Determinant factors of a company's performance

Author: Jinca Ana-Maria
Coordinator Prof. Univ. Dr. Ion Stancu

Abstract

The concept of performance is one of the most used words today and especially in financial matters, whether we refer to personal goals or aims of companies, they are all striving for performance, we all want to progress. In this paper I present the concept of performance and the most important factors that influence the profitability of a company both in terms of economic-financial and non-financial terms. I have built three studies in Eviews and analyzed their results to see the health of the companies from construction industries during the most recent years.

KEYWORDS: Performance factors, effectiveness, financial indicators, construction industry, value, growth, ROA, ROE, ROCE, stakeholders

Introduction

There is no universally accepted definition of performance but we can assimilate the performance with evolution, performance is successful, it represent the state of competitiveness achieved through a high efficiency level.

Performance is also an expression quantifying the amounts or the result of activities that indicate how much, how well and at what level are the products or services offered to customers in a given period of time. Performance measurement is important for any company. Accurate and timely performance evaluation will help each company in the future. The concept of performance has varied interpretations depending on the type of user which satisfy their personal interest. Thus, we can say that: managers are concerned about the overall company's performance, current and potential investors see the performance through the profit generated by the investment, employees conceive the benefits received or interest in stability, suppliers are interested in the degree of solvency, whilst customers and clients are concerned about the company's stability and quality of the services or purchased products.

Performance measurement is crucial for any company operating on the market since it contributes to further improvement and evaluation activities and hence profitability.

In this paper I have introduced the concept of performance, the methods by which performance can be quantified and the most determinants factors that influence the profitability of a company. Company`s performance is influenced both by micro factors, internal factors, specific to the company and by macro or external factors specific to the state or to the region. I made a presentation of the theoretical part together with the most important studies available in analyzing the performance as well as the construction field. Then using a database and a statistically well-founded methodology I've analyzed the influence of these factors on company's profitability. Effectiveness of company managers and resource efficiency affect directly the development of the state in which they operate, by obtaining positive financial results. For the analysis I used indicators like ROE, ROA, ROCE, profit net margin, leverage, current solvability. The main objective became establishing the key factors that determine corporate performance, in order to remove negative influences and to enhance those with positive impact on business.

Through the current paper I tried to analyze and identify the impact of certain factors over financial performance, testing on a database with companies from construction sector listed at Bucharest Stock Exchange (BVB). The data set was built with financial data collected on six years (2008-2013).

Structure

The first chapter of this paper present the main issues on the concept of performance, underlying theories, as well as a brief classification of the performance indicators and the manner of determining their structures.

The second chapter examines studies in financial performance that had as main theme the relationship between financial indicators, namely the non-financial and company performance. The importance of performance evaluation is indisputable given that every company needs to know the current state of performance level to evolve in order to build further develop optimal strategies to efficiently use their resources and to keep management at a high competitive level.

I also presented the overall construction sector of the European Union in the period 2005-2014 and I also highlighted the development in the construction sector in Romania.

The next chapter contains the practical approach, using three empirical studies, I have focused on the influence of most representative financial indicators using Eviews tool. The first model aimed to identify the possible influence of the net profit margin, current liquidity and leverage on company performance measured by ROE, and for the second study I used the same independent variables on ROA indicator and the last study was based on ROCE .

The last part of the paper host the conclusions that give the main results conducted by the analyze as well as summarizing theories and concepts studied.

Literature review summary

While some writers consider criteria like time, cost and quality, others suggest that success is something more complex, for example in the article *"Key performance indicators for measuring construction success"* a series of performance indicators (KPI) are measured both subjectively and objectively using three case studies. With performance measurement indicators can establish a benchmark. It was established that construction projects most important performance indicators remain cost, time and quality. Other measurements such as safety, functionality, satisfaction, accident rates begin to capture a growing interest also. This paper provides a perspective over the measurement of success that can be applied in the construction industry or any other type of project.

Another useful article: "*Relationship between Innovativeness, Quality, Growth, Profitability and Market Value"* proposes to examine the relationship between innovation, quality, growth, profitability and market value at the company. This effect was proposed and studied on a model based on innovation, quality, performance that describes how a firm can create a balance between innovation, results based on quality, growth and profitability, but also to obtain a market value top. Results from this study show that 1) innovation may mediate the relationship between quality and growth, 2) the quality of the balance between innovation and profitability ratio, 3) innovation and achieving quality fail to mediate the situation where the market value and not least 4)

profitability and growth averaging effects on the market value. This mix of features seems ideal recipe for establishing a high level of performance, although it is quite difficult to determine the right balance, especially the right way to distribute resources. We believe this innovative study because it comes with a pretty original idea and a complex pattern, which contributes to the development of theory and methodology in strategic management. Manages to integrate innovation, quality, strategic literature and highlights the connection would be critical in any organization. The study reveals a new way to superior performance and contribute to the development of more robust theories that will put the company's capacity to deal with innovation and quality as the central core of the creation of self-worth.

A performance measurement system consists of indicators that quantify the efficiency and effectiveness of processes and organizations. It must contain several key elements such as: a set of procedures to collect and process data, an approach that identifies what actions should be taken to improve performance and a review process to ensure that the performance measurement system is updated regularly.

Construction companies usually have difficulty in identifying and selecting appropriate measures establishing performance. In general they are aware of the importance of the measurement system to monitor and control performance but they are rarely well established. In the article *"A set of evaluation criteria for performance measurement systems in the construction industry"*, the authors propose a set of evaluation criteria for performance measurement systems in manufacturing industry stressing the need to establish a link between performance measurement and business strategy.

All models and performance measurement approaches are usually multidimensional which means they are considering both the financial and non-financial measures.

An optimal level of capital would increase the company's market value so the company's ability to withstand the long term depends heavily on the ability of managers to use the capital in the company. The main purpose of "*Impact of Working Capital Management on Firms Performance*" study was to examine the relationship between working capital management and firm performance. There were used financial indicators such as ROE, ROA or market value ratio (P / B). It can be said that choosing the best capital management procedures, determine its optimal quantity and the organization and appropriate use of assets and liabilities, can significantly contribute on improving the

company's performance. Managers should have appropriate policies and methods to control receivables and debt collection, to know how to decrease the duration of debt collection, rising the liquidity of the company and improve working capital. They can also keep an appropriate level of liquidity in the company using the controls for inventory management and effective in terms of cost, so that the company does not face liquidity crisis. In addition, profitability can be improved by using longer-recovery. In general, managers can improve a company's working capital and increase profitability using these strategies.

Low economic growth, high competition and restructuring in the construction industry had a strong impact in the industry and forced companies to improve productivity and performance continuously. Lately, the demand for performance evaluation and management of a company has experienced significant growth. "*Indicators for measuring performance of building construction companie"* paper lead to the identification of performance indicators that can be implemented by the executive for measuring performance in Saudi Arabia. Statistical analysis provided 10 significant indicators. Research has indicated that traditional financial measurements can not be considered the unique determinants of the success of a company. Other performance indicators such as customer satisfaction, safety, business efficiency and streamline planning are becoming increasingly more important.

Construction industry overview

The construction industry is vital to the development of a nation. Many times, the economical growth of any nation can be measured through the development of physical infrastructure such as buildings, roads and bridges. Developing investment projects involve many aspects, different building processes are complex and thus involving both public and private sectors. The level of success carrying out the development of the construction project will depend largely on the quality of management performance, financial, technical and organizational stakeholders, taking into account the associated risk management, business stability, economic and politic. According to Wang (1994), since construction projects are becoming more and more complex, a more sophisticated approach is needed to cope initiation, planning, financing, approval, implementation and

completion of a construction project. There are several indicators of the performance of a construction project found in the majority of the studies namely construction costs, construction execution time and costs, predictability, time required for predictability, defects, customer satisfaction with product and customer satisfaction with the service and three indicators performance of the company, namely: safety, cost and productivity.

In European Union, construction industry has a great importance, providing economic infrastructure and buildings for the operation of all other sectors. In fact, the construction sector in the European Union provides the most jobs and is a major contribution to Europe's GDP. Working in this sector covers a wide range of specializations extreme: the excavation, extraction of raw materials, processing, lifting construction to recycling. The construction sector in the European Union may be classified into two subcategories: construction products and building activity. Objectives, working methods, focusing on the most important elements completely different between the two sectors although both belong to the same sector of the construction, but one without the other can not fully define the sector.

Liquidity management is very important for any organization because it means that they can pay their financial obligations, which include operating expenses and financial long-term and short-term. Liquidity ratios are used for liquidity management in various forms: liquid flow rate, rapid rate and the acid test that greatly affects profitability. A study related to this topic named "*Impacts of liquidity ratios on profitability*" describes the relationship between liquidity and profitability that any firm should maintain while performing their daily activities. Article results showed that immediate liquidation rate had a significant impact of ROA and ROE and ROI insignificant. Also, ROE is not significantly affected by the three liquidity rates unlike ROI is heavily influenced by all three installments of liquidity. Main results of the study demonstrated that each rate has a significant effect on the financial position of the company and in particular because the rate of immediate liquidity. However, the profitability ratios play an important role in financial position of an enterprise. Each stakeholder is interested in the company's liquidity position. Suppliers will always check the liquidity of the company before providing goods or services with a later payment. Employees are interested in the liquidity of the company to have confidence in the company's ability to pay salaries. Thus, company must maintain adequate liquidity as it

affects profit and hence parts to be divided shareholders. The dependent variables used are: ROA, ROE and ROI, and the independent variables: Current liquidity ratio, liquidity ratio quick and immediate liquidity rate.

The study was conducted in 2004-2009 given a sample of 26 companies in the oil industry. The table below shows the regression results.

Model	Dependent Var.	Independent Var.	Coefficient	P-value	R^2
1	ROA	LR	30.51	0.03	0.73
2	ROE	CR	-2.78	0.25	0.81
		QR	1.41	0.41	
		LR	180.8	0.16	
3	ROI	CR	-8.65	0.02	0.9
		QR	5.6	0.03	
		LR	420.29	0.03	

Table 1.1. Final Results of the study; Source: Personal Manufacturing

In general terms, this work marks an attempt to address the empirical relationship between liquidity and profitability ratios. There is only limited by the fact that data are collected only over a period of six years.

Case study

The paper is mainly focused on identifying the most representative factors that determine a company's financial performance from construction field and their influence along with the interpretation of the results. I tested empirically theory namely the theory that the company's performance depends on multiple variables that define the financial structure of the company.

Database Description

For the study we used empirical data for the seven construction companies listed on the Bucharest Stock Exchange. The data used are the observations pooled-data capture company progress over time. Data were initially selected 15 companies, but due to lack of information has been removed 8 companies.

The database used in the statistical analysis is balanced because it contains complete

observations for the entire period. Data were analyzed in six years, from 2008-2013. Information necessary for the empirical study were extracted from the financial statements of the companies listed in the half-yearly statistics, and on this basis were calculated the indicators of profitability.

In have created three models that define two categories of variables: the dependent variable (performance of the company) and exogenous variables represented factors influencing endogenous variable. I have used three dependent variables: ROE, ROA and ROCE.

I built a model for each dependent variable:

- ROE = net profit / equity,
- ROA = net income / total assets,
- ROCE = gross profit / (total assets - current liabilities).

The independent variables were:

- MARJA_PN net margin = net profit compared to the amount of sales,
- LEV_DCURENTE = leverage, calculated as current assets / Total Shareholders,
- P_ACTIVE = percentage of current assets to total assets,
- SIZE_CA size is the natural logarithm of sales, expressed in million Euro. This value was logarithmic in order to standardize the data.
- VITEZAROT_ACTIV = share in total assets turnover,
- LIC_CURENTA = current liquidity calculated as Current Assets / Current Liabilities.

As control variables I used turnover and leverage. The reason we choose the variable control lever is that it represents the best way of debt from the perspective of shareholders which is different from that of managers and therefore requires carefully monitoring of the company's debts and how they affect the company's performance.

Results

Next, I made a table a summary of regression models used showing the influence of the dependent variables and the correlation between these two variables.

Variabila dependentă	Variabila independentă	Coeficient	Corelatie	R^2 -ajustat
ROE	Intercept	0.160273	pozitivă	60,03%
	MARJA_PN	0.742981	pozitivă	
	LEV_DCURENTE	0.122641	negativă	
ROA	Intercept	0.019972	negativă	78,28%
	MARJA_PN	0.222915	pozitivă	
	LIC_CURENTA	0.015935	pozitivă	
ROCE	Intercept	0.021091	negativă	30,60%
	VITEZAROT_ACTIV	0.209373	pozitivă	
	MARJA_PB	0.075294	pozitivă	
	LEV_DCURENTE	0.009104	negativă	

Table 1.2 Eviews Models Final Results; Source: Personal Manufacturing

Considering the test results and the fact that some of the assumptions are not observed, we can say that this is due to a small sample of companies in a short period of time. It would be good to also consider the unlisted companies because they are also participants in the construction productivity.

I performed a comparative analysis considering three elements which measures performance, the dependent variables used in the study are: ROE, ROA and ROCE. The independent variables explained 60%, 78% and 30% financial performance. The results indicate the presence of a positive relationship between company performance represented by ROE and net profit margin and negative relationship with leverage. Net profit depends on a variety of sales and costs. ROE can be increased by increasing sales and also by reducing the costs. Regarding a high leverage lever requires an increase or decrease in current liabilities Equity (which is rare). If debts grow, it will certainly increase the interest debts. Leverage increases the risk and profitability of the company.
Financial liabilities impacting profitability levels change as long as the company's assets are financed with borrowed money. A high value of leverage means a higher risk level. This is explained by the fact that high leverage means high interest charges which diminishes the liquidity.

The regression results show a positive relationship between net profit margin, current liquidity and current ROA. Current liquidity positively influence the profitability which means that firms current assets to cover short-term debts that are proving profitable.
Although ROE is explained in a smaller proportion of exogenous variables, we observe a positive correlation with gross margin and asset turnover rate, and leverage has a negative influence.

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