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Investigating Environmental Awareness of Young Adults in Romania

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Abstract

Nowadays, sustainable living is not an option anymore, but an obligation. The green industry, consisting of eco-friendly products and services, has evolved significantly in recent years. As a result, green consumer behaviour has received considerable attention from companies, marketers, and researchers. Many consumer studies have confirmed that the majority of people are aware of environmental problems and their interest in green products has increased. The popularity of this topic in today's society is a consequence of changing consumer habits, increased ecological awareness, and the shifting state of the environment in the pandemic context. Therefore, the main goal of this paper is to highlight and analyse Romanian consumers' attitudes towards the environment and their green buying behaviour. The article explores the importance of environmental protection for respondents and investigates their ecological behaviour, focusing on the consumption and buying of green products. The paper also discusses how consumers perceive the price of organic products. The main variables analysed are socio-demographic characteristics of respondents, including gender, level of income, and education. In terms of age, this study focuses on Romanian consumers aged 18 to 35 years. In total, data were obtained from 472 respondents, through a convenience sample. An online survey was promoted on social media channels and email. Data analysis revealed that women and families with children are more likely to buy green products. We hope that this research can foster the growth of green marketing efforts in the Romanian context. The findings presented offer practical insights for market segmentation approaches and educational initiatives that can encourage local demand for green products and increase the environmental responsibility of Romanian citizens.

Keywords: green products, sustainability, environmental protection, green marketing, consumer behaviour.

JEL Classification: M31, Q56.

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1. Introduction

During the 1990s, considered the "Earth decade" (McDaniel and Rylander, 1993, p. 4), people started to question the impact of their consumption habits on the environment. As this preoccupation intensified, a major debate arose regarding the connection between marketing and the environment. On the one hand, the marketing discipline was considered the villain because of its role in stimulating unsustainable levels of consumption and demand. At the same time, it was also considered that marketing could become the hero of the situation, by raising awareness of social and green issues.

This phenomenon of embracing environmental problems gave birth to a relatively new concept in the marketing industry, which evolved under different names, for example, "ecological marketing" (Henion and Kinnear, 1976), "environmental marketing" (Peattie, 1995), or "sustainable marketing" (Fuller, 1999). According to Peattie (2010), these three forms of marketing represent the progress of the interaction between marketing and the environment over time, each phase having different implications for the marketing discipline and its role in society. Nowadays, specialists refer to it as "sustainability marketing" (Kumar et al., 2013), a concept considered to be the final stage in the development of green marketing, which combines economic, social, and environmental components. According to Armstrong and Keller (2016), this new domain of marketing can be described as "socially and environmentally responsible marketing that meets the present needs of consumers and businesses, while also preserving or enhancing the ability of future generations to meet their needs" (p. 490).

These shifts in the marketing paradigm have put environmental protection and green products in the spotlight. Today, these two concepts are strongly related to consumers' buying and consumption behaviour. As a result, studies on green consumption have become very popular. Unfortunately, this topic is not sufficiently discussed when it comes to Romania, with very few studies concerning people's level of ecological awareness and behaviour. Considering that the country has different purchasing habits and socio-economic context, it is necessary to understand this topic from the perspective of Romanian consumers.

Therefore, the main goal of this paper is to understand the attitudes and behaviour of Romanian consumers aged between 18 and 35 years regarding environmental protection and green products. By touching on an underexplored topic of research at the local level, we hope that the findings presented will offer valuable insights for market segmentation strategies and educational initiatives that can encourage local demand for green products and increase environmental responsibility of Romanian citizens.

The present paper has the following structure. First of all, it offers a thorough review of the literature on the topic, focusing on both local and international papers. After that, the methodology incorporated for data collection is presented. The next section of the paper discusses the key data obtained. Finally, the paper concludes with a summary of findings and suggestions for further research.

2. Literature Review

As the current state of the environment is changing dramatically, a paramount global shift can be observed: consumers are paying more attention to their environmental impact and are actively engaging in different types of green actions, while companies are trying their best to act in a sustainable way. Many environmental specialists have confirmed that if people do not act green, environmental degradation will worsen (Sun et al., 2021). This is true at both the local and global levels. When looking broadly at current environmental problems in Romania, the country is facing many issues, with the most critical being air pollution, deforestation, and waste management. For example, in February 2022, the capital of Romania recorded a spike in air pollution; thus air quality sensors indicated "values that exceeded the maximum limit by as much as 700%" (Marica, 2022). This news comes as no surprise, after the latest report from the European Environment Agency which highlighted that Bucharest is one of the cities with the worst air quality in Europe (Euronews, 2021).

It could be argued that some of these issues could be resolved or improved by enhancing public awareness of environmental protection. However, in contrast to Western countries, the green market in Romania is still developing. For example, Liobikiene et al. (2016)'s cross-cultural study highlighted that Romania, together with Bulgaria, Italy and Lithuania, are the countries with the lowest consumption levels of green products in the European Union.

With regards to the current literature on the topic, there are limited studies available concerning consumers' green behaviour; therefore, this research area needs improvement. According to Nagy and Dabija (2020), Romania could become a key market for green products, but "the lack of information concerning the benefits of green consumption and the high prices compared to traditional products represent a factor which discourages the purchase of green products" (p. 9). In their study regarding the environmental responsibility of young people in Romania, Kardos et al. (2019) highlighted that consumers' lack of information is a key barrier to "green responsible behaviour" (p. 1). Therefore, local policymakers and marketers need to do more to raise the ecological awareness of the public.

It is important to mention that this lack of information is not only affecting consumers, but also researchers and specialists in the industry who do not have access to enough data on the green market in Romania. At the moment, there is no official Government data available regarding the real size of the organic market. Therefore, national statistics are missing, with no information on supply or demand. This type of information could be of great use to those interested.

On the other hand, there are other local studies more optimistic regarding the green behaviour of Romanian consumers. For example, in their study, Petrescu et al. (2017) mentioned that Romanian consumers tend to have strong positive attitudes towards the consumption of green products. To add more, Dabija et al. (2018) mentioned that Romanians "have started to understand the negative impact of conventional products on the environment" (p. 181). The authors added that Romanians are very similar to those living in Western Europe regarding their green

consumption levels, despite "limited access to infrastructure, limited assortment of products, and less opportunities to buy green products online" (Dabija et al., 2018, p. 182).

All in all, although local studies tend to address diverse green topics, their number is low. Moreover, most of these studies tend to focus on secondary data analysis, instead of collecting primary data. To conclude this chapter, the literature review findings highlight that more research is needed on this topic.

3. Research Questions / Aims of the Research

The main goal of this paper is to investigate the attitudes and behaviour of young adults (aged between 18 and 35 years) from Romania regarding environmental protection and green products. By investigating this topic, important information regarding their buying and consumption behaviour will be discovered. In order to achieve this goal, the following research questions are proposed:
- How important is environmental protection for Romanian consumers?
- What is their purchasing behaviour for green products?
- What are their attitudes towards the price of green products?

Although the number of green marketing studies concerning younger generations is increasing, most of the available studies tend to focus on teenagers (Lee, 2008) or students (Pagalea and Vlad Uta, 2012). At the time of the research, no local study concerning people aged between 18 and 35 years was found. It is worth highlighting that researchers tend to use different names to classify this age cohort. For example, some authors considered them "young adults" (Petry, 2002), while other papers called them "millenials" (Onorato et al., 2018).

There are various reasons why this age group was chosen. First of all, young adults tend to be the more informed and concerned about social and environmental problems, as well as more open to new ideas (do Paço et al., 2013). Second of all, "recent studies indicated the fact that young consumers, either Millennials or Zers, prefer green products" (Nagy and Dabija, 2020, p. 1). Last but not least, they represent a target consumer group for the development of the green market, due to their increased purchasing power. Considering these arguments, it is both relevant and necessary to investigate this age cohort.

4. Research Methods

The current study is part of a larger national research that took place during December 2020 and January 2021. An online survey distributed in Lime Survey was used to collect data, using convenience sampling. Online surveys offer multiple benefits, including "speed, cost, quality of response, no interviewer bias, and data quality" (Malhotra et al., 2017, p. 274).

Although the original data set contains a larger sample of Romanian consumers aged 18 years old or older, the file was split in order to analyse only those aged between 18 and 35. Therefore, the final sample resulted in a total of 472 respondents.

To add more, the original study includes more items and questions. Due to the page limit, only specific variables were chosen.

The current paper explores the importance of environmental protection for respondents and their ecological behaviour, as well as their attitudes toward buying and consuming green products. These variables are analysed in connection with key socio-demographic characteristics, including gender, level of income, education, and presence of children. Data analysis involved both univariate and bivariate procedures, implemented with the help of SPPS, version 20.0.

5. Findings

Before discussing the key results of the study, the socio-demographic characteristics of the sample are presented below.

Table 1. Socio-demographic characteristics of the sample (N = 472)

| Variable name	Frequency	Percentage
Gender		
Female	361	76.5
Male	111	23.5
Marital status		
Not married	369	78.2
Married	103	21.8
Presence of children		
Yes	142	30.1
No	330	69.9
Area of residence		
Urban	413	87.5
Rural	59	12.5
City of residence		
Bucharest	213	54.9
Other	259	45.1
Income level		
Below 1.500 RON	132	28.0
1.501 – 3.000 RON	110	23.3
3.001 – 4.500 RON	105	22.2
4.501 – 6.000 RON	64	13.6
6.001 – 7.500 RON	22	4.7
7.501 – 10.000 RON	22	4.7
Above 10.000 RON	17	3.6
Occupation		
Student	187	39.6
Employed	255	54.0
Entrepreneur	15	3.2
Unemployed	15	3.2
Education level		
Secondary school or less	6	1.3
Highschool	136	34.5
Professional diploma	8	1.7
Undergraduate studies	217	46.0
Postgraduate studies	78	16.5

Source: Author's own calculations.

As shown in Table 1, most respondents are females (76.5%), while the rest of 23.5% are males. Regarding marital status, almost 80% of the respondents are not married, while the remaining 20% are married. The majority of respondents have no children (69.9%) and live in the urban area (87.5%). There is almost an equal split regarding location, with 54.9% of the sample living in Bucharest, while the rest living in other cities. When it comes to income level, most respondents are earning between 1.500 RON and 4.500 RON, a total of 45.5% respondents. Less than 5% of the respondents are earning over 10.000 RON each month. Regarding occupation, 54.0% of the respondents are employed, while almost 40% are students. When it comes to education level, the majority of survey participants have either finished undergraduate or postgraduate studies (62.5%), underlying a high education level across the sample. From the total sample, 34.5% of respondents only finished high-school, but this is not a surprising result considering that the respondents' age varies between 18 and 35.

5.1 Environmental Protection and Green Behaviour

In the beginning, respondents were asked to rate how significant is environmental protection for them on a 5-point scale (1 = Unimportant, 5 = Very important). The distribution of responses can be observed in Figure 1 below.

Figure 1. Level of importance given to protecting the environment (N = 472)
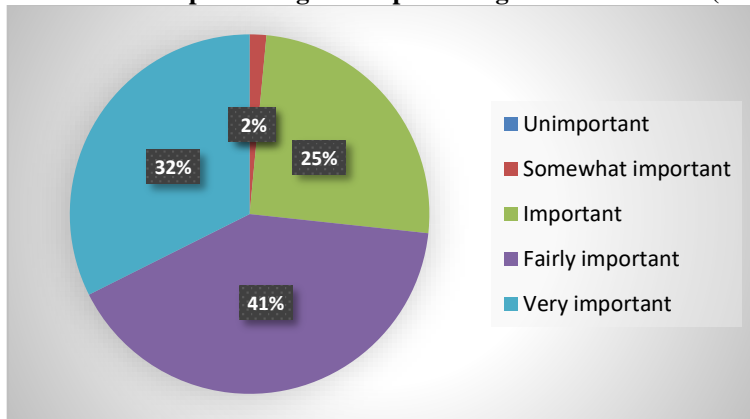
Source: Author's own calculations.

Most respondents (73.3%) considered the environment to be either "very important" or "fairly important" for them. Interestingly, no responses for option "unimportant" were recorded. Overall, there is a favourable appreciation of environmental protection for Romanian consumers. The correlation analysis revealed no significant relationship between level of attention given to environmental protection and demographic characteristics ($p > 0.05$).

In order to understand general green behaviour, respondents were asked to mention if they have taken any activities to protect the environment recently. From

the total sample, over 70% of respondents answered affirmative to this question. The most mentioned green activities were recycling (233 answers), avoiding plastic (206 answers) and choosing sustainable transportation (173 respondents). At the other end of the scale, the least mentioned green activities were diet change (99 answers), reducing water consumption (118 answers), and buying green products (122 answers). Surprisingly, from the total sample, less than 26% of respondents mentioned they have bought green products in order to protect the environment over the last half year. According to the latest report from Eurostat (2022), only 2% of Romanians are eating the daily recommended portions of fresh fruits and vegetables, the lowest daily intake across the entire European Union.

It could be argued that the level of perceived difficulty can affect environmental behaviour, as Romanian consumers tend to engage in lighter environmental activities, such as recycling, in order to not feel guilty for not participating in more difficult tasks which have a higher impact, such as diet change (Green-Demers et al., 1997).

The relationship between different behaviours was examined with the use of Spearman's rho (ρ) correlation coefficient. The strongest correlation was found between reducing energy consumption and reducing water consumption ($\rho = 0.28$, $p < 0.01$). To add more, a significant correlation, of low intensity, was identified between choosing sustainable transportation and buying second-hand items ($\rho = 0.21$, $p < 0.01$), discussing environmental issues with the others ($\rho = 0.19$, $p < 0.01$) and diet change ($\rho = 0.17$, $p < 0.01$). These correlations may be explained by what psychologists call "the spillover effect", "in which involvement in one form of pro-environmental behaviour increases the propensity of consumers to engage in others" (Peattie, 2010, p. 213). This result is consistent with Biswas et al.'s (2000) study, which found a strong connection between recycling and buying recycled products. Future studies could investigate this topic further.

With regard to demographics, there was a low, negative correlation between gender and avoiding plastic ($\rho = -0.18$, $p < 0.01$) and buying green products ($\rho = -0.14$, $p < 0.01$). This means that high levels of one variable are correlated with lower levels of the other variable. In this case, the gender variable was coded 1 for female and 2 for male in SPSS. Therefore, it can be argued that women are more likely to buy green products and avoid using plastic compared to men. Moreover, data analysis revealed that there is a significant positive correlation between education level and buying green products ($\rho = 0.13$, $p < 0.05$). Thus, high levels of education are associated with high levels of buying green products. These results match those presented in previous research (Tsakiridou et al., 2008).

5.2 Understanding Purchasing Behaviour of Green Products

This section presents the key results regarding the green behaviour of respondents, more specifically frequency of consumption, monthly amount spent, and perceived price of green products.

As shown in Table 2 below, when it comes to frequency of consumption, almost 80% of respondents declared that they buy green products either "a few times a year" or "a few times a month".

Considering the monthly amount spent on green products, around 85% of the total sample mentioned that they spend 300 RON or less. Both the frequency of consumption and the amount of money spent are quite low, therefore there it is no surprise that most respondents (71.7%) perceived the prices of green products as either "high" or "very high".

Table 2. Purchasing characteristics of green products (N = 434)

Variable name	Frequency	Percentage
Frequency of consumption		
Less than that	8	1.8
A few times a year	132	30.4
A few times a month	203	46.8
A few times a week	91	21.0
Monthly amount spent		
Below 150 RON	234	53.9
151 – 300 RON	135	31.1
301 - 450 RON	31	7.1
451 - 600 RON	18	4.1
Above 600 RON	16	3.7
Perceived price of green products		
Very high	52	12.0
High	259	59.7
Medium	116	26.7
Low	7	1.6
Very low	0	0

Source: Author's own calculations.

A moderate, positive correlation was identified between amount spent on green products and level of income ($\rho = 0.33$, $p < 0.01$). Therefore, the more money people have, the more they will spend on green products. Furthermore, the frequency of consumption tends to be higher for respondents who have children, 33.8% of them mentioned they buy green products "a few times a week" compared to 15.1% of those without children. The chi-square value of $\chi 2 = 21.371$ indicated that presence of children influences frequency of consumption for green products.

5.3 Willingness to Pay More for Green Products

In one of the questions of the survey respondents were asked to mention the maximum percentage they would be willing to pay to buy green products. The collected responses were grouped into three categories to reflect consumers' willingness to pay more for this type of products: "a little more" (below 25%), "more" (between 25% and 70%) and "a lot more" (above 70%). The results are presented in Table 3 below.

Table 3. Respondents' willingness to pay more for green products (N = 434)

Category	Frequency	Percentage
A little more (<25%)	278	64.1
More (25% - 70%)	144	33.2
A lot more (>70%)	12	2.8

Source: Author's own calculations.

Around 23% of the total sample mentioned that they would be willing to pay 20% more for green products, making this the most mentioned answer. The highest percentage mentioned was 100%, picked by 9 respondents (only 1.9% of the total sample). Data analysis revealed that there is a significant, negative relationship between gender and willingness to pay more ($\rho = -0.24$, $p < 0.01$). Therefore, it could be argued that women are more likely to pay more for green products compared to men.

6. Conclusions

Overall, it can be concluded that Romanian consumers in the age group analysed tend to value environmental protection and engage in actions to protect it. However, when it comes to buying green products, the frequency of consumption and the amount spent tend to remain low. Future studies should look into the main motives that restrict Romanian consumers from buying and consuming more ecological products. Maybe consumers lack awareness of these products or do not trust their quality.

The present study is not without limitations. For instance, the paper did not consider the barriers that might impact green buying, while, due to the sampling method and the instrument chosen for collecting data, the study findings cannot be generalized. Research concerning Romanians' green behaviour should be further explored, by focusing, for example, on different research methods or other types of variables.

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