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The Impact of the Results Indicators on the Stock Market Performance in the Case of Companies Listed on the Bucharest Stock Exchange

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Abstract

The article aims to develop an empirical study to measure the impact brought by the communication of financial results on the stock market performance of companies listed on the Bucharest Stock Exchange. This study identifies the factors that influence share price and market capitalisation and calculates to what extent the performance indicators manifest this impact. Over time, the researched theme has been the subject of numerous studies developed on various national capital markets. The respective studies allow for an overall knowledge of the factors that can influence stock market performance, but the specifics of each national market do not allow the formulation of general conclusions valid for all cases. The research method used in the elaboration of the study is that of data regression analysis, applied using the SPSS statistical program. The research is developed on the real data reported by 50 companies listed on the Bucharest Stock Exchange, which make up the study sample. The financial data were extracted from the financial reports prepared by the companies, and the stock data from the history of the Bucharest Stock Exchange. The analysis undertaken confirms the link between the independent variables, the results indicators, and the dependent variables, the share price, respectively, the stock market capitalisation. Thus, the stock market performance is influenced by the results recorded by the companies listed on the Bucharest Stock Exchange. The research paper contributes to outline the general assembly regarding the impact of accounting information on stock price volatility. Also, the study increases the body of knowledge in the economic field, by characterising the Romanian capital market.

Keywords: performance, stock market, results, influence, price.

JEL Classification: M41, A10, O16.

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1. Introduction

Financial reporting highlights, in a synthetic way, the entire set of transactions carried out by an economic entity whose purpose is to obtain profit from the performance of its commercial activity. Both the balance sheet and the profit and loss account, as well as the other documents that make up the financial reporting system, provide users with data and information about the financial position of a company.

The most relevant indicator, from a financial point of view, that expresses the performance of a company is the profit, which is the basis of the decisions made by both investors and company managers, who plan their development and growth strategies (Garengo et al., 2005). Profit can take many forms such as gross profit, net profit, operating profit, financial profit, the present study considering only net profit. Along with profit, the category of result indicators also includes gross operating surplus, turnover, or added value.

The stock market represents the place of interaction between the demand and supply of securities, functioning exactly like an organised and regulated area, around which capital holders analyse the opportunities to place it in some companies.

The present paper starts from the premise that financial communication is the one that influences the trading price of the shares of companies listed on the Bucharest Stock Exchange and aims to present the method of determining the impact that the results indicators, calculated on the basis of the financial statements, a have on the evolution of share price and market capitalisation. The research also takes into account other scientific works that address this topic, also conducting a review of specialised literature that deals with subjects assimilated to the object of study. Therefore, the study starts from the hypothesis that the improvement of financial results leads to the increase of stock market performances.

2. Problem Statement

The economic literature, in particular, and that related to the stock market, in particular, include works related to numerous research efforts in the field of influence brought by economic-financial indicators on stock market performance. Investors' reactions to the publication of the indicators characterising the results of the companies they hold portfolios of or in which they intend to invest have been quantified repeatedly, having as reference points either local or global stock markets, or industrial branches or certain objects of activity.

Given the fact that the Romanian economy is going through a period of transition, the capital market of this country is not a very desolate one. That is why the Bucharest Stock Exchange cannot be compared with stock exchanges with global notoriety, but only with the stock exchanges of economies comparable to that of Romania. In the following, the research undertaken by various authors

who have addressed similar themes and methodologies in relation to capital markets similar to Romania's is presented.

Dodonov (2020) addressed the topic of the effect of the publication of financial statements on share prices in 2020, by publishing a study that aimed to analyse the behaviour of the trading prices of the shares of companies in the United States of America at the time of the presentation of financial information regarding the recorded profits. The basic premise from which the author started in the scientific approach is that "good news about a company triggers an increase in the share price". In relation to this fact, Dodonov (2020) is of the opinion that the price of a share appreciates immediately when, with the publication of the financial statements, those interested in the respective company can observe not only an excess of the company's past earnings, but also an excess of financial analysts' expectations of the entity's current performance.

Hossain (2021) investigated the influence of accounting disclosures on stock trading values for pharmaceutical companies listed on the Dhaka Stock Exchange, Bangladesh. The analysis period covered the period between 2017 and 2019, and the regression analysis was applied to variables such as earnings per share, net cash flow per share, net assets, or dividend per share.

The research of H. Tarik (2021) led to the conclusions that cash flow and net asset have a significant positive impact on the market value of a stock. Also, earnings per share influence the trading price of securities significantly but negatively, while dividend per share influences the stock price positively.

The analysis described above had as its starting point a series of other research processes that addressed similar themes. For example, the author Beisland (2010) correlated the influence of the publication of accounting information with the stock market capitalisation, and Oladele et al. (2018) analysed the relevance of the value of accounting information in the perception of actors active in the capital market, based on the data of 121 of companies listed on the Nigerian Stock Exchange.

Farouq and Zaher (2014) studied the impact of indicators derived from the processing of data provided by the accounting of companies in the banking sector on their stock market capitalisation value. By applying the simple regression method and the least squares method, the authors observed, for the period between 2002 and 2011, that the indicators of a financial-accounting nature lead to the direct influence of the trading price of shares and, respectively, the market value of companies included in the sample.

Lambert and Larcker (1987) observed that there is an interdependence between the information contained in accounting data and the evolution of stock returns in 370 companies in the United States of America, from various sectors. Also, Hanlon (1991) concluded, based on the analysis of data of 222 British companies, that there is a strong, significant correlation between financial data and the value of the stock market capitalisation.

Studies like that of Olson and Pagano (2005) or that of Pandey (2005) are also focused on the influence brought by the publication of financial reporting data on the stock market performance of the companies that are the subject of the analysis.

By testing on the basis of statistical methods the data of some companies from the USA, respectively, Malaysia, the authors concluded that the trading price of the shares, which is the basis for determining the stock market capitalisation, is strongly affected by the financial communication undertaken by the business environment, regardless of the company's field of activity.

Arsalan et al. (2016) analysed the impact of communicating different leverage measures on the share price of cement companies listed on the Stock Exchange of Pakistan. They conducted the research by approaching the problem through panel data and considering the share price as a dependent variable. Following the application of the data collection methodology included in the annual reports of the companies in the cement production sector, for the period between 2005 and 2015, as well as after the application of descriptive statistics methods, through multiple regression the empirical relationship between the indebtedness of the enterprises and the trading prices of their shares.

Mohammad et al. (2012) debated the issue of the impact of dividend policy communication on share price volatility on the capital market in Malaysia. In fact, the analysis started from the hypothesis according to which the trading price of the securities is affected by the forwarding, by the management level, of the decisions related to the distribution of the results towards the payment of dividends.

Mohammad et al. (2012), following the analysis undertaken, concluded that there is a negative but significant relationship between the volatility of share prices and the dividend policy practiced by companies listed on the Malaysian stock exchange. The study also reveals that the volume of the dividend, but also its yield, has the most important impact on the change in the trading price of securities.

A study of 41 companies listed on the Bahraini capital market by researchers Sharif et al. (2015) revealed that variables such as return on equity, book value per share, earnings per share, the allocated dividend or its yield, the debt ratio, and the size of the company influence the trading price of the shares in the respective capital market. These variables show a strong significance on the analysed population, suggesting the idea that investors can resort to the decision to participate in the formation of a company's capital, being assured of recording a fair return generated by those variables.

3. Research Questions / Aims of the Research

The purpose for which any company is established is that, based on the activities undertaken, it registers a profit. The economic entity is considered a collection of production factors linked, according to its functions, in order to obtain income at a level higher than the monetary needs allocated in this regard.

Profit is the first benchmark to which each stakeholder will become sensitive, depending on their interest in the enterprise. A company that registers a profit will benefit from increased attention from actors on the economic scene, whether we are talking about investors, credit companies, customers, suppliers, or employees. This fact denotes efficient asset management, prudent capital allocation, and a rigorous and solidly developed policy regarding the sales function.

In this context, to carry out the empirical study, we formulated the following research hypothesis: *the improvement of financial results leads to the increase of stock market performances*.

The decision to place some sums of money in order to participate in the formation of the capital of a company arises from the choice between several investment options, depending on the yield that each one generates, in return for the degree of risk assumed by each investor. Shareholders allocate sums of money in order to establish a portfolio of securities either out of the desire that their investment be remunerated periodically (annually) on the basis of dividends, or out of the desire to increase the market value of the shares held, a fact that generates earnings when the portfolio is sold, based on stock price differences.

When a company listed on a capital market records growing results for several consecutive financial years, the interest of investors in relation to this company will continuously increase. Otherwise, when a company will report, through the financial statements, negative price results for several consecutive periods, it will face the reluctance of existing investors, on the one hand, as well as potential investors, on the other hand. Incumbents will look for alternatives to capital placement, wanting to withdraw their money invested in unprofitable firms, while potential investors will delay coming forward for fear of recording losses on such placements.

The impact generated by the amount of net profit on the investment or disinvestment decision materialises most strongly when the company communicates the financial results. An investor who bases his decisions on the account of these indicators will react as soon as the company makes public the results account of a certain period, comparing it with those of the previous periods.

4. Research Methods and Analysis Results

The empirical study on the volatility of the share price according to the performance indicators of the companies listed on the Bucharest Stock Exchange was developed based on the financial data collected from a number of 50 companies, which operate in most of the economic branches encountered in Romania. The companies were randomly selected, considering that during the entire analysis period their securities were available for sale – purchase in the Romanian stock exchange.

The research contained in the study of the impact of performance indicators on the volatility of share prices was carried out with the help of the "Statistical Package for the Social Sciences" (SPSS) computer program. This is a software program widely used around the world, contributing to social science research by performing statistical analysis of data.

Taking both from the financial reports drawn up by the companies and from the securities trading history, available on bvb.ro, the primary data that allowed the determination of the analysis indicators constitute quantitative variables. For this reason, the correlation analysis that can be used to investigate the phenomenon of

the influence of financial information on the share price is the application of the Pearson correlation coefficient determination methodology.

In addition to the correlation analysis, in order to characterise as accurately as possible, the impact brought by the performance indicators on the price of the shares of the companies listed on the Bucharest Stock Exchange, a multiple regression analysis was also performed. The rigours of selection of the relevant data were kept from the correlation analysis, this fact guaranteeing the unity of the research and the applied methodology.

4.1 Analysis of Variables

The analysis of the impact brought to the share price and stock market capitalisation by the results indicators focused on their grouping according to the reporting period, over the entire time horizon concerned. Thus, data related to net profit (PN), gross operating surplus (EBE), turnover (CA), or value added (VA), were analysed alongside stock market data, i.e., share price (PA) and stock market capitalisation (MK). For an exact comparability of the data series, the logarithmic function, more precisely the natural logarithm, was applied when determining the correlation and regression with respect to the stock price.

Table 1. Data used in the analysis for share price

No.	Variables	Symbol	Unit
	Dependent variables		
1.	Share price	lnPA	%
	Independent variables		
1.	Net income	lnPN	%
2.	Gross operating surplus	lnEBE	%
3.	Turnover	lnCA	%
4.	Added value	lnVA	%

Source: Data processed by the author using Excel.

Analysing the link between performance indicators and share price is a critical component of financial analysis. Investors and analysts use these indicators to gauge a company's financial health and determine its investment potential. The performance indicators commonly used to analyse the link between financial performance and share price include net income, gross operating surplus, turnover, and added value.

Table 2. Data used in the analysis for market capitalisation

No.	Variables	Symbol	Unit
	Dependent variables		
1.	Market capitalisation	MK	mil. lei
	Independent variables		
1.	Net income	PN	mil. lei
2.	Gross operating surplus	EBE	mil. lei
3.	Turnover	CA	mil. lei
4.	Added value	VA	mil. lei

Source: Data processed by the author using Excel.

The analysis of the link between performance indicators and market capitalisation is an important area of research for investors and financial analysts. Market capitalisation is a measure of the total value of a company's outstanding shares and is often used as a proxy for the company's overall value. Performance indicators such as net income, gross operating surplus, turnover, and added value are important measures of a company's financial performance.

4.2 Research Result

The correlation analysis of the share price with the results indicators, in the case of annual reports, can be seen synthetically in the following table:

Table 3. Pearson Correlation for share price

		lnPA	lnPN	lnEBE	lnCA	lnVA
lnPA	Pearson Correlation	1	.368(**)	.361(**)	.256(**)	.417(**)
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	200	168	177	200	197

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Data processed by the author using SPSS.

Thus, it can be observed that the added value registers the most significant correlation with the share price, of 0.417, followed by that of the net profit, of 0.368. Even in the case of gross operating surplus and turnover, the values of the Pearson correlation coefficient are not much reduced, reaching the value of 0.361 and 0.256, respectively, in the case of the two indicators. The Sig = 0.000 value, recorded at each level of the correlation, confirms the accuracy of the results.

All these assessments are validated by applying the regression analysis on the previously correlated data, which, in a synthetic way, is presented as follows:

Table 4. Regression Coefficients for share price

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	-8.190	1.976		-4.145	.000
	lnPN	.006	.170	.006	.034	.973
	lnEBE	.003	.368	.002	.007	.994
	lnCA	-.294	.295	-.237	-.998	.320
	lnVA	.759	.528	.603	1.439	.152

a Dependent Variable: lnPA;

Source: Data processed by the author using SPSS.

The correlation analysis of the stock market capitalisation with the results indicators, in the case of annual reports, can be seen synthetically in the following table:

Table 5. Pearson Correlation for market capitalisation

		MK	PN	EBE	CA	VA
MK	Pearson Correlation	1	.898(**)	.934(**)	.813(**)	.948(**)
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	200	200	200	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Data processed by the author using SPSS.

Similar to the other correlations that confirm the hypothesis that performance indicators have a direct and positive impact on stock price volatility and, implicitly, on the market capitalisation in question, the Pearson correlation coefficient takes its maximum value of 0.948 in relation to value added. The next significant correlation is recorded with gross operating surplus, of 0.934, and net profit and turnover follow the same directions, establishing significant correlations of 0.898 and 0.813, respectively.

Table 6. Regression Coefficients for market capitalisation

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	238610290.425	83574214.806		2.855	.005
	PN	3.690	.772	.485	4.778	.000
	EBE	-2.297	.751	-.551	-3.057	.003
	CA	.183	.057	.161	3.197	.002
	VA	1.969	.244	.905	8.066	.000

a Dependent Variable: MK;

Source: Data processed by the author using SPSS.

5. Findings

We observe that the share price of the analysed companies is influenced both positively and negatively by the results indicators considered to be net profit, gross operating surplus, turnover, and added value. In this case, the predictor variables explain 15.50 % of the stock price volatility, this value allowing the validation of the analysis model. The regression analysis shows us that when the net profit increases by one percent, the share price increases by 0.60 %, and when the gross operating surplus increases by one percent, the same price increases by 0.30 %. In relation to the turnover, the regression means that when this indicator decreases by 1 %, the price decreases by 29.40 %, and in relation to the added value, the same analysis shows us that when the indicator increases by 1 %, the stock price increases with 75.9 %, in this way also validating the data correlation analysis.

Thus, we observe that the value of the analysed companies is influenced both positively and negatively by the result indicators considered to be net profit, gross operating surplus, turnover, and added value. In this case, the predictor variables explain 91.00 % of the movement of the stock market capitalisation, this value allowing the validation of the analysis model. The regression analysis shows us that when the net profit increases by 1 million lei, the stock market capitalisation increases by 3.69 million lei, and when the gross operating surplus decreases by 1 million lei, the same stock market capitalisation decreases by 2.297 million lei. In relation to the turnover, the regression means that when this indicator increases by one million lei, the value of the company increases by 0.183 million lei, and in relation to the added value, the same analysis shows us that when the indicator increases by one million lei, the stock market capitalisation increases by 1.969 million lei, thus validating the data correlation analysis.

6. Conclusions

When we refer to a company, the first thing we think about is the one related to the results it recorded. The main goal of any investor is to allocate material funds to a profit-generating enterprise. The impact of accounting information on stock price volatility could not be determined without considering performance indicators such as net profit, gross operating surplus, turnover, or value added.

By applying statistical analysis methods to data from companies listed on the Bucharest Stock Exchange, this paper contributes to the characterisation of Romania's capital market. Thus, as an element of novelty, we can state that the influence of the results indicators on the share price and on the stock market capitalisation is a direct one, which denotes the validation of the previously formulated research hypothesis. So, in the case of companies listed on the Bucharest Stock Exchange, the higher their reported profits, the greater the interest in those companies on the capital market and vice versa. The same can be said about the gross operating surplus, turnover, or added value recorded by companies.

The present research shows us that accounting information influences the stock market performance of companies listed on the Bucharest Stock Exchange.

Comparing these results with those obtained by the authors who have addressed similar topics in the past, we notice that the Romanian capital market also reacts, like other markets, to the financial reports published by companies.

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