

KEY PERFORMING FACTORS OF LEADING ROMANIAN COMPANIES

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Abstract

The analysis of financial economic ratios provides managers and external partners feedback on the results obtained from operational activities and the associated performance and risks. This paper studies the functional dependence of the companies' success (on performance) over internal financial management elements. The research was carried out for the most traded non-financial securities Bucharest listed companies and covers the period 2011-2013. To carry out its purpose it analyzed the interdependence between the key financial ratios, studying the impact of liquidity ratios, solvency and efficiency on profitability. The study provides empirical evidences to identify factors that have ensured the performance of companies and their ranking in the segment of the most traded companies in Romania. Results suggest the view that the source of company success on the capital market lies in the positive signals sent to investors regarding profitability and the low risk of solvency. This study gives additional information for managerial decision-making in order to create more value and a better positioning of the companies in the market

Keywords: *firm's performance, financial ratios, financial analysis, regression analysis*

JEL Classification: *L21, L25*

1.Introduction

The performance management process is a key element of effective company functioning. It involves a series of actions to monitor measure and control the performance of the underlying decisions to improve business functioning and achieving goals (Ittner et al., 2003).

In this context, performance analysis is of importance not only at company level but also provides information to external stakeholders, who are directly interested in maintaining their financial health and value creation. Studying the performance of companies and the elements that determine it becomes an action necessary to know the results obtained from the developed activity, from the financial position and the economic growth potential in the future. Success factors of the business must be looked for, mainly among the elements that express aspects of efficiency in the use and management of resources (Lebas, 1995). Their scope is extending to other elements that can ensure the future development of organizations and their long-term financial stability such as: promoting environmental innovation, degree of centralisation, stimulating corporate culture by employing more internally sourced managers (Nijhuis and Westerhuis, 2013).

The accounting information system in the annual reports of companies provides the necessary data to determine performance measures. Financial ratios for liquidity, solvency, financial management resources and financial equilibrium indicators and of profitability, through their content specifically refer to aspects of the rationality of applied economic strategies and recorded efficiency, outlining the performance status and the financial position of the company. This paper studies the financial situation and the performance of non-financial securities companies that are listed on the Bucharest Stock Exchange and which are most important commodity markets lately. According to information from the bvb.ro, companies from various sectors have been ranked by market capitalization Top 100 companies in the last three months (Figure 1).

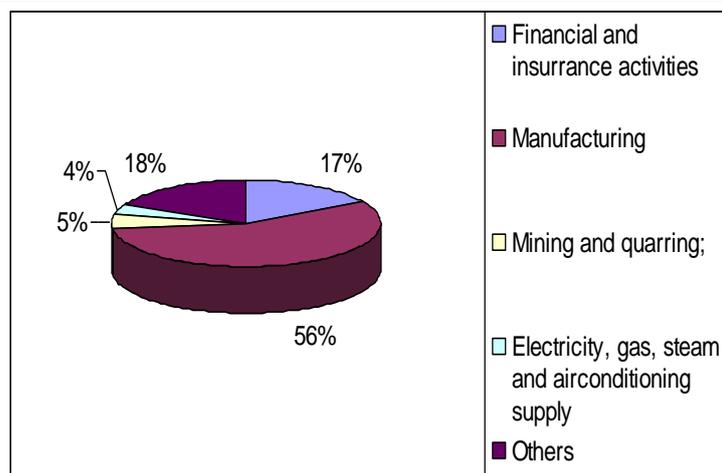


Figure 1. Romania Top 100 comanies by field of activity (bvb.ro, June 2014)

Financial activities and insurance companies represent 17% of the selected companies. The most numerous (56%) are the companies carrying out manufacturing activity, followed by mining and quarrying (5%), electricity, gas steam and airconditioning supply (4%).

In Figure 2 the results show that nonfinancial companies share approx. 38% of the total market capitalization, while financial companies have a market share of 62%.

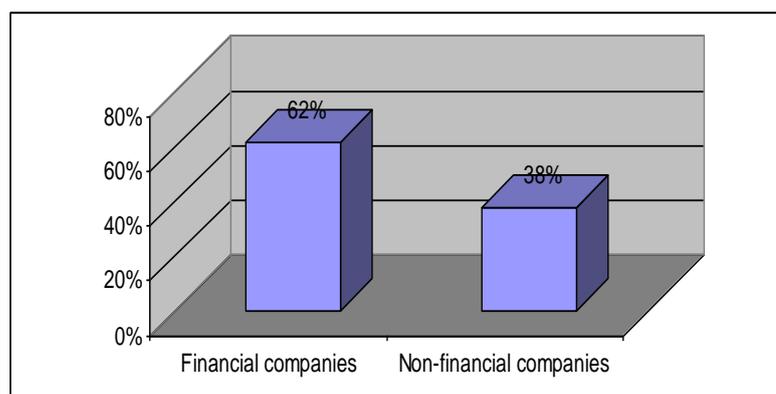


Figure 2. Romania Top 100 comanies by % of total market capitalization (bvv.ro, June 2014)

Performance varies with non-financial companies selected for analysis in 2011-2013. This is evidenced by the Return on Assets which is between -1.41% and 26.7%.

The company performance phenomenon is widely treated in the literature aiming at different issues, as well as performance determinants, indicators, assessment opportunities, etc. For Romania, however, literature concerning the factors influencing the performance is relatively scarce. For this reason, our work aims to enrich insight into the connection between performance and some aspects of the management decisions.

The main objective of the research aims to identify the factors that determine the performance of non-financial securities companies. To achieve the latter it used regression analysis, taking into account the rate of profitability, liquidity, solvency, efficiency, employee productivity and firm size. The identified dependency relationship allows for accurate and non-financial ratios that are important for performance, impact analysis and formulates courses of managerial action destined to improve profitability and the company value growth.

2. Literature review

The performance of firms largely depends on economic behaviour adopted by them in response to complex factors acting both in the internal and external environment.

A recent study on European corporate leaders shows that the success of the companies is determined by their ability to adapt to new market conditions and to focus on some visionary variables. These are innovation capacity, centralization and internally sourced CEOs (Nijhuis and Westerhuis, 2013). The authors suggest that the companies increase their performance and are better placed in the market if they develop the technical basis for investment,

promote innovation, carry out all business functions consistently, and enjoy the quality and experience of managers from the internal environment. The factors contributing to the companies' success characterize the economic systems and also correspond to constraints or elements, subject of organizing, planning and controlling the business processes, for reaching the established targets.

The companies' performance was also studied in correlation with managerial and organizational factors. It was found that high growth rates depend on the nature of environment in which they operate, the ability to adapt to market and technological changes, size of organizations (allow a better processes of adjustment) and differences and the degree of flexibility of the used technologies (Child, 1975).

With the intention to identify the means to improve performance, some authors recommend to adopt and use the value-based performance management. The variables, identified as significant for organizational performance are growth of sales, profit margin, total asset turnover, return on assets, indebtedness (Sakunansingha, 2006). Other studies show that the group of factors is important for the growth of financial performance, the most relevant are the factors expressing different aspects of assets and financing structure turnover and adequacy (Block and Hirt, 2005), or those reflecting the efficiency of expenditures, investments and asset turnover (Haspeslagh et al., 2001; Martin and Petty, 2000).

Another approach on the companies' performance phenomenon is that in which performance is studied in correlation with short-term capital management, targeting the dependence relationship between profitability and the working capital management. In this respect, a contribution on the performance determinants is brought by Soenen (1993). The findings show that net trade cycles shortening lead to increased profitability.

The results of recent research conducted on industrial companies from different countries show that there is an inverse relationship between profitability and various financial ratios expressing working capital (Teruel and Solano, 2007; Nazir and Afza, 2009; Makori and Jagongo, 2013; Gill et al., 2010). For the influence of these ratios to lead to maximum results, the working capital must thus be managed so its level would be optimal (Deloof, 2003) and to balance the components. Its management must also resolve the contradiction between profitability and liquidity (Shin & Soenen, 1998; Raheman & Nasr, 2007).

Other studies show the impact of capital structure on the performance and on the value of the companies. The authors find that capital structure strongly influences the profitability (Kajananthan and Nimalthasan, 2013), and increased leverage leads to lower rates of profitability, liquidity and generally adversely affects asset turnover (Norvaisiene, 2012).

In Romania, there are few studies on the determinants of companies' performance. A recent study, done by a group of industrial companies, reveals that the main factors affecting microeconomic performance are: company size, capital intensity and the number of employees (Pantea et al., 2014). An analysis conducted in the ICT sector shows that the key performing factors for companies in this area are owners' equity, working capital, total assets, turnover and result (Mazurencu-Marinescu and Pele, 2012). Our study contributes to the performance literature in Romania in two ways: analyzing the financial situation and performance of the leading non-financial companies which are considered successful companies and could be examples for the others, and through the relation identified between performance expressed by Return on capital engaged (ROCE) and a set of some specific factors related to the efficiency of key management inputs (assets, financial capital, labour).

3. Data and methodology of research

Determining the functional relationship of companies' performance in Romania is the main aim of the present research. To achieve it, we used data derived from the annual financial statements of non-financial companies of top 100 companies, currently on the Bucharest Stock Exchange. The financial institutions were not considered as they have their own regulations. For the selected companies information has been collected on a number of financial and non-financial ratios.

An important element, representing for the investor an indicative of the financial strength and the company's value is the net worth indicator. To obtain meaningful results, considering the purpose, those cases, where the losses incurred by the companies have used the owners' equity and the index values are negative, have been excluded from the dataset. In these situations, the firms have shown a temporary lack of performance. The final data set is an unbalanced panel with 168 observations for 60 companies during 2011-2013.

In our study, as the main research method, a key performing factors of companies has been used – the multivariate regression analysis.

Considering the approaches in the literature, the factors determining the firms' performance have been searched among the indicators, economically significant for the profitability phenomenon.

The indicator characterizing the firms' performance is „Return on capital employed” (ROCE) and it is the dependent variable used in the analysis. This profitability rate measures the capital efficiency used by the firm, consisting of equity and all loans which are subject to interest. The information concerning profits made by companies on its all available resources are important for the investors (Table 1).

The explanatory variables express various aspects of financial management efficiency of production factors, and they were selected from the groups of financial ratios characterizing solvency, liquidity, structure of assets, and asset management efficiency. However, on performance other non-financial factors may act, such as labour or business size.

One of the explanatory variables is „Current liquidity ratio”. It shows to what extent the company is able to pay its short-term debts. Obtaining adequate liquidity to ensure profitability growth depends on good management of the relationship between current assets and current liabilities. A high level of liquid assets means the existence of the resources, required for the smooth daily operations and it reduces the risk in the current activity. At the same time, however, a high volume of liquidity may cause a decrease in profitability (Raheman & Nasr, 2007). As a rule, in Romania, the Current liquidity ratio should be around 2 (MOF, 2005). In this work we used the opposite of this ratio, i.e. the coverage of short-term liabilities to current assets as been highlighted.

„Long term debt to equity ratio” expresses company’s financial leverage and its long-term solvency. Its high rates mean greater financial risk-taking and reduced solvency. In this way the company’s investment capacity and future economic potential increases. The decisions regarding the adoption of certain capital structures are of major importance in the companies’ life, and they may also affect their value (Sheeba, 2011).

The asset quality is assessed by „Non-current assets to total assets” ratio. It expresses the share of assets that cannot quickly turn into cash. The rate growth is the result of an investment policy that results in increasing production capacity and future earnings. High rate also shows the extent to which the company’s assets, which are invested in fixed assets, will generate future expenses through depreciation and amortization. In this case, the company depends to a greater extent on fixed assets and thus diminishes their likelihood to adapt to market demands through increased financing of inventories and receivables.

An important element for the effective running of a company, expressing the efficiency of current management is „Cash conversion cycle” ratio. It expresses the time in which the firm has to finance its current activities of financial loans. A shorter Cash conversion cycle means effective management of working capital and increases profitability. (Stoltz, 2007). Recent studies show, however, that there may be a negative relationship between profitability and CCC (Lazaridis and Tryfonidis, 2006; Uyar, 2009).

Social factors impact on the firms’ performance is measured using the “Labour productivity” ratio. It expresses the contribution of human capital resources to obtain valuable outcomes.

To assess the firms’ size we have used the Sales (logarithm) variable, considering that size effect can explain the variation of earnings in various companies (Barett et al., 2010).

Statistical description of the variables used in the analysis and their calculation are presented in Table 1.

Table 1. Variables description

Variables	Mean	Formula
Return on capital employed	0.028	$ROCE = \frac{\text{Earning before interest and tax}}{\text{Capital employed}}$ $\text{Capital employed} = \text{Total assets} - \text{Current liabilities}$
Current ratio (inverse)	0.709	$CRI = \frac{\text{Current liabilities}}{\text{Current assets}}$
Long term debt to equity ratio	0.224	$LTDE = \frac{\text{Long-term liabilities}}{\text{Shareholders' Equity}}$
Non-current assets to total assets ratio	0.563	$NCATA = \frac{\text{Noncurrent assets}}{\text{Total assets}}$
Cash conversion cycle, days	12.29	$CCC = \text{Days of inventory} + \text{Av. collection period} - \text{Av. payment period}$ $\text{Days of inventory} = (\text{Inventories} / \text{Sales}) * 365$ $\text{Av. collection period} = (\text{Receivables} / \text{Sales}) * 365$ $\text{Av. payment period} = (\text{Payables} / \text{Sales}) * 365$
Labour productivity, lei/person	79.5820	$LP = \frac{\text{Sales}}{\text{Employees}}$
Size	18.4	$SZ = \log \text{Sales}$

Source: companies’ annual reports

The descriptive statistics shows that the variable used to express the firms' profitability Return on capital employed, has an average of 2.8%.

The current ratio calculated as Current liabilities/Current assets has an average value of 0.709, which shows that overall; the analyzed companies have a high degree of liquidity, being able to cover two thirds of short-term payable from current assets.

The analyzed companies also have a high solvency, the ratio between long-term debts and equity being 0.224, which shows that these firms prefer financial security and greater use their own resources to finance the company's activities.

The level of 56.3% of Non-current assets to total assets ratio suggests a balanced structure of assets. The high degree of capitalization corresponds to the activity of selected companies which mostly, carry out manufacturing and extractive activities. Cash conversion cycle is an average of 123 days, suggesting that they effectively manage their operational activities, current assets going through the economic cycle in less than 180 days. Average labor productivity is high, being of 795 820 lei / person.

4. Empirical results

Testing the influence of selected variables on performance of non-financial leading companies in Romania during 2011-2013 was carried out based on the following model:

$$ROCE = \beta_0 + \beta_1 CRI_{it} + \beta_2 LTDE_{it} + \beta_3 NCATA_{it} + \beta_4 CCC_{it} + \beta_5 LP_{it} + \beta_6 SZ_{it} + \varepsilon \quad (1)$$

where:

ROCE is Return on capital employed; CRI is Current ratio (invers); LTDE is Long-term debt to equity ratio; NCATA is Non-current assets to total assets ratio; CCC is Cash conversion cycle; LP is Labour productivity, SZ is size of company expressed through logarithm of Sales; ε is error term; i and t are identifiers for firm and time unit.

The stationarity of variables was checked with ADF unit root test. All variables were identified as being stationary at their level form because they do not have unit root, meaning that the results are not spurious. In the estimation, the correction was made for cross-section heteroskedasticity and contemporaneous correlation. The results of the regression analysis are presented in Table 2.

Table 2. Results of regression - Dependent variable: ROCE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CRI	-0.069563	0.012757	-5.453086	0.0000
LTDE	0.036026	0.010026	3.593240	0.0138
NCATA	-0.090266	0.039155	-2.305356	0.0092
CCC	-0.000216	6.51E-05	-3.321881	0.0025
LP	-8.53E-09	2.75E-09	-3.106080	0.0000
SZ	0.014358	0.004946	2.903246	0.0020
Adj. R-squared = 0.2549				
F-stat. = 10.52				
Prob(F-stat.) = 0.0000				
Observations = 168				

Source: Own calculation

Accepting the results is subject to quality assessment of the regression model used. To this end, there have been a number of statistical tests carried out, namely: test for multi-collinearity of variables – they are not collinear because the greatest correlation coefficient is of 0.37; checking serial correlation of residuals term with Breusch-Godfrey LM test - null hypothesis of no correlation is accepted; checking heteroskedasticity using White test: - nR^2 value is 7.39 smaller than the 5% critical χ^2 value of 12.59 so, the null hypothesis of no heteroskedasticity is accepted. All these diagnostic tests show that data series are stationary, residuals are normal distributed, are not auto-correlated and are homoskedastic, which leads to the conclusion that the pattern has been correctly specified and estimated parameters are effective.

The functional relationship obtained, reveal that 25.5% of non-financial performance of leading companies in Romania expressed through Return on capital employed can be attributed to the explanatory variables considered in the study. All estimated coefficients are statistically significant for 5% level.

Based on data from Table 2 is estimated for the case of companies analyzed key performing factors are: rate of non-current assets (-0.09), current liquidity, expressed by Current liabilities/ Current assets (-0.0696), capital structure

(0036), firm size (0014) and the cash cycle (-0.0002). Labour productivity although a statistically significant factor exerts a negligible impact on the studied phenomenon.

A strong but negative influence on profitability rate is exerted by the weight of non-current assets in total assets (NCAT). A 1% increase in this rate can lead to a significant decrease in companies' profitability (9%). In this context, future investments, necessary for the development of the operating companies must be accompanied by measures to increase efficiency primarily of fixed assets and the effectiveness of other types of assets. Increasing the efficiency of all assets will lead to increasing income to ensure both cost recovery, including the additional costs generated by new fixed asset depreciation and obtaining increased profits.

Current liquidity is a favorable action factor on the performance of the studied companies. Thus if the ratio between current assets and current liabilities (CRI) decreases by 1% (increased liquidity) is estimated that the profitability rate (ROCE) will substantially increase. Increased liquidity of assets means, besides the security in payment obligations to suppliers, a larger amount of working capital that can be used to increase the volume of production and achieve high financial results. In our case, the results suggest that firms' performance has been determined to a large extent by liquidity positions that is by the firms' ability to pay current obligations. Their performance was the result of a conservative financing policy characterized by high liquidity, lower financial risk, but lower Profitability.

Regarding the capital structure (LTDE), it has positively been related to performance level. Low levels of financial leverage shows that companies had a high solvency and preferred financing investments of equity, using less long-term loans to grow. For the period under review the ratio of loans and equity was favorable to the profitability phenomenon.

Another factor contributing to the firms' performance is turnover ratio, used to assess the firms' size. Its contribution was positive, suggesting that the performance depends on the ability they have to adapt to market requirements and increase sales.

The leading companies' performance was determined to a lesser extent by cash conversion cycle (CCC).

The leading companies' performance was determined to a lesser extent by cash conversion cycle (CCC). This link direction indicates, however, that if companies reduce the time they need external financing for operating activities, they will be able to obtain better financial results and greater profitability.

5. Conclusions

Regression analysis performed for non-Financial Romanian leading companies in 2011-2013 period showed that there are a number of independent variables that can determine the evolution of two-way performance and success of firms. The specifications of the model used revealed some characteristics of companies functioning

The regression analysis, performed for non-Financial Romanian leading companies during 2011-2013 showed that there are a number of independent variables that can determine the evolution of two-way performance and success of firms. The specifications of the model used revealed some characteristics of companies' functioning. The identified influencing factors are those key elements ensuring them an advantage and ranking in the Top 100 most traded companies in Romania. Empirical research results allow the formulation of general recommendations to improve the firms' financial decisions and management.

For leading companies in Romania, we have identified a positive association between current liquidity ratio and performance situation. The evolution of the companies' assets liquidity represents a way to improve performance, so increasing the current ratio can be used by other companies to get better results, provided that it be based on monitoring, control and management more effectively of current assets and liabilities.

Also, the firms' performance was favorably influenced by the financial leverage. Companies preferred a high level of solvency, indicating that financing mix adopted a low share of loans was favorable. The positive direction of the association show that increasing the debt can be an important way of enhancing the performance of firms, however, provided the effective management of loans to obtain higher returns financial costs involved. This conclusion is consistent with results of other studies (Norvaisiene, 2012).

It also requires the investment decisions to be the result of carefully analyzing the opportunity, necessity and efficiency of investment projects. Only then there will be created manufacturing capacities to ensure high economic efficiency, as well as high net value over the life of the fixed assets, resulted from investments. Better management of working capital and stimulating sales are also important factors determining the companies' performance and success.

Referring to the results of the conducted study, we may conclude that improving liquidity position, taking advantage of financial leverage investment policies and reconsidering human capital as important value-creating factor, are key performing factors by which companies can achieve more favorable effects and better market positioning.

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