceability, transparency, food as medicine, less proteins, less sugar, reduce in alcohol consumption;
- Farm-to-table – a direct connection with farmer or even restaurants with an integrated farm in order to use fresh seasonal ingredients giving a new sense to local food;
- New cuisines – Korean, Filipino, Latin American, Portuguese;
- Millennials restaurants – short menus, communal eating, informal setting, cultural dishes, comfort food.

4. UNWTO Activities for Gastronomy tourism

The Gastronomy Network is a forum in which different stakeholders, such as experts, destination management organizations, researchers, both from the private and public sector collaborate in order to promote and design the future of gastronomic tourism, as well as a platform ideal for public-private collaboration. The key objectives of the Network and the subsequent organized activities are the following: to integrate gastronomy as a key resource for the development of sustainable tourism, giving it greater visibility, to serve as a platform for private, public and academic institutions to interact, share and access information of interest, where they find a suitable place to create, disseminate and implement innovative concepts and, last but not least, to create a legitimate framework for transparent public-private cooperation.

Examples of undertaken activities can be found in the 2016/2017 Action Plan. Those take the form of official meetings, conferences, surveys, reports and debates. With a view to strengthen collaboration between UNWTO and other representative organizations in the field of gastronomy and to generate opportunities to create networks among the members of the UNWTO, the third meeting of the Gastronomy Network was organized, in the framework of the UNWTO World Conference on Oenological Tourism, held in Georgia in 2016.

Other activities included the preparation and launching of the second survey on gastronomic tourism among the UNWTO Members, with the objective of gathering information on the development of gastronomic tourism in destinations and provide a valuable opportunity to exchange knowledge.

A report followed, i.e. the second edition of the Global Report on Gastronomy Tourism, which addressed recent trends of gastronomic tourism, with expert analysis and case studies from which good practices may be derived.

5. The UNWTO World Forum on Gastronomy Tourism

In 2015, the World Tourism Organization (UNWTO) and the Basque Culinary Centre (BCC) started a new initiative and organized the first UNWTO World Forum on Food Tourism in San Sebastian, Spain. The action continued in 2016 and 2017 with the 2nd and 3rd UNWTO World Forum on Gastronomy Tourism in Lima, Peru and San Sebastian, Spain. The intention was to attract international experts in gastronomy and tourism and create a platform to enable participants exchange ideas, enhance understanding of gastronomy tourism and discuss management tools for this thriving segment (World Tourism Organization, n.d./a).

Gastronomy is seen as „the essence of culture and a major element of intangible heritage” (World Tourism Organization, n.d./b) and a growing driver of tourists flows. The tourism destinations can benefit from gastronomy tourism in terms of branding and marketing, sustainable use of local resources, and offering an authentic experience. Overall, the forums represent a medium for spreading ideas on current research, latest trends, case studies, successful models and best practices in gastronomy tourism (World Tourism Organization, n.d./b).

The first UNWTO forum concluded that food tourism should be sustainable, incorporating the three pillars defined by UNWTO: environmental, sociocultural and economic. That is, reducing the emissions, authenticity of a tourism destination, and equitable distribution (World Tourism Organization, 2015). Food tourism is beneficial to the economy based on the fact that it may create new jobs, contribute to the development of local economies and reduce seasonality.

In 2015, the experts also recommended that food should be included in a total tourism experience along with other elements such as landscape, culture or history (World Tourism Organization, 2015).

In 2016, UNWTO switched from food tourism term to gastronomy tourism for the second forum. This event has a number of important conclusions among which one can find the following (World Tourism Organization, 2016): raw materials, the extended value chain and the traditional cuisine are strategic elements of culinary tourism; cultural diversity and biodiversity can be used to attract tourists; culinary tourism should be based on responsibility, solidarity, and sustainability. Gastronomy tourism should rely more on research, a multidisciplinary training approach, networking, leadership, creativity, innovation, teamwork and a clearly defined strategy.

Given the fact that UN named 2017 as the International Year of Sustainable Tourism for Development, the third UNWTO forum revolved around the importance of sustainability and its improved structure with five pillars. Sustainability should be an objective throughout the entire gastronomy tourism value chain (World Tourism Organization, 2017).

The 2018 edition, the 4th UNWTO World Forum on Gastronomy Tourism, is going to take place in Bangkok, organized by the Government of Thailand and the World Tourism Organization, in collaboration with the Basque Culinary Center (World Tourism Organization, n.d./c). The focus of the fourth edition will be on technology as a driver of sustainable growth of tourism.

6. Recommendations for Increasing Competitiveness

In the conditions of increased competition in the field of food services, service providers are constantly looking for market-based solutions, the success of which is the strategic approach to their work. According to a study conducted by Deloitte (2018 travel and hospitality industry outlook), the factors of competitiveness and the strategic challenges for the food sector in 2018 are: – differentiated customer experience, – motivation of employees, – reduced home deliveries, – strategic efforts of traditional restaurants, – operational excellence. The study states that competition is increasingly affecting food, generating more and more innovative concerns in terms of menu, technology, supply chain, especially in small restaurants. Thus, emphasis is put on creating differentiated customer experience and staff motivation, bearing in mind that recent research has revealed that employee hospitality ranks first among the criteria of positive restaurant appreciation. At the same time, a number of damage to home delivery systems is brought to traditional restaurants, from falling receipts to losing direct customer contact. Last but not least, improving inventory management through better technological equipment adds to other efforts to increase the competitiveness of the restaurants sector.

5. Conclusions

As shown in the article, the link between gastronomy and tourism is very strong, proving its affirmation as a distinct travel motivation with well-defined (distinct) characteristics. Culinary tourism was first defined in 2003, since then, it has registered new conceptual approaches, so we now the term gastronomy tourism is mostly encountered. It tends to have a growing weight in holiday destinations, turning into mass tourism.

At international level, in 2015 the first World Gastronomy Tourism Forum was held, followed later in 2016 and 2017, events that brought together specialists for a series of debates to clarify and find the best management tools.

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**The Influence of Consumer Attitude – A Factor in Sustainable
Marketing in Private Education Organizations**

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Abstract

The paper tries to offer insight regarding consumer attitude, its influence on consumer behaviour and the way in which organizations can take this into account when designing and creating marketing policies and strategies that can fall into what is regarded as sustainable marketing. The article begins with an analysis of the concepts of attitude within the realm of consumer behaviour and draws upon work from previous authors and specialists in the field of marketing and consumer behaviour in order to highlight the important position that they have within marketing, and specifically sustainable marketing. The paper also presents a series of results that were found with the help of a quantitative research that studied the attitudes that consumers have toward private education services. With this information and having taken into account trends that private education organizations encounter, the paper seeks to offer a starting point for marketers that seek to adhere to a sustainable marketing viewpoint can use in their activities. The key findings of this research offer starting points for developing sustainable marketing strategies that can help organisations in a field such as private education, but also other fields. It can be stated that sustainable marketing can represent a solution for private education organisations to use in an ever-evolving market.

Keywords: *Consumer attitude, consumer behaviour, sustainable marketing, marketing strategies*

1. Introduction

In today's rapidly changing and highly competitive economic environment, marketers need to adapt their practices so that they move closer to sustainable marketing practices in order to answer a multitude of factors. Whether it's societal marketing, a more consumer-oriented approach to marketing, customer-value marketing, innovative marketing or sense of mission marketing, marketers must diversify their approach and the instruments that they use in order to keep up with evolving trends.

This paper tries to provide context and insight to the use of sustainable marketing in the field of private education by studying the influence that consumer attitude has on consumer behaviour. By studying attitude, marketers can gain access to information that is very close to the consumer's "black box", and can use this in shaping their marketing endeavours to take the path of sustainability.

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2. Problem Statement

The study of consumer behaviour and its elements can be considered a first step when trying to understand consumers and creating marketing strategies that are consumer-oriented.

Consumer behaviour is a concept that emerged during the 40s coming through from former psychologists and sociologists, motivated by the shifting in focus from sales toward the concept of marketing, becoming a field that is currently intensely studied, as a result of the competitiveness within the market (Kardes, Cronley & Cline, 2008). Consumer behaviour, concept that is described as being multidimensional, is the result of a system of dynamic relations between perception, information, attitude, motivation and effective behaviour (Cătoiu & Teodorescu, 2004). It is revealed thus that attitude is a key part in consumer behaviour and that it has influence on the outcome of the whole process and that in order for the marketer to create a more consumer-oriented perspective and make use of sustainable marketing, one must first understand consumer behaviour. Although a concept initially defined through a psycho-sociological approach as being a mental or neural state of promptitude, organized through experience and exerting a dynamic influence on an individual's response regarding all objects and situations in regards to said individual (Allport, 1935), attitude has been brought into consumer behaviour and marketing and is viewed by most specialist as an integral part.

Hawkins (2001) states that attitude is placed among the internal psychological factors that have an influence on consumer behavior. Solomon (2012) proposes a classification of the functions that attitude has: utilitarian function, value expressing function, ego defensive function and knowledge function. Attitudes that form as a response to using a certain product, in a response similar to a reward/punishment system can be classified as having an utilitarian function. The value expressing function refers to the way in which consumers perceive themselves and need to express themselves. The ego defensive function has to do with the defensive attitude against external or internal factors. Lastly, the knowledge function of attitude is revealed when the consumer needs structure and order. Hawkins and Mothersbaugh (2010) propose three components of attitude: the cognitive component, the affective component and the behavioral component. The same authors state that the cognitive component deals with the product's attributes or the product as a whole, the affective component is linked with the feelings and emotions towards the product's attributes and the behavioral component deals with behavioral intentions in relation to the attributes or the product.

Sustainable marketing, although meeting an initial opposition from many companies, is now rapidly gaining traction within the market. A company that strives toward sustainable marketing must support the best long-run performance of the marketing system. This system must be guided by five marketing principles: consumer-oriented marketing, customer-value marketing, innovative marketing, sense-of-mission marketing and societal marketing (Kotler, 2014).

To know the exact market that needs to be addressed, its characteristics and needs for adequate strategic planning, an educational institution may use quantitative or qualitative marketing research (Dumitru, 2013).

In order to determine sustainable consumption, sustainable marketing plays a key role, which gives consumers the knowledge, motivation and resources to use the product in a sustainable manner (Martin and Schouten, 2012). Thus, a relation can be observed between sustainable marketing and consumer behaviour.

3. Research Questions/Aims of the research

The research that was used for this paper was created in order to explore the attitudes that consumers have toward private education services.

For the purpose of this paper, the insights gained through this research can be used as a starting point in developing sustainable marketing strategies. Starting from the assumption based on information offered by specialists within the field of consumer behaviour and marketing – that attitude is a synergetic part of consumer behaviour (Teodorescu, 2003), but also from the fact that consumer behaviour and its study can be used as resource for consumer-oriented marketing, and thus sustainable marketing – the research offers information on attitude that can be used as building blocks for sustainable marketing strategies.

The research aims to identify consumer attitudes and the way they can influence consumer behaviour. Once identified, this information can be used by marketers in order to gain a consumer-oriented approach to marketing, determine sustainable consumption, determine the points in which value can be added in order to satisfy the consumer.

4. Research Methods

The research method that was selected was a qualitative method, specifically a series of 32 in-depth interviews in order to investigate consumer attitudes toward private education services.

The respondents were selected based on a selection questionnaire and both male and female respondents comprised the group. The in-depth interviews took place according to an interview guide that was created with the purpose of structuring the interviews and conduct a discussion in a structured manner that gains information in a friendlier manner. Each interview lasted between 80 to 100 minutes (an hour and 40 minutes). The respondent was asked open-ended questions that encouraged discussion between respondent and surveyor but the interview also contained projective techniques such as “the friendly Martian” test, image association and collage building and word association. Lastly, the qualitative research took place during November 2017 through January 2018 in Bucharest.

5. Findings

Although the qualitative research investigated consumer attitudes towards private education services, inadvertently, the research also revealed information about other factors belonging to consumer behaviour.

From a more general perspective, respondents' attitude toward these services ranged from positive to very positive.

The in-depth interviews revealed that elements such as price, personnel, the amount of information that potential consumers have about the organisation, and facilities influence consumer attitude, which in turn influence consumer behaviour. Another key-factor that was identified by the research for potentially influencing attitude was the additional services that can benefit customers.

Even though the research uncovered what can be called typical factors that consumers take into account when assessing if a service or a product is “good or bad”, factors such as personnel, location, and the quality of the materials used in providing the service, when it came to determining attitude the consumers had what can be characterized as a split, apparently dichotomic response. On one hand, respondents had positive attitudes toward private education services but also manifested awareness of the fact that other people within society may have negative attitudes not only toward the services but also toward the consumers (“I think that private education services are superior to the ones provided by the state, but I can see why others would view them as elitist”).

The research revealed that consumers value the personnel that participate in offering these services, and the connection between the organisation and its customers, through the personnel or through other channels.

6. Conclusions

Upon assessing the findings of the qualitative research, a number of conclusions can be drawn.

Starting with an approach that deals with the dynamic between attitude and consumer behaviour, it is clear that factors such as price, materials, personnel, and location are regarded by consumers as being important, their influence on consumer attitude being apparent. The inquired consumers have a positive attitude toward the services and this in turn plays a part in the synergetic system that is consumer behaviour.

Moving on to the context of sustainable marketing, we can see clear points where its principles can be applied in order to address the elements that influence attitude and consumer behaviour. To expand on this, this paper proposes a list of possible suggestions:

- The attitude that consumers have regarding price can provide insight for a sustainable strategy that is oriented toward value-customer marketing;
- In a field such as private education, societal marketing can not only improve the organisation's visibility and overall image, but it can also improve its communication with the exterior – communication being one of factors that influence consumer's attitude and consumer behaviour;
- Ultimately, when it comes to a field that has a high level of involvement from the consumer, organisations must build relations that are durable and with a high level of trust, so in order to do so, responding to information regarding consumer attitude would be a beneficial first step in marketing planning.

As a bottom line, organisations, be it in within the field of private education or any other field, can shift to sustainable marketing by researching and using factors that are specific to the consumer. Even researching variables such as attitude can be a first step into a sustainable direction, specifically consumer-oriented marketing, placing a deeper value on the consumer and offering better services and goods.

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**The Impact of an Improved Smartphone App's User Experience
on the Mobile Customer Journey on the Romanian Market**

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Abstract

Companies are challenged to deliver authentic experiences which connect to customers in real time, to be proactive toward the rising expectations of customers exposed to more diverse content and who are spending more time on their mobile devices allowing all times access to companies trying to integrating communications and interactive experiences across all channels. As customers' behaviour is decisively affected by the mobile accessibility, companies are using mobile to drive customers' retention and engagement, managing customers' journeys, including in-app journeys allowing an easier move through app experience, customizing the sent messages, such as the website of the Mobile World Congress 2018 inviting to download the Sustainable Development Goals in Action app. Our research objective focuses on providing insights on how individuals perceive their mobile customer experience journey along with the dependency of apps in everyday life of Smartphone Users, considering companies' focusing on serving customers needs in micro-moments by adequately using the IDEA cycle, and adequately using the mobile messaging tactics such as app inbox messages, in-app messages and push notifications to fulfill customer expectations in these micro-moments. The intended contribution of our research to demonstrate how effective is the mobile customer journey impacted by an improved smartphone app's user experience, taking into account that apps are the most effective way to reach mobile customers, and the most important benefit for investing in mobile customer experience is customer retention, which was considered by us as the central metric for determining mobile app success, a success which confirms the connection between improving app's user experience and making a business impact. Our study also seeks to demonstrate how strong the evidence is in what concerns the link between those who tend to disengage with an app over time and the app functionality, user experience (UX) and user interface (UI).

Keywords: *customer experience, mobile phones, customer journey, in-app journey, mobile app's user experience*

JEL Classification: *L81; L86; M31; M37; O33*

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1. Introduction

Harvard Business Review has drawn the attention to the significant influence of mobile – as Caine (2017) demonstrated. As recently revealed by GfK (2017), smartphone sales in Central & Eastern Europe totaling 25.2 million units in 4Q17, a rise of seven percent year-on-year.

There is a mobile dependence, and brands can take advantage so as to deliver unique and engaging mobile experiences to customers, as Price (2017) demonstrated. There are many ways customers (after downloading an app) can be reached with mobile (mobile messaging channels: email, in-app messaging, news feeds, push notifications etc. (McDowell, 2017) The prevalent mobile marketing technology already has a rising impact, mobile marketers focusing accordingly. (Kyurkchiev, 2017) Retailers are starting to better understand the importance of focusing on the mobile customer experiences. (Olenski, S. (2017) As revealed by the 2017 IBM Customer Experience Index (CEI) Study, despite the fact that mobile is the device of choice for many consumers, the mobile experience (a significant area of the omni-channel shopping experience) provided by the retail and consumer products brands is poor or none at all for 38% of these brands, while from the view point of customers' possibility of accessing and managing their account details through a mobile app study findings also revealed a very low percentage (31%).

As recently (2018) Dogtiev demonstrated, one of the biggest industries in today's world is the mobile app ecosystem, which will turn 10 on the summer of 2018, the app store being the major distribution channel for mobile apps (key app statistics being relevant). Amazon created the world's most advanced shopping technology, ensuring customers with Just Walk Out Shopping experience, customers only using the Amazon Go app. (Weise, 2018)

We determined that a research needs to take place considering the research already existent, the needed research, and how this needed research can be readily undertaken. Our objectives of the work focused on: conducting a scientific literature review in the field of the researched topic; on providing insights on how individuals perceive their mobile customer experience journey along with the dependency of apps in everyday life of smartphone users, considering companies' focusing on serving customers needs in micro-moments by adequately using the IDEA cycle, and adequately using the mobile messaging tactics.

2. Problem Statement

An experience, as Pine II and Gilmore (1998) demonstrated, is a real offering, one way to think about it being across the customer (active or passive) participation and the connection (or environmental relationship) which unites the customer with the event or performance, having to meet a customer need, to work and to be deliverable, its effectivity and memorability depending on the engaged senses. Customer experience (as a customer's internal and subjective response to any direct or indirect contact with a company), as Meyer and Schwager (2007) showed, encompasses every aspect of a company's offering, customer satisfaction (which must be deconstructed into its component experiences in order to be understood) occurring after closing the gap between customer expectations (influenced by his previous experiences) and his subsequent experiences. They underlined the difference between customer relationship management (CRM, which captures what a company knows about a particular customer) and customer experience management (CEM, which captures the immediate response of the customer to its encounters with a company), pledging for persistent, periodic, and pulsed customer experience (CX). As Purcarea (2011) demonstrated, companies need CX mapping tools to generate actionable experience insights from their customers, being proactive and reducing the gap between employee perception and customer reality by touch mapping. CEM also presupposes, as recently Hunsaker (2017) demonstrated, to solve CX silos: organizational

silos, channel silos (the experience differing by platform or source), system silos, data silos, process silos, vision silos, assumption silos, goal silos, metrics silos, and handoff silos.

A study presented in HBR (2013), conducted by InsightsNow for AOL and BBDO, underlined the seven primary motivations for using smartphones. And as Gupta (2013) demonstrated, the domination of the applications (apps) began as the most effective way to reach mobile consumers, apps being also more cost-efficient compared to many traditional advertising campaigns.

Forrester Researchers documented that customers rule and companies must act accordingly by delivering mobile engagement. (Schadler *et al.*, 2014) Bernoff (2014) pointed to the fact that mobile success is seen as a matter of capturing the shrinking mobile moments (when a customer pulls out a mobile device to get immediately and in context what he wants). Forrester's well-recognized mobile expert Ask (2014) approached these getting shorter moments as "micro moments" representing the next frontier for mobile (as a quick-reaction subset of mobile moments revealing a mobile mind shift), moments created by triggers delivered by companies to mobile phones (initially, and then extended to other wearable devices). Google considers (being recognized by Oracle, for instance) that they introduced the concept of micro-moments in 2015, this way putting a name to a trending behavior (expecting an immediate answer in the wanted moments to know, go, do, and buy) that was becoming pervasive thanks to mobile, as Gevelber (2017) demonstrated. It also explains how important this centrality of micro-moments is for both today's empowered consumers ("well-advised", "right here", "right now") and marketers (adapting accordingly). As Marketo (2015) highlighted, mobile marketing offers the ability to communicate and listen to consumers via a mobile device in a variety of ways, mobile interaction being an integral part of the customer journey, and a vital part of the mobile marketing being to evaluate how can be used an app to support a business. And as Alluf (2016) showed, if app's development team will manage the core functionality, marketing and product teams will deliver CX end-users expect to see in that app by having independence and flexibility as on other channels. A 2015 HBR Analytic Services Report, in association with Marketo, revealed the link between customer buying journeys, micro-moments, smartphone users (who look up information while being in the middle of another task), and CX. While as demonstrated by Olenski (2017), to remain competitive in this mobile-first world, CMOs at both B2C and B2B companies need to embrace mobile marketing strategies, an effective and personal way for companies to engage with their customers being the mobile marketing. Findings from a Constellation Research report revealed aspects such as: smartphones are devices people can't live without; to succeed in the digital era CMOs need to consider the emotional attachment users have to their mobile devices, and to empower the customer by orchestrating CX.

As argued by Forrester's representatives, (Sherbo, 2016) today's mobile customers (who can be reached and engaged in mobile moments at every stage of the customer life cycle) expect to get what they want when they want it, the solution for marketers being to map the mobile moments to campaigns for company's brand and to ensure continuous mobile conversations with them, approaching these mobile pathways with internal communication and consistency, and implementing a marketing platform which allows approaching the best mobile moments opportunities (by adequately using the IDEA cycle – identify, design, engineer, and analyze campaigns – and concentrating on context that makes it easy for a customer to react in an instant) to transform the commerce and service experiences. Forrester's recommendation for marketers to winning the mobile customer shift is to start with a strategy including three steps, the second step also involving to managing in-app journeys within overall customer journeys. (Wise, 2016)

With regard to the above mentioned management of in-app journeys, it is useful to come back to Marketo's approach based on a chart which illustrates the complexity of the customer journey including In-app messaging, chart reflecting the need of managing all the different

touch points – over time and across channels – orchestrated (with the help of marketing automation platforms) so as to drive maximum results and build enduring relationships. (Stocker, 2014)

As Todd (2015) demonstrated, the best way for marketers to start bridging the gap between the app's user expectations and the reality of their brand experiences is to have a holistic view of the app's users, and this can be provided with the help of predictive app marketing (which identifies and facilitates engagement opportunities) as a customer-centric approach to app marketing. Forrester's representatives explained that they built three models which demonstrate how CX improvements drive growth by increasing customer loyalty, because many CX pros find it hard to show the connection between improving CX and making a business impact. (Schmidt-Subramanian *et al.*, 2017) According to Hinshaw (2015), mobile is the Internet and CX is mobile (mobile being the best CX delivery platform also for companies), the mobile channel driving increasingly the Omni-channel experiences over other channels, mobile being the primary channel to design for improving digital CX. Companies' concern for a more convenient and seamless experience for customers across all mobile devices is evident. (Bauer, 2017) A competitive benchmarking study conducted in 2017 by UserTesting revealed that consumers' expectations for mobile experiences are rising sharply. (Moebius, 2017)

The website of the Mobile World Congress 2018 (MWC 2018, 26.02-01.03) delivers very significant experiences for the visitors (app's users), including the invitation to download the SDGs in Action app (the mobile industry being committed to achieving the in September 2015 launched UN Sustainable Development Goals – SDGs). Forrester Research new report on mobile and new technology priorities for marketers underlined the B2C marketers need of prioritizing mobile in 2018 (and beyond), and as Husson (2018) highlighted, this new report show that marketers should use mobile to transform their overall CX by thinking of smartphones as the brain powering and automating the mobile moments with scale and speed so as to improve the customer journey, mobile being the primary interface for brands to connect with consumers, and smartphones will become the intimate identity layer connecting customer to the world around him (going beyond the current status of user control interface).

From the point of view of Negricea and Purcarea (2014), we are in the era of the Chief Executive Customer, the mobile screen targeting to be the primary screen. According to the GPeC (the most important E-Commerce event and the largest community of online stores in Romania) and iSense Solutions study mobile phones generate 70% of e-shops' traffic. (Popescu, 2018) This study also revealed, among other aspects, that the mobile app conversion rate exceeded desktop website conversion rate. As GPeC Team (2018) demonstrated, the percentage of sales on mobile devices is close to 50%. A more recent Ipsos Study (conducted in January 2018) for Huawei – having as purpose to analyze the behavior of smartphone users over 24 hours – revealed that in Romania the smartphone is used before the bedtime to read emails, to check social media accounts, and incoming messages (79% of respondents), and when the user wakes up (64%), users taking their phones with them every time they leave the house (95%), and they go back home if they forget their phone (50%), even if this makes them late for work. On the other hand: as shown by Euromonitor in August 2017, it is expected that by 2020 all Romanians will be smartphone owners; in a top 50 countries in terms of smartphone users (defined as anyone using a smartphone at least once a month) in 2017, conducted by Newzoo, *Romania ranks 37th* (population: 19,238,000; smartphone penetration: 56.0%; smartphone users: 10,772,000); a special report 2014 entitled “Children's use of mobile phones” published in 2015 by the GSMA and the Mobile Society Research Institute within NTT DOCOMO, Inc. Japan, revealed the downloads and use of mobile apps was significant in Romania – 74.4%; a study published in 2015 by EY Romania, entitled “Mobile devices usage in Romania”, revealed that 87% of respondents said they had a smartphone (while 28% said

they still have a non-smartphone), those who used the most applications were 35-45 years old, followed by those aged 25-35 and those aged 45-55 years.

We find out that the scientific literature in the field of the topic researched is quite limited, despite the fact that there are prestigious Universities which are already involved in CX certificate programs (which are training new Chief Customer Experience Officers-CCXOs), as shown by a Forbes contributor, who is also an advisory board member for the Customer Experience Certificate Program at Rutgers University. (Kruman, 2017) We also identified a research gap in what concerns the relation between the brand promise (made by app’s developer and marketer) and the app’s assessment made by the user (within the context of considering user retention as the central metric for determining mobile app success; retention being defined by us as the percentage of app’s users who return to this app within six weeks of their first session).

Our paper brings value added which allows starting bridging this gap, by suggesting a proactive attitude concerning: the delivery of real value to the app’s user by using customized content and tailored insights; the app’s user high engagement (defined as an app’s user having 2+ sessions per week), the seamless app’s onboarding experience (inviting to explore) etc.; the adequate use of indicators of churn (seeing the churn as a lack of harmony between the marketing objectives and sales objectives; churn being defined by us as no in-app activity in two weeks – consecutive days, while abandonment being defined as the percentage of app’s users who abandon this app after one session).

3. Research Questions/Aims of the research

The aim of this research is to provide insights on how individuals perceive their mobile customer experience journey along with the dependency of apps in everyday life of Smartphone Users, attributes preferences that influence their most common activities on smartphone, and disengaging reasons that may occur over time, finding out how strong is the evidence of the link between those who tend to disengage with an app over time and the app functionality, user experience (UX) and user interface (UI).

We tried to better understand and anticipate: the context that makes it easy for an app’s user to react in an instant; the app’s user’s desire for convenience and immediacy, instant gratification (to get what they want immediately); how accelerated is the marketers’ evolution on promoting engagement and retention by focusing on in-app; to stimulate a better connection to the brand, establishing trust between the app and user, creating affinity for the app and maximize loyalty; how to turn the new app user into a valuable customer, integrating the app into the company’s overall marketing channels, ensuring an Omni-channel Experience.

4. Research Methods

This research has been done using the quantitative research methodology, 26 online questions answered by a sample of 874 respondents from Romania. The research has been done through online survey from 5 to 24 February 2018, the average time spent to answer the questions being 8.03 minutes.

Table 1. Sample Structure (online research) – Romania

<i>Romania</i>	18-25 years old	26-35 years old	36-45 years old	46-55 years old	56-65 years old	Total
Male	36	178	172	22	20	428
Female	44	181	170	26	25	446
Total	80	359	342	48	45	874

Source: Own Research

The research has been deeply analysed. Statistical tests were ran to find significant relationships and the variables and attributes were compared adequately. The results showed higher scores of self-involvement attributes, while the sample structure pointed to different age categories from Romania, 80 respondents (9.2%) from 18-25 years old, 359 respondents (41.1%) from 26-35 years old, 342 respondents (39.1%) from 36-45 years old, 48 respondents (5.5%) from 46-55 years old and 45 respondents (5.1%) from 56-65 years old.

Table 2. Smartphone app dependency and smartphone most common activity attributes to subject preferences

Smartphone app dependency to fulfil daily needs and activities (collected preferences from subjects)	Answer	Number of respondents
	Yes, daily needed	680 (77.80%)
	Most of the activities and needs	115 (13.16%)
	Some of the activities and needs	68 (7.78%)
	No dependency	11 (1.26%)
	Total	874 (from which 720 – 82.38% – active app users – retrieved from own quantitative research)
Attributes to most common activities on smartphone		Number of respondents
Self-expression (hobbies and interests)	80 (9.15%)	
Discovery (news and information)	230 (26.32%)	
Accomplishing (productivity, managing finances and health)	43 (4.92%)	
Preparation/Planning	55 (6.29%)	
Socializing	305 (34.90%)	
Shopping	51 (5.84%)	
“Me time” (in search of relaxation or entertainment)	110 (12.59%)	
Other activities	0	
Total	874	

Source: Own Research

As we can see from the above table, attributes like “Socializing” (305 respondents/34.90%), “Discovery” (230 respondents/26.32%) or “Me time” (110 respondents/12.59%) are the most preferred common activities on smartphones, being in a direct strong relationship with the dependency on smartphone apps to fulfil daily needs and activities, most of the respondents being also active app users.

Table 3. Frequencies of the two variables analysed in the hypothesis

V1	Value	Frequency	Percent	Valid Percent	Cum Percent
Do you tend to disengage with an app over time?	No (Please skip the following question)	268	30.66	30.66	30.66
	Yes (Please answer the following question)	606	69.34	69.34	100.00
	Total	874	100.0	100.0	
V2	Value	Frequency	Percent	Valid Percent	Cum Percent
Why do you tend to disengage with an app over time?	268	268	30.66	30.66	30.66
	Annoying publicity	269	30.78	30.78	61.44
	Annoying deals	203	23.23	23.23	84.67
	Bad features	101	11.56	11.56	96.22
	Uncatchy language	33	3.78	3.78	100.00
Total	874	100.00	100.00		

Source: Own Research – SPSS Analysis

The Frequency table highlights the number of occurrences chosen by respondents, in this case, the 606 respondents (69.34%) disengaged with an app over time because of the annoying publicity (269 respondents/30.78%)/deals (203 respondents/23.23%), bad features (101 respondents/11.56%) or uncatchy language (33 respondents/3.78%).

Table 4. Chi-square tests

Statistic	Value	df	Assymp. Sig. (2-tailed)
Pearson Chi-Square	874.00	4	.000
Likelihood Ratio	1077.44	4	.000
N of Valid Cases	874		

Source: Own Research – SPSS Analysis

One of the tested hypothesis is that there is no link between those who tend to disengage with an app over time and the app functionality, user experience (UX) and user interface (UI) (annoying publicity/deals, features or uncatchy language). To test the independence of the two variables, in the CROSSTABS descriptive statistics analyse, the Chi-square tests results highlighted Pearson Chi-square value which is equal to 874.00 (df = 4, Assymp. Sig. = .000<0.05) and Likelihood Ratio which is equal to 1077.44 (df = 4, Assymp. Sig. = .000<0.05), showing us that there is a significant relationship between the two variables and the null hypothesis has been rejected.

Mobile users would like to receive from an app great functionality (preferred by 263 respondents/30.1%), great user experience (UX, preferred by 232 respondents/26.5%) and great user interface (UI, preferred by 213 respondents/24.4%). The research also shows that 576 respondents (65.9%) are looking at the mobile screens for 2-3 hours each day, discovering new apps from App Store Search (501 respondents/57.3%), read about the app on the web (160 respondents/18.3%), by Word-of-mouth (103 respondents/11.8%) or recommendations from friends and family (110 respondents/12.6%). The respondents' answers highlighted that they're spending considerable time on the apps (most of them finding the in-app experience engaging enough), 280 of them (32.0%) prefer spending time on social networks (between 30-60 minutes), 287 (32.8%) prefer utilities (e-mail, calendars, cameras etc.), 160 (18.3%) choose games and entertainment, 103 (11.8%) go for Brands and 44 (5.0%) like to discover.

5. Findings

As shown above, higher self-involvement attributes have been discovered, from Table 2, attributes like "Socializing" (34.90% of respondents), "Discovery" (26.32% of respondents) or "Me time" (12.59% of respondents) are the most preferred (by users) common activities on smartphones. From Table 3, we can observe that 69.34% of respondents disengaged with an app over time because of the annoying publicity (30.78% of respondents)/deals (23.23% of respondents), bad features (11.56% of respondents) or uncatchy language (3.78%). In Table 4, the hypothesis and the independence of the two variables has been tested through Chi-square tests resulting in a null hypothesis which has been rejected and showing us the existence of a significant relationship between the variables. Also, user preferences like great app functionality, great user experience and great user interface have been discovered, as well as the considerable time spent in front of the mobile screen (on apps).

6. Conclusions

Seeing experience as what the app's user perceives (user's output), only a positive experience will confirm that marketers are adequately managing app's user active, emotional, rational and ethical engagement (marketer's input in the app's user-centric processes),

facilitating the engagement opportunities by using adequately the mobile messaging tactics and fulfilling app's user expectations in the micro-moments, building this way enduring relationships.

The limitations of the study could be the lack of time to investigate more thoroughly and to better measure the change or stability in respondents' answers over time or on special days like 14th February (St. Valentine's Day).

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**The 1st International Conference on Economics and Social Sciences
Challenges and Trends in Economic and Social Sciences Research
[16-17 April 2018] The Bucharest University of Economic Studies – Romania**

**100 Years of Validity and Modernity of the Lectures Held at the
Bucharest University of Economic Studies.
Applied research – Virgil Madgearu’s Economic Discourse**

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Abstract

The present paper was built around the discourse analysis of the opening lecture entitled «Introduction to the practical study of commercial and industrial enterprises» held by Professor Virgil Madgearu at the Academy of High Commercial and Industrial Studies on 25 January 1916. The aim of the paper is to demonstrate how topical and modern Professor Madgearu’s message is, as an illustration of how the high quality and professional commitment of the teaching staff at the Bucharest University of Economic Studies have persisted over time, resulting in the training of genuine specialists endowed with the appropriate theoretical and practical competences to respond to the requirements of the economic environment. The research methodology applied, based on critical discourse analysis, aims to highlight how the proposed outcomes were reached and to demonstrate that the teaching-learning process is understood as an on-going endeavour to develop and modernise, building on two inseparable, fundamental components: the scientific and the technical approach to each discipline. The conclusions reached by the present paper are that in spite of the 50 years of discontinuity in the economic paradigm, the Bucharest University of Economic Studies is the public institution which, for more than 100 years, has been dedicated to education and research to the benefit for and the training of the Romanian youth.

Keywords: *Critical discourse analysis, economic discourse Virgil Madgearu, didactics in higher education*

JEL Classification: *A11, B25, B31*

1. Introduction

The teaching staff’s deep concern with a high quality economic education in our country has a tradition of over 100 years, which has manifested itself in symbiosis with the institutional evolution of the Bucharest University of Economic Studies. Celebrating 105 years of existence of the Bucharest UES, the first Romanian institution of high commercial and industrial studies, may also be considered a good time to reveal how the solid, modern and practice-oriented structuring of the economic studies started. Modern teaching didactics combined with the

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scientific content of specialised courses aimed at offering higher education to the Romanian youth have always been the sacred mission of all the teachers who served the Romanian educational system.

Professor Virgil Madgearu's theoretical and practical discourse was not an exception, but a genuine, powerful model with a modern approach which has perpetuated until the present day.

On the anniversary of 105 years from the setting up of the Bucharest University of Economic Studies, the present paper intends to bring homage to all those who have served the Romanian school of economics, who, with modesty, but also with professionalism and determination, have made it their objective to contribute to the well-being of this country by training generations of economists in agreement with the practical requirements of the economic environment of every age, thus proving to be genuine professionals and patriots.

The critical discourse analysis was performed mainly on the paper existing in the library of the University of Economic Studies, in the old books section – Virgil N. Madgearu «*Introduction to the practical study of commercial and industrial enterprises*», Bucharest, Dimitrie C. Ionescu Professional Printing House, 1916.

2. Problem Statement

According to specialised literature (Săvulescu, 2001), we understand discourse as a number of statements/utterances formulated by a producer/author/speaker on a certain topic, addressed to a receiver/audience, with the intention of influencing them. Critical discourse analysis is in fact a framework used to scrutinise the discourse, the knowledge process and the respective social environment. The discourse is deeply anchored in the producer's personal knowledge, being refined through his/her own understanding, culture and personal experience.

When performing the critical analysis of a public discourse, it becomes utterly important to highlight the control over the receiver/audience/beneficiaries in case the respective receivers are open to accept beliefs, knowledge and opinions transmitted through the discourse, coming from authorised, trustworthy sources (researchers, experts, professionals, reliable media) (Nestler *et al.*, 1993).

Stubbs (1983) and Coulthard (1985) differentiate between the text – as written language – and discourse – as spoken language. Since the text chosen for the illustrative critical study is a transcript of a lecture delivered in class, the terms “text” and “discourse” will be used interchangeably throughout the present paper, this approach being also supported by Halliday and Hassan (1976), who consider text to be ‘a unit of language in use’, which can be “any excerpt, either spoken or written, of any length, which forms a unified whole”.

3. Research Questions/Aims of the research

The aim of the present paper is to demonstrate the rigour of structuring an academic lecture in the field of economics in the form of a public discourse, as well as to demonstrate (within the anniversary context in which this study was carried out) the perenniality and modernity of the message in the courses that have been taught in economic higher education in Romania from the very beginning, compared to the current requirements and realities in this area.

The scientific question we have tried to answer is whether these academic courses in the economic field contain the structural elements of public discourse and if, in spite of the numerous and in-depth changes of the paradigm of economic sciences, they include perennial and modern traits of an economic discourse capable of supporting professional continuity and the experts in this domain over the last 100 years.

4. Research Methods

In the present paper discourse is understood as social practice (Fairclough, 2003), an alternative definition to the “narrow” one which refers to critical text analysis in a restrictive manner. Thus, according to the Foucauldian approach, discourse means “... general and prevalent systems for the formation and articulation of ideas in a particular period of time, functioning as a powerful ordering force” (Fairclough, 2003).

Within the chosen educational context and applied study, the discourse is the academic course-understood as “lecturing, teaching of a subject as a cycle of lessons or lectures* using spoken or written language”. The **critical discourse analysis** of the chosen text aims to identify the latter’s main characteristics within the context of academic lectures in economics, namely: *coherence and unity, intentionality, informative character, contextual framing and intertextuality*. (Hymes, 1980; van Dijk, 1976, 1980). In the next section, these traits will be illustrated with arguments resulting from the analysis of the chosen text.

Performing rhetorical discourse analysis on the chosen text has allowed us to highlight the elements of perennality and modernity in approaching an economic discourse. The text used to illustrate the critical analysis was Virgil N. Madgearu’s «*Introduction to the practical study of commercial and industrial enterprises*», Bucharest, Dimitrie C Ionescu Professional Printing House, 1916.

Using this type of analysis as a research method is justified by the aim of the paper and the research questions, especially since this approach facilitates the argumentation endeavour:

«Narrative analysis looks at the statement produced by individuals. The thinking behind the narrative analysis is that the personal voice reflects the priorities, values, concerns and attitudes of the narrator and get us closer as researchers to an individual, personal experience» (Newby, 2014).

Besides this, the **rhetoric discourse analysis** component (Alvesson & Kärreman, 2000) will attempt to find answers to questions such as: *how is the argumentation used in an attempt to develop strong beliefs, how does the author/speaker inform, persuade or motivate an audience in a certain context, how are the arguments used justified and validated, what kind of vocabulary, phrases or metaphors are used, how does the author position himself/herself or in relation to others who enjoy authority in the respective area*.

5. Findings

The main elements identified after having performed the analysis will be presented in detail and contrasted with the characteristics of both critical discourse analysis and the analysis of discourse rhetoric.

5.1 Coherence and unity

According to Halliday and Hasan (1976), a text is coherent, all the parts of a text must be connected through a logical thread and they logically follow one after another forming a well connected whole.

The logical sequencing of the e parts of Professor Madgearu’s discourse is presented in Fig. 1.

The discourse *coherence* is given by the logical succession of the easily identifiable aspects addressed, which is easy to notice in the structure of the studied discourse and that is also present nowadays in course design.

From a didactic view point, the discourse observes the special rules of pedagogical communication which confer unity to the endeavour, and they can be easily identified: definition of concepts, content presentation, content explanation (Ionescu, 2000).

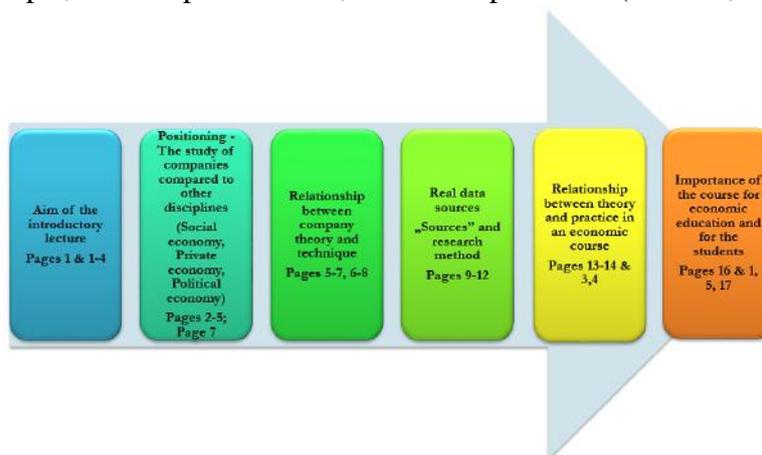


Figure 1. Sequencing the text parts in the analysed discourse
Source: by the authors of the current text analysis

Discourse *unity* is an obvious concern of the great professor with respect to each and every lecture, as well as with the entire course, which is seen as a unitary set of lectures.

«Only such a course can be expected to fulfil its whole mission: to facilitate the students' acquisition of knowledge in a scientific area, but also to show them the path followed in order to reach that knowledge and how the different components are inter-related, uncovering the existing relationships. This can only be achieved **if the course is considered to be a system of knowledge.**

*Doing otherwise, following here, in a young higher education institution, the **obsolete system of courses without a beginning and without an end would contribute to killing that spirit of methodical work which lies at the foundation of its development...***» (Madgearu, 1916, 3).

Virgil Madgearu draws attention to the frivolous tendency of transforming the successive lectures of a course into a series of disparate conferences; we can still notice this tendency nowadays with some excellent practitioners who believe that a mere narration – albeit enthusiastic – of their rich practical experience can replace an academic course. The structuring elements based on a unitary concept, the specific method, organic unity and systematically planned process are seen as imperative.

«... an academic course cannot be a series of disparate conferences, however attractive this might be. Instead, they **must form an organic entity, which implies a concept, a method and a systematic plan**» (Madgearu, 1916, 3).

5.2 Intentionality

Intentionality means that the message is sent deliberately and with full awareness.

The philosophical approaches nuance this characteristic of the discourse.

«... this attitude is the third, fully modern level of intentionality expressed by the phrase “oriented towards” an object ... such orientation is not intentional in the sense of looking for its object – like with Husserl, where the act of addressing is achieved through a corresponding act of intuition, but it is intentional in the sense that it is oriented and it expresses an attitude towards an already envisaged object» (Tănăsescu, 2011).

Certainly, the intentionality of Professor Madgearu's discourse obviously stems from his personality and character, also noticed by his contemporaries.

«... this hardworking man, but full of negative electricity, had set his mind to conquer hearts, to become a leader of masses».

«... he had already studied tens and hundreds of volumes and considered himself to be the repository of all theories, especially the German ones, in the field of political economy and sociology. He was convinced that he was the only economist and financial specialist in Romania and that in this capacity he was called upon to organize the new postbellum establishments, an endeavour which was only possible in a democracy such as this one: the less proven its benefits, the higher the intransigence». (Argetoianu, 1996).

As regards the intentionality of the discourse, it is certain that Professor Madgearu himself revealed his attitude towards the audience. The first contact between the students and the professor is considered to be extremely important. At the first encounter with the students he signalled that it was compulsory to present some elements related to course design, structure and approach. The normative request is not enunciated as mandatory, but as a need stemming from the depth of the professional being. The elements to be specified – the course outline, its rationale and main aims – are presented in a clear and simple manner, with a view to achieving a dual purpose: to clarify, and also to raise the interest of the audience. Also today the requirements of modern pedagogy impose that these elements should be presented.

A special place among the elements that must be presented to the students at the beginning of the course is held by the research method used in support of the scientific activity incorporated into the teaching-learning process. It is interesting to note that Professor Madgearu clearly understands that the fundamental course components are closely related to the person and personality of the course coordinator, who leaves a deep imprint on the characteristics of these elements.

*«...when coming for the first time in front of the students s/he should feel the same need, to present how s/he understands the **object of his/her course**, what is the **research method** used to collect and process the data and which is the **course objective, its intended outcomes**»* (Madgearu, 1916, 3).

By mentioning the role of the course, once again Professor Madgearu reveals his intention of becoming involved in creating a class of educated young Romanians, capable to understand and lead the destiny of the companies of those times.

«The practical study of commercial and industrial enterprises as a subject of our academic commercial education, showing the students the circumstances and phases which constitute the life of companies, as well as the causalities which frame their existence, making them understand the underlying principles of company organisation and management, familiarising students with relevant methods for knowing and understanding such phenomena, then by showing them different company types and enabling them to see and notice, all this is meant to ease the solving of one of the most serious problems of our economic life: training Romanian company managers». (Madgearu, 1916, 18-19).

5.3 Informative character

By its intrinsic nature, the discourse has an informative character, implying the transfer of interesting, convincing and well argued information to an audience. This is where one can find the main elements of the previously mentioned analysis of discourse rhetoric.

Within the institutional space of a young school of economic culture, the course is deemed to be a symbiosis between two inseparable components: a subject of study included in a training programme, and simultaneously, a scientific discipline, with its own research area. What is extremely modern is the outlook on the interdependence of the two components, with a view to ensuring the successful acquisition of knowledge. The same is true about the very modern idea

that «the scientific area» of a discipline can be treated multidisciplinary or analysed with methods and tools which are specific to another scientific specialisation.

«... The practical study of commercial and industrial companies *according to two aspects*: as a **scientific discipline per se**, therefore as a **scientific research area**, and as a **subject of study, especially as part of the curriculum of an educational institution** of high commercial culture like this one.

Obviously, **both aspects condition each other**: knowledge of the former, of the scientific discipline, is indispensable for understanding the latter, its application as a subject of study; this axiom *cannot prevent anyone*, in a country of encyclopedists, whatever their scientific specialisation might be, *to express their opinion about the way in which this subject should be taught*». (Madgearu, 1916, 4).

When creating a new discipline and positioning it in the curriculum, it is of utmost importance to specify its «identity», its peculiarities, specificity and the rationale for its study, as compared to the other disciplines. This is particularly relevant in case there is a whole-vs-part type of interconditionality in the economic environment.

«Regarding the Practical study of companies as a **scientific discipline**, we notice from the very beginning that its subject: commercial and industrial enterprises, is one of the most important components of the object of another science, **Social Economy**, the objective of which is to research the peoples' national economy». (Madgearu, 1916, 4).

An extremely strong message for the audience, but also for all those who have read the written discourse over time, is connected to the sources from the real economic life which should be at the basis of the development of a scientific and study object, transposed into an academic course. The words are most powerful, the “truths” and “practical conclusions” are considered to be the foundation stones, and the close relationship between theory and practice is signalled in an anticipative manner. The arguments presented in this part of the discourse overlap entirely with the requirements of modern pedagogy: only if a course is built in this way can it serve the students, only in this manner can one develop the necessary skills for meeting the intended course objective, only like this will the receivers valorize and appreciate the learning process and its outcomes, only like this will all the parties involved stay open to lifelong learning, adapting and improving themselves in relation to the economic realities.

Regarding the sources of information from the practice, it is our opinion that the researchers of all times recognise themselves in the statement referring to the difficulty of gaining access to company data.

«After having decided on the study object, it is necessary to indicate the sources from where one can draw the facts and knowledge related to the life of commercial and industrial enterprises, and the method to research them».

«... because only he who knows where from and how the truths and practical conclusions have been drawn can realise their worth and value what he is learning. Also, since this is a study meant to allow the students to develop the qualities they will need as future company managers, how could we prevent them from knowing where and how to look for the organisational and management principles of the companies tomorrow, after having started their practical activity? Finally, the sources are also important because in most cases the information regarding commercial and industrial companies is hidden from the scientist' eye, making research extremely toilsome». (Madgearu, 1916, 11).

In terms of solutions and suggestions pertaining to the scientific endeavour, there are paths which are still being followed by many researchers in this area: from the individual to the general and then back to the individual; studying the documents in relation to their public nature and context, references, using the conclusions of previous research, building on reports emerging in response to various needs to synthesize practical realities etc. Extremely moving is the passage where Professor Madgearu expresses his own feelings about the detailed analysis

of company documents: it is an ever-lasting urge to interpret the figures beyond their value metrics significance and to decrypt the entrepreneurs' personality, aspirations, aims in order to better understand the microcosmos which is the company.

«... companies offer the researcher the opportunity to perform an in-depth study of the documents related to bankruptcy... in their most intimate relationship with the entrepreneur's personality and the whole realm of his endeavours and calculations one can find the bankruptcy processes, point by point, forming an invaluable treasure for research. These documents offer the researcher a kind of photography of a part of the reality which can be very useful to him». (Madgearu, 1916, 11-12).

The important place occupied by the research component in the teaching-learning process constitutes an extremely important part of the discourse message. Besides mentioning it, the author insists on the details of the scientific research method and compares the stages of research in economics with those in other sciences, static research with dynamic research, clustering results, signalling similarities and differences and basing all the explanations about how companies operate on clearly identified causes.

«... what research method should be used. Firstly, the researcher should isolate the object of the research, look at it isolated from the influence of the outside world, just like in anatomy, dissect it, in order to identify its inner structure, ...» (Madgearu, 1916, 12).

The perennial and modern character of the content ideas is obvious in numerous excerpts which seem to be taken as such from current textbooks: they are closely related to the deep theoretical fundament of the discipline (i.e. accounting), as well as to a correct interpretation, already 100 years ago, of how the data should be used. For illustration, in the excerpt below we have selected the reference to the information from the balance sheet which is perfectly valid nowadays too, including a recommendation about the approach to use in scientific research.

“An economic analysis of the balance sheet clarifies the economic situation of a company at a given moment and makes it possible to critique its future development and prospects”.

“It is easy to understand that from one balance sheet only one can never understand the exact situation of a company, the more so as most balance sheets lack clarity and precision, but by taking several balance sheets over a number of consecutive years, one can grasp a certain relativity of the phenomena, which, together with the absolute annual results, provide the key to the economic enigma of a company”. (Madgearu, 1916, 12-13).

The development of the argumentation related to setting the scientific basis for academic course design is extremely powerful, and the relationship between theory and practice is underlined as a first priority. The solution Professor Madgearu sees and assumes is a combination of the two. He brings strong, valid and topical arguments to support the need for a solid complementarity between theory and practice in order to achieve the course objectives. The discourse presents one of the most eloquent argumentations of the effects entailed by developing a course which is preponderantly based on only one of the perspectives, to the detriment of the other.

“As a subject to be taught, our study, like the other disciplines of an academic commercial education, should be, first and foremost, treated exclusively scientifically. Consequently, it should bring together the Theory and the Technique of commercial and industrial companies. Only in this way can we expect this study to be fully effective”. (Madgearu, 1916, 14).

In this respect, it is impressive how topical the great teacher's message of 100 years ago still is. If the message below were to be taken out of its context, namely the speech/lecture, the readers would have real difficulties to identify the year when it was formulated.

We believe that all the teachers and decision makers in the field of educational management in higher education should ponder deeply on the following excerpt.

Theory and practice are both of the utmost importance when studying an economic discipline. The latter is imperatively required by the economic environment and it is seen in a

limited way as a supreme performance indicator of the entire educational system. The tools for ensuring the contact with the practical realities mentioned in the first lecture of the first year when the discipline was taught for the first time 100 years ago seem to have been copied from a current course outline: seminar with practical activities, data archive, collections of documents, forms, visits to companies, etc.

“... While earlier school was disconsidered and thought of as being incapable to create the elements which are necessary for economic life, now it is required to train specialists by completely excluding the practical dimension.

But can a study, no matter which, and irrespective of how “practical” someone may imagine it, replace professional practical training? The answer of modern pedagogy is negative. A study may facilitate the quick acquisition of professional practical competences, sometimes it can even be the sine qua non condition for such acquisition, and on other occasions it may speed up its development, opening new perspectives in this direction”. (Madgearu, 1916, 15)

In our opinion, it is exceptional how the author highlighted the risk of eliminating or diminishing very much the theoretical study of the fundamentals of a discipline: the great scholar maintains that on the one hand this affects the solidity of the basic concepts that allow for the acquisition of the professional practical competences, while on the other hand it slows down the future development of the discipline.

The argumentative message regarding the link between the role of academic studies compared to that of economic practice in the training of professionals is both perennial and topical:

“... Of course, noone can expect – and it would be utopic if they did – that this study would readily train company managers, in the sense that whoever follows it will be ready to be at the head of a company. We have seen that no educational system trains specialists, it just guides them and facilitates the training of professionals, which is accomplished through practice. If practice is not preceded by theoretical training, professional training is toilsome and utterly impossible for the top positions in the economic life if the theoretical knowledge is not related to the practical needs”. (Madgearu, 1916, 18)

5.4 Contextual framing

This discourse characteristic reveals the extent to which the text is in agreement with the context in which it was created (Halliday & Hasan, 1976).

From this perspective, transposing Professor Madgearu’s speech into a written text is in perfect agreement with the context in which it was delivered.

The text mentions that the subject of the course was being taught for the first time. It is noteworthy that from the very beginning the professor assumed the responsibility of demonstrating that this was not a supplementary or marginal course:

*“... the practical study of commercial and industrial companies – the main subject of this department – **is being taught for the first time in our educational system** and finally, because, some of you may think that it is just one more course in your rich curriculum and nothing else”. (Madgearu, 1916, 4)*

Clear mention is also made – with the force of a witness and documentary – that for the first time ever in the history of higher education in Romania, the Academy of High Commercial Studies was assuming the mission of a public utility of great national importance in the development of economic and managerial education for Romanian companies.

“Until now there was no institution in our tertiary education to meet this need, and the Academy of High Commercial Studies was set up for this very purpose, and its curriculum was designed exactly with this goal, so that it would be an establishment for training the leaders of Romanian companies, above anything else”. (Madgearu, 1916, 18).

The context-related purpose for which the course is introduced in the curriculum is clearly indicated: endowing the graduates with competences that would help them progress beyond the limits that they would face if they were undergoing professional training based only on practical activities, practically facilitating the development of the ability to overcome certain limitations related to their condition imposed by the big companies of the time.

“If the graduates of high commercial schools work for foreign companies – and this has been proven numerous times through surveys made by the school officials – they are used only for accounting and correspondence-related activities and only in such a way that they cannot gain any insights into how the company operates. The specialization introduced by the labour division in the big companies guarantees that they will not be able to understand core of the business, and their training is not enough to bring any change in this matter”. (Madgearu, 1916, 18)

The objective of developing the graduates’ “critical thinking” skills, as we would call them today, as the main tool for accurately and constantly relating to a complex, changing and sometimes contradictory or even opaque economic universe was assumed by Professor Madgearu 100 years ago and seen as indispensable for a specialist in economics.

*“Whoever will have pursued this study thoroughly, whatever position she occupies after graduation, in a company whatsoever, irrespective of how obscure that job may be, will be capable to understand its entire phenomenology, to see and to observe, to understand what they see and because they know what and how to ask, they **will be able to find out what cannot be seen and observed, to check the accuracy of the data obtained in the light of the theory they have studied, which they will assimilate in more depth and they will adjust; by passing through several companies, they will compare organisational and management features and will develop their future skills...**”.* (Madgearu, 1916, 19)

6. Conclusions

Celebrating 105 years from the setting up of the Bucharest University of Economic Studies is a perfect moment to bring homage to all those who have served the Romanian school of economics and who, with modesty, professionalism and determination have contributed to the solid training of generations of economists, in agreement with the practical requirements of the economic environment of all times. Modernity in the didactics of economics and in the construction of the scientific content of specialist courses, aiming at offering higher education to the Romanian youth, have been the main mission of all the professors who have served the Romanian education system.

Within this context, the objectives of the present paper were to highlight the rigour in structuring an academic discourse in the economic field in the form of a public speech, as well as to demonstrate the ever-lasting and modern character of the message contained in the Romanian economic higher education courses from their very beginning, judged in correlation with the current requirements and realities. The research methodology applied, based on critical discourse analysis, has led to meeting the proposed objectives and to understanding the teaching-learning process as an on-going endeavour to build and modernise, based on two fundamental, inseparably inter-connected components: the scientific and the technical approach to each discipline.

The paper contains a discourse analysis applied to the opening lecture of the course entitled «Introduction to the practical study of commercial and industrial companies», taught by professor Virgil Madgearu at the Academy of High Commercial and Industrial Studies on 25 January 1916. The analysis has revealed the topical and modern character of Professor Madgearu’s message, as an illustration of how the quality and professional commitment of the teaching staff at the Bucharest University of Economic Studies have persisted over time and

have led to the training of true professionals, with the adequate theoretical and practical competences to meet the requirements of the economic environment.

The conclusions of the present paper are that in spite of the 50 years of discontinuity in the economic paradigm, the Bucharest University of Economic Studies has been a public institution dedicated to education and research to the benefit and for the training of the young Romanians.

The academic courses in the economic field correspond to the structural elements of public speech and in spite of the numerous deep and fundamental changes in the paradigm of economic sciences, there are elements of perennity and modernity of the economic discourse which have supported the continuity of the profession and the professionals in the field over the past 100 years.

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**The 1st International Conference on Economics and Social Sciences
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100 Years of Romanian Economics Research & Education

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Abstract

The aim of the paper is to present and analyse the development of economic education and research in Romania. Based on a historical approach, the paper is an original approach in that it investigates how an educational and research entity has gone through several transfigurations in order to survive various political, economic and social conditions. The Romanian higher education and Academia has been the place of training and education for numerous remarkable personalities in the Romanian higher education system, as well as from the economic and political life throughout the last century.

Keywords: *economic education, economic research, historical approach*

JEL Classification: *I21, I23, N01*

1. Introduction

Economic higher education and scientific research in Romania during the years 1918-2018 was based on the following main principles: symbiosis, complementarity, and dual unlocking of creative energies. Although *the Economics Faculty* is at the heart of the analysis within this article, we argue that all the early forms of economic faculties of *the Bucharest University of Economic Studies (BUES)* have been honoured by the presence of some remarkable personalities of the economic higher education and research, who contributed in a significant way to the establishment of more advanced entities for education and research in the field of economics and business administration.

2. The Contribution of Academics Community to Education and to the Economic, Political & Social Life

Prestigious researchers from research institutes in the field of economics have established the most important higher education institutions or new chairs for new fields/subjects in higher education institutions. Both researchers and academic staff had essential contributions to the

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development of economic strategies, working in mixed cross disciplinary and inter-generational teams. Due to their professional and scientific prestige, the teaching staff from universities and/or researchers belonging to universities and/or research institutes are invited as honorary members, associate researchers fellows or as associate visiting professors in institutes and faculties. Many of them are also members in scientific councils of numerous conferences and national and international scientific sessions, some being invited as keynote speakers, chairs of mini tracks or involved within the peer to peer evaluation process.

Moreover, the teaching staff and researchers have founded some scientific publications in the economics field, being directly and actively involved within the process of elaboration and publishing numerous books, studies, scientific and research articles. Also, they have presented papers and contributions in national and international scientific conferences.

On a slightly different note, higher education institutions and research institutes have concluded partnerships for the training of students, for doctoral and postdoctoral training, as well as for implementing complex projects by co-creating and collaborating within cross disciplinary consortia.

Last but not least, the academic community – both the teaching staff and researchers – have been held in solidarity in the crisis moments through which went the economic higher education and scientific research in Romania.

3. The First Attempts to Establish Economic Higher Education and Research Institutes since the Beginnings

The economic education was organized at first in elementary trade schools. The first school began its activity in October 1864 at Galati, being followed a year later by the Trade School of Bucharest (Talpos, Rosca, Istudor, 2013, p. 17). The first course of political economy had been organized in Romania in the 23rd of November 1843 by Ion Ghica, professor at the *Academia Mihaileana* of Iasi (Talpos, Rosca, Istudor, 2013, p. 12). Ion Ghica was writer, economist, politician, with degrees in letters, mathematical sciences, mining and political economy in France (Sorbonne, College of France, Conservatoire des Artes et Metiers in Paris). He was among the first one to deal in Romania, with economic issues, writing articles or paper published in the series *Convorbiri economice (Economic conversations)* published into two volumes in 1865 and 1875.

Nicolae D. Xenopol, Minister of Commerce and industry, supported by a group of young economists trained at prestigious universities in Germany, France, Austria and by personalities of the economic and banking environment as well as secondary education (Nastase, Zaharia, 2013), has been the initiator of the establishment of the Academy of High Commercial and Industrial Studies-Romanian acronym, AISCI, Bucharest (Talpos, Rosca, Istudor, 2013, p. 13).

The law was promulgated by the King Carol I, on 6th of April 1913.

In the year 1918, Virgil Madgearu, Dimitrie Gusti, Vasile Pârvan and Ion Răducanu found *the Association for Social Study and Reform*, in Iași town. Virgil Madgearu and Ion Răducanu also founded the *Journal for Economic and Social Studies* titled “*Independența Economică*”, journal which first appeared in 1947. At the end of the year 1918, the *Association* moves to Bucharest, and in December 1919, there was an attempt to found *the Romanian Social Institute*, initiative that fails at that time.

The year 1920 marked the establishment of *the Trade Academy* in Cluj, an institution that flourished together with its bigger sister, *the Academy of Superior Trade and Industrial Studies of Bucharest* (Popescu, Gh, 2010). *The Faculty of Economic Sciences* from A. I. Cuza University of Iasi, together with *the Faculty of Economic Studies* from Craiova and *the Faculty of Economic Studies* from the University of West from Timisoara were founded in the years following the Second World War (Talpos, Rosca, Istudor, 2013, p. 17).

4. The Romanian Social Institute – 1921

The main goals of *the Romanian Social Institute*, under the coordination of Dimitrie Gusti, and having Virgil Madgearu as secretary general, were the following:

- to perform research in the field of social sciences, especially concerning those related to the social status quo of Romania;
- to design, based on the study results, practical proposals required for achieving social reform in Romania;
- to provide information dedicated to the social issues, and to perform available research studies means to its members, as well as to all those persons interested in such matters;
- to contribute to the dissemination of the social knowledge.

After the year 1926, *the Institute* was hosted by the *Palace of the Academy of High Commercial and Industrial Studies* from Piața Romană, the place of today's *Bucharest University of Economic Studies* well known as ASE (Noica, N., 2014).

5. The Romanian Economic Institute – 1922

The Romanian Economic Institute was, at the time of its establishment, of great importance for the economic and national strengthening and development of the country. The new institute was founded with the material and moral support of the Romanian economic institutions from the capital and the whole country. Its main purpose was to facilitate and encourage the active involvement of such institutions to the agricultural, commercial and industrial progress of the country.

In the same time they had also been involved within the process of nationalisation of the companies, which were dependent on foreign capital, from freed territories (*The Romanian Economic Institute*, Editura Economică, Sibiu, 15 January 1921).

As concerns *non-governmental institutions* that were partially financed by the state budget, we mention the following: *the Conjunction Institute*, *the Romanian Social Institute*, *the Romanian Economic Institute*. Such institutes had also published journals, organised conferences on major topics related to the economic and social life of the country (*Official Gazette*, Part III, *Deputies' Debates*, 30 July 1926, p. 378).

6. The Romanian Institute for the Study of Economic Conjunction – 1936

In 1936, in his capacity of president of *the Romanian Association for the Study of Economic Conjunction*, Virgil Madgearu founds *the Romanian Institute for the Study of Economic Conjunction*. This institute becomes an important centre focused on economic concerns for all the researchers in the entire country, stimulating the activity in the field of word economy. It is within this framework that great economists would have a voice: G. Zane, M. Vulcănescu, N. Georgescu-Roengen, Belu Zilber, etc.

The experience gained in this institute was gathered by Madgearu into an exquisite synthesis work – *The Evolution of the Romanian Economy after the World War* (1940).

Gheorghe Zane stated that Virgil Madgearu's presence at the forefront of this institution was an indicator of his desire to propagate and promote the progress of the economic science. He led the Institute with his usual exactingness, and his results are well known. He introduced *teamwork* perspective into the Institute. The publications were first read, analysed and then discussed with his collaborators. Today such works are precious sources of information regarding the conjunction of the Romanian economy from that time. V. Madgearu also seized

the utility of *the monographic method* and closely supported the works of his friend, Professor Dimitrie Gusti (Enciclopedia României, Imprimeria Națională, 1943).

On the 20th of April 1967, *the Institute for the Study of International Economy Conjunction* was established, and it changes its name into *the Institute for World Economy* on the 27 December 1976.

Within the newly-founded institute, the Madgearian tradition was carried on in the same field. The new entity was financed by the state/public budget and it had legal personality, being managed at that time by Professor Alexandru Zamfir, a remarkable and well-renowned specialist in the field. He was followed by the Minister of Foreign Trade, Ion Stoian, and then the Institute was remarkably led by Costin Murgescu for 20 years. (Virgil Madgearu, Political Economics Lecture, published in the Collection “*The Library of the National Bank of Romania*”, coordinated by Academician Mugur Isărescu, new series edited by Horia-Roman Patapieviçi and George Virgil Stoenescu, under the aegis of Humanitas Publishing House, taken from www.economistul.ro, (Economistul no. 40 and 41 from 20 and 27 October 2014).

7. The Institute for Economic Research

The Institute for Economic Research is the oldest public economic research institute still existing in Romania. Currently it is called *the Institute of National Economy*.

The Institute for Economic Research functioned under the coordination of several institutions: *the Romanian Academy* between 1953-1970, *the Academy of Social and Political Sciences* between 1970-1973, and *the Central Institute of Economic Research* between 1973-1989 and *the National Institute of Economic Research* starting from 1990 to date.

Preserving the tradition of *the Romanian monographic school* initiated by Dimitrie Gusti, in 1957 and 1958, *the Institute for Economic Research* elaborated complex monographic studies with the purpose of acknowledging the social and economic changes that took place in the rural life and industrial enterprises, based on direct research, field research, as well as census-type of investigations applied mostly within peasants’ households.

Among the works published based on these research studies we mention the following:

- *Contributions to the History of Foreign Capital in Romania*, coordinated by C. Murgescu and N. N. Constantinescu (Editura Academiei, P.R.R., 1960).
- *The Monetary System of the Leu and its Precursors*, by C. Kirișescu, Volume I in 1964, Volume II in 1967 and Volume III in 1971.

Within the collection *Texts from the Romanian History of Economic Thought*, the following works were published:

- *A consecrated volume of the 19th century economists* (including an introductory study written by Gh. Zane)
- *A volume on economic thought* written by P. S. Aurelian (with an introductory study written by C. Murgescu)
- *Another volume on economic thought* by A. D. Xenopol (with an introductory study written by I. Veverca).

Within the collection *Texts from World History of Economic Thought*, the following works were published in the Romanian language:

- Two volumes from the economic works of David Ricardo’s (with an introductory study written by C. Murgescu), Adam Smith’s *Wealth of Nations* (introductory study by N. N. Constantinescu) and
- *Economic texts from Charles Fourier’ thought* (with an introductory study written by G. Mladenatz and with a foreword written by Gh. Zane).

In the year 1973, the network of economic research institutes comprised: *the Institute for Economic Research, the Institute of Studies and Research for Planning, the Institute for the Study of International Economic Conjuncture, The Research Institute for the Agrarian Economy, the Institute for Commercial Research, the Research Institute for the Promotion of International Tourism, the Economic Research Centre for Prices and the Financial and Monetary Research Centre.*

In 1976, the following two institutes were founded: *the Institute of Industrial Economics and the Centre for Information, Documentation and Synthesis.* According to the Decree no. 704/1973 it had been established *the Central Institute of Economic (CIER) Research*, the objective of which being the coordination of scientific research in the field of economics sciences. Article 5 of the Decree stated that “*in order have a tighter relation between the activity of the research units of the institute and that of the higher education economic units along with that of economic chairs, the research tasks of the teaching staff would be included in the research plans of the institutes*”. In order that such tasks would take place within CIER, it had been decided to temporary transfer to the institute a number of teaching staff members employed for the elaboration of priority research topics. Also, the most valuable researchers of CIER would be trained to teach lectures in higher education institutions. This demonstrates the existence of a sustainable cooperation and partnership between economics higher education institutions and the economics research institutes.

According to the above-mentioned Decree, *the network of CIER* comprised: *the Institute for Economic Research, the Institute for Industrial Economy, the Institute for Agrarian Economy, the Institute for World Economy, the Institute for the Economy of Commerce and Tourism, the Institute for Planning and Forecasting, the Institute for Finance, Monetary Circulation and Prices, the Centre for Information, Documentation and Synthesis*, and the territorial economic research centres in *Cluj-Napoca, Iași, Timișoara and Craiova.*

In the very first days of the year 1990, Academician Tudorel Postolache had contributed to found *the National Institute of Economic Research (NIER)*, which continued the work of the *CIER*, previously founded in 1973.

The new institute was designed as a scientific organisation of public law, of national interest, with vocation in fundamental research, financed by the public budget, and involved in the development of applied research, financed through public sources or private domestic or foreign sources (Decree Law no. 10/10 January 1990).

In May 1990, through *the Government Decision no. 505*, NIER resumes the fundamental research structures of *the Romanian Academy* and continues the almost 100 long tradition of institutional economic and social research.

As an academic institution dedicated to fundamental research, NIER undertakes an essential role in the development and preservation of the scientific heritage, and of the national institutions and identity, but also from other fields of national culture and science, through the generation, identification, employment and promotion of major interest projects. Its results would take the form of large works, encyclopaedia-wise, which are meant to valorise the contributions and historic resources of the generations of researchers and scientists from Romania. The fundamental research within NIER takes place along with the participation at the elaboration of studies, programmes, strategies and support papers required for sectorial and national strategies related to economic research and development. Also, NIER is actively involved in works and analyses required for the justification and advocating of legislative initiatives and development policies, providing consultancy and expertise, thus supporting the legislative and executive activity. In other words, NIER acts as a centre for excellence in the field of research, documentation and synthesis for the economy and for economic policy.

NIER is composed of the following research institutes and centres:

- five research institutes with legal personality – *the Institute of National Economy, the Institute of Agrarian Economy, the Institute of Quality of Life Research, the Institute of Economic Forecast, “Costin Murgescu” Institute of World Economy;*
- four research centres with legal personality – *the Centre for Industry and Services Economy, “Victor Slăvescu” Financial and Monetary Research Centre, “Acad. David Davidescu” Centre for Studies and Research in Agrosylvic Biodiversity, the Centre for Economic Information and Documentation;*
- nine research entities without legal personality – *the Division of Complex Research, the Division of Consultancy and Partnerships for Public Strategies and Policies, the Romanian Centre for Comparative Economy and Consensus, the Centre for Macroeconomic Modelling, “Vladimir Trebici” Centre for Demographic Research, the Centre for Computer-Aided Decision Making, the Centre for Promoting Renewable Energy and Power Efficiency, the Centre for Mountain Economy, Pierre Werner Centre for Studies and Documentation Romania-Luxembourg.*

NIER contributed to the design of several national strategies. Among these, we mention: *the Strategy draft regarding the transition to a market economy (1990), the National strategy for preparing Romania’s integration into the European Union (1995), National strategies for Romania’s sustainable development* , various editions (2005, 2008, 2016), *the National strategic framework for the sustainable development of the agro food sector and of the Romanian rural space 2014-2020-2030, Romania’s National strategy for the next 20 years, under the coordination of Academician Ionel-Valentin Vlad (2015-2016), as well as Competitive Romania project of the Government of Romania (2016).*

8. The Place of Romanian Economic Research and Education institutions among International Rankings

According to *the Top of 14,067 RePeC quoted institutes*, as of March 2018, the first places are taken by *the Department of Economics, Harvard University (US), the National Bureau of Economic Research (US), the World Bank Group and London School of Economics (UK).*

Bucharest University of Economic Studies (BUES) ranks 142th (287 authors), which means top 2% and NIER – The Romanian Academy ranks 251st (133 authors), which means top 3%.

The same ranking places BUES on the first position and NIER on the second position in a ranking concerning Romania.

9. Conclusions

The paper is not an exhaustive one, but it had been designed much more as a tribute due to the anniversary nature of this moment both for our whole nation (100 years) but also to the history of 105 of ASE.

Economics education and research have to prove respect for the work of the previous generations understanding that, as suggested by the logo of *the European Year of Cultural Heritage* we are at a turning point when we need to prove that we realize the importance of this kind of anniversary events when the past have to meet both present but mostly future.

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**Is there Path Dependence for Romania's Labor Market?
Relevance and Impact**

Laura Mariana CISMAS^{1*}, Cornelia DUMITRU²

Abstract

The Romanian labor market had a difficult “maturation” process reflected in the fluidity and instability shown by many of the relevant economic and social institutions during the transition period. Moreover, both the transition period, and the post-transition one have augmented several issues on this market, from among which we mention: labor force migration associated with accelerated demographic ageing; mismatch between educational supply and labor market demand; increasingly marked and hard to remedy disparities between the regions of development; excessive urban-urban, urban-rural, rural-rural polarization, and wider gaps between the various groups of population represented or representative for the labor market in Romania. It is obvious that for the labor market and its outcomes the question about the existence or non-existence of path dependency becomes relevant, in order to identify some objectives and tools that are efficient from a labor market perspective in diminishing the existing types of disjunctions and speeding-up the process in view of achieving the convergence and cohesion objectives at European level. The paper aims to realize a general empirical analysis based on the data provided by various national and European statistics regarding the evolution registered by the main wage, unemployment and active labor market policies as they all provide for useful and relevant information about the relevance and impact of path dependence, but also for possible path ‘divergence’, ‘disengagement’ or ‘shift’, particularly for the crisis and post-crisis period.

Keywords: labor market, path dependence, neo-institutional economics, social and economic policies

JEL Classification: E24, J08, J24, J30, J31, O43

1. Introduction

The Romanian labor market had a difficult ‘maturation’ process due to historical circumstances – in terms of politics, economic and social development – beginning the long road to the present about the end of the 19th and the beginning of the 20th century.

The shift from a preeminently agricultural economy and society to a modern, industrialized society led to the emergence of a particular category of impoverished small landowners who –

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attracted by the higher speeds of urbanization – turned into the bureaucracy of the state for the local and central administration (Jowitt, 1987).

At the same time a ‘mechanic’ transfer of liberal economic institutions took place, which is still unfinished, due to the disruption created by the enforcement of economic and social institutions corresponding to the socialist/communist system after the Second World War.

The “stellar” moment of the unified Romanian state, after the First World War in the year 1918, had to unify various traditions of the reunited Romanian regions: Austro-Hungarian in the western part of the country, Ottoman in the southern and Tsarist in the eastern part. It was a difficult undertaking, from regulating the monetary market by implementing the single national coin, to regulating the administrative environment as a whole, and each part thereof, and developing economic policies aimed at ensuring the progress of the country on the path of modernization and of alignment to the capitalist societies of the West.

However, same issues as before the war remained unsolved and were even compounded by the issue of creating a new (political, economic and social) institutional framework, while operating harmonization between three institutional cultures, in particular in the economic and social field: the Tsarist, Habsburg and the (predominant) Romanian institutional culture which still showed signs of the past influence of the institutional culture imposed by the Ottoman Empire. Moreover, the predominant features were given by the traits of the provinces under former Tsarist and Ottoman influence, and which were predominantly agrarian and these features help in understanding one of the main lags between West and East, and not exclusively for Romania: as the country was predominantly agrarian, the institutions (economic and social) followed and did not encourage developments according to the labor division based on class, but labor division based on status (Jowitt, 1987).

The main issues and debates dominating the period were the lack of domestic capital, and the opposition between the “open gates” and “regulated gates” policies regarding investments and industrial development defended by the dominating political parties of the period. Stefan Zeletin a witness of the Romanian twenties, argued that while in the West the bourgeoisie developed as opposition to aristocracy and became the driver of capitalist change, in Romania it was part and parcel of the elitist structures, and the ‘burning of stages’ in the process of catching up with the West required new approaches as the country had ‘jumped’ from mercantilism straight to financial capitalism. As supporter of the ‘by ourselves’ economic ideology, he regarded as necessary stages of national development a certain ‘closure’ against foreign capital and industries to allow for the development of national industries, based on high tariffs, diminishing the importance of foreign (external) trade, and the production of substitutes for imported manufactured goods (Chirot, 1994).

To the contrary, Stefan Voinea defended the other view, the ‘open gates’ as means of developing and modernizing the country.

Perhaps, the most convincing argument about the disruptive nature of the process put in motion after the Second World War is this: how Romania even now is still in search of identifying the best operating and functional market institutions, not only with respect to the labor market, but also to all other markets. One effect visible during the transition with respect to this ‘indecisiveness’ about how economic and social institutions should be built and rendered operational is the status of ‘hybrid’ given to the Romanian economy, as it embeds both characteristics corresponding to liberal market economies, and coordinated market economies according to the typology developed by Hall and Soskice (2001).

Nevertheless, this period of the twenties was the time when Romania launched its first ‘country project’ metaphorically speaking. Decisive benchmarks related to the monetary unification, the enforcement of a new labor code (1929), strengthening through legislation the position of Romanian industry and of the Romanian entrepreneurs, assisting in opening new factories, building rail and road infrastructure, etc.

The brief period of consistent economic growth and social development was disrupted by the Second World War and the subsequent expansion of the Soviet influence in the East- and Central European countries. This period of socialist and communist influence contributed massively to distorting one of the most important markets from the economic, social and cultural viewpoint: the labor market, as based on its outcomes, precious information might be gathered and inferred about the success of economic policies in the agricultural, industrial or services' sector, including here chosen technological paths and innovation performance.

The transition and post-transition period are dominated, just like the beginnings of the Romanian modern state by similar issues and questions: the lack of domestic capital, and the need of investments based on foreign capital for developing the viable sectors of the economy; the need of strengthening the administrative capacity and of increasing the performances of all regions of development, etc. The most debated questions are related to possible explanations regarding the different speeds of development in these regions, and arguments provide for explanations ranging from the development level of regional infrastructures, geographical-spatial considerations, past and current industrial structure, entrepreneurial attitudes, to administrative and investment attractiveness of the respective regions to mention but few.

The present paper intends to provide a possible explanation based on the labor market as unifying market for all the other markets (even capital ones) from the perspective of 'path dependence' as this type of approach might provide information about why developments were so different at the level of national regions of development and, to equal extent, information about what particularizes regions seen from this half-historical, and neo-institutional economy perspective. This paper is more a challenge for economists to consider some suggestions in the field of neo-institutional economics, including the 'adopted' phrase of path-dependence in analyzing the present quality of the Romanian labor market, of strategies and policies from a complex viewpoint. We consider that path dependence is one way of understanding why some economic institutions are efficient and others are not (Acemoglu, 2006), as 'path dependence' has been adopted by evolutionary and neo-institutional economics (North, 1990; Liebowitz *et al.*, 1995, Witt 1997; Greif 2006).

2. Path Dependence. Theory and Approach

In the quest for formulating most efficient policies in various fields of economic activity, the interest for the ideas and hypotheses delivered by neo-institutional and evolutionary economics, and by the path dependence theory has constantly grown since the end of the nineties. First used by David (1985, 1986 1994, 2001) in explaining technology diffusion (the famous QWERTY example) and other scholars in explaining technology diffusion (Arthur, 1994, Dosi,1997), path dependence has become increasingly employed by scholars and experts in attempting to explain how and why persistence and rigidity continue to be critical issues with impact on economic outcomes.

The current period demands new and flexible approaches in formulating policies and shifting from static to dynamic thinking of policies and policy actions, considering their inherent dynamics and the complex interactions they enter into once implemented. This is even more important when approaching the topic of the labor market as it is a very sensitive and particular market where thinking not in terms of action but in the ones of interaction is compulsory as it is a market that tends to build own systems and dynamics based on overt and "hidden dynamics" (Sydow & Schreyogg 2010) due to the essential role played by the factor human capital.

In general terms, path-dependence is the way in which past actions and resulting routines determine present and future actions due to effects of 'lock-in' or entrapping generated by positive self-reinforcing processes. In other words, path-dependence tells that 'history matters',

including here economic history, or more specifically that institutions and their ‘path-dependence’ matter for economic development (North, 1994; Marinescu, 2014).

While the existence of path dependence in institutions is acknowledged by scholars and experts, two issues still remain to be explored further: the issue of ‘critical juncture’ which implies that better institutions lead to better economic outcomes and finally to development, and the one of modernization as driving force which argues that economic development, speeding up industrial development, the diffusion and adoption of new technologies and innovation, etc. have the power to influence institutions so as to become better, more flexible and altogether responsive to the changes in the economic and social environment (Fadiran *et al.*, 2016).

2.1 Brief Historical Account

Romania’s labor legislation had somewhat confusing beginnings, as the period 1859-1918 was lacking unified legislative provisions with respect to labor. In fact, the Constitution of 1866 in Article 27 stipulated the right to association in professional organizations while the legislator maintained the right to regulate separately the legal regime of these organizations. These organizations, in their turn, developed own Statutes, rules and programs that had to be approved by the administrative authority of the State, as a rule, the Ministry of Interior. Legal personality was gained based on the legal concession granted by the legislative body. The difficult beginning by the end of the 19th century and the beginning of the 20th is reflected by the inclusion of work related provisions in various laws regarding other specific fields of activity: *The Health-Sanitary Law of 1885*, *The Regulation for Waste-Cleaning Industries of 1894* and the *Mining Law of 1894* all contained bits and pieces regulating labor for women and children, about their working in small workshops, factories, etc. and working time (not before 5 a.m. [...] and not later than 8.30 p.m.). However, no provisions are made about the working time of the adult worker as it was considered that “he/she is master of his time and type of work” and that on obtaining the job he/she was in full agreement with the requirements of the employer. With regard to children’s labor, the *Regulation of Waste-Cleaning Industries* stipulated that children can work as of 12 years of age, while the *Mining Law* prohibited work for children younger than 14 years of age. *The Law for trade, credit and worker insurances’ organization* from 1912 was the first to stipulate a working time of eight hours for children between 11 and 15 years of age, along with other specific provisions, and of 10 hours for those with ages between 15 and 18 years of age, while women even if older than 18 years of age could be not obliged to work for more than 11 hours per day. Professional risks were acknowledged only by 1910, and social insurances were first regulated only in 1912. An overview of the legislation passed with respect to labor leads for the respective period to the conclusion that the laws were favoring the employers – as they had full control with respect to hiring and firing – and that most included the prohibition of strike in certain sectors (mining, but also administration, where public officers were forbidden to resort to strikes). Only two types of contracts were used: individual labor contract and the apprenticeship contract regulated by the *Law for trade, credit and worker insurances’ organization*. The key-word for this period with respect to labor and labor market is “chaotic” and no comparisons can be made, in our opinion, to the present.

The first modern law to regulate labor and implicitly labor market in the modern understanding of the word is the *Law from 1929 regulating labor contracts*. In the preamble this law abrogates and replaces the Law from 1912, while stipulating that the respective law does not meet the demands of the new realities, i.e. the context after the year 1918 which meant harmonizing three political, economic, social and cultural traditions echoing the influence of the three Empires exerting their influence in this part of Europe. The subsequent positive developments encouraging both employment and educational development based on other

field-related laws are suddenly disrupted by the Decree-Law No. 505 of 1938 dissolving trade unions, and providing for more restrictive labor regulation.

The period after the Second World War meant the distortion of the relevant economic institutions for the labor market. For instance, ‘unemployment’ did not exist, even if the reality was far different, and various artifices were used to camouflage its reality. In brief, the labor market mechanism was abolished in favor of the centralized planning and control of distributing and using labor force. As this period is not to be debated in the present paper, we consider that in the following some caveats are necessary: the renewed interest in the relevance of path-dependence and in exploring the influence of economic institutions on economic growth and performance as of the 1990s, has intensified again in the aftermath of the Great Recession; the abstract notion of ‘labor market’ refers specifically to institutions and practices governing the exchange of labor services by defining and determining the rules governing employment, mobility, acquisition of skills, training, and improvement needs of human resources, including how wages are distributed along with other rewards (Kalleberg and Sorensen 1979). Therefore, analyzing ‘path dependence’ related to labor market might provide useful new understandings about why rigidities persist, why persistence in itself is relevant; comparing quality of institutions is a somewhat difficult exercise, as they involve agreeing to compare different economic systems, levels of development, and when referring to labor market different development paths (Good, 1994), which is extremely relevant for the current outcomes of the Romanian labor market; the Romanian labor market due to historical, geographical and economic particularities is very suited to examining the impact of economic institutions and path dependence as it meets several conditions less analyzed by the specialized literature: (i) the national labor market is the outcome of the reunification process of three historical regions at the beginning of the 20th century after the First World War; (ii) the period after the Second World War shared by Romania and the other countries of Central and Eastern Europe contributed to ‘leveling the field’ with respect to economic development and labor markets between these countries, as they all were subjected to Soviet communist control especially regarding their industrial, trade and investment policies. Thus, the reasonable assumption would be that economic institutions were by and large distorted similarly for labor market in all these countries; (iii) the transition and post-transition period represent as many different stages underwent by these countries that contributed to differentiating them even more in terms of economic outcomes, including here labor market outcomes, determining not only different speeds of cohesion and convergence but also increasing differentiations inside each of these countries’ regions of development; (iv) The aftermath of the Great Recession is even more significant, as it is an example of how ‘path dependence’ can turn either into ‘path-creation’, ‘path-shifting’ or ‘path-break’.

2.2 Post-crisis Developments and Path-Dependence – “Hidden” Risks

Romania’s labor market has been subjected to a complete overhaul after 1989. However, few analyses have focused on the relevance of economic institutions and path-dependence for the evolution on this particularly sensitive market. The transition period was characterized by uneven economic restructuring, as the regions of development slowly but constantly differentiated with respect to development level, expressed in their capacity to attract foreign direct investment, availability of skilled labor force, entrepreneurial spirit, openness to innovation, not only in its technological but also social meaning etc. Moreover, both transition and post-transition and post-crisis periods are tricky when attempting to gauge the relevance of economic labor market institutions and path-dependence. Measurements of economic institutions’ quality are still in incipient stage (consider, for instance, the OECD 1994 indicators based on which the Employment Protection Legislation complex indicator is computed), just

like those regarding quality of governance, which is the best expression of how good institutions are structured and operate. Proposed measurements vary based on the elected criteria and complete agreement exists only regarding some basic conditions institutions must meet: transparency, predictability, low level of corruption, to mention but few.

In this context, for the quality of institutions and of governance with respect to labor market, we suggest as indicative proxies self-employment, undeclared work, and active labor market policies, as they embed also most ‘lock-in’ risks and migration for work or education.

Migration for work is one of the most concerning indicators in itself, as it heightens the rate of vacancies for particular fields of expertise that require special attention considering the economic shift taking place nowadays at world level.

At the level of the year 2013, interesting information can be obtained by considering undeclared work based on the labor input method, as it provides also strong cross-national correlations with structural determinants expressed by the indicators considering quality of institutions and governance with respect to labor market providing an image about the overt and hidden dysfunctions.

While on average 11.6% of total labor input in the private sector at EU level, and on average 16.4% of gross value added (GVA) is undeclared (unweighted averages), while the weighted averages (taking into account the size of the labor force in the Member States show that 9.3% of private sector work is undeclared, and represents 14.3% of GVA. Concern rising is the fact that Romania, together with Poland and Lithuania have the highest levels, while all other New Member States contribute to increasing the EU average. This situation can be attributed to three categories of employees: the undeclared self-employment, which for Romania is of 73.2% (Latvia 77.6%, Cyprus 70.6%) and of only 5.3% in Bulgaria (!). Another category is of existing employment relationships that are not declared where Romania has a share of 15.1%, lower than Poland (25.3%), but still in the top of the countries with undeclared work based on an employment relationship, and the last category, represented by family workers 68.2%. As these phenomena is encountered in the private sector, for Romania it means 18.9% of total labor input in the private sector, correlated with a share of 26.2% GVA in the private sector (latest data from 2013, European Commission 2017). These show some of the ‘lock ins’ of the labor market, which are applicable not only to the private sector, but to the public sector as well referring to structural conditions, resulting in significant cross-national variations regarding undeclared work: corruption perception index, trust in authorities index, impact of social transfers on poverty reduction, public expenditure on labor market interventions, and migration rate to name the most significant ones.

However, the latest data over employment and unemployment at EU level, including Romania show an overall improvement of the labor market. In the third quarter of 2017 employment gained 1.7% in both the EU and the euro area, expressed in 4 million additional jobs and 2.7 million people employed which proves an acceleration of employment growth despite pessimistic estimates. This was reflected in the highest levels of employment within the EU, as the number of employed reached 236.3 million, due to the steady growth for the past four and a half years, i.e. an increase by 12 million people as of 2013. This EU-level evolution is also in accordance with the national trend, as Romania’s employment increase by 5.2% in 2017 (third quarter).

Employment drivers continued to be the service sectors, and only slight improvements were registered for industry and construction, while the main contributors to employment were permanent jobs and full-time employment. This is an indication of confidence expressed in a share increase by 1.7% employees with permanent contracts, exceeding the increase in temporary contracts. At the same time, full-time workers increased in numbers by about 3 million, up to 181 while part-time workers only by 3 million, amounting to 42.7 million.

Permanent jobs and full-time employment were the main contributors to employment expansion. In the year to the third quarter of 2017, the number of employees with permanent contracts grew by 1.7%, confirming the trend of rising confidence, bolstering the demand for labor, and represents an increase of 2.8 million employees, which is three times more than the increase in temporary contracts (900.000, 3.2% yearly growth). Full-time workers saw their numbers increase by about 3 million, up to 181 million, and part-time workers increased by about 300.000 up to 42.7 million. It is worth to notice that part-time employment has never contracted since 2008, and now stands at nearly 5 million jobs above its 2008 level. However, full time employment still underperforms its pre-crisis, 2008 level by 1.5 million. Nevertheless, employment rates continue to show wide disparities, from 58% in Greece to 82% in Sweden, while in about half of the Member States, employment rates continue to be below their pre-crisis rates.

EU unemployment rates also have some positive developments, as they are closer to the values before the outbreak of the crisis. Within the EU unemployment represented 7.3%, which means a decrease by 0.9 pps yearly for the last three years. (ESDE, Quarterly Report February 2018).

This shows that labor market policies, in particular ALMP were effective, but still some questions remain about the efficacy of labor market institutions, and implicitly policies when we consider some concern raising issues: the underutilization of labor force, which includes ‘underemployment’, the rates of people available to work but not seeking, the increase in activity rate but also in undeclared work.

3. Conclusions

In Romania, undeclared work is an expression of the difficult evolution of the labor market, respectively the deep roots of lacking confidence in the authorities of the state, and civil servants are perceived, just like at the beginning of the 20th century as corrupt and ‘rent-seeking’.

The way labor was regulated in the beginning makes a socially acceptable practice of undeclared work, and is also seen as mitigation to low incomes, the lack of jobs corresponding to expectations and vocational/occupational education and training. Moreover, taxation of labor continues to be changing much too frequently, increasing this mistrust, and less weight continues to be laid on measures such as enabling education and preventative actions with respect to this propensity for undeclared work. This is a ‘lock in’ generated by unemployment and other social benefits that tended to be pro-cyclical during the transition and post-accession period. Also, the fact that wage earnings continue to maintain a low income level, despite recent consecutive increases as of 2012, contribute to encouraging the households to involve in undeclared work, irrespective of the shape it might take.

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**The 1st International Conference on Economics and Social Sciences
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Building a Function of Lifestyle in a Consumer Society

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Abstract

The authors begin from the idea that the results of human action, i.e. lifestyle, are induced by the thinking system of each individual, by his or her attitude, respectively by the behaviour which resumes each person's actions. On this ground, a function of cause and effect type is being built.

The core issue is that in a global society, there is a great influence that man exercises on what is exterior to him, but also a great influence that he in turn experiences, both for good and for bad. These influences are then often seen in the choices that we make when meeting our wants. Such being the case, we argue that at the founding of a consumer society lies a philosophy which emphasizes that well-being, happiness, are proportionate with the acquisition of goods.

Keywords: *thinking system, attitude, consumer society, happiness*

JEL Classification: *A 12, D 91*

1. A “more” behavioral context

“The Royal Swedish Academy of Sciences has decided to award the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2017 to Richard H. Thaler University of Chicago, IL, USA for his contributions to behavioural economics”
The Royal Swedish Academy of Sciences (2017)

Members of the international academic community, and not only them, await with great interest the announcements that The Royal Swedish Academy of Sciences make each year with regard to the winners of the Nobel Prizes. These announcements, which became so famous, are a loudspeaker that emphasize the merits of one or several persons in top research. But it is not only about this fact. These prizes also succeed in bringing to our thoughts a paradigm, a specialised subject within a science, which were favoured in the respective year out of several valuable approaches.

At the beginning of our paper we considered timely to indicate an excerpt from the press release of the Swedish Academy with regard to the Prize for Economic Sciences. This excerpt is useful to synthesize the field to which this study subscribes and to also indicate, why not say so, the relevance of such a research. Otherwise, a considerable part of the research that professor

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Taşnadi and his collaborators made in the last years has centered around the sphere of the behavioral approach. The announcement of the Nobel Prize 2017 had, therefore, a double significance for us: besides meeting a natural scientific curiosity and enhancing our knowledge, the awarding of the prize for contributions to behavioral economics gave us the joy of feeling that our work is done within a trend that is acknowledged and favoured at the most high academic level.

Various persons, whether more or less accustomed to the subject, could think about some facts when hearing the phrase “behavioral economics”. An economist could issue some opinions regarding the subject, although his main could be in another field of the universe of economic theories. However, experience makes us ask ourselves: by joining the terms “economics” and “behavioral”, do we not give rise to a pleonasm? Can economics be otherwise than behavioral?

We believe that each social science is first and foremost behavioral. Shortly, we may consider that numerous economics textbooks, when defining the science, start by saying in a way or another that it studies the behavior of human beings in actions with regard to the meeting of wants. Thus, we ask: is it possible that academic community, to such a great extent, might commit what could be considered, a conceptual error?

Definitely, this is not the case. When speaking about the concept of „behavioral economics”, we do not intend to isolate certain themes of economics that are behavioral from others that are not behavioral. It is rather an emphasis of a fact. Which one? The fact acknowledging that the aspects which might be classified as psychological, play a significant role in the unfolding of economic activity. It is an ascertainment rooted in practice and modern economic theory cannot afford to overlook it.

Attitude towards the behavioral approach was split during time. If some gave it proper attention, some doubted its practical relevance. We could see in the excerpt from the beginning of the paper that professor Thaler is a member of reputed Chicago School of Economics that yielded another 12 Nobel Prize winners before. Alike other genuine schools, at the Chicago School there are doubts, debates, confrontation of ideas. With regard to the subject now considered, Steven Levitt and John List, colleagues of professor Thaler, were expressing the following position in 2008:

“Perhaps the greatest challenge facing behavioral economics is demonstrating its applicability in the real world. In nearly every instance, the strongest empirical evidence in favor of behavioral anomalies emerges from the lab. Yet, there are many reasons to suspect that these laboratory findings might fail to generalize to real markets.” (Levitt, List, 2008, apud Ariely, 2009, p. xvi).

The above excerpt was used by Dan Ariely, James B. Duke Professor of Psychology and Behavioral Economics at Duke University in order to support a reasoning on the relevance of the behavioral approach, which he and Thaler represent. In the volume “Predictably Irrational” (2009), Ariely mentioned that in particular in the financial field there was a lot of reluctance with regard to the assumptions made within the behavioral approach, financiers claiming almost full rationality that market mechanisms might induce. However, behold, “Alan Greenspan, the formerly much-worshipped chairman of the Federal Reserve, told Congress in October 2008 that he was “shocked” (shocked!) that the markets did not work as anticipated, or automatically self-correct as they were supposed to.” (Ariely, op.cit., p. xvii). Ariely concludes: “For my part, I was shocked that Greenspan, one of the tireless advocates of deregulation and a true believer in letting market forces have their way, would publicly admit that his assumptions about the rationality of markets were wrong.” (op. cit., p. xvii-xviii).

At the time being, it seems that “we have no case” in questioning the relevance, nor the relevance of behavioral economics. This introduction describes the context justifying the methodological unfolding announced by the title. After several years of research in the field of

consumer society and culture, it appealed to us the building of a function of lifestyle with reference to consumption. This function subscribes to the behavioral approach, its purpose being to facilitate a better understanding of consumption behaviors and to offer some coordinates to those who wish to shift towards a more responsible consumption.

2. A society in which people like a lot to consume

If in the former section we delivered some assertions with regard to the paradigmatic framework of our paper, now we have set the task to reveal a couple of factual aspects that triggered our research effort. The phrase “consumer society” became somehow usual both for scientific research community, and for common social culture. Who is not attracted by consumption with so many products and services surrounding us? Targeted marketing techniques render so that to one’s years reach those customized messages that will amplify in a disproportionate way a desire that might be even in a latent state.

In this paper we did not set to the task of developing a portrayal of what is called by the name of consumer society or culture. We have done this in a former paper (Taşnadi & Alexandru, 2017). Now we will synthetically show some of the aspects regarding consumption so as to depict the context that aroused an intellectual unrest to which we try to oppose a scientific action.

We show in the following synoptic table some of the issues that concern us in the context of a society whose members exhibit a high propensity to consume:

Tabel 1. A synopsis of consumer society

Art.	Field	Theme	Description
1.	Economics	Saving – consumption ratio	A raised propensity to consume leads to negative rates of saving for some societies at various times. Beyond the matter of capital accumulation, such a situation is one of the drives of unstainable public and private debt.
2.1	Natural environment	Pollution	Interdependence between production and consumption is displayed also by the fact that not only consumption adapts to existing production, but also by the fact that producers strive to meet solvable demand. This case brings about the matter of ethics in business, in the context in which producers are often ready to overlook some realities and limits that natural environment impose, in order to meet needs, but also to meet their own financial or prestige interests.
2.2		Stock of resources	The matter of resources, under the various aspects that it raises, has been a constant of history. In recent years, however, more studies raise awareness that, for some categories, the rythm of exploitation lays above the ecosystems capacity to regenerate.

3.	Psychology	Subjective well-being	Various studies draw attention to the fact that material well-being does not play such an important role in subjective well-being as we might be inclined to believe (Ahuvia, 2007; Dolan <i>et al.</i> , 2007). With regard to what concerns us, for example, “status consumption” is one tool that people use in the hope of becoming happier, but, on the contrary, it only undermines happiness.
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Looking over this synopsis we start realizing that a consumption behavior has more profound implications that could be seen at a glance. The matter of consumption brings about significant stakes both for individual and social life. It is precisely this fact that urged us wanting to better understand the drives of a consumption model that, far from reaching its purpose – meeting of wants – on the contrary, undermines happiness.

3. Exploring consumption by means of lifestyle function

One quality in particular useful for a researcher is his or her capacity of synthesis; a certain degree of performance in this respect allows for a proper conveying of what is discovered.

Having in mind this belief, of conveying what we found in a relevant as possible way, we built the function that we propose to you.

In this regard, we considered proper including under the umbrella of “lifestyle” the philosophy of life and behavior that one might adopt when wanting to meet needs. For sure, the term “lifestyle” may refer to many aspects of one’s life, not only to consumption. Lifestyle may refer also to the customs regarding the approach to health or personal relations. For our end, lifestyle considers quantities and qualities of goods and services that are consumed: what, how, when, and maybe more important, why do we consume in a way or another? The objectives of our function are to describe a model of consumption and, especially, to help understand the drives that generate this model.

Recognizing a cause, or even the very primary cause is a methodological action, proper to any research. For us, as economists with a passion for the history of economic thought, the drive for such a research on consumption models is nurtured by classic sources within economics.

We refer to the treaties of “principles” type. There, we appreciate that the authors build what could be called a philosophy of economics, in which the development of cause and effect type is obvious in a special way. For example, Carl Menger commences the first chapter of his “Principles of Economics” in this way:

“All things are subject to the law of cause and effect. This great principle knows no exception, and we would search in vain in the realm of experience for an example to the contrary.” (Menger, 1871/2007, p. 51).

Led by this programmatic inducement, we try to add a valuable tool to the behavioral approach in what regards consumption. Thus, we recognized the opportunity of a mathematical approach with reference to human unfolding of consumption, of the following type:

$$Ls = f(T, A, B) \tag{1}$$

Where: Ls is lifestyle; T – thinking; A – attitude; B – behavior.

Our function emphasizes the fact that reflection is the forerunner of action. Therefore, within our function, thinking is the trigger and refers to the cognitive landmarks accumulated by the

individual in what concerns consumption. As a matter of fact, it is about the knowledge and beliefs that a person has with respect to the consumption which is supposed to meet his wants, and eventually contribute to his or her subjective well-being. We may consider that this type of knowledge is quite weak in a society in which the message of advertising stimulates individuals to purchase as much as possible, convincing them that happiness is found in a directly proportional relation with Q – the quantities of goods and services that one may make use of.

The referential (thinking) contains the cognitive reporting of man to consumption which ultimately will be reflected in behavior, mediated by attitudes. In our model, attitudes represent a filter of thinking that allows for, or prevents from applying what is known. This category might be perceived as an array comprising of the following elements: {malevolence, passivity, indifference, responsibility, proactive approach}. These convictions, strongly internalized, are those who allow certain thoughts to be expressed at the behavior level. We may imagine that a person who is indifferent to the consequences of his or her actions will perceive a proposal of meeting a need in a way, but a person who adopts a responsible attitude will probably assess the same proposal in another way.

Regarding the “behavior” variable, we include here the action range displayed when trying to meet one’s wants. Besides the actions triggered by drives and mediated by the referential and attitudes, in this category we also include other two classes: errors and adjustments.

Errors refer to those behaviors that are somehow unexplainable, transient, displayed in a spontaneous and somehow surprising manner. We do not include here what is, in our opinion, too easily classified as “irrational behavior”. We could understand from the studies conducted and presented by professor Ariely in the volume “Predictably Irrational” that many types of behavior that often are labeled as “irrational” have, as a matter of fact, a basis and a logical mechanism by which they develop; the special thing may be just the fact that their logic of unfolding is more difficult to be traced under the causal aspect. Therefore, by error, we name those isolated cases in which certain special circumstances induce a gap between what is known, believed and valued on the one hand, and what is done, on the other. This kind of behaviors might trigger, for example, in case of some natural disasters or in the case of very special life circumstances (illness, death of a dear person, etc.).

Adjustments refer to those external influences that modify a consumption behavior by means of imposing certain limitations or, contrarily, by stimulation of consumption for certain categories. Concretely, we may include here restraints to consume various products, by means of law, be it transient or indefinite in time. A common example is water rationing in times of drought, but we could also hear of road traffic restrictions in view of limiting pollution within big urban areas. At the opposite pole is to be found stimulation. These situations could be represented, for example, by the stimulation of consumption for certain products by groups living in critical conditions. An example could be represented by people living in areas where a disaster took place, as could be the case of a nuclear accident. In both cases, of restraint, and of stimulation, adjustments act as an exterior agent that changes some behaviors, indifferent of the referential and attitudes adopted.

We described in brief the logic of our function, and now it is essential to show the results that might be returned by applying it. In order to do this, we must define the range of our function. In this respect, we figured these two limits – subjective well-being and sustainability, resulting the following unfolding of the function:

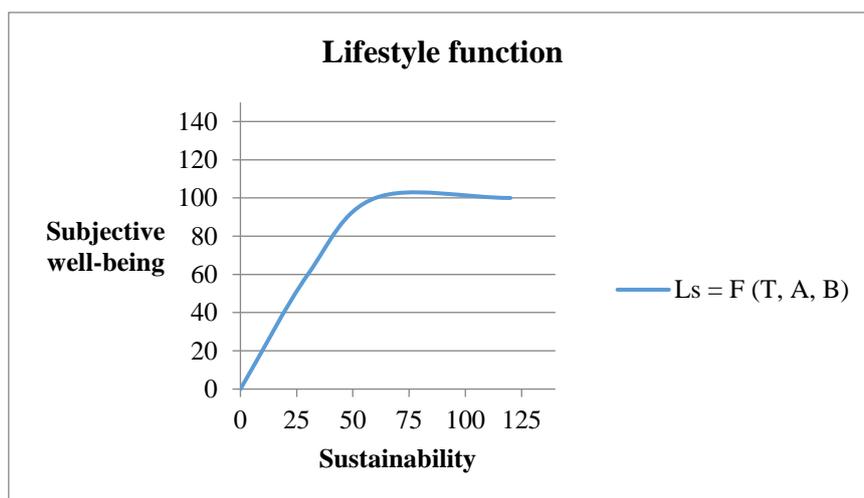


Figure 1. Lifestyle function relative to consumption

As can be deduced from the graphic, lifestyle relative to consumption unfolds between the attempt of improving subjective well-being and that of achieving it in a sustainable manner.

In our case, subjective well-being could, in turn, be placed within a scale bordered by values such as short term pleasure and long term happiness. Under the variable “sustainability” we consider the ensemble of elements that were indicated in the synopsis presented at the second point of our paper. Therefore, we refer to both economic and environmental sustainability, but also to the sustainability of individual’s life and of the social texture.

4. Discussion and conclusions

Building the proposed function is an attempt to adequately describe the consumption model chosen by a person. As a matter of fact, the function is meant being a synthesis of the complex behavior that individuals adopt when trying to meet their wants.

Our approach might give the impression of claiming precision with regard to modeling consumption behaviors without, however, having the necessary backing. We are aware of the complexity of human reasoning and of the fact that economic models always get surprised by reality. Therefore, we do not claim the completeness of our function, much less now, when research is in progress. In this paper we indicated in brief some of our reflections which are extended in the doctoral thesis of Iustin Alexandru (in progress), coordinated by professor Taşnadi. There, we explain in detail, by means of more examples and in a more complex way, our vision and the tool that it generated. For the time being, we are content with being able to generate a couple of ideas that might prove valuable within the behavioral approach.

As the behavioral paradigm is more accessed, there is hope that economic models might describe reality more precisely. However, we believe that there will always be a gap between what economists will be able to describe and recommend on the one hand, and how people will act, on the other hand. In this context, with regard to our proceeding, it becomes more obvious that beyond the actions of economists, recognizing the equilibrium point at the crossing of subjective well-being and multilateral sustainability remains a task to be handled by everyone because, isn’t it so, each of us has his or her own states of consumer.

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Interdisciplinary Communication Is a Successful Condition in an Organization

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Abstract

This paper proposes a better understanding of the concept of organizational communication as well as of the different points of view related to the fields that it interacts with. The starting point is represented by the psychosocial implications of organizations in the current economic environment and the analysis of the importance of interdisciplinary communication. This article contributes to the understanding of communication between organizations using perspectives from multiple disciplines, as well as overlapping areas and the differences between different business-related communication disciplines in order to achieve a better understanding of concepts.

Keywords: *organizational communication, integrated communication, public relations, team work, interdisciplinarity*

JEL Classification: *M14, M21*

1. Introduction

Specialists from all fields have concluded that research has become more and more interdisciplinary, supporting the integration of knowledge acquired by humanity in multiple fields and, apparently, from different research areas, opposed to excessive specialization and fragmentation of knowledge. Interdisciplinarity and the integrated approach have become synonymous with creativity, progress and innovation.

Interdisciplinary dialogue responds to new forms of research and knowledge accumulation, with all the difficulties that inevitably arise, at the level of framing, monitoring and evaluating the quality of the interdisciplinary process.

Collaboration between professionals from different domains uses different terminologies, alternatively, such as interdisciplinary, interprofessional, multiprofessional and multidisciplinary – often used with the term teamwork – to refer both to the typology of the teams, as well as to the multitude of processes within them. Of course, the terms inter/multiprofessional refer to professionals in certain areas, while the terms inter/multidisciplinary include all teams, regardless of their professional background, whether they are specialized or not. Whether it is corporate communication, public relations, integrated communication, holistic communication, business communication and others, many areas have developed various points of view regarding the concept of communication: political sciences,

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economics, sociology, psychology, management, anthropology, sciences, linguistics, cybernetics, biology, philosophy. In the sphere of business communication, we can even talk about a wider involvement of other fields: advertising, marketing, organization, mass communication, semiotics, each of them being independent disciplines.

2. The organization – integrated communication system

The evolution of society and its social systems has led to the emergence of social organization structures capable of meeting the requirements of different institutions and, at the same time, to allow the integration of different groups of people into the various types of activities necessary to achieve the objectives of those institutions. These structures, which can meet the ever-diversified requirements of the present society, took the form of organizations able to interact systematically with community-based groups.

The organizations have the role to set concrete goals, the realization of which ensures, on the one hand, the functioning of the whole system, but on the other hand, the achievement of the objectives and the realization of the personal interests of the members of society. All organizations have the role of formulating the planning, coordination and evaluation strategies for their activities, based on well-defined norms and values.

Thus, we can state that, at present, the organization is the highest model of social integration, designed to meet the essential objectives of humanity – the education system, the health and safety system, the production system, etc. At the core of any organization are the human interaction relationships, at the level of the individual or at the level of the groups of individuals pursuing the same goals.

Studies conducted by groups of psychologists and sociologists have found the existence of a complex motivational system that influences labor productivity, motivations that are based, in particular, on socio-affective factors – of socialization and approval at the level of the groups – besides those of a financial nature. Due to this grouping of individuals, theories have developed that these microgroups behave exactly as the individuals who form them, with psychosocial motivations, and act to achieve group goals based on informal communication.

3. Communication – integrated concept

On the one hand, the study of the interdisciplinary communication starts from the delimitation of the different types of organizational communication, depending on the categories of the audience they are addressing. On the other hand, communication is closely related to areas such as psychology, sociology and, last but not least, management.

Regarding the relationship between corporate communication and public relations, it is noted that in recent years, corporate communication has been instrumental in the evolution of organizations. As the legislation in the field of communication transparency has evolved towards insuring more transparent communication, and at all times, the organizations have been forced to manage their flow of information more effectively for the various audiences concerned. Initially, their efforts focused in particular on preventing the increasingly aggressive approach of the press to the organization's management, an effort that has become an important function of the PR. This function involved preserving a positive image of the organization by minimizing negative publicity and presenting conflicting elements or different crisis situations in a favorable light to the development of the organization. PR practitioners practically have a function of protecting top management of the organization. This is due to the fact that usually the communication skills of top managers were predominantly from technical areas such as finance, accounting, engineering or even production, and less from areas closely related to the study of consumer behavior such as marketing or sales, and were acquired by chance rather

than by experience. Thus, former journalists who became PR specialists represented the interface between these managers and the outside of the organization, helping them to become true communicators. This reputation was rarely true. But PRs were not always the answer or solving of all the problems in the organizations. In less pleasant situations, where incompetence or inadequate training of managers was visible, managers placed full responsibility for creating and maintaining a clean image for their organizations in the care of PRs. With the emergence and development of PR agencies that provide services to various organizations, that have become multinationals, along with communication professionals within these organizations, the communicational sphere is expanding, and communication specialists are beginning to occupy positions in top management of organizations. Thus, the first elements of corporate communication begin to take shape. The accent was now on restructuring the new branches of communication in order to fit them into the existing infrastructure of organizations.

Recently, corporate communication has continued to evolve to respond to changing business and legislative environment demands. The need to maintain a high level of transparency placed the corporate communication function in companies at a new strategic level. Messages and activities realized by investors, as well as annual reports, philanthropic activities and corporate advertising are now thoroughly analyzed by legislators, investors, and the general public. Also, the proliferation of online communication channels, including Web portals, email and blogs have accelerated the flow of information and public access at record speeds.

Under the most detailed microscope, clarity, alignment, and integration of communications to all constituents have the ability to create or destroy the reputation of the corporation. As a result, an overwhelming majority of internal communicators mention that they spend much of their time developing integrated communication.

The main problem faced by organizations is the centralization or decentralization of forms of communication. The centralized communication model provides organizations with a control over all communication functions, but a decentralized model gives them more flexibility in adapting the function to their own needs. The choice of one or another model depends on several factors, such as the size of the organization, the geographical dispersion of its offices, the degree of diversification of products and services, as well as the trends of world economies or global events. Even though decentralization offers more flexibility in periods of economic decline, it does not mean that they eliminate the risks faced by organizations that opt for this model of integration of the communication function into the top of the management hierarchy. Without a centralized opinion, there is an increased risk of spreading inconsistent messages in the market. Thus, we can say that the merging of the elements of centralization with those of a decentralized structure is preferable for a large organization.

The strategic direction of the organization is a key element of communication to shareholders, employees and the general public. In this respect, transparency and consistency with which organizations communicate with different audiences are important to inform them about the implementation process of the organizational strategy.

In order to formulate a general communication strategy of the organization, it is very important to involve executive management in the correct establishment of corporate communication functions. Even if reporting to top management is not direct, it is vital for the executive in charge of setting strategic directions of corporate communications to believe in its value and importance in achieving the organization's goals. Therefore, the function of strategic planning has, as an essential component, the function of communication. With increased competition, managers' communication skills have gained new valences, starting from the idea that they give importance to the communicational function to influence employees' perceptions on this matter, perceiving it as a critical management tool. A chapter of utmost importance in the issue of the organizational communication function is the sub-function regarding the

identity, the public image and the reputation of the organization, knowing that the image of an entity is different from one category to another – employees, shareholders, and consumers.

At the opposite side is the identity of the organization – vision, values, products and services – which should not differ according to the reporting to one audience category or another. While identity is the reality of an organization, and the image, its reflection through the key public categories, the reputation is how they perceive the organization. As a result, the idea that an organization can handle its reputation is unrealistic, focusing instead on developing and implementing strategies in an integrated manner among its audiences. The reputation of an organization can also be enhanced by corporate advertising, different from product advertising or two-way communication marketing. First, unlike product advertising, corporate advertising does not necessarily try to sell a service or product to the organization, but tries to sell itself, often to different customers. Another important aspect of corporate advertising is the involvement of organizations in managing major societal conflicts-domestic violence, tobacco or drugs use, etc. Also in support of the organizational reputation concept comes corporate social responsibility (CSR), because the organization has much more responsibility in the communities in which it operates. CSR campaigns have positive effects for organizational leaders as well as for their employees – who prefer to be part of the social and environmental community – as well as for customers – who will also recommend the products or services of the organizations involved in the communities they belong to. The relations with media, the classic PR function, today appear to be a sub-function of corporate communication, and the effort in this direction is boosted by the rapid development of virtual technologies.

One of the main features of corporate communication is, in theory, the variety of perspectives the field offers in terms of the role of communication. Researchers in corporate communication argue that the notion of corporate communication avoids the concept of marketing defined as a target audience also used by public relations researchers. Researchers in corporate communication bring together public relations and marketing. However, among them there is a variety of interpretations of subdomains that should remain under the umbrella of corporate communication. Corporate communication takes on the vital issues of modern corporations such as communication policy, communication management, health and risk communication, communication with shareholders, commercials and advertising, communication and management issues, crisis communication, new media as used by corporations, intercultural communication, the role of communication in technology transfer.

Some authors believe that corporate communication fuses the internal communication elements with those of the external communication as a management function. Perceived as a technical function by researchers in the field of corporate communication, public relations discipline is fragmented, emptied and therefore minimized in corporate communication literature. At best, public relations include sponsorship, event organization, mass-media relations, and communication crisis management, but for some authors public relations consist in creating a positive image of the organization and its relationships with the media. A number of subdomains that are considered an integral part of the public relations field, including mass-media relations, are treated as part of a different discipline. In this respect, building the corporate communication field has been detrimental to the prestige of public relations as a domain.

It may be debated that corporate communication practitioners and theorists describe this area as a combination of several established areas such as public relations, marketing, and organizational communication, as a unique domain in terms of strategy and management.

Therefore, public relations and corporate communication could be clearly differentiated by different goals. Public relations could focus on functional, social and organizational results to build mutually beneficial relationships among key stakeholders instead of yielding to the temptation to seek a magical method of empirical measurement that attracts top managers.

Corporate communication may recognize that it is an amalgam of several established areas, such as public relations, marketing, and organizational communication, and that its priority is related to business outcomes such as revenue, sales, market share, communication, even if they are pursued to the detriment of other social goals.

4. Conclusions

The success of an organization's communication strategy is largely based on how close the communication strategy is to the business strategy of the firm as a whole. In addition to a well-thought design and careful planning of the company strategy, an organization must have strong corporate communication to support its mission and vision.

While the function of relations with investors could be included in a company's finance department, the internal communication function in the human resources department, and customer relationship management in the marketing department, all these activities require communication strategies linked to the center mission of the firm.

Corporate communication professionals have to be willing to fulfill a variety of sub-functions related to it, and their roles will continue to expand and diversify, while globalization and information flows from a variety of sources claim the strategy and the useful effect of communications. The growing number of global firms and the increased demand for top management to travel and interact with different communities in different areas adds even more pressure on the communication function to achieve a complex and successful communication process with a diverse audience.

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Romania's Competitive Advantage in a Knowledge Based Economy

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Abstract

The main objective of this paper is to present the competitive advantages of Romania as per Global Competitiveness Index (GCI) in a knowledge-based economy. Our research involves analysing and processing the last 2 pillars of the GCI for the 28 member countries of the European Union from 2013-2017, in particular we will analyse the level of competitiveness of Romania at European level and we will identify the directions that can lead to sustainable competitive advantages for Romania in the context of a knowledge-based economy. The results show that Romania's level of competitiveness is average, suggesting the need for a national strategy to move towards a knowledge-based economy. Also, Romania has no specific competitive advantages compared to the developed countries in the EU28.

Keywords: *Competitive advantage, competitiveness, knowledge based economy, national competitive advantage*

JEL Classification: *E29, H59, J21, O30, O52*

1. Introduction

Competitiveness is an element of strategic importance for any nation that seeks to evolve, take advantage of opportunities present in the market, or diminish the negative effects of economic crises.

States' ability to adapt to the global market and to be competitive begins to no longer be based on the quantity or quality of material resources held, but rather on their level of knowledge and how to use them for development and innovation.

Globalization, the speed of change it generates, and the expansion of technology innovation are proposing to national economies to embrace a new type of economy, the knowledge-based economy.

The concept of National Competitiveness, a combination of factors, policies and institutions that determine the productivity of a country, defines the capacity of an economy to grow (World Economic Forum, 2018). National Competitiveness has a direct impact on the state of the economy, the results of companies and the standard of living of citizens.

National strategies determine the framework and instruments by which a country can gain a competitive edge over other nations. In the knowledge-based economy, the only lasting competitive advantage is the ability to learn faster than your competitors (Arie de Geus, 1988).

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2. Problem Statement

The term knowledge-based economy emerged from the need of recognition of the importance of knowledge and technology in economic growth (OECD, 1996) was first mentioned in 1969 by Peter Drucker (Drucker, 1969).

Although in the developed countries the transition from capitalism to a knowledge-based economy has come to an end, it will have a global impact when knowledge will be a dominant source and the labour market will be dominated by Knowledge workers. In this way the economic growth determined by this type of economy is unlimited due to the infinite character of knowledge (Drucker, 2009). Knowledge will not have borders and will be easily accessible by employees through formal education (Drucker, 2001), but knowing knowledge will not guarantee success (Friedman, 2005).

Competitiveness is an extremely discussed topic in recent decades, but which does not have a globally accepted definition or calculation method. Competitiveness expresses the ability of a country to meet the demand for goods and services in a competitive market while increasing the economy and the standard of living of citizens (OECD, 1992). According to Buckley *et al.*, (1998), competitiveness is about identifying the right goals (efficacy) and achieving them with the smallest effort (efficiency).

The degree of competitiveness of an international country is closely related to the quality of the relationships between the four determinants at the microeconomic level (endowment with factors, the characteristics of domestic demand, the links between the branches and the internal competition environment) as well as their relationship with the two factors exogenous, government and chance (Porter, 1990).

3. Research Questions/Aims of the research

This research aims to highlight the main strengths or weaknesses that Romania has among the EU28 countries and to draw main possible directions of action.

The most common way of calculating international competitiveness and determining the strengths and weaknesses of an economy is the Global Competitiveness Report (GCR), which is published each by the World Economic Forum. The report determines the ability of countries to grow economically and improve the standard of living of the people. Since 2004, this report includes the Global Competitiveness Index (GCI), conducted by Prof. Xavier Sala-i-Martin, combining the macroeconomic and microeconomic aspects of competitiveness into a single Index.

4. Research Methods

GCI analyses the competitiveness of nearly 140 countries on the basis of 12 pillars of competitiveness: Institutions; Infrastructure; Macroeconomic environment; Health and primary education; Higher education and training; Goods market efficiency; Labour market efficiency; Financial market development; Technological readiness; Market size; Business sophistication and Innovation. Pillars are embedded in 3 sub indexes: basic requirements, efficiency enhancers and innovation and sophistication. Each pillar is assigned a percentage depending on the state of development of the analysed country. Development stages are defined according to GDP per capita (US \$) as follows:

	Stage of development				
	Stage 1 Factor-driven	Transition from stage 1 to stage 2	Stage 2 Efficiency driven	Transition from stage 2 to stage 3	Stage 3 Innovation driven
GDP per capita (US\$)	<2000	2000-2900	3000-8999	9000-17.000	>17000

Source: World Economic Forum, The Global Competitiveness Report 2017-2018, p. 320

	Stage of development EU28		
	Stage 2 Efficiency driven	Transition from stage 2 to stage 3	Stage 3 Innovation driven
EU28	Bulgaria(BG)	Croatia (HR) Hungary (HU) Latvia (LV) Lithuania (LT) Poland (PL) Romania (RO) Slovakia (SK)	Austria (AT) Ireland (IE) Belgium (BE) Italy (IT) Cyprus (CY) Luxembourg (LU) Czech Republic Malta (MT) (CZ) Netherlands (NL) Denmark (DK) Portugal (PT) Estonia (EE) Slovenia (SI) Finland (FI) Spain (ES) France (FR) Sweden (SE) Germany (DE) United Kingdom (GB) Greece (GR)

Source: World Economic Forum, The Global Competitiveness Report 2017-2018, p. 320

The member countries of the European Union are distributed according to the stage of development:

Romania with a real GDP of 9465.4 \$ (World Economic Outlook Database, 2017) is in transition from the efficiency driven economy to the innovation driven economy.

The purpose of this study is to determine the potential competitive advantages that the Romanian economy has in moving towards an economy based on efficiency in an economy that can grow through innovation, an economy based on knowledge.

In order to determine the potential competitive advantages or disadvantages of Romania in the transition from the efficiency-based economy to the knowledge-based economy, data related to Pillar 11 (Business sophistication) and Pillar 12 (Innovation) of the last 5 reports prepared by the World Economic Forum (2014-2018) for the 28-member states of the European Union (mentioning that Bulgaria is not currently heading for a knowledge-based economy). These two pillars make up the innovation and sophistication sub-index.

Pillar 11 “Business sophistication” refers to business quality at both microeconomic and macroeconomic level. The index of this pillar is determined by the following components: 11.01 Local supplier quality, 11.02 Local production quality, 11.03 State of cluster development, 11.04 Nature of competitive advantage, 11.05 Value chain breadth, 11.07 Production process sophistication, 11.08 Extent of marketing, 11.09 Willingness to delegate authority (World Economic Forum, 2014-2018).

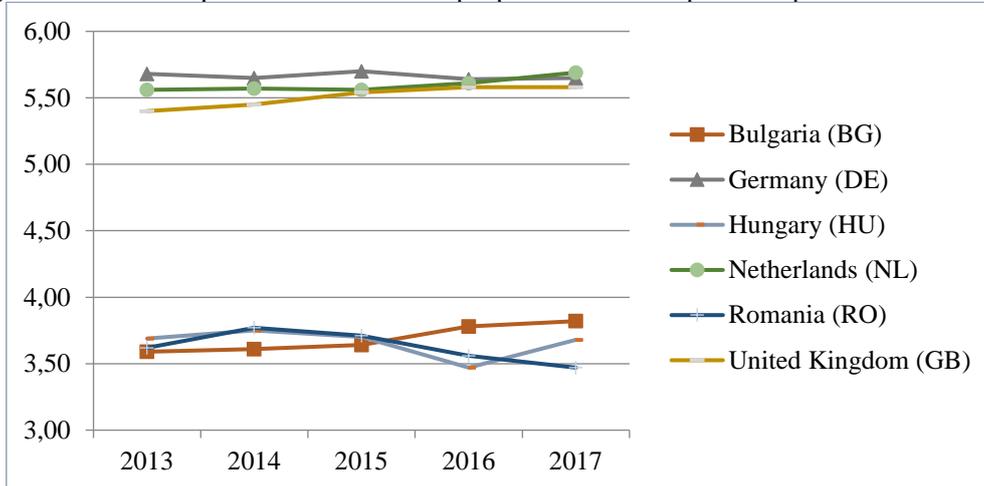
Pillar 12 “Innovation” analyses the quality of innovation in the analysed countries and is composed of: 12.01 Capacity for innovation, 12.02 Quality of scientific research institutions, 12.03 Company research and development, 12.04 R & D collaboration in R & D, 12.05 Gov’t procurement of advanced technology products, 12.06 Availability of scientists and engineers, 12.07 PCT patents applications/million pop (World Economic Forum, 2014-2018).

5. Findings

After the Pillar Business Sophistication analysis in the 28 EU Member States, a top of the top 3 countries and a top of the weakest listed countries (Figure 1) was created. The scores

obtained show the quality of the business in the respective countries, but also the synergy created by the business environment in these countries. The best score recorded in the last 5 years was recorded by Germany which managed to record a score of 5.66/7. This was followed by Netherland with an average score of 5.60/7 and the United Kingdom with an average score of 5.51/7. At the other extreme, the lowest average scores in the last 5 years were recorded by Romania (3,63/7), Hungary (3,66 / 7) and Bulgaria (3,69/7).

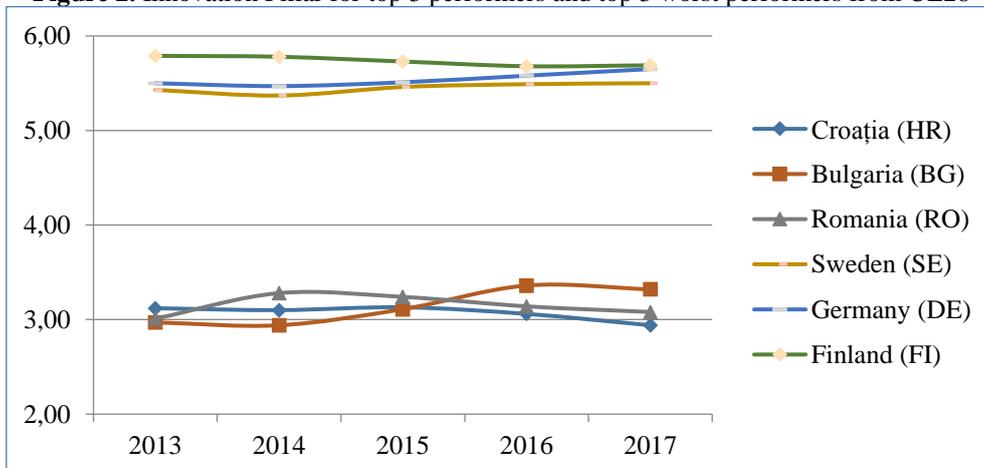
Figure 1. Business sophistication Pillar for top 3 performers and top 3 worst performers from UE28



Source: Source: World Economic Forum, The Global Competitiveness Reports 2014-2018

In Figure 2, we find the top 3 top-performing list and the list of the lowest-ranked countries in terms of innovation (Pillar 12 of the GCI). The scores obtained show the degree of innovation of the countries under consideration, the ability of economies to invest, but also the ability of companies to think and develop products and services with a high degree of innovation to provide them with a competitive advantage. Finland's best score over the past 5 years has been achieved by Finland, which has achieved a score of 5.73/7. The second place was Germany with an average score in the last 5 years of 5.54/7 and the third place ranked Sweden with an average score in the last 5 years of 5.45/7. The weakest results in the EU28 were obtained by Croatia with an average score of 3.07/7. This was followed by Bulgaria with an average of 3.14/7 and Romania with an average score of 3.15/7.

Figure 2. Innovation Pillar for top 3 performers and top 3 worst performers from UE28

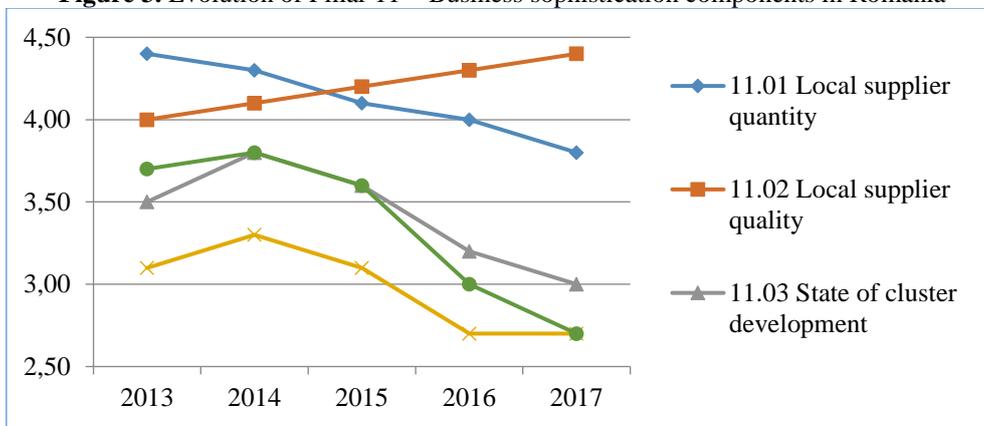


Source: Source: World Economic Forum, The Global Competitiveness Reports 2014-2018

From the analysis of the two key pillars to move from the economy based on efficiency to the innovation-based economy, we found that Romania still has a lot to improve to become competitive within the EU28. In order to better understand why these scores have been obtained, we will have to analyse the components of each pillar to understand what are the stones of the mill for the Romanian economy, and what are the issues that are increasing and can generate competitive advantages.

Analysing the components of Pillar 11 “Business sophistication”, we notice that the score for the following six components has been steady over the past 5 years: 11.05 Value chain breadth, 11.07 Production process sophistication, 11.08 Extent of marketing, 11.09 Willingness to delegate authority. The other components have been modified in accordance with Figure 3, so for the components: 11.01 The prevalence of competitive advantage and 11.06 The control of international distribution shows a considerable decrease over the last 5 years and for component 11.02 Local supplier quality is growing steadily from one year to the next.

Figure 3. Evolution of Pillar 11 – Business sophistication components in Romania

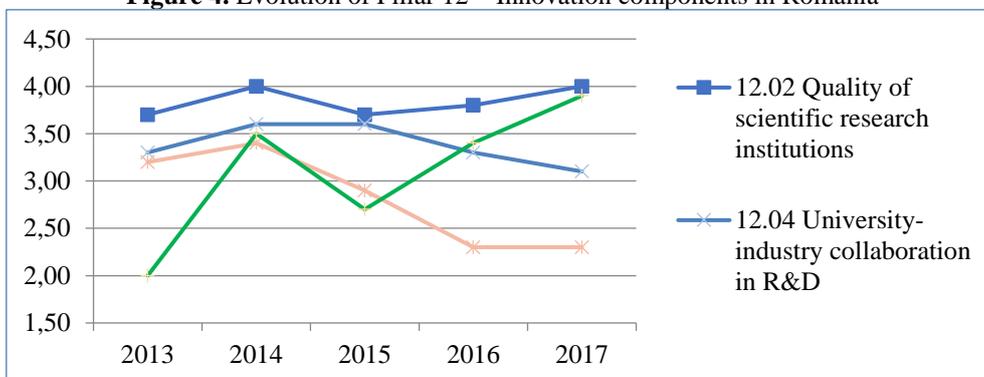


Source: Source: World Economic Forum, The Global Competitiveness Reports 2014-2018

From the analysis of Pillar 12 “Innovation” we found that three indicators: 12.01 Capacity for innovation, 12.03 Availability of scientists and engineers remained constant. 12.04 University-industry collaboration in R & D and 12.05 Gov’t procurement of advanced technology products has sharply declined in recent years. The only consistent increases are determined by the components of 12.02 PCT patents applications/million pop.

A limitation of the analysis is linked to the fact that the World Economic Forum recommends that analyses be made taking into account all 12 pillars because of their interdependencies.

Figure 4. Evolution of Pillar 12 – Innovation components in Romania



Source: Source: World Economic Forum, The Global Competitiveness Reports 2014-2018

6. Conclusions

Using the earlier presented model, this study highlights that the European Union is an efficient economic model. Most states, especially those in the North and Western Europe, have already made the transition to a knowledge-based economy. A group of 7 countries, including Romania, are in a transition from the economy based on efficiency to the innovation-based economy. Bulgaria is the only state that still has an economy based only on efficiency.

If we analyse the state of Romania (68/137 worldwide according to GCI 2018), in the last five years, within the EU 28, we find a big gap from the developed countries.

After analysing the degree of sophistication of business, it was found that Romania ranks last in the European Union and 116th place in the world. Germany scored the best score, ranking first in the EU28 and ranked fifth in the world. From the in-depth analysis of these indicators it was found that the trend of Romania is decreasing. The only positive trend is that the quality level of local suppliers is steadily increasing reaching the first half of the world. (63/137 as per GCI 2018)

From analysing the quality of the innovation degree, we found that Romania ranked 26/28 at European level and ranked 96th globally. Finland is the European leader and the 4th place in the world. Analysing in depth, we have found that indicators are largely part of either stagnating or declining. There is an increase in the level of two indicators 12.02 Quality of scientific research institutions (57th place worldwide according to GCI 2018) and 12.07 PCT patents applications/million pop. (world ranked 51 according to GCI 2018).

The analysis shows as per GCI that Romania is not a competitive economy at European Union level and does not have competitive advantages over developed countries. Although in recent years an improvement has been noted for some of the indicators, this is not enough for Romania to move to a knowledge-based economy but rather for the beginning of a tedious road.

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Recovery of Waste in the Context of Sustainable Development of Satu Mare County

Violeta BRAN¹, Laurentiu TESCAN²

Abstract

Reducing the quantity of waste arising from economic growth, is one of the EU's main objectives laid down in the emblematic initiative "Roadmap toward an energy efficient Europe". The achievement of the targets assumed by Romania as a Member State of the European Union, in the field of recovery and recycling of waste, is influenced in a decisive manner, by the activities carried out in this direction, by the authorities of local public administration, which should ensure the implementation of the measures adopted at national level. A sustainable exploitation of waste helps optimize the system for the management of waste, causing sustainable solutions from an environmental and economic point of view that are adapted to specific local conditions. This article proposes to examine, on the basis of the documents concerned and statistical arguments, the way in which the activities of recovery of waste from Satu Mare County contributes to the utilisation of resources and to the conservation of natural capital.

Keywords: *waste, circular economy, sustainability, recycling, resources*

JEL classification: *P18, P25, Q 01, Q13*

1. Introduction

The economic growth that took place in Romania, in the last years, the energetic independence in comparison to other states that are members of the EU, but also the ability to exploit renewable sources of energy, has created the positive opinions regarding the potential for the development of a sustainable economy. However transition toward a circular economy – within which, the value of the products and materials is maintained in the economy a while longer, and the generation of waste materials is minimal – in Romania this transition is arduous and difficult to achieve. The recycling of waste – the essential inder that ensures the start and end point of the productive process, through the rehabilitation of materials in the production process – is perceived as an obstacle and not as a resource which could contribute to reducing the consumption of raw materials.

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2. Circular Economy in Romania – path toward a competitive economy

The fact that the welfare of the human being is an undividable concept linked to the problems of the natural environment, has been reported since 1970 at the World Conference on the Environment in Stockholm in 1972, and in the report made for the Club of Rome the authors of the study *Let's get out of the era of wasteful consumption*, recommend “measures which encourages the recycling and reducing energy consumption should be evaluated in relation to the degree of development of the countries” (Gabor D.&a. 55) in order to mitigate the erosion of the resources of the environment, caused by intensive development processes in the past years. To prevent the increasing Reduction Ratio of resources in the Report Our Common Future, has been developed the concept of sustainable development, concept that determines the need for a new way of economic development, which meets the development needs of the present without reducing the possibility of future generations to meet and realise their own needs. The progress of the society, promoted by the concept of sustainability, can only be achieved by respecting the limited resources of our planet, alongside with their regeneration capacities.

The elaboration and implementation of the strategies based on the concept of linear development in the countries of the European Union, has generated economies of “supply, production, consumption and disposal type”, generating huge amounts of waste, increasing the carbon footprint, multiple climate changes and natural disasters. The need for a new approach in the economic development models has been reported by well-known economists and politicians, who accused consumerism and waste, as the cause for these sharp phenomena waste materials, to be disposed of at the pit, landfill, or burned in waste incinerators, together with the waste of human resources is unacceptable. The starting point of these reflections as about the type of linear economy practiced worldwide, encourages the consumerism and produces more waste than is sustainable on the long run. By contrast biosphere operates in accordance with the circular recycling mechanism through which the waste of one species constitutes the food of another species, sustaining in this manner the circulation of the matter. (A.Wijkman, J.Rockstrom, p. 273).

The wastes are “scrap materials derived from a technological process or household waste for achieving a product, which can no longer be recovered directly in the realization of the product”.

By reason of their nature, the waste may be: waste materials, objects, scraps of raw materials, results from different economic activities, consumption or domestic waste. In accordance with the European Environment Agency (EEA), the waste is classified in: hazardous waste, municipal waste, sewage sludge, packaging waste, electronic waste, waste generated by energy production.

The highest pressure exercised on the Natural Resources, are determined by waste from: mining, production and delivery of energy, transport, water, gas, construction and other industrial activities. Reduction of the negative impact, of the waste onto the natural environment and protecting human health, are the main purposes of waste management.

The process of Waste Management includes all the activities of collection, transportation, treatment, recovery and disposal of waste. The action of monitoring all activities, including deposits of waste after closing them, represents an assessment of the impact on the environment, the actions undertaken in the management of waste. The most important objectives of waste management are: the prevention of waste formation, the reduction of waste production and reducing their danger levels. Achieving its objectives, measures should be taken with regard to the elaboration and implementation of clean technologies with minimum consumption of natural resources; the development of the necessary technology to achieve some products that have minimal impact on the natural environment, the creation of technologies adapted for the final disposal of dangerous substances contained in waste with a potential for recovering; recovery of waste by transforming them into secondary raw materials or as a source of energy.

Essential for the implementation of the circular economy concept, the activity of recovery of waste, carried out for the purpose of processing them into sources of energy, contains a sequence of operations such as: dismantling, sorting, cutting, grinding, pressing, baling, melting or pouring waste. The activity of waste recovery can be performed under several forms:

- *material recovery* – carried out by replacing the raw materials, waste may be used again due to the special characteristics of the materials;
- *energetic recovery* – consisting in the use of waste as a substitute combustion material for obtaining energy;
- *biological recovery* – obtained through fermentation and mulching of organic waste.

The primary element in the choice of a waste recovery mode is the environmental impact of the waste recovery activity. The most important problem in waste management in Romania, is the great amount of waste collecting without being selected in advance and storing them most frequently in non-compliant storages. Romania currently holds 107 non-compliant storages.

Because the non-compliant storages are not equipped with systems for the collection and treatment of the leachate from the gas in the storage and no waterproof deck systems at the base, the waste stored in this manner has a negative impact on the environment. Environmental factors most affected by the operation of the incorrect storages are the basement, the soil, the water and the air.

Waste disposal rate of 72% in Romania, is located below the EU average with 25,6%, which determines the ranking of Romania on one of the lowest levels of performance among European countries as regards to the waste management. The storage at the pit landfills is practiced mainly by operators in this sector (Fig. No. 1), even though Romania has assumed the requirement – in accordance with the Treaty of Accession to the European Union (2005) – to close the unproper landfill pits and to apply the appropriate fiscal instruments, which would have the effect of gradually eliminating such practices in waste management.

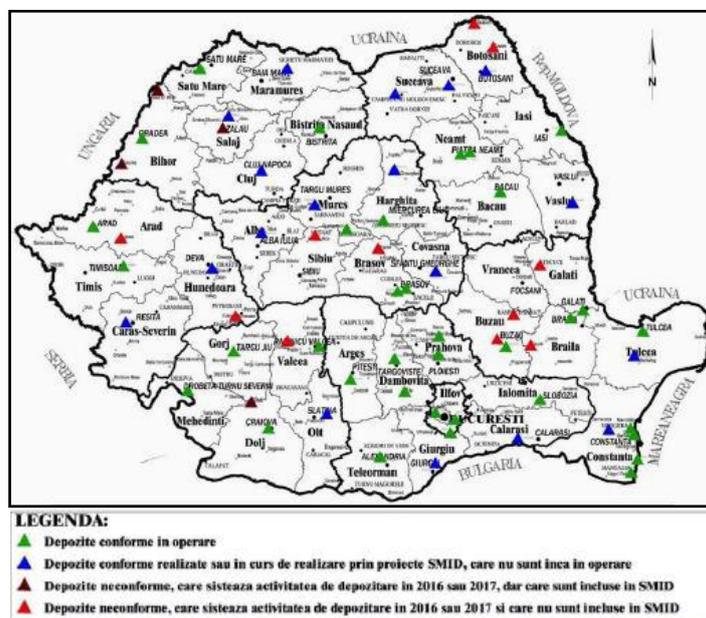


Figure 1. Waste storages in Romania

Source: The Operational Programme of Administrative Capacity

As a member state of the European Union, Romania has to fulfill, until 2020, according to the European Directives, the following objectives: minimum 50% rate of reuse and recycling from the total weight of the waste quantities (paper, metal, plastic and glass), at least 70% level of preparation for reuse, recycling and other material operations for material recouping of not

less than 70% of the weight of the quantities of non-hazardous waste originating from construction and demolition activities; 60% recovery of packaging waste from packaging introduced in the national market. Also, the annual volume, collected electronic waste must reach up to 4 kg/inhabitant. A further obligation assumed by Romania in order to eliminate the risks for the environment, is the separated collection of bio-waste intended for composting.

Lack of efficiency in the implementation of European legislation relating to waste management, to ways of monitoring responsible institutions and last but not least, low population concern for selective collection of waste caused unfulfilment the obligations assumed by Romania and the exposure of the country to the infringement procedure. According to statistical data provided by Eurostat (Figure no. 1), Romania generates 10.8 tons of waste in relation to the number of inhabitants, twice the quantity of 5 tonnes per inhabitant that is the average in the EU.

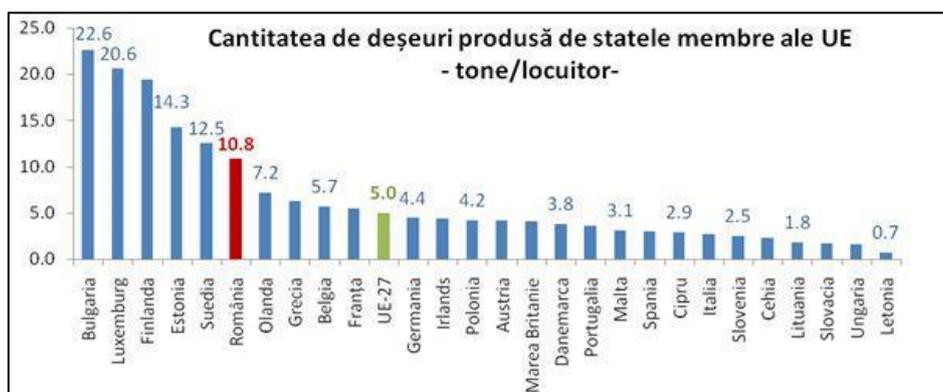


Figure 2. The Quantities of waste prouced by UE memeber state

Source: Eurostat, 2014

As for the recovery of packaging, Romania recouperates only half of the used packages, fact that situates Romania on the last place in the ranking of countries of the European Community.

Remedy of this situation may be possible through the implementation of the measures laid down by the National Waste Management 2014-2020: encouragement of green investments, supporting the initiatives which awards and rewards population which reduce, recycle and reuse waste from households, the collaboration with the authorities of local public administration in order to increase the efficiency and the quality of the collected waste, in order to facilitate their recycling, collaboration with the local administrative authorities of the business sector to improve the collection systems.

3. The Management and Recovery of Waste in Satu Mare County

Located in the north-west part of Romania, Satu Mare County, has a strategic position within the framework Carpathian Euroregion, representing an entrance gate from Hungary, by its border post Petea and from Ukraine through its border post Halmeu. Satu Mare County is adjacent to the east with the Maramures County, to the south with Salaj county, to the south-west with Bihor County, to the west with Hungary, and to the north with Ukraine, being located at a distance of 578 km from Bucharest, the capital of Romania. The surface of the Satu Mare County is 4418 km², of which 70 percent represent agricultural land and approximately 20% forests and other land with forest vegetation. From an administrative point of view, Satu Mare County has two Municipalities of rank 2: Satu Mare town with a population of 112000 inhabitants and Carei with 22300 inhabitants; four cities rank 3: Negrești Oaș, Tășnad, Livada and Arduș; 59 communes with 229 jurisdictional belonging villages.

Waste management in Satu Mare County is achieved through the application of environmental policies referred to in documents drawn up at national and European level. Thus, the documents relating to the implementation of these policies of the European Community are:

- Thematic Strategy on prevention and recycling of waste by means of which they establish the objectives on the reduction of the negative impact caused by waste on the environment;
- The strategy of sustainable development of the EU, which has as objective the improving of life quality, for present and future generations, and the development of a sustainable society capable to use the resources effectively and exploiting the ecological and social potential of the economy.

The documents elaborated at national level, which stand at the base of waste management activities are:

- National Strategy of Waste Management 2014-2020;
- National Planing of Waste Management;
- National Strategy of Development range 2013-20125-2030, in which there are established the objectives concerning sustainable development on short, medium and long term.

Application of the pathways included in the Strategy for Implementing the Circular Economy falls directly on the administrative territorial authorities.

The process of waste management for the collection, recycling and recovery of waste takes place via, monitoring the activities of sanitation of county's localities, having the annual inventory of packaging and packaging waste, monitoring the quantities of waste WEEE, both in the collection campaigns and the authorized collector points.

Municipal waste collection, is the responsibility of the municipalities, which can achieve these functions directly (via the specialized services within the Local Councils) or indirectly (by contracting firms that offer authorized and specialized services). In accordance with the present laws the organization of the waste management activity, resulting from production activities, is the obligation of the generator of the wastes in question. Companies, conduct this activity by their own means or by contracting services of specialized waste collecting companies.

For the purpose of carrying out the obligations undertaken by Romania, the Emergency Ordinance no. 68/2016 brings additions, which are intended to improve the activity of the management of waste and processing them into resources. This provides that in order to stimulate the activity of *“separated waste-collection from the population, local public authorities, apply as a tool for economic “pay as much as you throw”, mainly here this is possible from a technical, economic and environmental protection point of view.*

Application of financial instruments in the activity of the waste management, shall be carried out taking into account indicators like:

- a) quantity of generated waste;
- b) type of generated waste;
- c) volume of the recipient;
- d) frequency of waste collection”.

In Satu Mare county the selective collection of municipal waste, is differently implemented in The Territory Administrative Units. So:

- in the Territorial Administrative Units which have implemented the PHARE projects for Economic and Social Cohesion for infrastructure of the waste management, collection is done dually (wet and dry fractions), by systematic collection points or from gate to gate; households – in this case – being equipped with several types of containers for the collection, with the separation of recyclable waste at source;

- in the rest of the rural areas, where there were no PHARE projects implemented, the waste collection is not made in a selective manner;
- in the majority of the rural Territorial Administrative Units, collection of recyclable waste is made through economic operators authorized for the activity of collecting recyclable waste, other than sanitation operators, operators that have placed in some collection points own containers for the collection of waste, particularly PETs;
- in Satu Mare city, starting with 2011, in accordance with the H.C.L. Satu Mare no. 10/31.01.2011, it has been established, with mandatory character for all users of sanitation services, dual collection system, dry and wet fraction – fraction, as follows:
 - private properties, wet fraction is collected in plastic dumpsters (50, 120, 240 or 1.100 l, depending on the existing equipment), and the dry fraction in transparent plastic bags of 20-100 l provided free of charge by the sanitation operator;
 - for the blocks of flats: in existing collection points, adapted to and closed, in containers of 240 or 1,100 l, marked for wet and dry fraction;
 - in the case of legal persons, according to the collection system applied in each territorial administrative unit, waste collection is done in containers, given by the sanitation operator.

From the total quantity of municipal waste collected in 2015 by the operators of public health and sanitation, 35.04% represents household waste and assimilable waste. The quantities of waste (tones), managed at the level of urban and rural localities in Satu Mare County, in accordance with the reporting of sanitation agents statistics for the years 2014-2015 are listed in table no. 2.

Municipal waste generated at the level of year 2015 were 52280,2 tons/year, namely 157,66 kg/inhabitant/year.

Table 1. Quantities of collected waste by municipalities

Collected waste	2014 (tones)	2014(Percentage)	2015 (tones)	2015 (Percentage)
Household waste	51251	72,60	18317,59	35,04
Municipal services waste	4559,872	6,45	19230,47	36,78
Building demolition waste	14781,2	20,94	14735	28,18
TOTAL	70592,07	100	52283,06	100

Source: ANPC Satu Mare

In Satu Mare County has been stopped the activity of waste storage in non-conforming deposits of municipal waste from the towns: Carei, Negrești Oaș, Satu Mare and Tășnad.

Closing the non-conforming deposits of household wastes in Satu Mare County, is one of the objectives of the project named “Regional Management of Urban Waste and the Greening of Waste Ramps from Satu Mare County”. This project provides for the financing of investments as:

- Building support infrastructure from transfer stations in Negrești Oaș, Carei, Tășnad, Valea Vinului , Livada;
- Closing un-ecological deposits located in the towns: Satu Mare, Carei , Negrești Oaș, Tășnad and those from the rural area;
- Acquisition of equipment designed for collection and transportation of waste.

All municipal waste generated and collected from the county, non-hazardous industrial waste and biodegradable waste are collected separately and treated in the composting station located in the Regional Warehouse in Doba. Regional warehouse in this town has an area of 49200 m2 and a capacity of 491.352 mc wastes, equipped with a waste collection station composed of : technological line for sorting and technological line for baling , workstation for

composting green waste, having a processing capacity of 1080t/year, purification station with a capacity of 140 cubic meters/day.

Activities provided for in the National Plan for waste management in Satu Mare County, is carried out via the 38 economic operators, which have an environmental authorization for the waste collection activity, 4 out of these operators are authorized to carry out the activity of recycling packaging waste.

As regards to the quantity of municipal waste recycled (including composting) this has reached the level of 4499,565 tones/year, respectively 0.13 kg/inhabitant/year. The degree of recycling achieved for municipal waste in 2015, which means a rate of recycling of – 16,21%.

Quantities of collected and recycled waste, in Satu Mare county, in the period of 2012-2016 is synthesized in Table no.2

Table 2. Quantities of collected and recycled waste in the period 2012-2016

Year	Collected waste(tones)							
	PET collected amount	PET Recycled amount	Plastic collected amount	Plastic Recycled amount	Paper/cardboard collected amount	Paper/cardboard Recycled amount	Glass collected amount	Glass Recycled amount
2012	258,592	258,592	6,11	6,11	78,05	78,05	40,078	40,078
2013	486,091	486,091	13	13	177,147	177,261	172,434	138,682
2014	245,991	245,991	9,89	9,89	94,616	94,616	143,583	74,573
2015	301,885	300,129	22,41	22,41	161,929	161,929	138,366	69,390
2016	1077,15	979,10	358,83	348	152,45	144,111	247,417	215,549

Source: ANPC Satu Mare

One can observe from the data above, that in Satu Mare county, the smallest amount of collected and recycled waste was realized in the year 2016, as for the quantity of recycled waste based on material types, the PET waste, were on the first position, followed by cardboard, glass, plastic and paper.

In the specific activities of waste management, there is obvious focus on the urban waste, generated by households and those from commercial sectors, institutional and industrial sectors, waste that have similar characteristics to normal household waste.

4. Conclusions

High performance operation of the waste management system, so that the objectives set out in the adopted strategies, depends on both the costs relating to the system of collection and recycling, as well as the environmental effectiveness materialized in the value or the share of collected waste, recovered and reused. After the analysis of statistical data and of specific documents, it can be concluded that the activity of collection and recovery of waste in Satu Mare County is not preponderant efficient. This is due to a summation of determining factors: lack of education of the population, as regards to the importance of selective collection for recovery of waste; frequent changes in the decision-making process of the local authorities as a result of inconsistent policies, as well as the lack of markets for the sale of products made from recouping waste. All these factors, impose some expenses for the storage of waste, and additional measures for the protection of the natural environment in this county.

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Analysis of the Main Problems of the World Economy

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Octavian Florin MATEI³

Abstract

Contemporary global economy is in a process of major changes influencing life increasingly international and national economies of the world countries. This process is determined by various factors and complex economic, technical, social and political. In an increasingly interdependent world in which globalization affects all areas of economic activity of any state and any phenomenon that occurs in some corner of the world nondiscrimination inevitably and rapidly in other regions, study and detailed analysis this problem becomes necessary in the formation of economists, regardless of specialty.

Keywords: *world economic crisis, trends, transnational companies, globalization*

JEL Classification: *O10, O19*

1. Introduction

The human species endowed with creative intelligence proved and will need a continuous adaptability coupled with an increased innovativeness in imagining solutions to overcome complex problems faced throughout history. Overall, the world economy had to evolve from simple to complex. Historical stage where we are coming to reinforce the need for knowledge, particularly through its responsible use in the context of an increasingly interconnected and interdependent world. Whatever may happen either economic, social or political world, belief in a fair and equitable competition must be found not only on paper interdependence of national economies are the result of a long historical process.

The evolution of these interdependent recorded a strong growth after World War II as a result of contemporary scientific and technical revolution and profound changes in the global division of labor. These interdependencies deepen and diversify continuously due to large scale political changes taking place in the world; changing the structure of the contemporary world in terms of economic development level; deepening international division of labor as a result of technical and scientific revolution; diversification of economic power in the world; the evolution of international prices and foreign financial markets.

Mutually beneficial economic interdependence requires cooperation between sovereign states based on the principles of international law, for the progress of each economy. This

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cooperation, however, does not operate in all circumstances in the interests of all countries, but especially in the powerful advantage.

2. Trends and prospects of the world economy

The historical period in which we live is influenced by events large and varied type of globalization and regionalization, the new means of communication such as the Internet or relationships of social change social and political that have or will occur in the states of mutations or changes in organizations international, all elements having some impact on the world economy.

Thus, the expansion of regional economic integration to other geographical areas will appear and strengthen the trend of regionalization of the world economy and thus will increase the role of transnational institutions as policy makers and economic-social. It is believed that amid increasing economic interdependence between states and the exchange of acceleration plan they will witness a process of increasing globalization.

In the context of a growing dependence of certain resources, many with limited nature and close to exhaustion while economic activity will refocus on other areas, such as outer space, economy of proximity to our world thus entering into a ninth stage the elements. On the other hand, the global economy will face multiple imbalances, seizures and a high degree of instability, especially in regions experiencing political, economic and social problems.

Also, amid increasing economic disparities between the countries manifested world, there are various contractions, changes in addition influences the quality of life involves and influences the world economy. At the same time, thanks to scientific and technical revolutions have generated and will be generated in the future, new types and models of global division of labor against the background of the world economic speed changes along with geographic traditional trade flows.

3. Economic development as a prerequisite for national success

Development as its procedural encompasses both quantitative aspects, qualitative and structural economic developments, in close correlation with both general human problem and its demographic evolution and the ecological balance in the dynamic state. while economic growth focuses on the quantitative side of the development, especially on the production of goods and services, economic development takes into account the changes and transformations that occur in the economy influences on living standards, lifestyles and human behavior.

Development report highlights the human-environment in terms of resource efficiency economy and functional mechanisms of the economic system.

Joseph Stiglitz says that the development of transforming societies, improving the lives of the poor, providing opportunities for success for all people and access to health care and education. there is every evidence that despite relatively low income, a country that guarantees health care and education to all its inhabitants can actually get remarkable results in parallels the length and quality of life for the entire population.

Unfortunately, development is not a linear process, and unlimited cvasi-automated itself as humanity advances towards perfection without end.

Such a conception linked to a notion of “progress” seems to be made today seriously questioned and this, especially after the tragic experience of two world wars, the destruction planned and largely achieved, the of whole populations and nuclear threat. exclusive private development as the accumulation of goods and services, although apparently favors a majority of the population can’t ensure human happiness. consumer civilization, which has certain

virtues in that it can provide to a wide range of population certain necessities, should not be the only and main consequence of development.

4. Global institutions and global institutional framework

In the system of international economic relations, in addition to nation states and transnational corporations and international organizations exist and function. With the opening of the local environment and the global economy Coordination Unit role international economic relations is taken increasingly more transnational corporations. They both contribute and shape the globalization process, being found in the literature under various names such as: international companies, multinational or global.

Therefore, transnational corporations are corporations or commercial companies, private, public or mixed capital, operating and in other countries other than their own, where the “parent company”. Worldwide, either transnational corporations that have materialized participations in subsidiaries, branches, joint ventures, etc. They are seeking and achieving competitive advantage. The work of these true giants, now comprises the entire planet, due in particular to the large amount of goods and services they generate. According to UNCTAD in 2016 working in the global economy, some 88,500 transnational companies which had 870,000 branches, and in the same year, their employees were about 85 million people.

In *Table 1*, we can see the top ten largest transnational companies in the world ranked by assets abroad in terms of turnover achieved in 2016.

Table 1. The top eight transnational companies in the world by assets abroad in 2016

Society name	The share of foreign assets in total (%)	Country
1. Vodafone	96	United Kingdom
2. Archellor Mittal	92	Luxembourg
3. Exxon Mobil	86	SUA
4. EDF	83	United Kingdom
5. Wolfswagen	79	Germany
6. Toyota	65	Japan
7. Royal Dutch Shell	53	United Kingdom
7. General Electric	51	SUA
8. GDF Suez- Engie	50	France

Source: UNCTAD, 2016

It is noted that the top ten transnational companies by assets abroad, most have their “parent” in developed countries: USA, UK, Japan, France, Germany and one single in Luxembourg where in fact there is a more relaxed policy on taxes than in other developed countries.

Thus, it is noted that due to their overall strategy that is done throughout their branch network, transnational corporations are the spearheads of a large part of international production. even if states in their capacity as subjects of law in world economic and social-political, develop and enforce regulations bilateral, regional and or global transnational corporations, based capabilities economic financial-engineering are the main issuers of foreign investments direct international investments and realizing most of the main owners of the assets held by non-residents in any of the states. But the economic crisis and financial crisis, FDI flows declined in 2008 and 2009, after a period of uninterrupted growth in 2003-2007.

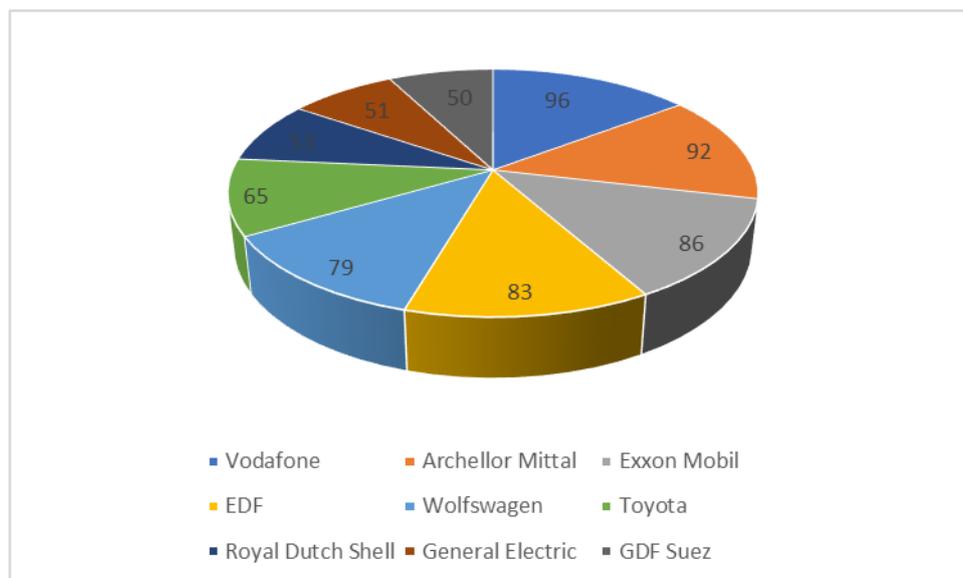


Figure 1. The top eight transnational companies in the world by assets abroad in 2016
Source: UNCTAD, 2016

5. Economic integration as a form of economic and social progress

Globalization, the new global reality, access to as many national and international markets, the fight continued unequal and unfair on global primacy, increasing interdependence of the actors are just some of the realities of today. Some of these were in the past and in conjunction with other existing at that time prompted the search for appropriate solutions to overcome them.

Such a solution was represented by economic integration. phenomenon of economic integration of significant developments in the second half of last century, both worldwide and especially in Europe.

Economic integration as a process involves all measures to contribute to the suppression of discrimination between firms in different countries. integration evolution experienced over time a variety of steps and forms, from the simplest to the most complex. one of the simplest forms of interstate economic integration was free trade area which meant that at least two states to drop trade barriers between them. next form of integration was the Customs Union, which states that decide to form progressively remove import duties and simultaneously adopt a common customs policy to third parties through a common customs tariff. form superiority of the customs union was called, common market free movement of economic goods, people and capital between member states.

The process of international economic integration manifested today an attraction more powerful due to the existence of actual and trend growth in the global economy, gain international factors, a more powerful influence on Member States economies, despite damage to the independence and sovereignty of the country in- greater or lesser extent. multiplying integrationist organizations, and movements input-output relatively common, various states may be examples. phenomenon of attraction exerted by international economic integration is due obviously advantages for countries and peoples are an integral part of the process. however, because of the negative externalities that can bring integration process for certain countries unprepared, but at different stages of integration steps must be undertaken with caution. For these reasons, the least developed countries must first pass through preparatory forms of international economic integration.

6. Conclusions

The economic crisis has been one of the most significant international events since the mid-1970s and 1980s economic order created following a turbulent decade is about six apart. What will change will depend not only on the circumstances “objective”, and the ability of the left to implement their own views on an economy based more on needs than income to replace accumulation caused financial past twenty years.

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The Impact of Globalization Over Commercial Activities in the European Union

Ovidiu BUZOIANU¹, Evelina Petronela BALU², Karimov TURAL³

Abstract

This article addresses the evolution of trade with EU services in the 2012-2016 period compared to that of the goods to indicate the main trends that marked the exchanges in an increasingly global world economy and the two waves of EU enlargement to the East. Based on Balance of Payments statistics from Eurostat analyzes reveal the shifts in trade in services of the EU in terms of dynamics, structure, trade balance, degree of specialization and integration in domestic and global. Also aims at outlining recent trends that marked extra-EU trade flows and intra-EU as the latter meaning the process of economic integration in Europe. The present paper aims to contribute to a better knowledge of the issue given that both services in international economic literature and in the Romanian, it continues to be addressed in a much lower compared with goods.

Keywords: globalization, impact, European Union, commerce

JEL Classification: F14, F15, L80, O52

1. Introduction

Phenomena that marks the global economy in recent decades are under the sign of globalization, interdependence and interaction. Whatever happens in any corner of the world has more or less effect on the world economy at large. Globalization is relatively recent. He manifested especially after World War II and a stellar performance especially after 80 years with the globalization of financial markets. Globalization is seen by many experts as a purely economic phenomenon, involving a growing economic interaction states or integration of national economic systems, enhancing the international trade, capital flows and investment.

The last decade has demonstrated very clearly both facets of globalization. For most of the period, gains in efficiency, stable prices and sustainable economic growth were mainly due to weaker economic distance and closer interdependence of markets. However, the same forces have recently served to extend and amplify the financial and economic turmoil, proving that maximize the benefits of the global economy is associated with both risks and opportunities. In the last two years, the whole world had to take note of the fact that the global economy has become multipolar, where economic power is distributed in an increasing extent between different countries and regions, and also multidirectional the risk and volatility go hand in hand

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with economic growth and development opportunities. Globalization, driven by information and communication technology advances, the more economic openness and increasing the size and geographical scope of multinational companies causes the markets to be broadly integrated and interdependent.

But at the same time, more pronounced integration of markets means that economic and financial shock are transmitted across national borders with a much higher speed than in the past, no country in the world is not immune to global interdependencies.

2. Service activities and globalization

Sustained growth contribution of service activities to create GDP, the employment and the expansion of trade flows and international investment is a major coordinates the processes of structural adjustment which takes place today in the world and certainly in the EU economy.

These trends are as many responses to globalization and regional integration, liberalization of trade and investment regimes, the effects of new information and communication technologies (ICT) and, not least, the increasing competition in the global economy.

Amplification economic relevance of services in all modern economies – thus the EU – must be associated, above all, with the accelerated process of globalization of these activities and, respectively, increase service capacity to be an object of trade.

Given that in most countries the service sector is much larger than the manufacturing sector to GDP or total employment, only about 12% of services subject to international trade, compared with more than 50% for manufacturing. This explains why and EU trade in services relative to GDP have remained relatively modest, according to our calculations raise from 19% in 2008 to 26% in 2016. Moreover, services have kept unchanged share of total trade in goods and services of the EU, despite the importance of services to the EU economy has increased continuously in recent decades, and trade in services increased to turn at a sustainable pace.

If until recently trade in services has been awarded, including the EU, a role rather incidental to the trade in goods, in recent years, as the rise of complementarity and integration between economic sectors, as well as increasing interdependence of economies national has become increasingly clear recognition of the role of services as a tool for increasing the competitiveness of European companies and respectively the EU economy. It is widely recognized that the dynamic developments in services under the impact of increasing process of globalization of economic activities have important implications in terms of sustainable economic growth and development. Increasing globalization of services and, consequently, greater ease with which they can be addressed international markets generating services, above all, opportunities to develop new sources of export growth.

3. The importance of the EU in global trade in services

Economic conditions that prevailed abroad in the last decade – the sustained growth of the world economy and dynamic evolution of international trade cycle four years (2013-2016) of uninterrupted expansion of FDI globally – in conjunction with the liberalization of trade regimes and international investment companies in the EU have provided greater access to foreign markets for goods and services, helping to strengthen their business performance. Trade in services of the EU have been facilitated and the proliferation of free trade agreements between the EU and its main trading partners, which includes, without exception, services as an important component of the liberalization of trade flows.

New technologies have led to increased service capacity to be traded across national borders (by reducing the need for interaction between producers and consumers) and, with market

liberalization trends have stimulated the process of fragmentation of production and services, namely, their relocation in Europe and globally.

Table 1. Evolution of world exports of goods and services, 2013-2016

	Volume value (mld.\$)	Annual changes (%)			
		2013	2014	2015	2016
Goods	20.991	15	18	17	16
Services	5.760	15	16	19	12

Source: WTO

Given that flows services are generally complementary to flows of goods, most deep and synchronized recession of all time has made its mark naturally and the evolution of global trade in Services on values displayed in table 1 there is an impressive amount of exports/imports in the EU in 2016 continued to be the most important player in global trade in services, maintaining its position as the largest exporter/importer of services in the world. EU-28 share in global trade in services is traditionally held higher than global goods-trade 49% for exports and 47% of imports of services compared with 40% and 41% in the area of goods, the level of 2016 – which proves once again the important position he holds EU trade in services worldwide.

The main exporters of services in EU-28 are: UK (8.6% of world exports), Germany (7.3%), France (4.9%), Spain (4.2%), Italy (3,7%) and the Netherlands (3%).

4. The dynamics intra and extra-EU trade

Cause obvious weight reduction intra-EU flows in total trade in services, respectively, in goods is the advancing growth rates of exports and imports by the intra-EU Extra-EU period.

Once you have registered a growth rate of 10.3% in 2006, exports of services to member countries slowed to 9.4% in 2007 and 0.6% in 2008, but as you can see in Figure 1 it can be observed upward trajectory during 2013-2016 with values exceeding 10%. These developments lead to the observation that the expansion of trade in the EU in recent years must be regarded rather as part of a global phenomenon than a consequence of economic integration in the EU.

Netherlands, UK, Poland, Malta and Denmark are countries where exports of services to the domestic market grew apace with that of exports to countries outside the EU.

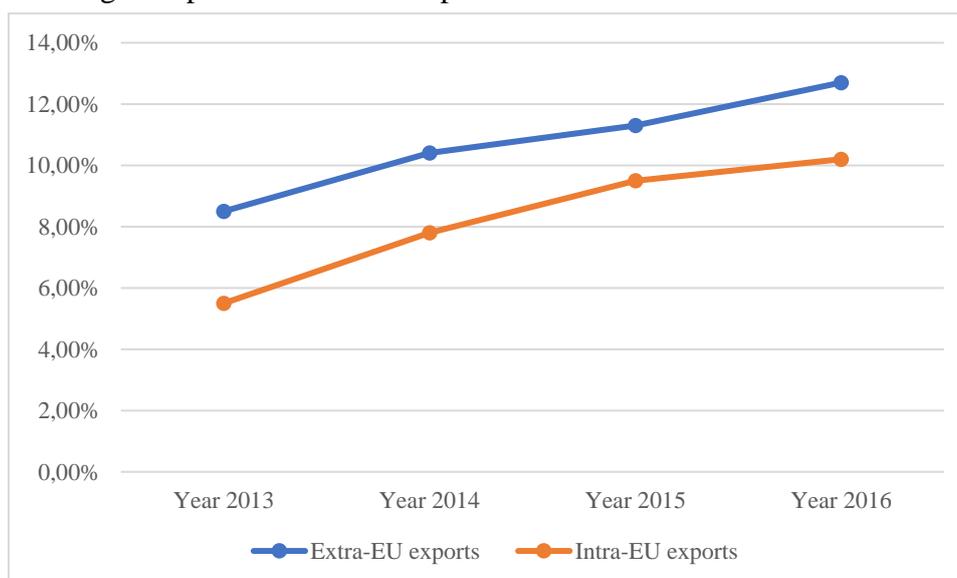


Figure 1. Dynamics of exports of services intra and extra-EU (2013-2016)

Source: Eurostat data

5. The integration of services and goods in the internal market

Statistical data on the evolution of intra and extra-EU flows indicate that the service sector is less integrated in the domestic market compared with goods producing sectors, which means that the scope of service activities is still much room for integration through trade. That the internal market is not yet fully fulfill its mission in the field of service activities is partly explained by the inherent characteristics of services (intangibility, inability to be stored, etc.) under which can be traded as easily as goods. The low integration of the services sector in the domestic market than the goods sector is reflected primarily of data on the evolution ratio between exports of services in EU and extra-EU in recent years. If exports of goods, countries rely to a greater extent than for domestic services exports. In the case of imports, namely the difference between goods and services is less pronounced than in exports.

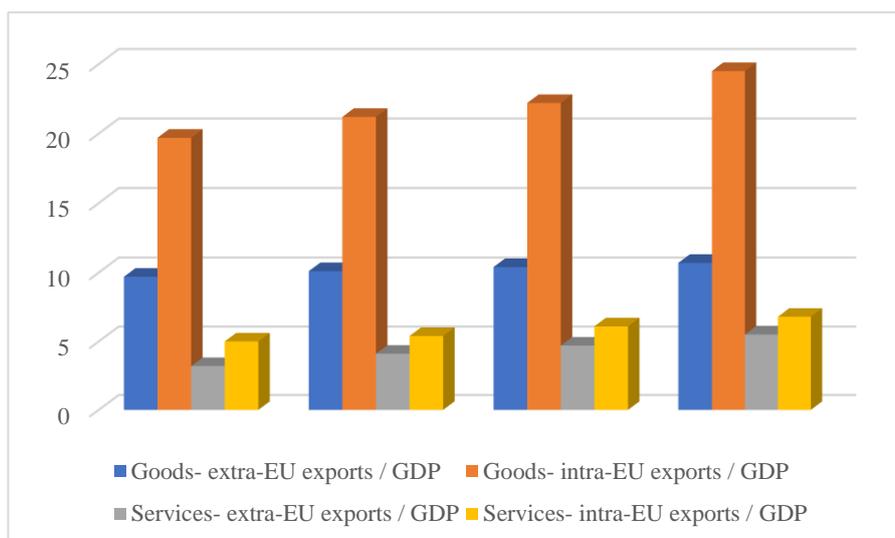


Figure 2. The contribution of exports to GDP intra and extra-EU-27 goods and services, 2013-2016 (%)
Source: Eurostat data

So it can be concluded that the opening of services markets within the EU has not so far led to a significant improvement in the integration of these activities in the domestic market unique.

Part of causes related to the specific nature of services, under which these activities lend themselves to a lesser extent to be the object of international trade, although particularly the internet has helped to increase their ability to be marketed.

6. Conclusions

In the last decade, EU trade in services has evolved under the influence of two major factors that have had an impact on both the global economy and the internal market globalization and, more recently, the global financial and economic crisis. In light of the single market, another relevant factor is the economic integration process in the context of eastward enlargement of the Union. Economic conditions abroad, combined with the liberalization of trade and investment regimes internationally, European companies have provided a wide field of action.

As a result, significantly increased both actual trade in services of the EU and volume traded services through international production networks. Maintenance by Member States of numerous barriers to cross-border trade is why the integration of services in the domestic market has moved slowly, being completed to this day. While inflows to the domestic market in the total trade in services of the EU-27 remain higher than those oriented to the world, the share of intra-EU flows was placed on a declining path in recent years. Although less pronounced than for trade in goods or FDI flows generated by the EU, the downward trend reflects the growing

interest of Member States to foreign markets because production costs lower potential greater resources and demand expansion.

Therefore, the expansion of trade in the EU in recent years is rather part of a global phenomenon than a consequence of economic integration in the EU. Member States differs notably from the perspective of integration in the internal market.

In the last decade, flows of services at European level evolved in tandem with the goods, alternating years in which some have surpassed others as dynamic. This explains why the global crisis hit the primary services closely related to trade in goods, while the services business were relatively less affected; on the other hand, given that FDI is the primary means of providing services to international markets abrupt decline in global FDI flows in 2008-2009, with the collapse of Europe were reflected relentlessly, respectively, will rebound and perspective on trade in services of the EU-28. Expansion of trade in services is an essential tool to overcome economic stagnation, which is why maintaining open markets and avoid protectionism domestically and internationally is an imperative for the EU. Union needs increased net exports of services to help stabilize the growth rate of GDP.

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Management to Promote Rural Tourism in Moldova

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Abstract

Scientific problem solved is to identify features of rural tourism and tourism product promotion management in Moldova, which led the development of ways and efficient management tools to promote rural tourism in order to increase awareness and its attractiveness for domestic and international tourists. The significance of the paper is to analyze complex and systematization epistemological in rural tourism and promoting tourism product presentation and argumentation viability of public policies in tourism, processes, relationships and management strategies in tourism and ways to streamline it.

Keywords: *efficiency in tourism promotional mix, promotion, tourism potential, rural tourism*

1. Introduction

Tourism is one of the phenomena that have won in our times spectacular development being a feature of XX and XXI centuries. Tourism is considered an activity as important as others conducted in key sectors such as agriculture, industry, trade, services. Currently, the European Union, but also in many other countries, rural-tourism as an alternative form of tourism – are among the most dynamic forms of travel, is an advantage for both tourists and host communities. It also leads to an increase in the economic role of services in the villages, because the predominant services companies gradually occupy the dominant place of agriculture. Rural tourism contributes significantly to increasing individual and collective income through better employment of labor by encouraging entrepreneurship, considered urgent problems lately.

Priorities and challenges of rural tourism should be approached through the concepts of economic growth and sustainable development. Tourism generally rural in particular positively influence the quality of life is one of the economic activities that develop sustainably, ensuring an efficient, protect the environment, thus promoting sustainable growth and development. For the successful development of business tourism in rural areas need to promote natural and human potential of rural areas by training several economic actors (businesses, public bodies, civil society).

The approach of promoting optimal management is a prerequisite for efficiency and sustainable development of rural tourism.

Topicality lies in the design and development of public policies in tourism – Tourism development – Strategy 2020 aims to boost overall tourism activity in Moldova by developing domestic and inbound tourism. The strategy addresses rural tourism as an active form of tourism

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that can greatly benefit rural and indigenous communities. Practicing rural tourism has grown increasingly more in the second half of last century, and changes in the attitude of tourists who decided to spend their holiday in a rural area are accompanied by changes in the quality of data.

Therefore, there is need for a scientific approach to the concept of rural tourism, rural tourism management, development of quality standards, methodologies for certification and classification of promotional tools.

2. Management of tourism product promotion

According to the classic definition, a tourism product is a complex of goods and services offered tourist consumption combined depending on the underlying cause of the trip, offered on a route or in an attractive village. Although at first glance seems relatively simple, in practice, the policy to promote rural tourism require special skills to transform rural tourism a real opportunity for local communities and areas where tourism assets are poorly exploited. The tourist promotion involves actions to support and influence the buying process in order to challenge some favorable changes in mentality and habits of current and potential customers.

Tourism management as a process intended to achieve objectives using resources such as people, materials, space, time. Resources are considered inputs (input) in the process, outputs and objectives, the success of good leadership, given the relationship between outputs and inputs, indicating productivity tourist company.

Rural tourism management means all activities to be undertaken by the tourism company operating in rural areas to conduct and its organization to mobilize all resources to achieve objectives. Also it is a process of planning, organizing and coordinating all promotional activities and their control in order to achieve marketing objectives of rural tourism business.

3. Promotional mix of tourism services in rural areas

The term mix promo was coined to refer on the choice of promotional tools, media promotion and the amount spent for each instrument used for a product or product line promotional tools covered promotional mix of tourist services in rural areas are very different, but they will address three of the most important as follows:

- Advertising is a very important technique in the promotional mix. Regarding Moldova, the legislation proposes the term to describe communication paid advertising market and in everyday use using the concept of advertising.

Means of promoting rural tourism can be used for promotion on a national scale (rural tourism of the country) and in promoting specialized travel agencies, boarding houses and agro-tourism. As an example, we can mention the tourist guides Moldova, wine and monasteries road. Structured made in three languages (Romanian, English and Russian), enriched with sufficient color images to urge the road equipped with enough useful addresses, these promotional materials come to draw consumers' attention to the rich tourism potential of our country has. It was released in 2011 Tourist guide Discover Moldova, and in 2013, the Tourism Agency launches six publications in tourism: cultural, rural, spa, organic, wine, religious.

In order to develop tourism and promote Moldova as a tourist destination, the Tourism Agency of the Republic of Moldova in partnership with the private sector and USAID CEED II launched in 2014 an advertisement.

Develop spot the opportunity comes as recovery data most credible publisher of travel guides in the world – Lonely Planet – who called Moldova – no tourist destination. 1 unexplored in Europe.

Promoting online is an integral component to any marketing plan in tourism, given that the Internet has become for tourists, one of the most used methods of research and even purchase

travel products. Internet can be used both for finding trends in tourism, offers competitors and even consumer needs or wants. Moldovan rural tourism can learn about by visiting the National Association of Rural, Ecological and Cultural Moldova (www.moldova-turism.md), site of the National Association of inbound tourism Moldova (www.antrim.md) or <http://www.moldovaholiday> etc., here finding references to the websites of the most popular guesthouses and agro in Moldova.

Direct marketing is a promotion technique that consists in sending promotional messages geared to current and potential customers through traditional mail or email. Promoting rural tourism elements with icons and road signs can't be ignored. In Moldova, tourist information signs on brown background first included in the 2013 Road Traffic Regulation.

4. Diagnostic analysis of the efficiency of management of tourism

Regardless of the methodology used, efficacy studies, aim to define satisfaction of tourists to the means functional made available, concrete ways of increasing the satisfaction it with investment as low as possible and within as quickly, the organization that can achieve an increase in efficiency management efficiency national tourism sector can be analyzed and evaluated through the activities of the Tourism Agency. Moldova has some comparative advantages at the regional level that can boost development lively tourist industry low cost of labor and land, but the existence of valuable tourism resources, state enthusiasm authorities for the tourism sector is not grounded in statistical terms or through major projects in the implementation of sector strategies.

In recent years, the national tourism institutionally dressed more form- the formation of the National Association for Tourism Moldova-Tur (1992) until the establishment of the Tourism Agency (2009). National Tourism Authority has sufficient capacity domain administration including low there is cooperation with local institutions on the implementation of tourism development strategy. Tourism Agency delegate some powers or local public authorities, which have special management skills or financial backing, said in a report assessing the implementation of SDT for the period 2003-2012.

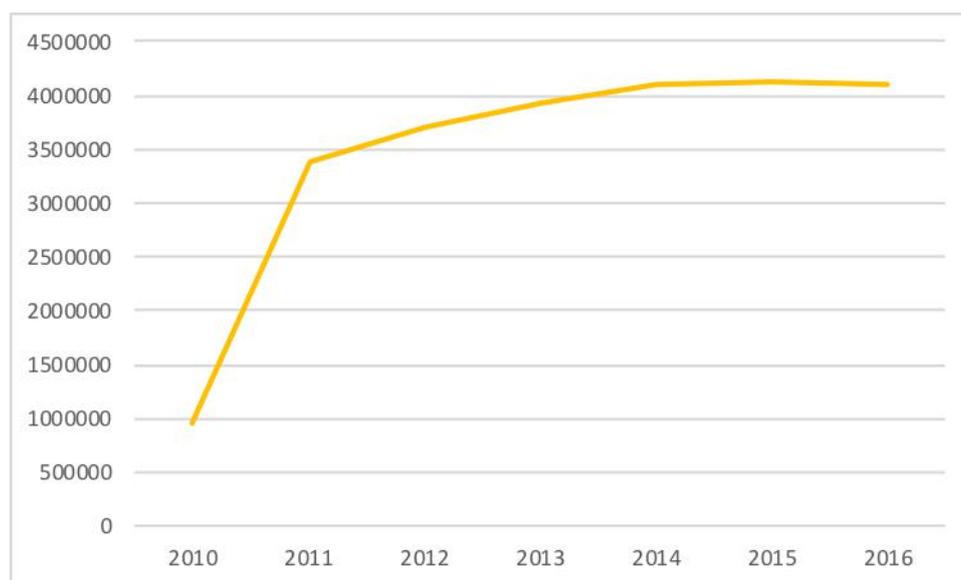


Figure 1. Development budget expenditures allocated Moldovan Tourism Agency for development of tourism and tourism management policies

Source: State Budget Law

The data in Figure 1 indicates a significant annual growth of budget expenditures and creation of the Agency so far, with the exception of 2016. In 2016 AT and were allocated 4,109,500 RON, which is an increase of 4 times in 2010 (960 900 RON). This is due to the state policy in the development and promotion of tourism both internally and externally. At the same time, we note that a significant portion of expenditures are geared toward the promotion of the image of the country abroad.

Among the factors that contributed to increasing revenues from tourism can be mentioned: increasing the number of departures of Moldovan visitors abroad, high prices for travel services, state policy in the development and promotion of tourism activities.

Even if the share of revenues from tourism in GDP is one insignificant (about 1%), while tourism and related fields in world GDP in the first decade of the XXI century was about 10%, it said in a report UNWTO. (See Table 2.4)

Table 1. Macroeconomic indicators of tourism activity in the period 2012-2016

Indicators	Year				
	2012	2013	2014	2015	2016
GPD, (millions RON)	71.885	82.349	88.227	100.510	111.757
Income from tourism activities	708.4	860.07	972.6	1099.4	1315.3
The share of revenues in GDP (%)	1	1.06	1.12	1.09	1.16

Source: BNS data

Domestic tourists ensure a constantly growing sector development and their needs are more demanding in terms of quality. Moldovans represent important segments in the tourism market of countries in the region, visa liberalization in 2014 is one of the incentives of this process. For example, in 2015 out of 180 670 departures of Moldovan visitors abroad, about 35% were directed to Turkey, 30%, 10% and Bulgaria-Romania. In 2016 this indicator increased by 1.7 percentage points for Turkey (36.7% tourists) and reduce 0.7 percentage points for Bulgaria (29.3%). This can be conditioned to change preferences foreign tourists to new destinations such as Greece, Montenegro.

Large gaps appearing between the input and output flows in Moldova, which is increasing over time. If about 24 years ago (1992) Inbound tourism by agencies amounts to about 292 220 foreign tourists, their number in 2000 was reduced by about 14 times, and in 2016 was reduced by about 20 times compared to 1992. in general, rural tourism offer can be considered one reduced accommodation rates (914 seats in 2016), while some rural tourism business is conducted semi-legal.

In the year 2016, the Republic of Moldova certifies about 249 accommodation units with a prize of 25 312 accommodation places. 96 of them (38%) are hotels and motels concentrated mainly in the capital and only 10.4% are hostels and boarding-house. Holiday accommodation in guesthouses and B & Bs show a considerable decrease in the 2012-2016 period, from 11 701 tourists (2012) to 9283 in 2016.

5. Trends in the development of rural tourism management in terms of association with the European Union

European community with its various cultures present a set of opportunities for tourists oriented rural destinations. Given that its magnitude has emerged in recent decades, many tourism organizations have viewfinder institutionalization and organization of tourism in rural areas in various forms, either as holiday villages, holidays in the country, tourist villages and holiday farms. With the release of World Rural campaign by the Council of Europe has been a strong bearing on tourism development. Rural tourism need integration into an overall policy and Member States are invited to promote rural tourism by protecting the environment and

cultural identity by creating an integrated European policy and a balance between town and village. International tourist arrivals grew by about 4.3% in 2016 according to data supplied UNWTO barometer of strong results in Europe, consolidating the trend of recent years.

Destinations worldwide recorded estimated value of 810 million tourists during January-August 2015, with 33 million more than in the same period of 2014. Europe is the top results, where international arrivals increased by 5% in the period, because Central and Eastern Europe 7%, recovering from the decline of previous years. Northern Europe (6%), South (5%) and Western Europe (4%) recorded significant results for sub-regions with mature destinations. EU countries shows a 6% increase in arrivals in this period, exceeding the regional average. In Moldova, the number of arrivals of foreign visitors in the country according to the NBS in 2016 increased by 8% compared with 2014 and this trend is kept during the years 2012-2016.

Factors that led to the continuous decrease in the number of tourists staying in hotels is determined by: high prices of hotels and B&Bs tourist-oriented travel to destinations external orientation tour packages without accommodation, reducing the number of foreigners accommodated in these accommodation establishments.

In the last five years there has been a considerable decrease and the index of net use of accommodation capacity in hotels, seasonality of supply of services is one of the root causes, but at the same time, increase the Fund accommodation in hostels, in the context of a shrinking tourists stay in these structures influence the annual negative trend.

6. Conclusions

In conclusion, we can say that the factors that determine the evolution modest or negative of these indicators in the market segment of rural tourism are rural touristic product indefinite nationwide, high prices in hotels and B&Bs, tourist orientation to other markets in May attractive product rural tourism is less understandable for Moldovan tourists, visiting local prefer visiting scenic spots and day trips with long stays studies conducted in rural tourism and management promotion to Moldova allowed the following conclusions:

- rural tourism is an alternative tourism traditionally taking place in a rural area, making the most of natural and human resources in order to promote tourist attractions;
- the management aims to promote rural tourism product planning aspects of advocacy, eLAB schedule promotional strategies and promotional budget;
- identify and create rural tourism product targeting only the early aspects of business tourism in rural areas, for it to be sold to potential customers require promoted and offered an original way of marketing;
- the tourism show a positive trend overall increase certifying essential compartments: income tourists and excursionists participants in domestic tourism, outbound tourism and the number of overnight stays increased number of boarding;
- pessimistic forecast of tourism indicators for the period 2016-2020, calls for the identification of ways and management tools to promote the objectives and structures of the rural accommodation.

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**The Society of Spectacle and Some of its Particularities in
Romania**

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Abstract

Contemporary globalized society is a society of spectacle whose predominant feature is the supremacy of images on ideas and where the consumer no longer focuses primarily on the acquisition of goods and the use of classical services but on the multiplication of consumption experiences and the pleasure of experimentation itself, both of them easily obtained, at low costs and risks-free. Thus, the entertainment, which occupies an increasingly important place in the values' hierarchy of the society of spectacle, tends to rapidly cover this hedonic dimension of consumption manifested through the exaggerated desire of people to have fun and easily spend their free time, at the expense of the values of the high culture. In this context, the purpose of our research is to show how important are these mutations concerning the behaviours of young consumers. Also, we want to signal the risk that these mutations could become real behavioral traits of younger generations of consumers.

Keywords: *consumption, entertainment, culture, consumer society, society of spectacle*

JEL Classification: *A14, D14, D31*

1. Introduction

A feature specific for the society of the debut of the 21st century, which is becoming increasingly noticeable in recent times, especially in the context of the younger generations, is the so-called “*society of spectacle*” or “*entertainment society*”. This concept was introduced in 1967 by Guy Debord, an author who wrote without being immediately contradicted by the evolution of events. Essentially, the spectacle is the inverted image of society in which relations between commodities have supplanted relations between people. Debord has no doubt that the full confirmation of all his theses will continue until the end of the XXth century, even in the beginning of the XXIth century. The reason is that he understood the constitutive elements of the show “*in the course of their movement and therefore by what they have temporarily*”, ie addressing the whole historical movement that led to the edification of this order and which has now begun to break it.

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Later, other authors traced the decline of the classical European cultures and noted the growing momentum of the society of spectacle, a trend that it was inextricably linked to the progress of the consumer society. We, the authors of this paper subscribe to this idea and we try to provide a statistical foundation for its support, at least as far as the Romanian area is concerned. First of all, in order to have an overview and better understand the implications, we must retrospectively study the evolution of the economic phenomenon.

2. From the consumer society to the society of spectacle

A feature specific for the society at the start of the 21st century, which is becoming increasingly noticeable in recent times, especially in the context of the younger generations, is the so-called “*society of spectacle*” or “*entertainment society*”. As we say before, the concept was introduced in 1967 by Guy Debord, who wrote *The society of the spectacle*, in which the author presents the concept of the spectacle and traces the development of a modern society in which authentic social life has been replaced with its representation: “*All that once was directly lived has become mere representation.*” (Debord, 2011)

Later, in the paper *The Sense and Non-sense of Revolt*, Julia Kristeva (2000) traced the decline of the classical European cultures and noted the growing momentum of the society of spectacle, a trend that it was inextricably linked to the progress of the consumer society.

Thus, we will notice that the strong expansion of the consumer society in the capitalist countries in the second half of the last century has its origins in the unfavorable economic, social and political context existing at the end of the second World War. The need to restore the world’s economic infrastructure, which was almost totally destroyed, coupled with a chronic food shortage and accompanied by a precarious state of health and education services, were the root causes of the massive increase in public investment, and private projects, which had as their main objective the restoration of the *economic well-being* of the population and, thereby, the rapid revival of the Western capitalist economies. This model had to be and proved to be a successful one, in antithesis, with the model – adopted against their will – by a number of countries in the former so-called “socialist camp”, where the consumer society appeared much later.

In the second half of the twentieth century, as a result of growing economic welfare, *major changes* took place in capitalist societies. Thus, a fairly rapid transition has been registered, from the need for an adequate infrastructure and coverage of primary needs associated with quality medical and educational services to the growing acquisition of consumer goods that have come to meet increasingly different requirements. It is the moment of the emergence of *consumer capitalism*, which has exploded in the decades to come, also stimulated by the need of the large transnational corporations to gain more profits by penetrating new markets, due to the globalization phenomenon. These big economic entities no longer only deal now with the production of goods and services associated with them for the global market, but rather “create” new needs and consumers, making a massive contribution to the emergence of the so-called *consumption culture* where people are encouraged through advertising, imaginative actions, and potentiating the domestic need to possess goods, to value the consumption itself.

Under these circumstances, wherein the consumer society creates its own laws, values and forms of manifestation, the emergence and development of the consumption culture, in other words, the life built around mass-produced goods, mass media and malls, is a phenomenon who not only no longer surprises anyone, but even tends to spread all over the world. The increasingly important role that consumption has in people’s lives, both in developed countries and those in less developed countries, to the extent that they can afford it (because those economies are producers rather than consumers), is the strong argument to support the idea that consumption culture can be considered a form of culture, like any other.

A sine qua non condition of the existence of any form of culture is to be shared by members of a specific society. In the case of consumption culture, the multitude of individuals sharing a similar value – *consumption*, reveals this aspect. Everywhere people are involved in the purchase of goods and the use of services, and people who value consumption are the easiest to be handled in the direction of consumption. Irrespective of whether they have the means to consume more or not, these citizens will be determined to pursue the means that to enable them to consume more and more. Of course, up to a certain point, this trend is beneficial to the economy, but by studying things from another angle, this excessive valorization of consumption is not only observed at the level of each individual, but also at the collective level, reaching the level of a community or even at the level of society as a whole.

Thus, the seemingly unstoppable tendency of globalization of consumerism goes hand in hand with the massive spread of online entertainment in the form of real media shows.

Moreover, Kristeva (2000) emphasizes that even the marginalized members of society (unemployed, poor people, emigrants/migrants etc.) are offered a real cultural “dieting” of media show, which tends to seduce these citizens by fragmenting the daily monotony. We remind, at the same time, that these social strata are also the most sensitive to the change of the relationship between income and expenditure, thus becoming vulnerable (unfortunately) to different forms of manipulation.

Numerous other theorists have attempted to decipher the mechanism of global transformations associated with the emergence of the show society, long before the author quoted above. Jean Baudrillard has been criticizing, since 1970, in the work entitled *Consumer Society*, the collateral damage caused by abundance and consumption, and condemned excessive consumption because “*it has become a way to respond to an imperative that differentiates itself from others, taking the place of morality, creating artificial social relations and new symbols (of welfare or power associated with the accumulation of goods); and all this for corporate profit and to the detriment of the environment, resulting in the mortgaging of the future of humanity*”. Subsequently, Alvin Toffler (1995) prefigured in his *Powershift* a series of changes that were to mark the society, after which other researchers took over the relay.

Zygmunt Bauman describes in detail the profound transformation of the production society into a consumer society, Manuel Castells writes about the spectacular growth of the “Internet Galaxy”, where lives are lived on the background of some complex information networks, and Barbara Ehrenreich speaks of the imminent spread, in socio-economic plan, of a precarious life, centered on low wages, job insecurity and chronic unemployment.

3. The nature of the interdependence between the structure and the level of incomes, respectively the expenses of the population

Modern economic history has shown that, regardless of the adopted political regime, when it comes to the savings made by the population, the essential premise of saving is constituted by the income, and the level of expenditures, namely the share the same have in the income, determines the level population savings.

In a stable market economy, income level, respectively expenditure level, follows a predictable trajectory to some extent, which can not be said of other national economies, where the level of these incomes and expenditures varies with a much larger amplitude as a result of the manifestation of a multitude of specific, local factors. For example, about Romania over the last two decades, we can say that the evolution of the population expenditures was basically determined by the evolution of its consumption expenditures, the argument being the decisive weight that these expenditures had (and still have) in the total expenditures of the population, as it will be seen in Section IV of the paper.

Regarding the structure of **total incomes**, according to the methodology used by the National Institute of Statistics of Romania (N.I.S.), we distinguish two main components:

- *Cash incomes*, which represent the sum of cash receipts proceeding from different sources of origin and for which there is no obligation to refund (exclusive of withdrawals from CEC Bank, other banks and similar institutions, the received loans and credits). Specifically, they may come from wages and other wage entitlements, from agriculture, from other independent non-agricultural activities⁴, from social benefits⁵, from property⁶ and from the sale of assets belonging to the patrimony of the household;
- *Incomes in kind* (they can be valued in RON)⁷, which in turn are customized into two subcategories:
 - The equivalent value of human and feed consumption of food and non-food products proceeding from the household's own resources;
 - The value of incomes earned by employees and recipients of social benefits.

In the same sense, and using again the NIS methodology as a benchmark, the **total expenditures** of the population (or of the *households*, in order to observe the terminology used in the economic statistics) comprise:

- *Cash expenses* (taxes and mandatory payments, consumer spending, investment expenses, expenses for purchase of land, buildings, animals, etc.);
- *Equivalent value of food and non-food consumption*, from own resources.

Analyzing the structure of these expenditures, both at European level but also in the case of other developed economies of the world, we note that the main share is held - by far - by the consumption expenditures of households, which aspect generated a part of the interest regarding this paper.

Also in this context, we must also point out that, starting with 2015, in the statistics developed under the aegis of N.I.S., the European Classification of Individual Consumption on Destinations – COICOP⁸ is used, at 5 digit level, which brings changes in the structure of certain indicators, in the sense of their aggregation, as compared with the previous years, and the statistical data were extended to the population resident as at 1 January 2017 and are comparable to the 2014 data but are not comparable to the data from previous years. For this reason, as well as the wish to preserve the meaning of the information, the data that will be presented and analyzed below is focused on the 2014-2017 period, but only on the third quarter.

As part of the economic statistics designed and drafted under the aegis of the United Nations, there are four types of classification of expenditures, given the destination of these expenditures. Of these, the COICOP classification is the only one that relates to the personal expenses of families, as well as to the destinations of these expenditures. The structure of these household individual consumption expenditures comprises the following twelve categories:

- Food and non-alcoholic beverages;
- Alcoholic beverages, tobacco and narcotics;
- Clothes and footwear;
- Maintenance, water, electricity, gas and other fuels;
- Furniture, household equipment and other usual equipment for housing maintenance;
- Health;

⁴ That is, cash receipts from trade, service, trades, liberal professions and intellectual property rights.

⁵ Cash receipts from social protection benefits, such as pension and other income assimilated to pensions, sickness and maternity leave allowances, unemployment benefits, family benefits, social assistance benefits, etc.

⁶ Cash receipts from the use of certain assets as a result of the holding of closed/open investment funds, deposits with CEC Bank, other banks and similar institutions (rents, rents, dividends, interest).

⁷ http://www.insse.ro/cms/files/statistici/comunicate/abf/a17/precizari_metodologice_tr2_17.pdf

⁸ COICOP – Classification of Individual Consumption According to Purpose, according to <https://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=5>

- Transport;
- Communications;
- Recreation and culture;
- Education;
- Restaurants and hotels;
- Various goods and services.

In this classification there are also included the following categories of expenditures, even if they are not made by the population:

- Individual consumption expenditure of non-profit institutions serving households⁹;
- The government's individual consumption expenditure¹⁰.

As a general appreciation, we assert that both the structure and the consumption dynamics of the population of Romania after 1989 were determined, in the initial stage, by the existence of an excess demand (which can be said to be an “inheritance” from the old regime), over which the following factors successively overlapped:

- fluctuating developments in the level and structure of the offer;
- high inflation rates;
- elimination of subsidies;
- decrease in purchasing power;
- decrease in real incomes and changes in their distribution,
- last but not least, the effects of the economic crisis that debuted in 2008.

Obviously, all these factors influenced the consumption behavior of the population, with direct consequences on the structure of consumption expenditures.

In addition to the above, we also point out that the changes in the income structure of the population show an upward trend in polarization, and we can say that the most affected by the changes in the last period are those people who are part of the population of the lower pole of the stratification, namely unemployed, retired, etc., generally the persons inactive on the labor market, to which a large part of the active population, under the age of 30, is added.

4. European context and structural changes in consumption expenditure of the Romanian population

According to data published by the European Statistical Office, Eurostat, the Member States with the lowest percentage of people who do not allow themselves one week holiday away from home per year are: Sweden (8.2%), Luxembourg (13.1% since 2015), Denmark (13.7%), Finland (14.2%), Austria (15.4%) and the Netherlands (16.2%).

At this moment, an edifier for us is that more than half of Romanians do not afford a vacation away from home. Thus, at the level of 2016, no less than 66.6% of our fellow countrymen failed to spend – on leave – no days away from home, as compared to the situation in the European Union, where only one third of the population (32.9%) was in a similar situation. More specifically, statistics show that EU countries where more than half of the population did not afford a week holiday away from home were: Romania (66.6%), Croatia (62.8%), Bulgaria (56.4%), Greece (53.6%), Cyprus (53.5% in 2015) and Hungary (50.7%).

⁹ For example, among other things, we can refer here to churches and religious societies, sports clubs, trade unions and political parties. These institutions are private and non-profit-making institutions, and their resources come mostly from voluntary household contributions, but also from government subsidies from the state budget.

¹⁰ It refers to consumer government's spending that can be individualized, or to those costs where the real consumer can be identified, and the final beneficiary are the households, as is the case with some essential expenditure for education, health and culture.

In other words, Romania holds the last place in Europe from this point of view. The only positive thing is that the proportion of those who do not allow themselves one week holiday away from home was even more dramatic in the past, if we think that in 2010 it was 77.4%!

Internally, according to data published by the National Institute of Statistics (N.I.S.) for the period 2014-2017, consumption expenditure of the Romanian population, expressed in absolute figures, was lei 1638.4 in 2014, lei 1693.05 in 2015, lei 1768.5 in 2016 and lei 1971.8 in 2017, which means an increase of almost 17% over the whole period. Under these circumstances, we would expect the level of spending on recreation and culture to also have an upward trend, but reality contradicts us, as the European statistics have shown above.

Analyzing the data published by the N.I.S. for the analyzed period and considering the standard consumption classification of consumer spending (COICOP), we find that the structure of the total consumption expenditure of the Romanian households is the following (see Table 1):

Table 1. The structure of the total consumption expenditure of the Romanian households

Type of consumption expenditure	2014 ¹¹	2015 ¹²	2016 ¹³	2017 ¹⁴
Agri-food and non-alcoholic beverages	40	37.6	36.7	35.8
Alcoholic beverages, tobacco	7.7	8.1	7.7	8.3
Clothing and footwear	5.3	6.0	5.2	7.5
Dwelling, water, electricity, gas etc.	17.2	16.6	19.6	15.5
Furniture, fitting and home maintenance	4	4.3	4.5	5.8
Health	4.6	4.8	5.3	4.8
Transport	6.2	5.9	5.9	6.6
Communications	4.8	5.2	5.1	5
Recreation and culture	4.5	5.9	3.1	3.4
Education	0.5	0.2	0.6	0.4
Hotels, cafes and restaurants	1.4	1.1	1.6	1.8
Various products and services	3.8	4.3	4.7	5.1
Total percentage points	100%	100%	100%	100%

Source: original

Studying the data above, we first notice that the only category of constantly decreasing expenditures is the most important, as a weight (agro-food produces), and the only ones constantly growing are those for furniture, etc., namely those with various products and services. Secondly, spending on recreation and culture has oscillating fluctuations, after a dramatic decrease, almost halving, and the result was a decrease over the whole period studied.

On the other hand, if we take into account only the start and end dates of the interval, we will see that the interest of the population has increased especially for alcohol and tobacco, for clothing and footwear, as well as for hotels and restaurants, that is, the very spending categories that the younger generations prefer. At the opposite end, those of the decreasing expenditures, we find the spending on housing and the education spending, which also negatively affects the younger generations.

5. Conclusions

Corroborating the information resulting from the consultation of the bibliography with those obtained from the short statistical documentation, we can draw some conclusions.

¹¹ http://www.insse.ro/cms/sites/default/files/com_presa/com_pdf/abf_2014r.pdf

¹² http://www.insse.ro/cms/sites/default/files/com_presa/com_pdf/abf_tr3_r15.pdf

¹³ http://www.insse.ro/cms/sites/default/files/com_presa/com_pdf/abf_tr3r16_0.pdf

¹⁴ http://www.insse.ro/cms/sites/default/files/com_presa/com_pdf/abf_tr3r17.pdf

A first observation is that Romanians have the last place in Europe when talking about spending on holidays away from home, although the absolute value of consumer spending has steadily increased in the analyzed range. This unflattering position results from the manner of how the spending is done, with more than 50% of the amounts being used for constant purchasing of food and utilities for housing.

Significant increases in volume are recorded in the chapters Alcoholic beverages and tobacco, Clothing and footwear, Furniture, Household endowment and maintenance, and Various products and services.

The volume of food and non-alcoholic beverages consumption decreased by almost 5% in the surveyed period, along with other decreases in education and culture, and the savings are thus mainly found in the increases in alcohol and tobacco, in clothing and footwear, furniture and home furnishings.

Given the above-mentioned state of facts, we draw the key conclusion, namely that we are witnessing structural changes in consumption expenditure in Romania, and the continuation of these evolutions in the coming years can lead to permanent mutations in consumer's behavior. We also note the vulnerability of younger generations who value more than ever fun and possession of goods rather than education and personal development, which is obviously a characteristic feature of the society of spectacle.

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