## ALEXANDRU IOAN CUZA UNIVERSITY, IAŞI FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION DOCTORAL SCHOOL OF ECONOMICS AND BUSINESS ADMINISTRATION

# RELEVANCE OF FINANCIAL-ACCOUNTING INFORMATION IN BUSINESS VALUATION

### SUMMARY OF PHD THESIS

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### **KEYWORDS:**

business valuation

multiple

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net assets

goodwill

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Business valuation consists of aiming at an interval of values not at a manner to determine a price. "Value is a possibility, price is a reality and is formed only at the moment of agreement between seller and buyer. Value and price do not necessarily coincide except for the case when there is a nearly perfect competition market. Starting from the estimation of value, even the best imaginable, it is almost sure that from the free negotiation emerges a price which will be different. This is the rule and it never means that the estimation was incorrect."

Barney and Colba, 1968, Combien vaut votre entreprise

## INTRODUCTION

Business valuation represents a more and more important domain in the context of the low trust of the investors in the financial-accounting information on the background of economical crises. On an international level, the valuation is given more and more relevance due to fusions and businesss acquisitions. Developing stock markets, opening towards international commerce and increasing the request end in the necessity for a fair valuation of value. The interest in this domain has also become an obvious factor in the context of passing to market economy in Romania after 1989. Business Valuation is necessary as there is permanent change of its value due to the existence of free prices and exchange rate.

#### Inclusion of topic in the research area

We present this topic in our doctorate thesis with the title *Relevance of financial-accounting information in business valuation*. This is part of the research area from the accounting domain. We have followed an integrated approach, having included elements specific to different fields, such as management, business finance, statistics, econometrics, economy, financial and commercial law. Framing the research area was determined by the following factors:

- The central theme of the document and specific methods regarding the valuation of business;
- The necessity to clarify particular methodological aspects regarding the valuation of businesss;
- The necessity to define the value determiners in order to establish the manners of acting management;
- Business valuation is an area of increasing importance in the economic sphere amid economic problems caused by the financial crisis;
- The research is one of the accounting field. However we focus our strategy on justifying the insertion of econometric aspects into the valuation of companies on the grounds that the statistical methods can obtain the values closest to the true image.

The factors that led to the choice of the mentioned title are the following: business valuation is a complex activity that appeals to many disciplines: finance, obviously, but equally accounting, business strategy, law and taxation. Of all the areas involved in defining the value of the company, financial information is the most important. The assessment of an business involves analyzing a company's accounting statements and making their knowledge of mechanisms to ensure the possibility of making predictions, comparisons, establish performance measures and non-economic performance. An essential element of the results of the valuation is given for the preparation of a strategic plan and financial accounting implications that entails. Legal and fiscal impact must be analyzed, this often leading to significant differences. Human resources involved in research: PhD. Andreea Vasiliu prof. Dr. Neculai Camp,

Doctoral School of Economics and Business Administration, Faculty of Economics and Business Administration, Alexandru Ioan Cuza University, Iași.

Form of scientific research: based on the involvement of real facts in research: an empirical and applicative level; purpose: practical and predictive; based on the practical manner: explanatory and practical; based on the character: applied.

### Importance of the scientific approach

The importance of this scientific approach can be justified by the following arguments:

It contributes to the development of knowledge in the valuation stage of businesses with direct impact on the decision-making process and transformation in one value-based management;

- Use It contributes to the stages that have marked the development of financial theory and assessment value with emphasis on each assessment method;
- Use It creates a presentation and analysis of each business valuation methods focusing on the implementation methodology and the determiners of value;
- It highlights the modalities in which the business management can influence its value through detailed analysis of the value determiners;
- It makes an **empirical research** which leads to the development of an implementation methodology of the value based method and the one of market multiples in order to create an exact image of the business value. Through empirical research we have tried to define which indicator reflects the best performance on the stock market;
- The empirical research is based on a sample of companies listed on the Bucharest Stock Exchange which leads us to mention that we bring more empirical research within developing countries. Most studies which are using the same methodology have as the sample companies in Western countries. The results lead us to state that the theoretical foundation applies for developing countries.

The role of such an analysis is not confined to the presented issues. This paper represents a data source rigorously structured concerning business valuation methodology and the factors of influence on value.

The theoretical importance and applicative value of the research is to elucidate the methodological aspects of determining the value of the business, the approach of the controversial elements in speciality literature, the estimation of the influence level of a large number of factors on the business value, the use of mathematical and statistical methods to determine the value of the company. Those who can use the results of the study are academic members and businesss. Research will help improve the valuation methods of the business and a determination of its real value.

The research seeks to bring more knowledge of business valuation. Based on the analysis devoted to the valuation methods, the study tries to bring the pros and cons of using these methods. To achieve a complete picture we want to achieve a systematization of new approaches in the field. The third component of the research is to quantify the influence of various factors on the business value.

#### Construction of the approached issue

Problem statement: "Valuation of businesss using methods that have a base of accounting information leads to an accurate image compliance with positive effects on managerial decisions and onto the future results of the company." Hence the doctorate thesis is built around the concept of relevance of accounting information in determining the business value by presenting all the methods of assessment and not just the patrimonial. The main analysis in this paper concerns the determiners of value.

The approach through market comparison in business valuation is an area of interest to financial analysts and reviewers. Despite all these, its accuracy is not just relative at the moment of collapse in financial markets.

One of the most often used methods in evaluating the business's valuation is flux treasury update method. All these shortcomings of this method are obvious. As noted in the literature, the difficulty of determining the update rate and the achieving of highly accurate forecasts has a direct negative impact on the calculation of the fair value of the business. Special attention must be paid to the calculation formula of weighted average cost and the method of achieving the forecast. At the same time the method should be reconsidered as a whole given the new global economic situation. In an economy in crisis making long-term projections is a high risk assumed by the entity.

Recent developments in the economic environment and the entry of new items of importance to the firm lead to a new approach in business valuation. Thus the value of a firm can not be limited only to the assets and liabilities (patrimonial methods), updating fluxes (methods based on income) or the comparison one. The period of performance is redesigned using new indicators to create a source of shareholder value, which is the trend that governs the policies developed by managers in large companies. Newly developed performance indicators must be introduced into the equation to determine the value. By these indicators we understand EVA, CFROI, MVA, TSR, CVA. The efforts to determine with high accuracy the business's value has intensified and a more complete approach will appear.

Determining the most accurate value of the company by taking into account all valuation methods and determiners of value is a necessity for achieving the strategic objectives of the business.

### SCIENTIFIC RESEARCH METHODOLOGY

The conducted scientific research is a theoretical generalization that seeks relevance and consistency of the basic statements from studied bibliographical references and the operation of the theoretical concepts that will operate in the work. Bibliographic documentation is based on review of major general and fundamental research in the field and through the study and interpretation of empirical studies. Sources of information are primary documents embodied in magazines, handbooks, publications, doctorate theses, research reports, accounts, statistical reports, expert analysis, articles, and secondary legislation - dictionaries. Documentation was done directly - libraries, internet and mediation - through research coordinator.

For the empirical study the research methodological system is the constructivist one, based on the analysis of individual behaviors of businesss as a basis in theoretical system construction. The form of scientific research is applicative making the transition from practice to theory through inductive approach. Through explanatory research we consider description of causal relations to check previous advanced statements and favoring prediction. Research approach is in terms of quantity, with explanatory positivist orientation. Selection of investigation unity is achieved through statistical sampling for short periods. The methods and techniques which were used are quantitative analysis, statistical indexes, correlation and regression.

To collect data we use mediate data collection technique and use the information provided by ANAF, BVB and the National Institute of Statistics.

## The purpose and objectives of the research

The aim of the research is both didactic and practical aimed at a systemizing the ideas already known in the speciality literature regarding the business valuation through the updating treasury cash flow method, patrimonial method and analogue one, as well as the main methods of quantifying the sources of value creation for the company from which we want to assess companies listed on BVB and highlighting the main factors that determine these values. heritage and the main methods of quantifying sources creating value to the business from which you want to assess companies listed on BSE and highlight the main factors that determine the values respective. To achieve this goal the research objectives are detailed as follows:

## Chapter 1: Basic concepts regarding business valuation

- O1.1 Identify the importance of valuation in terms of users of accounting information.
- O1.2 Defining the objectives, scope and framework for the valuation of companies.
- O1.3 Establishing the link between the theory of value and theory of assessment.
- O1.4 Presenting the principles, concepts, methods in evaluating businesses. **Chapter 2:** *Business valuation using multiples*
- O2.1 Presentation of the implementation methodology of the analogue approach.
- O2.2 Establish the modality of selection of multiples depending on the purpose of valuation.

- O2.3 Establish the modality of selection of the group of comparable companies.
- O2.4 Define the determiners of the multiples.

## Chapter 3: Business valuation through the mechanism of value creation

- O3.1 Establish the role of the management based on creating value in assessment.
- O3.2 Presentation of indicators built on the concept of value creation.

## Chapter 4: Discounted cash flow method in business valuation

- O4.1 Presentation of the implementation methodology of the income based.
- O4.2 Clarification of the concepts of update, cost of capital and forecasts.

  Chapter 5: Patrimonial approach in business valuation
- O5.1 Presentation of economic approach methodology.
- O5.2 Justification of the role of accounting restatements in addressing asset.
- O5.3 Justification of the need to include the good-will in the approach.

## Chapter 6: Analysis of the value of entities quoted from the perspective of relevance of accounting information

- O6.1 Justification of the primacy of financial accounting indicators in analyzing the yield quoted shares.
- O6.2 Justification of the necessity of providing forecasts to calculate the variables necessary to assess businesses.
- O6.3 Justification for the need to implement several valuation methods in determining the value of an business.

Each objective is addressed in the listed chapters.

The first empirical study aims to analyze the relevance of accounting indicators in the expression of action performance. The research is based on the model formulated by Easton & Harris in 1991 used by Biddle, Bowen and Wallace, 1997; Chen and Dodd, 1997 and Worthington and West, 2001. The model remains the only action that analyzes the correlation between profitability and financial indicators, earnings and their variations (Maditinos, Sevic, & Theriou, 2006, p. 8).

The assumptions formulated to find the answer to the question H6.1 in the trial are:

- I1: Change in earnings per share explains better performance than the annual value of its action.
- I2: Change rate of financial return is a better indicator for estimating yield action than the annual rate of return
- I3: The return on investment is a better indicator for estimating yield action than its variation.
- I4: Economic added value is a better indicator for estimating yield action than its variation.
- I5: Multiple linear regression shows better correlation between performance indicators and the performance of the action.
- I6: Accounting indicators have a stronger correlation with the return action than the indicators based on value.

The analyses serve to justify the veracity of assumptions. For this study, we built a database based on public information for companies listed on the Bucharest Stock Exchange. The data source is the financial statements

published on the Bucharest Stock Exchange for each business and daily quotations can be found on the Capital Market in Romania. For the empirical study we selected 66 companies including 15 in Class I, 50 in class II and one in the third category. All information has been updated until 1 December 2012. For the 66 companies that are part of the statistical sample we collected and processed accounting financial data for the period 2003-2011, resulting in a total of 533 statistical units.

We propose to analyze the performance indicator which best reflects the return action, namely: identifying the existence of the relationship between the performance indicator or variations thereof and return the action, determining the intensity of the link between performance indicator or variations thereof and return the application;

To achieve this goal we use statistical regression. This is a statistical method used to estimate the value of a variable holding values of other variables. In the analysis we use both simple linear regression model that corresponds in practice the relationship between two variables varies proportionally and multiple linear regression model

To answer the research question and test the hypotheses set, proceed to the variables regression equations:

Tabel 1Variables of regression equations

Variables	Economic expression	Statistical expression	Calculation formulae
$R_{jt}$	Return action	Dependent, resultive variable, effect	$R_{jt} = \left(\frac{N_{j1} \times P_{j1}}{N_{j0} \times P_{j0}} - 1\right) * 100 (\%)$
EPS <sub>jt</sub>	Earnings per share	Independent variable, predictive factor	EPS= Profit net-Dividende preferențiale Numărul de acțiuni × 100 (%)
$ROE_{jt}$	Return on equity	Independent variable, predictive factor	$ROE = \frac{Profit \text{ net}}{Cpr} \times 100 \text{ (\%)}$
$ROI_{jt}$	Return on investment	Independent variable, predictive factor	$ROI = \frac{Profit \text{ net}}{Investiția totală} \times 100 (\%)$
$EVA_{jt}$	Economic added value	Independent variable, predictive factor	
dEPS <sub>jt</sub>	Change in earnings per share	Independent variable, predictive factor	
$dROE_{jt}$	Change in return on equity	Independent variable, predictive factor	
$dROI_{jt}$	Variation ROI	Independent variable, predictive factor	
dEVA <sub>jt</sub>	Changes in economic added value	Independent variable, predictive factor	

As can be seen from the above table we have indicators that depend mainly on accounting information and an indicator of value creation. The goal is to see which of them plays the best return on the action.

Using our accounting financial information and the market ones as well as the formula above, we determine the value of these variables for the 66 companies and 533 statistical observations. The values of variables are shown in <a href="Appendix 3">Appendix 3</a> <a href="Determination variables regression models Easton & Harris.">Betaris</a>. Where we did not have sufficient information to calculate the indicators we excluded that statistical observation from the analysis.

All regressions are estimated for each year and as well for the 2003-2011 time series. The analysis results will be based on the coefficient of determination R2 which shows the proportion of variation in the dependent variable explained by the regression model. The determination coefficient takes values between 0 and 1. If it is 0 or tends to 0 then the chosen regression model does not explain the relationship between variables. If it is equal to 1 then all observations fall on the regression line.

The second empirical study aims to analyze the under-appreciation or overvaluation of shares listed on BVB. The empirical study aims to provide the answer to the following question:

#### To what extent PER is a true equity value?

This general question leads to the following formulation:

- Q1 To what extent forecasting the net income provides an indication of the value of equity?
- Q2 To what extent the growth of rate of income influences the cost of equity (risk action) and the distribution rate of dividend of PER?
- Q3 To what extent the predicted PER using statistical regression provides a better picture of the value of equity?

The assumptions to find the answer to these questions are:

- Il The expected growth rate is not affected by fluctuations in the same way as the previous growth rate, leading to the determination of an accurate PER\_trailling providing information on equity value.
- I2 PER distribution increases the rate increase for any growth rate g, PER is reduced if the risk increases, PER increases if g increases.
  - The current PER leads to underestimation of the value of the share.

The database used is the same that we built for the first study presented. Research involves several steps such as: forecasting net results using arima model, the calculation of the projected increase g, determine per and per estimated; analyzes of per, analysis of sub and supra assessing action.

In the analysis there will be used two statistical tools namely ARIMA model and the regression equation.

To implement the ARIMA model is to predict the net for companies listed on the BVB on which to get expected profit growth rate  $g_{prev\_arima}$  that we use to determine the predicted  $PER_{prev\_arima}$ .

Statistical regression is used to identify the independent variable has a greater influence on PER's, namely: identifying the existence of the relationship between PER and its determinants, determining the intensity of the link between PER and its

#### determiners:

In the analysis we use the multiple linear regression model with the following variables

Tabel 2Variables of PER regression

Variables	<b>Economic expression</b>	Statistical expression
PER <sub>prev_reg</sub>	PER predicted through statistical	Dependent, resultive variable, effect
	regression	
g_prev_arima	Growth rate of forecasted net income	Independent variable, predictive factor
Ck <sub>pr</sub>	Cost of equity	Independent variable, predictive factor
PR	Dividend Rate	Independent variable, predictive factor

Given the above, the regression has the following form::

#### Calculation formulae 1Regression for the provisioned PER

$$PERprev_{reg} = a1 + a2 \times g_{prev_{arima}} + a3 \times Ckpr + a4 \times PR$$

where all variables are given in the table below:

Tabel 3Calculation of variables for PER regression

Variable	Formulae
$PER_{prev\_reg}$	$PER = \frac{Action stock exchange}{Action stock}$
	Result on action
g_prev arima	Values obtained using ARIMA model
$Ck_{pr}$	NetResult
	Own capitals
PR	Dividend/action
	Result/action

The study will conclude with a comparative analysis of the current PER obtained on the basis of financial information - Accounting and PER's obtained by the regression equation. The aim is to test the action PER underestimation or overvaluation. The analysis is relevant in assessing the equity of the company by using the PER's and more specifically in the construction group of companies comparable. It also provides leverage to change this value upside through action on the determiners.

## ABSTRACT OF THE THESIS CHAPTERS

The theoretical part of the thesis consists of five chapters which serve to substantiate this empirical approach and valuation methodology. Each chapter aims to achieve the objectives as they were set out in the introductory part of the thesis.

The first chapter entitled **Fundamentals entity assessment process** is designed to introduce specialist in business valuation. The main ideas of the chapter can be summarized as follows::

- Business Valuation gains increasing importance in the context of higher value are constantly changing under the influence of certain factors and becomes the main tool for decision on mergers and acquisitions of businesses and transactions on the stock exchange;
- Valuation shall cover inter alia the business and **aim** to establish a selling price, price of listing on the stock exchange, the market value of assets in the financial statements for registration as;
- The regulatory framework of the valuation process is the national body responsible Licensed Appraisers National Union of Romania. Internationally, rules and methods of assessment are governed by the International Valuation Standards:
- ♦ **Valuation theory** is developed based on theory of value and its stages precisely defines valuation methods;
- Business Valuation is based on a set of concepts, of which the most important is the value that can be classified into several categories. Our studies are based on the concept of market value;
- Business Valuation can be achieved through three fundamental approaches: one based on income, the asset and analog;
- Between business valuation and accounting there is a dependent relationship.

The second chapter of the thesis entitled *Methods of business valuation using multiples* displays one of the most common techniques for fixing the economic entity level. Multiples often constitute the basis from which it starts making an investment decision or transaction-level corporate, investment funds, private companies and private investors. The main ideas of the chapter can be summarized as follows:

- Through valuation there can be determined the overall value of the business by integrating the multiples of the firm as well as the equity value using multiples of capital; Can be determined by assessing by integrating computation and multiples firm equity value using multiples of capital;
- Undertaking an valuation of the comparative method, or multiples, involves the following steps: selection of performance indicators used to calculate the value of multiple, estimating multiples for comparable companies using performance indicators, using multiples for comparable companies in the calculation of company concerned with the respective value of the performance indicator set;

- One of the fundamental problems of the analog method is given by the choice of comparable companies. The process involves the following steps: defining criteria for selecting comparables, defining the population of firms to be selected, select all firms that meet the criteria set, explaining, where appropriate, to remove the measure from the analysis firms that meet the established criteria;
- In the capital multiples assigned: PER, PEG, P / FCFE, PBV, P / SALES and in multiples company: VGE / EBIT, VGE / EBITDA, VGE / permanent capital, VGE / Sales;
- Multiples can be classified according to other considerations in multiples of profit (PER, PEG, VGE / EBITDA) multiple of book value (PBV, VBR, Tobin Q), multiples of revenue (PSR, EVSR);

The third part of the paper entitled *Business valuation through value creation mechanism* achieves a connection between the company and the valuation of its performance. The building process of economic decision goes through a change in the primary date waiver criteria based on accounting income and orientation to those aimed at value creation for shareholders. This chapter seeks to define value management and the main indicators used to perform a financial analysis that is based on principles promoted by this new approach. The main ideas of the chapter are:

- ♦ Value-based management is an integrated system that measures, encourages and supports the creation of net direct comparisons between the market value of the company and its accounting value;
- According to financial theory we can divide indicators supporting the creation of shareholder value in three categories namely profit indicators, indicators based on cash flows and value indicators. In the category of profit indicators we include EPS, ROI and ROE. FCF, CFROI and TSR are part of cash flows based indicators. The economic added value, market added value, shareholder value and added value for shareholders are part of the performance indicators built on the concept of value creation;
- Economic Value Added (EVA) can be defined as the surplus value created by the investment or investment portfolio. It is measured by the difference between the production company and its external consumption (derived from third parties) and purchases of goods and services from outside or flows of such business elements that represent intermediate consumption. The formula for calculating the economic value added can be observed factors that determine value. In this regard, we have invested capital, net operating result and the weighted average cost of capital. The advantages of using this method are firstly simplicity and the fact that it requires making projections of future results. Equally, this indicator is oriented directly to creating value for its shareholders and long-term development, representing both a tool to improve the overall management of the company or a subdivision thereof. An increase in EVA will always mean an increase in shareholder value, as opposed to net profit growth, the rates of return that can sometimes be concomitant with a decrease in shareholder wealth. Deficiencies

- indicator appears at the comparison between two or more companies or production units, regardless of size or capital structure;
- Market value added (MVA) is the difference between the market value of a company (the sum of equity and debt) and its invested capital. Representing a foreign company performance indicator, MVA include the market value of all equity, ie of the equity and debt. One of the advantages of using MVA is that reflects how the team management company positioned term. Another strength of the indicator referred to as risk adjustment in the calculation of the market value of equity analyzed the risk associated with the industry. Disadvantages of using MVA can be summarized as: not capture the opportunity cost of capital invested in the company, only the capital invested in its entirety, does not account for the dividend policy of firms, both in terms of the grant or denial of dividends, and their level, can not be applied to the profit center level, can be applied only for listed companies to access the capital market to market value.

The fourth chapter entitled *Income-based approach came in business valuation* present theoretical and methodological aspect for updating flow value based on the result. The importance of business value by discounted cash flow results lies in the fact that it is estimated a value largely depends on the future development of the company in the sector to which it belongs and rely less on past evolution which is not a enough indicator for calculating the value of the entity. The main ideas of this chapter are:

- Discounted cash flow method began to be used in the valuation due to the shortcomings of the assessment methods based on capitalization results. Removing static methods for assessing shortcomings businesss emerged as a result of the development of financial markets and information requirements of investors. The result was the emergence of dynamic methods, the prospectus, which can be applied to listed companies and those listed on the stock exchange;
- Based on income approach determines fair market value by multiplying the benefit stream business generated a capitalization rate that converts future flow actual value is consistent with financial theory that an asset has value only in terms of cash flows that it may develop:
- Updating is fundamental process underlying flow assessment based businesses. It is conceivable that the present value of a firm equals the present value of all future cash flows released by the company. Discounted cash flow takes into account the time value of money;
- Summary of Cash Flows update is forecast credibility. The forecast is based on empirical observation anticipation or knowledge of laws of an event to occur or the future development trend of a process or system;
- Among the known methods used by evaluators we include: profit capitalization method, discounted dividends, discounted cash flows to shareholders, discounted cash flow to invested capital;

Chapter five of the thesis is to define concepts and methodology regarding *The patrimonial approach in evaluating businesss*. This is a problematic issue in

evaluating businesses attracting criticism and feedback. The main ideas of the addressed issues are:

- The patrimonial method consists in estimating the asset through a static approach, regardless of future movements of cash and are recommended to be used especially for companies in liquidation;
- The advantages of the method are: the results obtained by applying the property are easy to understand, it decomposes firm value component and analyze the extent to which each asset contributes to this;
- The method of net accounting active aims to estimate the net asset value of the entire property, without separate assets and fixed assets necessary to operate redundant;
- The method of corrected net accounting active tries to eliminate the drawbacks net asset method is to provide a value for each asset, the date of the assessment report provides a correspondence between scripting and the actual inventory and sets exactly chargeability claims. Patrimonial value of each element is estimated based on value in use of the asset and not based on the balance sheet;
- Gross value method is adding substantial net asset adjusted market value of the entity's other assets not measured but contribute to its outcome;
- The goodwill method tries to remove a shortcoming of the net asset method namely that systematically integrates all the intangible elements that make the company a competitive advantage, whether its brand, its competence, social skills of its staff or any other factor, since they have not been subject to separate assessments in estimating the net assets adjusted. The advantages of using the method based on goodwill in business valuation are given the rapidity of analysis and avoid errors resulting from incorrect assessment of operating assets;

### EMPIRICAL RESEARCH RESULTS

The last part of the paper is aimed at determining the role that accounting information has in determining business value. For this purpose we build three empirical studies that address the issue from different points of view. Regarding the first empirical study to understand the empirical evidence described above patterns and the role of financial indicators in describing the evolution of the stock exchange and hence the amount of capital to shareholders we have achieved eight regression equations including four independent variable with the result indicator compared to the previous course of action and four other independent variable with the movement in the index relative to the same value. For a better analysis we run the regression equations for each individual year. The correlation is obtained through simple regression. In the second part we built four multiple linear regression equations to analyze the extent to which the indicator results and its variation in performance justifies the action. In the following we present the obtained results.

Regarding earnings per share (EPS), the results of one and five regression are shown in Table 4:

**Table 4 Regression EPS Easton Harris** 

Table 4 Regression EPS Easton Harris $R_{it} = a_1 + a_2 \times \frac{EPS_{jt}}{} + u_1  R_{it} = a_1 + a_2 \times \frac{dEPS_{jt}}{} + u_5$										
Coef regression	$R_{jt} = a_1$	$+ a_2 \times \frac{EP}{P_{jt}}$	:-1	$R_{jt} = g_1$	$\frac{h}{t-1} + u_5$	N				
YEAR	a <sub>1</sub>	$\mathbf{a}_2$	$\mathbb{R}^2$	$\mathbf{g}_1$ $\mathbf{g}_3$		$\mathbb{R}^2$				
2003-2011	4,0358	2,5113E- 05	0,0018	4,0443	-8,3029E- 05	1,5231E- 05	533			
2003	0,7718	5,9710E-05	0,0076	0,7718	5,9710E-05	0,0076	51			
2004	2,2898	0,0001	0,0072	2,2930	0,0001	0,0071	51			
2005	7,6440	0,0112	0,0004	7,5751	-0,0031	0,0018	54			
2006	3,6311	-0,0140	0,0035	3,5407	0,0043	0,0074	56			
2007	13,0626	0,1009	0,0145	13,6226	0,1119	0,0052	60			
2008	2,2139	0,1189	0,0033	0,4618	-0,9368	0,2923	63			
2009	1,3937	0,0124	0,0009	1,3932	0,1940	0,3652	66			
2010	4,3416	-0,0023	9,3998E-06	4,3408	-0,0030	1,0825E-05	66			
2011	-0,4866	-0,0020	0,0002	-0,0478	-0,0300	0,0020	66			
Media	3,8735	0,0250	0,0042	3,7724	-0,0736	0,0765	533			

For earnings per share see a relatively low value of the coefficient of determination R2. For all nine years of analysis R2 is 0.0018 and a2 regression

coefficient is positive but tends to 0 which means that there is a direct but weak link between earnings per share and exchange rate fluctuations. If the variation in earnings per share value of R2 is 1.5231 E-05 which means that earnings per share better explains the return action than its variation - DEPS for which R2 has a lower value. Regarding the annual regressions, one regression R2 for earnings per share that is greater than the R2 for the regression five of the variation in earnings per share only two years: 2004 and 2007. A significant difference is observed in 2009 when between the two values of the coefficients of determination there is a connection. For the years 2004 and 2010 the two values are approximately equal. Differences can be seen in the chart below:

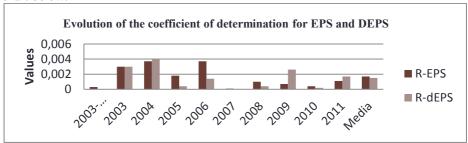


Figure 1 Evolution of the coefficient of determination for EPS and DEPS

The highest value is obtained in 2009 when the variation of the result on action explains in proportion of 39% the action value and the default value of equity. If you realize the average of the nine-year earnings per share variance, that explaines in proportion of 7.6% the action share as the EPS only explaines at a rate of 2.5%. Although the general pattern for nine years show that EPS explaines better then dEPS the share rate, taking into account the annual review, we consider the change in earnings per share is a better indicator for estimating yield action. This result verifies Hypothesis 1.

Regarding the return on equity (ROE) the results from two six regressions are presented in Table 5.

**Table 4 Regression Easton Harris for ROE** 

Coef regresie	$R_{jt} = b_1$	$+ b_2 \times \frac{RO}{P_{ji}}$	$\frac{\partial E_{jt}}{\partial t-1} + u_2$	$R_{jt} = h_1$	N		
Year	$\mathbf{b_1}$	$\mathbf{b_2}$	$\mathbb{R}^2$	$\mathbf{k_1}$	$k_3$	$\mathbb{R}^2$	
2003-2011	4,0260	0,0018	2,4279E- 05	4,0389	-0,0001	8,0426E- 08	533
2003	0,7356	0,0019	0,0260	0,7356	0,0019	0,0261	51
2004	2,2844	0,0025	0,0064	2,2983	0,0040	0,0067	51
2005	7,6997	0,0227	0,0001	7,8159	-0,0347	0,0003	54

Coef regresie	$R_{jt} = b_1$	$+ b_2 \times \frac{RO}{P_{jt}}$	$\frac{\partial E_{jt}}{\partial z_{-1}} + u_2$	$R_{jt} = h_1$	$\frac{\partial E_{jt}}{\partial t^{-1}} + u_6$	N	
2006	3,5468	0,0435	0,0017	3,6784	0,0300	0,0051	56
2007	13,9042	0,2128	0,0021	14,7967	-0,1095	0,0016	60
2008	-0,1145	8,4310	0,7729	3,0488	4,8632	0,0858	63
2009	1,3967	0,0140	0,0010	1,4338	0,0429	0,0061	66
2010	4,3233	0,0238	0,0001	4,3302	0,0110	5,2069E-05	66
2011	-0,0459	-0,0015	0,0004	-0,0449	-0,0019	0,0019	66
Media	3,7478	0,9723	0,0901	4,2325	0,5341	0,0149	533

For financial return we observe a relatively low value of the coefficient of determination R2 less than for 2009. For all nine years of analysis R2 is 2.4279 E-05 and a2 regression coefficient is positive but tends to 0 which means that there is a direct link between financial return but poor and exchange rate fluctuations. However financial return better explains the return action than its variation dROE for which R2 has a value less than 8.0426 E-08. Differences can be seen in the chart below:

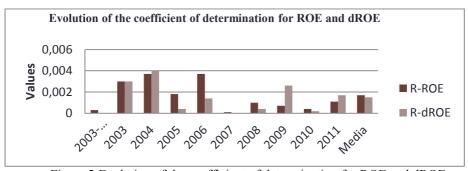


Figure 2 Evolution of the coefficient of determination for ROE and dROE

Regarding annual regressions, R2 for regression two or financial rate of return is higher than the R2 for the regression rate change six or financial return for only three years: 2007,2008 and 2010. O. For the years 2003 and 2004 the two values are approximately equal. The highest value obtained in 2008 when explaining financial return rate of 77.29% return on equity action and default value. However, the change in the indicator just explain in a proportion of 8.58% yield. If you realize the average of nine years, the rate of return on equity explains in proportion of 9.01% yield when dROE action only in a proportion of 1.49%. Although the general pattern for nine years show that ROE explains better than dROE return action, taking into account the annual review, we believe that the variation rate of financial return is a

better indicator in predicting the performance of the action. This result verifies Hypothesis 2.

In terms of return on investment (ROI) results from three seven regression are shown in Table 6.

Table 5 Regression Easton Harris for ROI

Coef regresie Year	$R_{jt} = 0$	$c_1 + c_2 \times$	r jt−1	K., = K., ± K., X			N
Tear	<b>c</b> <sub>1</sub>	$\mathbf{c}_2$	$R^2$	h <sub>1</sub> h <sub>3</sub>		$\mathbf{R}^2$	
2003-2011	4,0339	0,0007	3,1721E- 06	4,0442	-0,0013	8,5192E- 06	533
2003	0,7687	0,0010	0,0065	0,7687	0,0009	0,0065	51
2004	2,2827	0,0026	0,0063	2,2945	0,0041	0,0065	51
2005	7,6303	0,0431	0,0003	7,8036	-0,0117	3,2369E- 05	54
2006	3,5555	0,0571	0,0019	3,6936	0,0385	0,0054	56
2007	13,8233	0,3643	0,0032	14,7675	-0,1398	0,0006	60
2008	1,0966	12,2405	0,3375	-0,3043	-12,5780	0,3319	63
2009	1,3983	0,0147	0,0007	1,4287	0,0443	0,0059	66
2010	4,3241	0,0189	8,7063E- 05	4,3347	0,0077	2,5048E- 05	66
2011	-0,0369	-0,0031	0,0086	-0,0382	-0,0024	0,0064	66
Media	3,8714	1,4155	0,0406	3,8610	-1,4040	0,0404	533

For return on investment we observe a relatively low value of the coefficient of determination R2 less than for 2008. For all nine years of analysis R2 is 3.1721 E-06 and a2 regression coefficient is positive but tends to 0 which means that there is a direct link between the rate of return on investment but poor and exchange rate fluctuations. However the variation rate of return on investment explains better performance than ROI action with a coefficient of determination R2 of 8.5192 E-06. Regarding the annual regressions, R2 for regression three or the investment rate of return is higher then the R2 for the regression seven or the investment rate change regression ROI for six years: 2003, 2005, 2006, 2007, 2008, 2010. For the years 2003, 2011 the two values are approximately equal. Only in 2009 for determination of the regression coefficient number seven is more than two times higher than the regression three. Differences can be seen in the chart below:

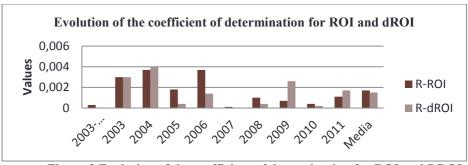


Figure 3 Evolution of the coefficient of determination for ROI and DROI

The highest value is obtained in 2008 when the rate of investment return rate explaines in proportion of 33,75% the action and thus yield equity value. However, the change in the indicator just explain in a proportion of 33.19% yield. If you realize the average of nine years, the return on investment (ROI) explaines in proportion of 4.06% while the yield action DROI at a rate of 4.04%. Although the general pattern for the nine years show that dROI explaines better the ROI the return action, taking into account the annual review, we believe that the return on investment is a better indicator for estimating yield action than its variation. N result verifies the hypothesis 3. In terms of economic value added (EVA) regression results obtained by regression four and eight are shown in Table 7:

Table 6 Regression Easton Harris for EVA

Coef regresie	$R_{jt} = a$	$d_1 + d_2 \times$	$r_{jt-1}$	$R_{jt} = p$	$\frac{dEVA_{jt}}{P_{jt-1}}$	N		
Year	$\mathbf{d}_1$			$egin{array}{ccc} oldsymbol{u}_4 & & & \\ oldsymbol{R}^2 & oldsymbol{p}_1 & & & \\ \end{array}$		$\begin{array}{ccc} & + u_8 \\ \mathbf{p_3} & \mathbf{R}^2 \end{array}$		
2003-2011	4,0502	8,7160E- 11	0,0003	4,0430	-1,2644E- 10	2,7100E- 05	533	
2003	0,7860	3,2108E- 10	0,0030	0,7861	3,2101E- 10	0,0030	51	
2004	2,3443	1,2092E- 09	0,0037	2,3558	1,7957E- 09	0,0040	51	
2005	8,0589	1,6449E- 09	0,0018	8,0161	3,1723E- 09	0,0004	54	
2006	3,6342	1,1540E- 09	0,0037	3,5332	-1,9568E- 09	0,0014	56	
2007	14,5239	1,0484E- 09	0,0001	14,4161	-6,6241	2,0546E- 06	60	
2008	2,1836	5,5998E- 10	0,0010	2,1675	1,0415E- 09	0,0004	63	
2009	1,3626	-2,6632E- 11	0,0007	1,3762	-3,2582E- 10	0,0026	66	
2010	4,4279	3,5272E-	0,0004	4,3569	7,2359E-	0,0002	66	

		10			10		
2011	-0,0493	2,3171E- 11	0,0011	-0,0507	1,0260	0,0017	66
Media	4,1413	6,9854E- 10	0,0017	4,1064	-0,6220	0,0015	533

For the economic value added we observe a relatively low coefficient of determination R2 less than 1%. For all nine years of analysis R2 is 0.0003 and a2 regression coefficient is positive but tends to 0 which means that there is a direct but poor link between economic value added and exchange rate fluctuations. The variation in economic value added explaines less the return action than EVA having a coefficient of determination R2 of 2.7100 E-05. Regarding the annual regressions, regression R2 for four and economic value added is greater than for regression R2 for eight or economic value added variation for five years: 2005, 2006, 2007, 2008 and 2010. For 2003 and 2004 the two values are approximately equal. Only in 2009 the determination of the regression coefficient number eight is less than two times then the regression number four. Differences can be seen in the chart below:

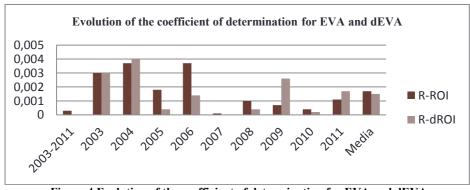


Figure 4 Evolution of the coefficient of determination for EVA and dEVA

The highest value obtained in 2004 explains the variation in economic value added at a rate of 0.4% return on equity action and default value. However, the indicator explaines only in 0.37% proportion the yield. If you realize the average of nine years, the economic value added explaines in 0.17% proportion the return action and dEVA in 0.15% proportion. Since the general trend resulting regression equation is reflected by analysis years, we believe that economic value added is a better indicator for estimating yield action than its variation. The result of the hypothesis 4.

The second part of the analysis aims to analyze multiple regression equations with independent variables as result indicator and its variation. Equations results are shown in the table below

Table 8 Multiple regressions Easton Harris for EPS, ROE, ROI and EVA

Year		2003- 2011	2004	2005		2007	2008	2009	2010	2011	Media
Reg 9	ml	4,0063	2,2826	8,0654	3,6581	13,1372	-0,4005	0,8847	4,3492	-0,0590	3,5464
EPS	m2	0,0024	0,0004	-0,0736	-0,0139	0,6182	2,7979	-0,4324	1,0994	-0,0113	0,4427
	m3	-0,0028	-0,0004	-0,0114	0,0041	-0,9893	-2,8138	0,4331	-1,3268	-0,0688	-0,5304
	R2	0,0007	0,0073	0,0044	0,0043	0,0426	0,9561	0,7869	0,0004	0,0061	0,2009
Reg 10	n1	4,0008	2,3296	7,6803	3,6780	14,7011	0,2944	1,4191	4,5093	-0,0410	3,8412
ROE	n2	0,0249	-0,0052	0,0267	0,0009	0,5619	8,2402	-0,2583	0,5519	0,0078	1,0140
	n3	-0,0276	0,0120	-0,0374	0,0298	-0,4708	1,3360	0,2919	-0,4063	-0,0084	0,0830
	R2	0,0004	0,0071	0,0006	0,0052	0,0086	0,7791	0,0293	0,0014	0,0040	0,0928
	s1	4,0105	2,3020	7,6238	3,6915	14,6330	-0,7025	1,3600	4,5267	-0,0378	3,7107
	s2	0,0239	-0,0016	0,0425	0,0111	0,8552	10,0761	-0,2986	0,7020	-0,0167	1,2633
Reg	s3	-0,0279	0,0064	-0,0093	0,0363	-0,6398	-10,3058	0,3360	-0,5246	0,0130	-1,2320
11 ROI	R2	0,0003	0,0066	0,0004	0,0055	0,0105	0,5498	0,0313	0,0015	0,0133	0,0688
	t1	4,0679	2,3503	8,0707	3,6604	14,5335	2,1773	1,4012	4,4591	-0,0534	4,0666
	t2	1,5300 E-10	6,2800 E-10	1,5600 E-09	1,1700 E-09	1,1400 E-09	9,8200 E-10	4,4500 E-11	5,1200 E-10	-8,8300 E-11	6,6091 E-10
Reg	t3	-2,3200 E-10	1,1300 E-09	3,7900 E-10	-2,0600 E-09	1,1600 E-09	-1,1200 E-09	-5,5200 E-10	-5,2800 E-10	4,2300 E-11	-1,7208 E-10
12 EVA	R2	0,0001	0,0045	0,0009	0,0053	0,0001	0,0007	0,0032	0,0005	0,0024	0,0020

Regarding earnings per share results for the regression coefficients argue for the use of the performance indicator and its variations for explaining the yield action. The conclusion from the analysis of simple regression EPS and DEPS is supported by the multiple regression where the regression coefficient of dEPS-m3 is greater than the EPS-m2, but is influencing into reverse the yield, actually given by the sign of the coefficient. The general equation of the regression has a determination coefficient 0.0007 times smaller then the one of the regression one. The analysis on nine years indicates that the nine regression has a determination coefficient greater than regression one and five following the years: 2004, 2005, 2007, 2008, 2009, 2010, 2011. Average annual regressions also offers a determination coefficient 20.09% higher. Given the above we can conclude that the multiple linear regression model

provides valuable information regarding the correlation between the action yield and the result on action, respectively his variation.

With reference to the rate of the financial rentability, the results obtained for the regression coefficients argue for the use of outcome indicator and its variation for explaining the action yield. The conclusion resulting from simple regression analysis of ROE and dRoe is supported by the multiple regression coefficient regression dROE-n3, but is reverse influencing the yield, fact given by the sign of the coefficient. The general equation for the regression has a coefficient of determination 0.0004 greater than the regression two and six. The analysis shows that the regression ten has a determination coefficient greater than regression two and six only for 2011. Average annual regressions also provides a coefficient of determination less than 9.29%. Since the multiple regression equation for the nine years has a higher coefficient of determination we conclude that it provides valuable information regarding the correlation between yield and financial return action, respectively its variation.

In terms of return on investment the obtained results for the regression coefficients argue for the use of the outcome indicator and its variation for explaining the action yield. The conclusion resulting from simple regression analysis for ROI and dROI is supported by the multiple regression where the regression coefficient of dROI-s3 is greater than the ROI-s2, but it reverse influences the yield, fact given by the sign of the coefficient. The general equation of the regression has a coefficient 0.0003 times greater than regression three and seven. The analysis on years indicates that the Regression 11 has a higher determination coefficient than regression three and seven for the following years: 2004, 2005, 2008, 2009, 2010 and 2011. Average annual regressions also provides a coefficient of determination greater than 6.88%. Given the above we can conclude that multiple linear regression model provides valuable information regarding the correlation between yield and return on investment action, or variations thereof.

Economic value added has a behabior similar to the indicators presented above. The conclusion resulting from simple regression analysis for EVA and dEVA is not supported through the multiple regression where the regression coefficient of dEVA-t3 is higher than EVA t2 but is reverse influencing the yield, fact given by the sign of the coefficient. Overall regression equation has a coefficient of determination 0.0001 times smaller than regression four but bigger than regression eight. The analysis on years indicates the fact that regression 12 has a coefficient of determination higher than regression four and eight for the following years: 2004, 2007, 2009, 2010, 2011. The annual regression average also provides a coefficient of determination greater than 20%. Given the above we can conclude that multiple linear regression model provides valuable information regarding the correlation between yield and economic value added action, and its variation.

All presented verify the truth of Hypothesis 5.

The purpose of the analysis is to see which of the four indicators provide valuable information on the performance of the action. For this purpose we present the results of the coefficients of determination for all 12 regressions in the table below:

Table 7 The coefficients of determination for the model Easton Harris

Year	2003-							• • • • •	2010	****	
Regression	2011	2003	2004	2005	2006	2007	2008	2009	2010	2011	Media
Reg 1	0,0018	0,0076	0,0072	0,0004	0,0035	0,0145	0,0033	0,0009	9,3E-06	0,0002	0,0042
Reg 2	2,4279E- 05	0,0260	0,0064	0,0001	0,0017	0,0021	0,7729	0,0010	0,0001	0,0004	0,0901
Reg 3	3,1721E- 06	0,0065	0,0063	0,0003	0,0019	0,0032	0,3375	0,0007	8,7E-05	0,0086	0,0406
Reg 4	0,0003	0,0030	0,0037	0,0018	0,0037	0,0001	0,0010	0,0007	0,0004	0,0011	0,0017
Reg 5	1,5231E- 05	0,0076	0,0071	0,0018	0,0074	0,0052	0,2923	0,3652	1,0E-05	0,0020	0,0765
Reg 6	8,0426E- 08	0,0261	0,0067	0,0003	0,0051	0,0016	0,0858	0,0061	5,2E-05	0,0019	0,0149
Reg 7	8,5192E- 06	0,0065	0,0065	3,2E-05	0,0054	0,0006	0,3319	0,0059	2,5E-05	0,0064	0,0404
Reg 7	2,7100E- 05	0,0030	0,0040	0,0004	0,0014	2,0E-06	0,0004	0,0026	0,0002	0,0017	0,0015
Reg 9	0,0007		0,0073	0,0044	0,0043	0,0426	0,9561	0,7869	0,0004	0,0061	0,2009
Reg 10	0,0004		0,0071	0,0006	0,0052	0,0086	0,7791	0,0293	0,0014	0,0040	0,0928
Reg 11	0,0003		0,0066	0,0004	0,0055	0,0105	0,5498	0,0313	0,0015	0,0133	0,0688
Reg 12	0,0001		0,0045	0,0009	0,0053	0,0001	0,0007	0,0032	0,0005	0,0024	0,0020

If we consider all the years of analysis than the best model that explaines the action yield is given by regression one, through the earnings per share of the coefficient of determination of 0.18%. The analysis on years shows that the best regression model is given by regression number nine for the years 2004, 2005, 2007, 2008, 2009, regression number 11 for the years 2010, 2011, regression number five for 2006 and regression number six for 2003. This means that earnings per share is the most important performance indicator in defining the efficiency of the action. For the years 200 and 2011, the return on investment and its variation best explaines the action yield and for 2006 the variation result on action. Annual average of the coefficient of determination shows that the best regression model is given by regression 9, the result on action and its variation. Given the above analysis we will consider only multiple regressions in formulating an opinion. Thus, in case of multiple regressions is as shown below:

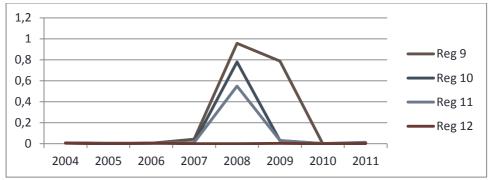


Figure 5 Evolution of the coefficient of determination for multiple regression

As we can see in Table 11 and in Figure 1, earnings per share and its variation best explaines yield action. This situation occurs for all 533 statistical observations (2003-2011) for the years 2004, 2005, 2007, 2008, 2009 and the average years.

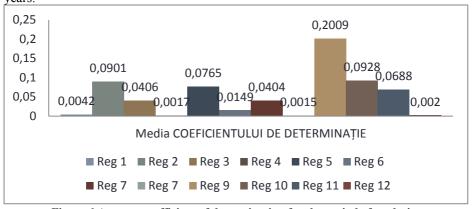


Figure 6 Average coefficient of determination for the period of analysis

The order of relevance of performance indicators in the analysis of action yield for each year is shown in the table below:

Table 10 Order of relevance of performance

Year	Order of relevance of performance indicators					
2003-2011	EPS	ROE	ROI	EVA		
2004	EPS	ROE	ROI	EVA		
2005	EPS	EVA	ROE	ROI		
2006	EVA	ROI	ROE	EPS		
2007	EPS	ROI	ROE	EVA		
2008	EPS	ROE	ROI	EVA		

Year	Order of relevance of performance indicators					
2009	EPS	ROI	ROE	EVA		
2010	ROI	ROE	EPS	EVA		
2011	ROI	EPS	ROE	EVA		
Media	EPS	ROE	ROI	EVA		

Considering the presented we conclude that earnings per share is the most important indicator in analyzing yield action, followed by financial rate of return, return on investment and economic value added. Therefore indicators based on accounting information have a greater relevance than those based on creating value for the business. In this regard we recommend their use in making stock market predictions and the related equity value of the company. This analysis supports the hypothesis 6 of the empirical study.

All five hypotheses established initially were tested and after the analysis proved their veracity. Therefore the best model to explain the performance of the action is the one that uses variations of earnings per share and earnings per share. This information can be used to predict the stock exchange when it has sufficient financial and economic information that enable economic forecasts on indicators of importance.

The study aims to show once again the importance of accounting information in determining market value. Between the two there is a strong correlation and no decision trading plan will not be relevant unless it also refers to accounting information.

Our results are supported by some empirical studies presented in the literature review

The second empirical study examines how much the multiples calculated based on forecasted date provides a better picture of the value of equity and what are their determinants.

Table 8 PER curent si PER trailling for the sample of firms

The Unit	REZNET 2011	Reznet 2012_prev	Rata g	g_prev_arima	PER_curent	PER_prev_arima
ALR	228.309.982	217609359	24,71%	-4,69%	10,16	10,66
ATB	20.298.909	17753084	16,60%	-12,54%	10,92	12,48
BIO	14.220.788	7232635	-51,69%	-49,14%	1,49	2,92
ELMA	15.075.281	14145920	69,15%	-6,16%	12,2	13,00
OIL	545.419	3324081	41,81%	509,45%	193,28	31,71
PREH	917.740	1972559	25,91%	114,94%	55,53	25,83
RPH	10.687.756	10687745	98,22%	0,00%	18,8	18,80
SOCP	7.092.137	4834381	50,55%	-31,83%	16,68	24,47
SNP	3.685.607.226	2497578684	-106,82%	-32,23%	4,46	6,58
TEL	90.913.316	69498540	148,68%	-23,56%	14,03	18,35

The Unit	REZNET 2011	Reznet 2012_prev	Rata g	g_prev_arima	PER_curent	PER_prev_arima
TGN	379.571.465	338301520	20,75%	-10,87%	0,54	0,61
ARS	11.618.296	11196233	14,06%	-3,63%	9,98	10,36
ALT	378.405	378629	112,91%	0,06%	74,07	74,03
ALU	3.683.071	3621073	6,79%	-1,68%	8,74	8,89
ARTE	4.349.174	3651597	47,42%	-16,04%	4,8	5,72
BRM	1.915.904	1915905	2,42%	0,00%	9,45	9,45
SPCU	1.177.362	2585302	66,59%	119,58%	33,63	15,32
CAOR	1.251.432	1251447	80,68%	0,00%	39,51	39,51
CBC	1.468.013	1305993	221,48%	-11,04%	15,34	17,24
BCM	792.059	966254	-8,81%	21,99%	15,21	12,47
CMCM	1.139.891	2055895	-218,66%	80,36%	33,17	18,39
CMF	923.006	922996	11,75%	0,00%	45,66	45,66
CMP	17.369.837	17369822	-2,73%	0,00%	4,9	4,90
ENP	56.773	56668	-9,24%	-0,18%	37,09	37,16
COMI	850.645	8422120	16,11%	890,09%	72,89	7,36
DAFR	2.008.175	4740201	101,95%	136,05%	30,45	12,90
ELGS	7.310.566	7206488	221,06%	-1,42%	3,24	3,28
RMAH	4.077.449	1307152	331,34%	-67,94%	5,18	16,15
MECF	7.246.828	7246357	14,54%	-0,01%	3,81	3,81
PEI	235.341	236277	-23,19%	0,40%	31,09	30,96
PPL	2.929.971	319508	12,83%	-89,10%	5,59	51,30
RTRA	1.188.188	1844660	-269,90%	55,25%	15,99	10,30
ROCE	2.712.128	1035057	-21,11%	-61,84%	16,25	42,59
PTR	15.813.330	15813329	133,04%	0,00%	4,94	4,94
SNO	380.016	4830405	355,75%	1171,11%	84,77	6,67
COTR	1.085.936	1085865	101,78%	-0,01%	22,64	22,65
STIB	19.462.703	19401185	46,20%	-0,32%	4,52	4,53
ART	67.503.261	10609403	-63,24%	-84,28%	2,32	14,73
TUFE	6.738.894	6853214	133,56%	1,70%	11,78	11,58
EFO	172.844	172862	-3,29%	0,01%	241,17	241,14
UAM	542.995	542992	342,07%	0,00%	33,45	33,45

The Unit	REZNET 2011	Reznet 2012_prev	Rata g	g_prev_arima	PER_curent	PER_prev_arima
APC	7.163.903	5474118	67,41%	-23,59%	6,49	8,49
VNC	1.997.353	1997396	119,03%	0,00%	26,69	26,68
SCD	33.857.309	23426348	-264,93%	-30,81%	10,92	15,79

Analysis of the results of the above table shows significant differences between the growth rates calculated as the arithmetic mean of the outcome of previous rates and the net result achieved by provisioning. Previous growth rate fluctuations attaches great importance to the outcome, which is why we have in some cases (IMP, UCM) a very high rate. We believe that the studies based on a growth rate g based on economic forecasts is relevant and we don't recommend using the arithmetic average of previous growth rates.

Only 44 of the 66 businesses PER\_curent and PER\_prev\_arima can be calculated, for all others, the net result to witch PER is reporting is negative. In 20 of the 44 cases, PER\_curent PER is lower than predicted by the ARIMA model. PER\_curent standard error is 6.98 bigger than the one for PER\_prev\_arima which is 5.55. This means that deviations PER\_curent are higher than those of PER\_prev\_arima. Large variations PER\_curent determines us to say that its use in determining the equity value will result in a conservative society. That's why we recommend using PER calculated based on forecasted net income.

Of the 45 listed companies, the hypothesis is verified for the following companies: ALR, ALU, ARS, ART, BRM, SCD, TEL, TUFE, UAM. The condition on the cost of equity is not verified for: ATB, BCM, CMP, ELMA, MECF, RMAH, ROCE, RPH, SPCU, TGN. The condition on the growth rate is not verified for:ALT, APC, ATB, CAOR, CMCM, CMP, COMI, COTR, DAFR, EFO, ELGS, ELMA, ENP, MEF, OIL, PTR, ROCE, RTRA, SOCP, SPCU, STIB, VNC. The condition on the dividend distribution rate is not verified for APC, ARTE, BIO, CAOR, CBC, CMCM, CMF, COTR, ELGS, ENP, PEI, PPL, PREH, ROCE, SNO, SNP, SOCP.

In nine cases the determination coefficient R2 is equal to 1 which means that the three independent variables explain all the PER. This is common for companies: ALU, BCM, BIO, COMI, MECF, PEI, TEL, TGN, TUFE. Another 12 companies have the determination coefficient higher than 75% which shows a close and direct link: ALT, APC, ARS, CMF, PPL, PREH, RMAH, RPH, SCD, SOCP, SPCU, VNC.

Using the PER analysis we can determine whether the price at which the share is under or overvalued. As can be seen from column four of Table 6.18, we have 31 companies that are undervalued by the use of PER's, therefore in case of a businesses valuation they will adversely affect the outcome. Thus we consider relevant for analysis using forecasted's PER.

The third empirical study aims to establish the value of the company SC DELSELI ICE SRL-D.

Using market multiples method the results are: Equity value for shareholders = 9.2927 \* 14488 = 134632 and the total value of the company is: VGE = 15483-0 =

 $4.4587 \times 69~034$ . In terms of net asset method, the company is relatively new, the assets may be considered as market value. Equity value is de14688. To determine the value by discounting cash flows, we observed the strategic plan of the company and have prepared cash flow statement as follows:

Table 9 Statement of cash flows for DELSELI ICE SRL-D

Element	Estimate year					
Cash flows from operating activities	2013	2014	2015	2016	2017	
profit before tax	17938	46787	58468	64636	72810	
Adjustments for:						
+ Depreciation and amortization	1022	98294	98294	98294	98294	
- income from investment grants		77857	77857	77857	77857	
= operating profit before working capital changes	18960	67225	78905	85074	93247	
- Changes in working capital:						
= Cash generated from operations	18960	67225	78905	85074	93247	
- tax paid	2484	7631	7783	8160	8555	
CF OPERATING	16476	59594	71122	76914	84692	
- Payments for acquisition of property	8760	892371				
CF FROM INVESTING	-8760	-892371				
Proceeds from share capital increase, first capital, grants related to investments		676608				
+ Proceeds from borrowings		892371				
- Payments on loan repayment		726608	70000	75763	20000	
CF FROM FINANCING		842371	-70000	-75763	-20000	
		ſ				
TOTAL CASH FLOW	7716	9594	1122	1151	64692	

On the basis of the overall value of the company's future financial DELSELI ICE SRL-D by discounting cash flows is 45249 ron. While asset method underestimates the value of the firm and the market based on a comparison overestimates, discounted cash flow appears to be one that offers a true .. However, the assessment of a business can be achieved using a single method. Therefore we recommend using three approaches and establish the final amount based on the arithmetic mean. Thus the value of individual DELSELLICE SRL-D is 41990 ron.

## CONCLUSIONS AND OUTLOOK STUDY

Through the thesis entitled **Relevance of financial-accounting information** in evaluating the company I made a presentation both in theoretical and practical aspects of the main valuation methods businesses. Business Valuation is a systematic procedure used to estimate in a reliable way the value of an business with the main purpose to achieve the changes necessary to implement value-based management. The objective of the thesis is to achieve a systematization of ideas already known by literature that treats the business valuation through discounted cash flow method and analog heritage and the main methods of quantifying the sources of value creation from which we realized valuation of the shares of companies listed on the Bucharest Stock Exchange

The paper is based on a number of key concepts to determine the value of an business, concepts are reviewed during the first five chapters. The sixth chapter presents three empirical studies aimed at defining the relevance of accounting information in evaluating entities.

#### Research limitations

Research limitations from our point of view are the following: lack of accounting information for certain listed companies on the BSE, the limited time duration analysis was performed; I didn't conducted an analysis of all multiples; did not analyze through an empirical study of value creation for all indicators, failure of EVA accounting adjustments, making it very close to book values. This paper presents some limits which are the number of statistical units introduced in the model and how to achieve sampling and due to uncertainty about the relevance and accuracy of data entered into the model for the researcher does not assume responsibility.

In addition we consider the implications of the work and limit global economic environment on the evolution of societies. The studies did not reveal the impact of global financial crisis on business value.

On bibliographic resources we consider as a limit that we realised an extensive synthesis of empirical studies that is addressing thesis.

#### Personal contributions

Personal contributions can be summarized as follows:

- by presentation of business valuation framework with emphasis on the regulatory domain:
- by presenting a history of value theory and valuation with emphasis on the connection between the two:
- Use I have defined the relationship between valuation and accounting firms as shown in Figure 1.7;
- the presentation of assessment methodology related businesses all approaches;
- the presentation of value management concept with related indicators;
- the presentation of determinant factors of value through all known approaches;
- synthesis of the literature in the field;

- I have achievee empirical studies on the correlation analysis of yield action and performance indicators and analysis of shares listed on the Bucharest Stock Exchange in terms of their undervaluation or overvaluation;
- b definition of net income forecasting model and its growth rate.

We consider that through the approach to the topic, through the realised studies, through detailing the working methodologies we bring more to the assessing companies. We also believe that through our approach we managed to achieve an interdisciplinary approach to business valuation and justify the need to implement statistical and econometric procedures to determine the amount of companies.

## Implications of research into practice

The impact of research, we believe that this will be an important step in shaping the business valuation field, providing both an important theoretical basis on established and empirical valuation methods.

The present work, although it's carried out as a thesis, is written primarily for those who wish to develop their skills to create value for shareholders. To this end, managers can use the concepts and methodology presented in this paper to: estimate the value of alternative business strategies, estimate the value for major transactions such as mergers and acquisitions, use value-based management and analysis of a company's performance against indicators specific time to know how the company creates value, monitor and operate the business with the necessary levers for value growth.

The work is not limited to a theoretical presentation but presents the business value determinants. This way it contributes to the development of knowledge in the area of business valuation and provide a theoretical support for managers in making economic decisions.

## Research perspectives

About the prospects of research we believe that they can move in the following directions: a study reflecting what valuation of the three methods offers the best value for the business and extend the study on analysis of under-appreciation or overvaluation of shares traded at BSE to include all multiples, analysis of the concept of value relevance, a study reflecting that best reflects multiple business value, analysis of whether a model built on a large number of business value multiple reflecting better than models based on a single multiple.

We propose the publication of this work and its development with studies listed above. At the same time we aim to develop international analysis by constructing a sample of companies listed on various stock exchanges.

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