# EMPIRICAL RESEARCH ON THE STRUCTURE OF A SYSTEM FOR ASSESSMENT OF THE GLOBAL PERFORMANCE OF ECONOMIC ENTITIES

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*Sustainable development and, therefore, globalization require new standards of performance that exceeds the economic field, both for domestic companies as well as international ones. So, these standards should be integrated into corporate strategy development to ensure sustainability of activities undertaken by harmonizing the economic, social and environmental objectives. For sustainable development of an entity, value creation can not be seen in strictly financial terms, therefore any strategies that are defined by entities concerns not only the quantitative aspects (economic-financial) but also qualitative aspects (social and environmental).*
*This study attempts to address the issue of building a set of indicators to assess overall performance and it stops at each of the three dimensions of performance, namely economic performance, social performance and environmental performance. In this scientific approach we try to stop on one of the priorities of economic research that is finding indicators that better reflect the three dimensions of performance. What indicators would best represent the overall performance?, What indicators would best represent the financial performance?, What indicators would best represent social performance?, What would be the best indicators of environmental performance? During this scientific approach will try to answer each of these questions through the empirical research conducted.*
*To do this research we focused on statistical population consisting of the following categories of analysts: analysts from academic environment (Cluj-Napoca, Bucharest, Timisoara, Iasi, Craiova, Sibiu, Pitesti, Galati) and financial analysts from the specific departments of the Financial Investment Services Company (Broker SA, BT Securities, Target Capital, Tradeville, Estinvest, Intercapital, KBC Securities, etc.). This distinction was made because we believe that in determining the optimal structure of such a model we need the views of both academicians and practitioners. The method used for data collection was the questionnaire method. The result of this study is represented by a system of 20 indicators (financial and non-financial) selected to evaluate the global performance of an entity.*
*Key words: global performance, sustainable development, environmental performance, social performance, performance indicators;*
*JEL Classification Code: G00, G30*

## 1.Introduction

If in the last century financial performance was on the top of the priorities, companies have now realized that this is only the outcome of the race, but the race itself and the vector for success is what today, in the context of sustainable development of society, we call global performance. Each entity should consider for a "fair evaluation" of performance: the economic dimension, the social dimension and the ecological dimension. Global performance of the entity is defined as the aggregation of economic performance, social and environmental performane. So always, the global performance of an entity will be valued by the exchange with the environment.

The concept of global performance is used in the literature to evaluate the implementation of economic entities' strategies of in the context of sustainable development. So, we can interpret this concept as the reflection in the entity management system of the macroeconomic concept of sustainable development (Capron and Quairel, 2005). Marc Lepetit (1997:64) defined the global performance as "a multidimensional, economic, social and societal, financial and environmental concept, which refers both to the economic entity and to human society, to employees and to citizens". For Reynaud (2003) and Baret (2006) the global performance is the aggregation of economic performance, social performance and environmental performance.

This study attempts to address the issue of building a set of indicators to assess global performance and it stops at each of the three dimensions of performance, namely economic

performance, social performance and environmental performance. Why we chosed this research topic? Demarcation of the research was determined by the following factors:

  -clarification of the central theme of the work - assessment of a company's global performance;

  -the need for such a model (set) of indicators with which to assess all three dimensions of performance;

  -societal responsibility in Romania is seen today more as a fashion than as a responsibility of each organization brought by the subsidiaries of large international corporations.

The structure of this research was conducted on the following levels of interest:

-to determine the optimal structure of global performance assessment system, aiming in this context to make the distinction between financial and non-financial indicators to determine the weight of each dimension of performance indicators in the model's structure;

-setting (for each dimension of performance) all the indicators included in the model to be built.

For sustainable development of an entity, value creation can not be seen in strictly financial terms, therefore any strategies that are defined by entities concerns not only the quantitative aspects (economic-financial) but also qualitative aspects (social and environmental). So, the entities have to apply the principle of balanced development, based on various aspects in order to be efficient, given the new coordinates. In a way, it should mention the concept of multidimensional performance evaluation focused on the theory of Triple Bottom Line. Triple Bottom Line Theory aims to enhance the non-financial and non-accounting dimensions of performance and accountability of an entity as it submits to entities attention not only the economice value added, but in particular the social and environmental values that they are creating or destroing (Elkington 1997). Triple Bottom Line concept involves "economic prosperity, environmental compliance, compliance and improving social cohesion" (Pesqueux 2002:157).

## 2. Literature review

The new approach to performance is now known as sustainable development, which has three objectives: increasing economic entity's financial performance, development of environment effectiveness and encouraging social development. Thus, we can say that overall performance is the sum of economic and financial performance, environmental and social performance. According to Romanian authors the concept of global performance is used to evaluate sustainable development strategies and to report on the societal responsibilities of different partners (Tabără, et al. 2007:46).

According to Mathews TBL performance also requires involvement in all three dimensions of the reporting: economic performance, social performance and environmental performance (Mathews 2007). Economic dimension of performance covers all aspects of the economic entity and includes interactions with financial issues. Traditionally financial indicators refer to an entity's profitability and thus provide useful information both for management and for its shareholders. In the context of sustainable development and sustainability reporting information, and taking account of stakeholder theory, economic and financial indicators are used to highlight how an entity is affecting economically its relevant partners that interact directly or indirectly with the entity.

In Romania, there were also concerns towards the approach on performance from a global perspective, especially in the context of national economic approaches on the line of joining the European Union. We recall in this regard concerns of authors such as Niculescu (2003), Stancu and Orzan (2006), Ciobanu (2004, 2005, 2006), Mironiuc (2009), Tabără (2007). In the context of global sustainable development performance can be defined as a multidimensional, economic, social and societal, financial and economic, environment effect regarding both entities and employees, human communities and citizens (Tabără et al. 2007:49)

Founder of the principles of management, Peter Drucker (1954) considers that "few things are important to a firm's performance as performance measurement", which tells us that it could represent a vulnerability for management today. Performance management includes and precedes performance measurement.

Marr (2004) distinguishes the following activities in the process of measuring performance: (1) building a model of performance for each business separately, (2) data collection, (3) data analysis and interpretation, (4) retrieval and communication information. Such a definition of performance measurement is more comprehensive than those mentioned above. Thus, Marr manages to emphasize that performance measurement is a structured process, focused on results.

Performance measurement tools are established to be the indicators. The economic literature can account for dozens of definitions of indicators. Un indicator is „an element or a set of information elements, representative in relation to a concern or an objective,  resulted from tangible measuring or observing a state of a phenomenon or an output" (Boldeanu 2008:24).

The measure "financial" or "non-financial" has not such a great importance and there is no strict rule on the matter. Relevant criteria are different (strategic relevance, operational efficiency) and can be met, as appropriate, by  the financial indicators and / or non-financial ones (Lorino 2002: 237). The so-called "non-financial indicators", even if they can not always be expressed in monetary units, their effect is reflected in other indicators of economic and financial dimension whose size is easily translated in monetary units. Improving the quality of the entity's activity is acting on the entity's image (non-financial indicator), but also on the size of turnover.

According to Epstein and Manzoni "systems (models) for measuring performance should include more non-financial indicators to complement the financial ones, in particular with regard to customer perception and performance of internal processes" (Epstein and Manzoni, 1997).


**3. Research methodology**

In order to achieve our overall objective of the study – building a model for assessing the global performance of companies in Romania - we focused on statistical population consisting of the following categories of analysts: analysts from academic environment (Cluj-Napoca, Bucharest, Timisoara, Iasi, Craiova, Sibiu, Pitesti, Galati) and financial analysts from the specific departments of the Financial Investment Services Company (Broker SA, BT Securities, Target Capital, Tradeville, Estinvest, Intercapital, KBC Securities, etc.). This distinction was made because we believe that in determining the optimal structure of such a model we need the views of both academicians and practitioners.

The method used for data collection was the questionnaire method, which is a technique of gathering information, which includes a set of questions, constructed in a manner that through the analysis of results we can achieve the objectives set out above. The distribution of this questionnaire was performed via electronic mail because the statistical sample population is spread throughout our country and also by addressing the respondents directly.

The questionnaire developed for the study consists of 19 questions and the types of questions used were: opened questions, closed questions, identification questions and questions split rings. Although the use of the questionnaire via electronic mail has some important advantages (eg. reduced financial costs, time, etc..), we still need to mention the disadvantages characteristic of this method, disadvantages translated into limits of this research and the most important is the small percentage of response to which we add the failure to develop certain issues raised by various questions.

This questionnaire was distributed to 30 teachers, members of SRAEF present at the meeting of financial analysts conducted in May 2010 and sent electronically for 57 financial investment services companies, assuming the existence of an analyst in each company. Questionnaires were sent în electronic format on July 1 2010 and the last response came on 27 February 2011, noting that questionnaires were sent three times, the last time being in February 2011.

Of the 30 teachers interviewed so far have answered the questionnaire 23 persons and from financial analysts so far we have received a total number of 20 responses. Therefore for the first category of respondents we obtained a response rate of approximately 76.66% and for the second class the rate of 35.08% of responses.

We appreciate the response rate as an acceptable one bringing the argument that, as we mentioned in previous paragraphs, the disadvantage of the research method used is the very low response rate, an aspect highlighted both abroad (Blankenship, quoted by Chelcea, 2007) and in our literature (Boța-Avram 2009). Authors mentioned noted that in the U.S. about 15% of polls released return and they concluded that to achieve a response rate of 30-40% extra effort is needed such as questionnaires forwarded and others.

The questionnaire was structured as follows in five parts. **The introductory part** on general information, where we have used the so-called identification questions with which we wanted to get information about the institution where the respondents work. In **Part 1** named **"General structure of a system of performance evaluation "** we sought to obtain data on the importance of using financial and non-financial indicators to build a system to assess a company's performance, the hierarchy of performance dimensions and to identify performance indicators by which we can better assess performance.

We raised this issue because in literature are different views on the share of various categories of indicators in such a performance evaluation system. Authors such Bătrâncea Maria and Bătrâncea Larisa proposed two models of financial standing "Model A" and "Model B" where quantitative criteria account for 75% share and qualitative criteria have 25% share (Bătrâncea et al. 2010).

In **Part 2 "Aspects regarding the indicators for assessing the financial performance of entities"**, **Part 3. "Aspects regarding the indicators for assessing the social performance of entities"** and **Part 4. "Aspects regarding the indicators for assessing the environmental performance of entities"** tried to identify the most important indicators for assessing financial performance, social performance and environmental performance, to realize their hierarchy and to identify the areas of activity where it is necessary to assess social and environmental performance.

## 4. Results of the research

Out of the 43 responses received and validated, 53.49% of them we received from people working in the public sector as teachers in higher education institutions and the remaining 46.51% were from persons working in the private sector. Of the total amount of respondents the largest share is owned by the 16 persons who hold a position of financial analyst that means a rate of 36.40%, followed by persons holding the position of professor and assistant professor with an equal share of total respondents of 18.20%.

Given the results obtained about the construction of the system of indicators we will give equal shares for the two categories of indicators, namely: 50% for financial indicators and 50% for non-financial indicators.

In system construction, we will give equal weight to social and environmental indicators so the system structure will be as follows: financial indicators 50%, social indicators 25% and environmental indicators 25%.

The second part of the questionnaire "Aspects regarding indicators for assessing the financial performance of entities", was devoted to measures used to evaluate financial performance such as the financial ratios. In this part of the questionnaire we aimed to test the respondents view of the types of indicators used to assess financial performance, including in the structure of survey questions to identify 10 most important indicators for assessing financial performance and realize their hierarchy and to select an indicator which best captures the financial performance of an entity.

To identify the 10 indicators we will use the average mean because it remains the parameter that highlights the essential out of a statistic population (Buiga et al. 2004:96). So, we associated points for each response (from 1- no importance- to 5 – very important) depending on the relevance of the indicator in assessing financial performance requirements. Scores obtained by each indicator is the average value of the options of respondents. In the following table we present our findings.

*Table no 1. Scores given to financial indicators*

| Indicator | Score | Pearson coefficient |
|---|---|---|
| Economic Value Added | 4.26 | 22.17% |
| Return on Investment | 4.16 | 21.33% |
| Return on Equity | 4.14 | 20.53% |
| Operational CF | 4.14 | 18.67% |
| Net profit per share | 4.12 | 18.55% |
| Immediate liquidity | 4.12 | 21.21% |
| Indebtedness | 4.05 | 16.53% |
| Total Shareholder Return | 4.02 | 23.96% |
| Total profit | 3.93 | 22.98% |
| Turnover | 3.91 | 29.03% |

Source: analyze of the authors)

Given the overall approach to performance we devoted the third part of the questionnaire to social performance. In this part of the questionnaire we intended to test respondents' opinion on the inclusion of social responsibility among the current objectives of organizations, including in the structure of survey questions to identify five most important social indicators for assessing performance and to realize their hierarchy and the areas where it is necessary to assess social performance.

The first question was aimed at testing respondents on social responsibility as one of the current objectives of the entity. So 51.50% of the respondents considered it is important for any entity for social responsibility to become a current target, while 33.30% considered it as very important to be included among the objectives of companies.

Social indicators chosen based on the average are:

*Table no 2. Selected social indicators*

| Social indicators | Score | Pearson coefficient |
|---|---|---|
| Degree of customer satisfaction | 4.40 | 22.19% |
| Job satisfaction | 4.38 | 18.67% |
| Motivation at work | 4.26 | 18.55% |
| Number of complaints | 4.21 | 21.33% |
| Organizational climate | 4.12 | 20.53% |

Source: the authors

The last question of this part wants to identify areas of activity where social indicators are essential in assessing the performance of the entity. So, we found that the proportion of 33.30% respondents believes that social indicators are essential for assessing the performance of entities in all fields. The areas mentioned most often were: mining and quarrying, manufacturing, finance and banking and public services.

Given the overall approach to performance we devoted a fourth part of the survey on environmental performance. In this part of the questionnaire we intended to test respondents

opinion on the inclusion of environmental protection among the current objectives of organizations, including in the structure of survey questions to identify 5 most important indicators for assessing environmental performance and to realize their hierarchy and the areas where it is necessary to evaluate environmental performance.

So the first question in this part asks respondents to express their views on the inclusion of environmental objectives in the current list of entity's objectives. According to responses received 48.50% of respondents consider important to include environmental protection among the current objectives of an entity, while 30.30% considered this as very important.

*Table no 3. Selected environmental indicators*

| Environmental indicators | Score | Pearson coefficient |
|---|---|---|
| Degree of pollution | 4.53 | 20.54% |
| Compliance with environmental rules | 4.33 | 21.43% |
| Emissions | 4.33 | 18.65% |
| Recyclable materials | 4.19 | 18.77% |
| Initiatives to reduce emissions | 4.00 | 22.31% |

Source: the author

The last question of this part wanted to identify areas of activity where environmental performance indicators are essential in assessing entity's performance. From the analysis of responses to the last question we reached the following conclusions:

-27.30% of respondents said oil industry, mining and quarrying;
-21.20% of the respondents mentioned all areas;
-15.20% mentioned the chemical and pharmaceutical industry;
-15.20% mentioned the industry in general.

## 5. Conclusions

The exigencies of communication occurred on the growing number of phenomena that marked the global economy in recent decades (internationalization and relocation of business crises and turmoil in financial markets), demand performance measurement to be made in a comprehensive way by financial and non-financial criteria. Non-financial criteria take into account the entity's long-term orientation and they derive from aspects such as social responsibility.

Why is needed the evaluation of global performance? Because, as we have seen, exclusive reporting of financial performance limits the given information which is why it was necessary to report information on global performance thus distinguished the financial and non-financial aspects. In this context, TBL reporting has become an invaluable tool because it captures the three dimensions of performance: social, environmental and economic.

In today's macroeconomic environment, ignoring the social and ecological issues can lead to loss of international market shares of large corporations, moreover, they are forced to bear costs of greening the area of activity and spend considerable sums on loss control to regain consumer confidence.

So, we find the need to integrate social and environmental requirements in a management system for global performance through performance indicators measuring social and environmental aspects. Performance measurement should be done through various indicators to reduce their limits, both financial and non-financial.

For a good outline of the entity's performance is absolutely necessary to use a system of indicators that expresses its strategic orientation, characterizing its internal and external relations, the efficiency, the entity's ability to adapt to market requirements. For each dimension of performance that is intended to be measured the set of indicators should include specific measures.

Thus we can conclude that the structure of our system of indicators for assessing global performance will include the following indicators to capture non-financial and financial aspects:

**Table no 4. The structure of the system**

| Financial indicators | | Social indicators | Enviromental indicators |
|---|---|---|---|
| Economic Valu Added | Immediate liquidity | Degree of customer satisfaction | Pollution degree |
| Return Investment | Indebtedness | Job satisfaction | Emissions |
| Return on Equi | Total Shareho Return | Organizational climate | Recyclable materials |
| Operational CF | Total profit | Number of complaints | Energy consumption and its origin |
| Net profit per sl | Turnover | Motivation at work | Compliance with environmental rules |

Source: the author

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