The Influence Of The Principal Dimensions Of Accounting Information On The Capital Gains Yield In The Case Of Romanian Listed Companies

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Abstract
Increasing the opportunities offered by the financial markets and enhancing financial market risks, investor identify those financial assets that can give them a return as high as possible, based on the information available, especially those from the financial statements of companies. The purpose of the study regards the analysis of the principal financial dimensions of the financial statements reported by the listed companies on Bucharest Stock Exchange (BSE) on capital gains yield. To achieve the purpose of the research the analysis was based on a sample of 55 companies listed on BSE in the financial year 2012, using principal component analysis and multiple linear regression analysis. The obtained results indicate a greater influence of ratios of financial position in the detriment of ratios regarding the financial performance for companies listed on BSE.

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1. Introduction
Within the financial markets, the main objective of the accounting information is to support actual and potential investors in making the main investment decisions. This information is widely used as the main prediction mean of future cash flows that can be obtained by possessing stocks in a company and implicitly for the estimation of the return associated with these stocks and the related risks (Negakis, 2005). Until recently, the analysis of the influence of the accounting information on the stock return has focused on the information from the income statement, especially materialized as gains or the variations of these gains, in the detriment of the balance sheet information, regarding the financial position of the company. The balance sheet information represents a vital part of the financial statements, informing the investors about the situation of the company’s means and resources in order to estimate its

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2. Literature review and hypotheses development

The information provided by accounting is considered to be relevant when it essentially influence the decision-making process reflected through the stock price or stock return. The data offered by accounting are considered relevant only if the information gained from them is important for the investors when evaluating a company, and can be credibly evaluated in order to be reflected by stock price (El-SayedEbaid, 2012). The studies regarding the analysis of the influence of the accounting information are separated into studies that use information regarding the financial performance, studies that analyze the information regarding the financial position and studies that analyze the concurrent analysis of the two information sets (Naimah, 2012).

Starting from the influence of the financial performance of a company, reflected by the income statement and the financial position indicated by the balance sheet on the stock return, as well as by the differences between them, Francis and Schipper (1999) have shown a decrease in the relevance of the information regarding the results, respectively an increase in the balance sheet information relevance. Barth et al. (2001) though claim that the role of the balance sheet is different to the one of the income statement, in order to present the information needed for the determination of the liquidating value, as to make decisions regarding the loans and their surveillance, especially for the companies in difficulty. Lev and Thiagarajan (1993) have identified a set of variables, of which the supply and receivable value negatively influence the stock price. This situation can be explained through the difficulty status of the company, not being able to sell its products. Alexakis et al. (2010) have shown that, based on a Greece Stock Exchange listed companies and analyzing the financial statements’ information relevance, that the information in the balance sheet regarding the liquidity (the assets turnover, the current liquidity ratio) positively influence the stock return, while the solvency ratios (financial leverage) have a negative influence. The obtained results are surprising, given that the profitability ratios such as return on assets, respectively the net margin ratio are considered unimportant. One can also see that no matter how indebted a company is, as long as it gains a high and rising profitability comparing to previous periods, the indebtedness and any kind of information regarding the financial position should not exert any influence on the price and stock return. Kothari (2001) suggests that the informational value of the balance sheet increases if it is completed with accounting information from the income statement. In order to reach the objective of the research regarding the analysis of the influence of the principal financial dimensions from the annual financial statements, the study provides the following work hypothesis:

**H**: For the Romanian companies listed on Bucharest Stock Exchange, solvency, liquidity and structure ratios that influence the stock return can be identified.

3. Research methodology

The study aims at analyzing the influence of the principal financial dimensions in the annual financial statements reflected by ratios related to the financial position and performance of the BSE listed companies on the stock return, defined as a relative variation of the stock price.

3.1. Studied population, analyzed sample, variables used and data source

The target population is represented by the Bucharest Stock Exchange listed companies whose stocks were listed on the stock market in 2012. At the end of the 2012 financial exercise, at the BSE section, 78 BSE listed companies were traded, in the first, second or third categories. 11 companies were removed from this target population, representing financial intermediates, monetary intermediates, mutual funds and other similar financial entities. Out of the 67 companies left, four suspended companies following insolvency procedure at the time of the study...
achievement were also removed, one company whose trading on the second category was made on the February 26th 2013 and three companies for which some of the necessary information to the analysis are not available. The final sample consists of 59 BSE listed companies for which the 2012 annual financial statements were elaborated according to the International Financial Reporting Standards, adopted by the European Union.

In order to obtain the research results, variables based on the information provided by the literature and on the information asked by investors in order to achieve a financial diagnostic were considered. Thus, the dependent variable is represented by the relative variation of the stock price at the time of the Shareholders’ General Meetings, when the financial situations were approved to the stock price at the end of the 2012. The independent variables are amongst solvency ratio, General Solvency Ratio (GSR) = Total Assets/Total Debt, Debt Ratio (DR) = Total Debt/Total Assets, Financial Autonomy Ratio (FAR) = Stockholders Equities/Total Assets, Interest to Turnover Ratios (ITR) = Total Interest/Turnover, liquidity ratios, General Liquidity Ratio (GLR) = Current Assets/Current Debs, Net Working Capital to Sales Ratios (NWCS) = (Current Assets – Current Debt /Turnover, capital structure ratios, Financial Leverage (FL) = Total Debt/Stockholders Equities, Long Term Debt to Equity Ratios (LTDR) = Noncurrent Debt/Stockholders Equities and profitability ratios, Earnings per Share (EPS) = Net Income/Number of stocks, Return on Equity (ROE) = Net Income/Stockholders Equities, Return on Assets (ROA) = Operating Income/Total Assets, Net Margin Ratio (NMR) = Net Income/Turnover, Operating Income to Sales Ratio (OISR) = Operating Income/Turnover. The values of these accounting ratios are obtained based on the information provided by the two components of the financial statements, the balance sheet and the income statement, on the websites of the Bucharest Stock Exchange, www.bvb.ro, and of the Romanian National Securities Commission, www.cnvnr.ro. In order to process the data to obtain the influence of the accounting information on the stock return, those variables that subsequently to their testing did not follow a normal distribution law have been logarithmically normalized: GSR, FL, LTDR, ITR, GLR, NMR, OISR. In order to calculate the ratios for each company, the data has been collected from the annual financial statements.

3.2. Data analysis method

In order to test the working hypothesis, principal component analysis (ACP) is used, which aims at reducing the considered data complexity (Jaba and Robu, 2011) and at identifying the principal financial dimensions in the annual financial statements. To estimate the influence of these dimensions on the stock return, multiple linear regression analysis (Gujarati, 2003) was used. The linear multiple regression model is:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + ... + \beta_nX_n + \varepsilon \]  

with \( j = 1, \ldots, n \), where \( n \) = number of quantitative independent variables, \( Y \) = dependent variable, \( \beta_0 \) = constant, \( \beta_j \) = regression model parameters, \( X_j \) = independent variables, \( \varepsilon \) = random variable.

3.3. Results and discussion

Subsequently to the data processing with SPSS 20.0 through an iterative process according to the ACP, the most important information represents the \( \chi^2 \) test statistics in order to emphasize the existence of a relation between the considered independent variable, the Kaiser-Meyer-Olkin Statistics (KMO) of 0.734, which emphasizes the good connection between the variables of the principal components considered, the associated Sig. value of 0.000 and the main components which represent a linear variables combination, strongly interrelated:

\[
C_1 = -0.079 \cdot \text{ROA} + 0.945 \cdot \ln(\text{FL}) + 0.943 \cdot \text{GSR} - 0.189 \cdot \text{ROE} - 0.955 \cdot \text{FAR} - 0.622 \cdot \text{NWCS} + 0.610 \cdot \ln(\text{ITR}) + 0.737 \cdot \ln(\text{LTDR})
\]

\[
C_2 = 0.902 \cdot \text{ROA} + 0.133 \cdot \ln(\text{FL}) + 0.106 \cdot \ln(\text{GSR}) + 0.918 \cdot \text{ROE} - 0.149 \cdot \text{FAR} - 0.241 \cdot \text{NWCS} - 0.297 \cdot \ln(\text{ITR}) - 0.124 \cdot \ln(\text{LTDR})
\]

The number of components chosen for the interpretation is determined by Benzecri’s criterion (Jaba and Robu, 2011). According to this criterion, those components that explain more than 70% of the capital gains yield variation are chosen. Thus, the first two factorial axes together explain 73.858% of the total variance.

Starting from the variables resulting from the ACP implementation, multiple linear regression analysis has been used in order to estimate the influence of the calculated ratios based on the accounting information from the annual financial statements on the stock return. To this extent, the influence of the variables on the first factorial axis was tested, respectively the second factorial axis, on the stock return, considering a linear connection between them. The
two regression models are:

\[
\text{Modelul 1: } CGY = \beta_0 + \beta_1 \ln(FL) + \beta_1 GSR + \beta_2 FAR + \beta_4 NWCS + \beta_5 \ln(ITR) + \beta_6 \ln(LTDR) + \epsilon
\]

\[
\text{Modelul 2: } CGY = \beta_0 + \beta_1 ROA + \beta_2 ROE + \epsilon
\]

The results targets the statistics associated to the models, as well as the values of the regression model coefficients associated to the significant variables presented in table 1:

| Models   | Variables | Coefficients | t    | Sig.   |
|----------|-----------|--------------|------|--------|
| Modelul 1 | FAR       | -2.256       | -4.422 | 0.000  |
|          | ln(FL)    | -0.404       | -4.227 | 0.000  |
|          | NWCS      | 0.167        | 2.480  | 0.017  |
|          | (Constantă) | 1.118       | 4.573  | 0.000  |
| Modelul 2 | ROA       | 0.649        | 1.289  | 0.203  |
|          | (Constantă) | 0.041       | 1.147  | 0.256  |

(Source: own processing in SPSS 20.0)

The Sig. value in the first model shows that the independent variables explain the changes of the dependent variable with a trust of 95%, while for the second model explain with a trust of 80%. This analysis joins the studies regarding the correlation analysis of Holthausen and Watts (2001) regarding the testing of the existence of any connection between the accounting ratios and stock return using the $R^2$ coefficient of determination, analyzing if the information in the balance sheet has a greater influence on the stock return than the information in the income statement. Comparing the statistics obtained for the two models, one can see the importance of the information in the balance sheet compared to the one in the income statement in the investors’ decision making process. This can be due to the existence, most of the times, of the managers’ possibility of financial results manipulation in order to reach certain objectives and attract investors. Regarding the regression models parameters, in the first model, the most significant influence of the stock return is FAR, which influences in reverse the stock return. This influence is explained through the control exerted by the major stockholders who aim at maintaining financial autonomy, to the injury of resources provided by third parts. This control represents a barrier for possible stockholders to invest in the company. As well, as a result of the advantages which companies can get through financial autonomy, these can be tempted to manipulate the reported information that has a great influence on investors. Moderate indebtedness, supported by the efficiency of the operating activity has a positive impact on the stock return.

The second model shows the importance of the operating activity for the investors, reflected by ROA. This ratio emphasizes the investors’ focus on the management method of the operating activity, on the return on the investors’ capital. The lack of financial profitability can be argued through the management result manipulation in order to attract new investors or to reach certain objective, or through sanctions for high taxation in Romania. By embedding the effects of the variables associated to the factorial axes with the ones associated to the second axes, results are materialized in a linear multiple regression model as following:

\[
CGY = \beta_0 + \beta_1 ROA + \beta_1 \ln(LF) + \beta_2 RIG + \beta_3 ROE + \beta_4 RAF + \beta_5 PFR + \beta_6 \ln(RPFD) + \beta_7 \ln(RIT) + \epsilon
\]

The obtained results are exactly the same as the ones in table 1, for the first model. These results contradict, on one side, Collins’ et al. (1997), Francis and Schipper (1999) studies, which have shown the timely increasing of the information relevance regarding the results and support, on another side, Core’s et al. (2003) studies, which have emphasized the decrease of this information’s relevance and the growth of the balance sheet information’s relevance.

Conclusions

Data processing and gained information interpretation emphasize the reaching of the research objective regarding the influence of the principal financial dimensions in the financial statements and reflected by ratios associated to the financial position and performance of BSE listed companies on the stock return, defined as a relative variation of the stock price. The working hypothesis has also been accepted through the identification of certain accounting ratios that emphasize the financial position (FAR, FL, NWCS) of the company which influences the stock return. Among these ratios, the financial autonomy ration is different from the other significant
independent variables due to the sense of the influence on the stock return. Thus, though at first sight, the growth of the financial autonomy should determine the growth of investments in the company’s stocks, in the case of BSE listed companies the growth of the financial autonomy causes a decrease in the investments in stocks explained through the exerted control.

The limits of the present study target the low number of BSE listed companies considered for the analysis, taking in the analysis a single financial exercise that still keeps the effects of the financial crisis, and also considering the financial factors to the injury of the qualitative ones. In order to surpass the limits of this study, the future research directions aim at extending the study period, taking into consideration more financial or non-financial, microeconomic or macroeconomic factors which can explain the stock return.

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