



CURRENT TENDENCIES IN ENTERPRISE PERFORMANCE MEASUREMENT AND THEIR LIMITATIONS

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Abstract

The purpose of this research is to identify and present the latest trends in enterprise performance measurement, assessed specifically from financial point of view, respectively to provide details on the financial performance and to highlight their limitations, as well. The research is fundamental type. The Thomson Reuters Web of science database was used in order to find articles dealing with the topic of this research. The contribution of this research is the identification of the current tendencies in enterprise performance measurement, as given by a variety of empirical scientific publications on this topic, during the recent years, namely the company performance measurement and its explanation using the simple or multiple linear regression. The related limitations generated by the application of these regression equations resulted for each study sample is to be presented, as well.

Keyword: measuring enterprise performance, financial performance, measurement, influencing variables, uncertainty

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I. Introduction

The measurement and the evaluation of the enterprise performance is a topic of major importance, due to the fact that the performance of an economic entity is not a new concept, but the focus of many researchers, practitioners, business holders, potential investors, lending institutions, etc.

Nowadays, both theorists and practitioners in this field are interested in optimizing the results of any activities undertaken in all companies preparing annual financial statements.

Currently, the most recognized and applied methods of performance measurement of a business, as per economic and financial literature (Colasse Bernard, 2009, Gh. Vâlceanu & all, 2009, Bătrâncea & all, 2012, Monica Petcu, 2009, Petrescu Silvia, 2004, Marian Siminica, 2008, etc.) are the deterministic models, of causality.

But academia is concerned, within the last two decades, about the study of the company performance measurement in terms of applying of the stochastic models, as presented in a recent study "most of the empiric researches regarding the enterprise performance emphasize the analysis between the financial performance, highlighted by a measurement indicator, which is routinely a financial rate and some systematic variables which are considered by every paper (scientific researcher) relevant for their study and which more or less influence the performance of a company" (Deac V., Hlaciuc, E., 2014).

In this research, we aim to identify and present the latest trends in enterprise performance measurement, assessed especially from financial point of view, respectively the financial performance, and to highlight their limitations, as well.

This study contributes to the accounting literature by presenting and describing of the recent trends in company performance measurement, which is to be treated within the first part of this paper, and by presenting and explaining the limitations of these tendencies, as well, in the second part of the paper.

II. Current tendencies in enterprise performance measurement

The Professor Andy Neely, from Cambridge University, world widely recognized for his work in performance measurement, have presented in one of his researches, in 2005, that "the performance measurement is immature with little consensus" (Neely, A.,



2005), and that "the performance measurement is not and cannot be a field of academic study because of its diversity" (Neely, A., 2005) – being studied in terms of various disciplinary backgrounds, such as accounting, informational systems, operational management and operational researches – however, the authors of these researches are in search of solutions to be addressed to a common challenge, namely how to ensure a performance measurement related to an entity strategy.

Why have we chosen the debate on this research? Because it complements the personal beliefs which will be further provided, on the one hand, and, it is a strong point of the international literature interest on this subject, on the other hand.

Thus, if in 2005, nine years ago, not even a decade, the Professor Neely shows that the performance measurement field was immature and that the researches undertaken over the years have not reached a common consensus, we can state that, currently, in 2014, the actual state of knowledge of the enterprise performance measurement is still under ongoing debate and development.

Though recently, the studies on performance measurement, have been trying to discover new models of performance measurement resorting to the methods, the techniques and the tools made available to researchers by econometrics. Besides, "the theory is a basic component of econometric studies, but it has to be developed into an usable form. The most common form for the purposes of econometrics is the one of a model, particularly an econometric model" (Albu, Lucian-Liviu, 2014).

In this respect, currently, the most empirical researches seek to discover and to build an econometric model that reflects the correlation between the financial performance (as financial indicator for its measurement) and certain systemic variables that are considered by each paper relevant to their study and which influence the performance of an enterprise.

The importance of using of the statistical, mathematical and econometric methods and models at the economic agent level was argued by other authors as well (Anghelache, 2010) trying to highlight the opportunities that "such a system of indicators provides for economic- financial complex and relevant analyzes".

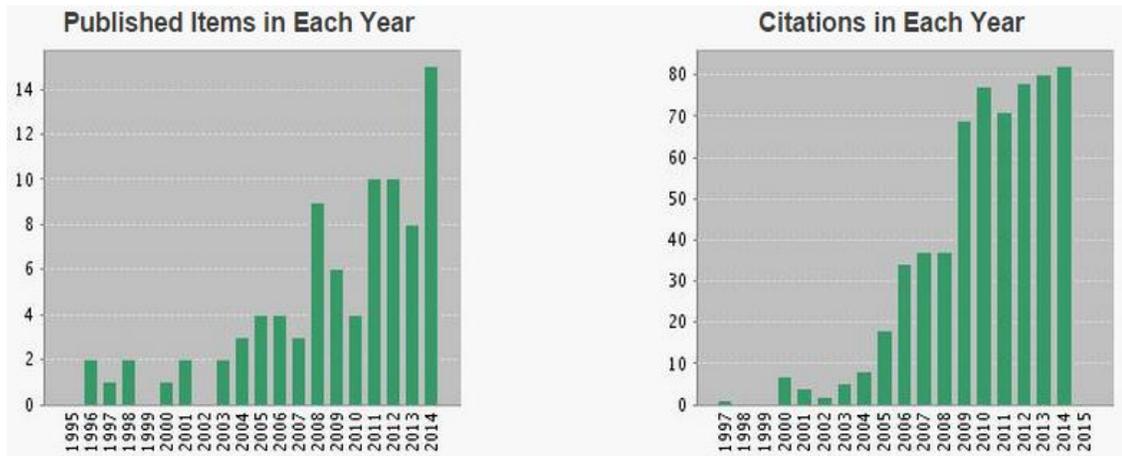
We also note that the trend is induced by many empirical studies both nationally and internationally, which have used the methods and techniques made available by the econometrics discipline in order to reflect through a simple linear or multiple regression equation the link between the company performance or financial performance and one, respectively, more independent variables.



The emerging trends in the enterprise performance measurement are learned from the literature in the field of business economics. We called them “recent” because the works that we cite below are published within the last 5-6 years, we believe that they are recent works.

In this regard, Figure 1 shows the trend of the articles published between 1995 to 2014, in the database Thomson Reuters Web of Science, on "Financial performance" and "linear regression" in the area of Business Economics.

Figure 1 - The evolution of the scientific articles published with topic like "financial performance" and "linear regression" in the area of Business Economics



Source: Thomson Reuters Web of Science

A total of 87 scientific articles were published during this period, with an average of 7.01 citations per article. As presented in Figure 1, since 2008, a strong growth in the number of articles published has been recorded, which shows a greater interest of academics in the topic presented. So, in order to sum up this tendency, we select some of the latest articles published since 2008. These are presented in Table. 1, which includes also the articles authors, the year of publication, the main theme of the study, and the sample used by each publication.



Table 1 - Synthesis of the published articles in the period 2008-2014

Authors	Year	Main theme of the study	Sample used
Hsu, CC & all	2008	the effects of information sharing capability on buyer-supplier relationships and firm performance.	a set of survey data from the USA, Europe and New Zealand
Prado-Lorenzo, JM and all	2008	to analyse corporate social responsibility practices implemented by Spanish companies and the relationship between such practices and corporate financial performance.	Spanish companies
Toyli, J., Hakkinen, L., Ojala, L., Naula T.,	2008	To explore the present logistics performance and to analyse the relation between logistics performance and financial performance.	424 Finnish small and medium sized enterprises in 2006
Doucouliafos, H., Laroche, P.	2009	The effect of unions on profits	forty-five econometric studies that report 532 estimates of the direct effect of unions on profits.
Garcia-Castro, R., Arino, M.O., Canela, M.A.,	2010	The empirical relationship between a firm's social performance and its financial performance	Panel data using 658 firms for the years 1991-2005
Markic, M. and al.	2011	the state of innovation policy and its influence on the successfulness of micro and small companies in the Republic of Slovenia	121 micro and small companies
Psomas, EL. and all.	2013	ISO 9001 effectiveness as the achievement of the standard's objectives and determine its impact on the performance dimensions of service	100 ISO 9001:2008 certified service companies



		companies related to product/service quality, operational and financial performance.	
Dhaouadi, K.	2014	the effect of human capital on the financial performance	most admired American firms
Huo, Baofeng and all	2014	the effectiveness of various supply chain integration (SCI) practices under different competitive strategies in terms of cost leadership and differentiation on financial performance	604 Chinese manufacturers
Yang, Y-F., and all.	2014	the effects of service innovation on financial performance	9220 proprietorship audit firms in Taiwan, 1989-2009 Survey Report of Audit Firms in Taiwan
Fernandes, CI. and all.	2014	the drivers to company innovation and their effects on the financial performance	sample of companies, from Portugal and Spain
AL-Qudah, Mustafa A.A.	2014	to identify factors that have impact on the financial performance (size of the company, the institutional investor, debt ratio, company age, liquidity ratio, customer satisfaction, productivity, degree of financial leverage	78 Jordanian industrial corporations for the years 2008-2012
Albertini, E.,	2013	The relationship between corporate environmental performance and financial performance	52 studies over a 35-year period between 1975 - 2011
Ruester, S., Zschille, M.,	2010	The impact of governance structure on firm performance	A data base using 765 water distribution firms from Germania
Lahtinen, K.,	2008	The effects of cost and value-added	27 large and



Toppinen, A		components on the firm-level financial performance	medium-sized Finnish firms in 2000-2004
Ujunwa, A	2012	The impact of corporate board characteristics on the financial performance	Panel data from 122 quoted firms in Nigeria between 1991 and 2008
Gentry, R.J., Shen, W.,	2010	The relationship between financial performance (ROA, ROE ROS, ROI) and market performance	11.809 listed firms in U.S. for the years 1961 - 2008

Source: own projection.

Following the recent trends presented with regard to the company performance measurement, especially in the measurement of financial performance, we consider that they are represented by empirical studies that investigate, by means of the linear regression, the correlation between certain influencing variables and the financial performance. The diversity of the influence factors considered relevant by each researcher for his study can be seen in table no. 1.

III. The limitations of the recent trends in enterprise performance measurement

This method of measuring of the company's performance can be of an emphasized importance, method rated as "recent trend", due to the fact that these econometric models are probabilistic models of stochastic nature. In such a model, the exact value of the resulting variable Y cannot be determined, based on knowing of the value variable X (variables Xi), so that the model is transformed from a deterministic model into a stochastic model, which involves a random variable, usually denoted by the symbol ϵ .

Based on this argument, we can continue our advocacy, as we want to describe the main limitation of these recent trends of enterprise performance measurement. Also we will argue why it is necessary to study the uncertainty in measuring of enterprise performance.



We believe that one of the major limitations of the recent trends of enterprise performance measurement is represented exactly by the influence of uncertain factors over it. While many different aspects of the certain variables introduced into a model of enterprise performance measurement are detailed in the economic literature, as we have shown above, little is known about the uncertain side, namely the random variables, the place, the role and their impact on companies performance.

As long as the stochastic models used for the enterprise performance measurement are applied in order to achieve predictions that meet the decision making of the management of the economic entities in order to improve its quality, considering that better decisions, more reliable ones lead to better results in future – it involves as well, an uncertain side of disturbing factors that may have various influence from one economic entity to another, we believe that they cannot be used with the utmost precision in business.

Therefore, in order to improve these models as ready to be used in practice with a greater accuracy and precision, we consider studying of the uncertain nature, explained through random variables that affect the performance of the company as absolutely imperative.

IV. Conclusions

In this paper, we have identified and presented several scientific publications in the field of economic business with the main topic of company performance measurement and its influencing factors - publications considered as compounding the "recent trend of measuring the company's performance".

"If the classical economists believed that for a company to develop economically and to produce more it was sufficient to increase the amount of available factors, labour and capital, nowadays it is estimated that the most important role in the economical growth is held by the progress registered in the scientific knowledge and technique" (Petriş R., Hlaciuc, E., 2010). A progress in scientific knowledge of the enterprise performance measurement would be the studying of these random variables, in terms of probability theory, of econometrics and of all of the modern tools and methods provided by these scientific disciplines.

In conclusion, we can affirm that the contribution of this research is the identification of the current trend in enterprise performance measurement, as given by a variety of empirical scientific publications on this topic, during the recent years, namely



the company performance measurement and its explanation using the simple or multiple linear regression and the presentation of the limitations generated by the application of these regression equations resulted for each study sample.

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