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Studiu privind posibilitatea implementarii balance scorecard-ului in universitati

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AN EMPIRICAL RESEARCH ABOUT THE POSSIBILITY OF IMPLEMENTING BALANCED SCORECARD IN ROMANIAN UNIVERSITIES

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ABSTRACT
Balanced Scorecard is a new control tool in public entities, especially in universities. The aim of this paper is to analyze the possibility of implementation in Romanian universities.

At an international level, this concept was used at the beginning by the private sector, followed by its usage by the public sector as well. In universities of the Anglo – Saxon states, there have been debates on the subject for a long period of time in relation to the opportunity of introducing this concept, these debates have been supported by pro and against arguments. At a national level, this concept is virtually unknown in the higher education state institution system.

Through the present paper, we would like to test the opportunity of introducing the concept starting from the identification at a global level of the conditions and regulations specific to the Balanced Scorecard (BSC) concept.

Our results will present the first overview of this new subject, which is not yet developed in Romania.

KEYWORDS
Balanced Scorecard Concept, Public University, Managerial Accounting

INTRODUCTION

The Bologna process represents a great opportunity for Universities to improve both their institutional quality and the strategic management capability.

Romanian state Universities are being transformed more and more into entrepreneurial companies, in which the current business range is linked to the teaching and research areas, mainly. In this context, we believe that the use of a BSC system is an important step made in the assistance of the Bologna reforms. The BSC instrument should be used utilizing all three of its dimensions: a performance measuring system, a strategic management system and a communication tool that involves all academic stakeholders in a new culture of raising awareness to strategy and quality. Through academic stakeholders we understand in the present paper the students (clients of the higher education institutions), academic and management staff, institutional leaders and the public community.

The *motivation* for choosing this paper's subject is strongly linked to the novelty aspect that the subject of implementing the BSC system at a national level, in Romanian state universities, has. Keeping in mind the experience of other countries, it is interesting to test how the analysis of the Romanian higher education performances based on managerial accounting would tailor to the characteristics of the new instrument suggested by us: the Balanced Scorecard.

The *obtained results* will have a special relevance on the one hand for those parties who are involved in assuring strategy and quality- based performance management in universities, and on the other hand, it can constitute a model for other public institutions in implementing the BSC concept.

The *personal contribution* regarding the subject of the paper, the implementation of the Balanced Scorecard in Romanian state universities, has multiple layers. In the present paper, we would like to present the first part of this complex field of research namely the constructing of a questionnaire from whose interpretation we will obtain data regarding:

1) The opportunity for using the BSC instrument in universities,

2) The degree of its acknowledgement in the academic and managerial environment,

3) The importance assigned by the academic stakeholders to certain defining elements of the instrument. In the following papers we would like to analyze the interpretation of the results obtained from the empirical research and to start, if conditions are favorable, the construction and implementation of the BSC system in Romanian state universities.

1. LITERATURE REVIEW
1.1 The origins of the Balanced Scorecard instrument
Kaplan and Norton are acknowledged by the large part of specialty authors as the parents of the instrument for measuring the performance of economic entities, named BSC. This concept was published for the first time in the Harvard Business Review (Kaplan & Norton, 1992). The concept of this instrument is based on a study by Kaplan and Norton, who analyzed twelve enterprises in the US regarding the design of their information and control systems.

The Original BSC consists of four perspectives which are aiming at building up a well – balanced performance measurement system. (Jones & Hubic, 2006). The four perspectives are built around the strategy of economic entities, derived from their vision and mission. The novelty brought by the BSC is that it includes in the management's decision along with the financial indexes, the non financial ones, absolutely necessary in the present informational era context.

Managerial accounting literature also advocates the use of financial and non-financial performance measures as a tool in order to overcome the deficiencies attributed to financial measures. Many writers (e.g. Antony, 1965; Merchant, 1998) argue that financial performance measures communicate financial objectives, provide an overall summary of performance, do not require top management involvement in operating decisions taken at business units, can play a diagnostic role in deciding whether or not to continue with the current strategies and do not require additional costs in order to prepare them since they are already available for external financial reporting purposes (El –shishini, 2001).

In this context, BSC according to Kaplan and Norton has four measurement perspectives: financial perspective, customer perspective, internal process perspective, learning and growth perspective. Organizations which use this model customize it with their own process and environment therefore there is no need for applying the four perspectives of BSC or they could affix another perspective to BSC, according to their needs (Kaplan & Norton, 1996).

Up to now many changes have been made to the physical design, application and the design process used to implement the tool, that have enhanced the utility of balanced scorecard as a strategic management tool. (Nayeri et al., 2008)

1.2 BSC in the public sector
The purpose of BSC also for public sectors is to implement organization goals and vision in practice. This model assumes the goals and strategies by translating the organizational goals to key success factors in the BSC four perspectives, as a center of organizational performance control system (Kaplan & Norton, 1996).

Frieder Naschold (1998) described strategic management as the missing link in internal modernization that contributes to the redesign of the interface between administration and its political, economic and social environment (Naschold & Daley, 1999). Naschold, Oppen *et al*. identify four key competencies of strategic management: (1) value management, (2) management of structures, (3) management of change, and (4) strategic evaluation (Naschold *et al*. 1998). Value management involves addressing the behavior of employees, as well as their attitudes, values and beliefs. Therefore, Naschold argues, it is critical to link cultural change programs within an organization to organizational strategy rather than simply basing them upon organizational development processes. He argues that processes of cultural and organizational change have to proceed in parallel, with employees involved at every stage and in every aspect of these processes (Naschold, *et al*. 1997).

For public sector, financial measures are not the most relevant indicators of whether the organization is delivering on the rationale for its existence. Instead, public-sector organizations need to measure how effectively and efficiently they are meeting the needs of their constituencies. The financial perspective, which is affected by its restrictive character, consequently takes a back seat compared to its leading position in the enterprises' BSC (Jonen et al., 2004).

Bearing in mind the specific nature of the public sector, the provision of services for and in the use of the population, the most important perspective in our view is that of the clients. The main purpose of public institutions is catering to the large public, through high quality services and professionalism. Obviously this aim cannot be accomplished without an important financial support. This is the reason why in the actual context, we consider that the financial perspective has gained a lot of field and is situated at a very close level to the clients' perspective. Today, the large majority of public sector institutions tend to be transformed into entrepreneurial units, in which the tax payers' money is strongly supported by extra budgetary sources. Financial profitability has become a fundamental/basic requirement for the public sector as well.

1.3 BSC in universities

Contrary to the rich literature existent on the BSC subject in the private sector, there are a few research papers in specialty literature in what concerns the application of BSC in universities. Experiences with BSC in the field of universities and education are by far not as wide as it is the case in major enterprises or more often also in medium sized businesses. (Jonen & Simgen Weber, 2006)

Amaratunga and Baldry used BSC in measurement of higher education sector performance, then they confirmed the relation between performance measurement and performance quality base don BSC model (2000).

Cullen et al. (2003) propose the use of BSC in support to underscore the essence of performance management instead of performance measurement, Sutherland (2000) reported that the Rossier School of education al the University of Southern California adopted the balanced scorecard approach to assess its academic program and planning process.

The purpose of Papenhausen and Einstein (2006) survey was to show how the balanced scorecard approach, a performance management system, could be implemented at a college of business.

Umashankar and Dutta (2007) used the balanced scorecard concept and discuss in what way it should be applied higher education programs in the Indian context.

Nayeri et al. (2008) in their paper, pursue the purpose of developing the BSC strategic model, to evaluate the strategic environment of Business higher education in Iran. The model is customized and implemented for the case of six top Iranian business schools and then the position of each has been defined in comparison with the others in the setting.

As stated by the specialty literature, a tradition of using the BSC was established in the Anglo-Saxon Universities. Successful examples in this idea are the Universities from the USA, Australia, Finland and Spain. In the following we present the case of Bond University from Australia, founded in 1987. Bond University has developed a corporate Balanced Scorecard, which focuses on, and monitors, four perspectives: Customer, Financial, Internal Business and Innovation and Learning. Bond's Balanced Scorecard translates the University's mission and goals into a set of objectives, measures and targets in the above four perspectives. Through the Balanced Scorecard, the University aims to monitor both current performance and its efforts to provide teaching, learning and research activities of the highest quality, improve customer services, streamline key processes, provide an environment in which its employees are motivated and developed, and enhance information systems. (Cribb & Hogan, 2006)

In this paper we wish to test the possibility of implementing the Balanced Scorecard in Romanian Universities starting from this international context indicated above, in which the for and against opinions intersect and evolve constantly.

2. THE OBJECTIVES AND THE RESEARCH METHODOLOGY

We start our scientific approach by developing a series of hypotheses that will be answered based on the developed questionnaire, delivered to 56 public Romanian Universities so that they can fill it in.

Taking into account the fact that the Balanced Scorecard is a new concept we want to find out how much the academic and administrative staff in the Universities is familiar with it, referring to BSC as support for future implementation. This is the reason why the first hypothesis is:
H1: The academic and administrative staff is familiar with the Balanced Scorecard concept.

BSC is defined as a set of financial and non-financial indicators that shows the development of the University's performance by balancing and determining four forces (named by Kaplan and Norton as perspectives). It is a challenge to determine the order of these perspectives from the point of view of the Romanian Universities' representatives. The third hypothesis is:
H2: The Customer Perspective (stakeholders) is the most important for the public Romanian Universities.

More recently, managerial accounting literature provides two streams of research. The first stream aims at improving financial performance measures and producing more accurate financial measures. The second stream sets out to incorporate non financial performance with financial performance measures. Therefore, the second hypothesis is:
H3: When determining the University's performance based on the managerial accounting the financial indicators must be completed by the non-financial indicators.

It is known that BSC is based on two important principles: the knowledge, pursuance and application of the strategy at all hierarchical levels in the University and the need to acknowledge the University as an active participant in the interactions between it and the stakeholders. The forth hypothesis is:
H4: The stakeholders know the University's strategy and are connected to it.
H5: The University's performance is linked closely to the existent degree of communication between the University and the stakeholders.

The research methodology is based on a basic research of the theories related to the grounding and implementation of the BSC in Universities. The document analysis, the comparative method and the observation method are part of the social science methods used in this approach.
We also use the applied research that is included in the deductive accounting theory, through which we wish to test the concepts used in the first part by projecting and grounding them in the reality of the public Romanian Universities. In this respect we use the investigation technique based on a questionnaire in which we want to combine the open, closed and mixed questions.
This questionnaire will be delivered to the financial-administrative departments of the 56 public Universities via e-mail. The interpretation of the results will be the subject of future research.

3. DEVELOPING THE QUESTIONNAIRE

In order to obtain an answer for the first hypothesis (H1), we asked question 1 in the questionnaire.
1. The analysis of the University's performance through the managerial accounting is made using the method:

○ Dashboard

○ Reporting

○ Balanced scorecards

○ Other_____

The answer to this question provides information related to the degree in which the Balanced Scorecard concept is known in the Romanian Public Universities, but in the same time it tells us if the University's performance is assessed through another method.

The Balanced Scorecard, according to Kaplan and Norton, has four measurement perspectives which provide specific answers to for questions of critical concern:
 ➢ Financial perspective – how do stakeholders see us?
 ➢ Internal business processes – what must we excel at?
 ➢ Learning and growth perspective – how can we continue to improve and create value?
 ➢ Customer perspective – how does our customer see us?

Based on question 2 from the questionnaire, we want to establish the order of the acknowledged importance to the Romanian Universities of the four perspectives defined by Kaplan and Norton, and in the same time give the possibility to those that fill in the questionnaire to identify another perspective if they consider it important. It is interesting to know the position the University takes regarding the four perspectives taking into account the dispute that exists in the case of entrepreneurial Universities between the customer (stakeholder) perspective and the financial one.

2. State the importance of the following four perspectives when developing the University's performance:

○ Financial Perspective – the financial independence degree, as the stakeholders assess you (students, academic and administrative staff, institutional leaders, public community – the market) [▼]

○ Internal Business Perspective – the processes in which the University has to excel in order to answer the customer's expectations [▼]

○ Innovation and Learning Perspective – the set of measures that must be taken in order to sustain growth on the long run and improvement [▼]

○ Customer Perspective – the growth of loyalty and satisfaction in the targeted customers through the products and services provided [▼]

○ Other proposal_____ [▼]

Total   **100%**

Starting from the interpretation of the context in which the BSC concept appeared and developed (that is the insufficient number of financial indicators in the situation in which the ability of a company to mobilize and use its intangible assets has become more important than the process of using and investing in tangible assets) we wanted to find out data about the necessity of charging the financial indicators with a set of non-financial indicators specific for the Universities. In this regard we developed the questions 3-10 from the questionnaire, and based on them we will answer the hypothesis 2 (H2). We tried to break the importance of each indicator for the Universities by illustrating them on each perspective defined by the Kaplan and Norton model.

3. Do you think it is important to consider the non-financial (customer satisfaction, staff turnover, etc.) indicators in the decision process?

☐ YES

☐ NO

4. Would you agree that the more non-financial indicators the financial analysts use the more important the financial predictions are?

☐ YES

☐ NO

5. What indicators should the managerial accounting use in order to assist the University's financial policy?

○ Income growth

○ Costs reduction

○ Assets usage (the strategy for investments)

○ Other_____

6. What indicators should the managerial accounting use in order to assist the University's assessment of activities policy?

○ The number of new services, publications, products available

○ The required time for the development of a new service, publication, product

○ The percent of books/materials/publications required by the students and provided from the owned book fund

○ The number of necessary hours for the preparation of academic and administrative staff

○ The number of attendances / absences made by the academic and administrative staff

○ Other_____

7. What indicators should the managerial accounting use in order to assist the University's assessment of organizing capacity policy?

○ The professional degree of academic and administrative staff;

○ The process of implementing the staff's suggestions;

○ The ease with which the informational system is used;

○ The number of published research papers;

○ The number of grants approved;

○ Other_____

8. What indicators should the managerial accounting use in order to assist the University's assessment of customer (students) satisfaction policy?

○ Market share;

○ Number of students;

○ Customer satisfaction (students);

○ Customer turnover (students);

○ Required time for customer satisfaction (students);

○ Other_____

9. Would you agree that establishing the value of staff and intangible assets is important?

☐ YES

☐ NO

10. Do you think it is necessary to consider the extended value chain in the managerial system i.e. the role of the personnel, suppliers and the community?

☐ YES

☐ NO

Thus, in order to visualize the financial policy (financial perspective) of the University, we established the following indicators: income growth, costs reduction, assets usage (the strategy for investments). We gave the possibility to identify other indicators that the applicant considers relevant for this subject.

The University's policy to assess its activity (the Internal Business Perspective) was quantized based on the following indicators: the number of new services, publications, products available; the required time to develop a new service, publication, product; the percent of books/materials/publications required by the students and provided from the owned book fund; the number of necessary hours for the preparation of academic and administrative staff; the number of attendances or absences made by the academic and administrative staff. We gave the possibility to identify other indicators that the applicant considers relevant for this subject.

Regarding the policy on assessing the University's organizational capacity (the Innovation and Learning perspective) we identified the following indicators: the professional degree of academic and administrative staff; the process of implementing the staff's suggestions; the ease with which the informational system is used; the number of published research papers; the number of grants approved. We gave the possibility to identify other indicators that the applicant considers relevant for this subject.

The customer (stakeholder) perspective was quantized based on the following indicators: market share; customer (students) satisfaction; number of students; customer (students) turnover; required time for customer satisfaction (students). We gave the possibility to identify other indicators that the applicant considers relevant for this subject.

The need to implement BSC in the Romanian Universities is justified by their transition from public funded entities to entrepreneurial companies, and so their business agenda can aim at different processes. In this context, the strategy must be known, pursued and implemented at all levels within the organization. Also, the success of the BSC implementation relies on the existent communication between all the levels in the University and also between the University and the stakeholders.

11. Considering the entrepreneurial university as a "company", the business strategies refer to:

○ The process of teaching / preparing linked to knowledge implementation

○ The research process linked to the development of new knowledge

○ The process of interaction with the socio-economic environment that implies using the gained knowledge outside the academic environment (communication and marketing plan)

○ Other_____

12. Would you agree that the stakeholders must know and must be connected to the University's strategy?

☐ YES

☐ NO

13. Do you think it is important to assess periodically the established and followed strategies?

☐ YES

☐ NO

14. Would you agree that it is important to be able to change the business strategies / strategic objectives whilst?

☐ YES

☐ NO

15. Would you agree that the considerations of the financial-accounting department regarding the financial implications of each strategic objective should influence the decisions within the managerial team?

☐ YES

☐ NO

16. Do you think the drawn up of the financial budgets should be influenced by the University's qualitative performance?

☐ YES

☐ NO

17. Do you think it is important for the University to establish a link between the strategic objectives and the financial budgets?

☐ YES

☐ NO

18. Do you think it is important for the alignment of all organizational resources to follow the strategy's implementation?

☐ YES

☐ NO

19. Do you think it is important to make an analysis of the reactions related to the strategy implementation that would include the pursuance of the efficient financial budgeting allocation?

☐ YES

☐ NO

20. Would you agree that improving the University's performance is closely linked to the existent degree of communication between all organizational levels?

☐ YES

☐ NO

21. Do you think that the management of the University should give interest in understanding the relationships and the existent conditions between different organizational levels, departments, and staff?

☐ YES

☐ NO

22. Do you think that the management of the University should respect the traditional functional barriers?

☐ YES

☐ NO

Questions 11-22 from the questionnaire try to link the business strategy – the way in which the business strategy has an or has no influence on the financial budgets – the way in which the

financial budgets are influenced by the qualitative performance of the University – the qualitative performance relies on the fact that all the stakeholders are familiar with the University's strategy – improving the University's performance is closely linked to the existent communication degree between all the organizational levels.

CONCLUSIONS

This paper is only the beginning of a vast research project on BSC implementation in the public Romanian Universities. This system generates, but even more than that it also justifies, the performance measures that will allow a performance management in Universities based on strategy and quality. The experience of other Universities, especially the Anglo-Saxon ones, shows that there are chances of success.

The scope of the present approach is to test the way in which the Romanian public sector, specially the Universities, react to the new presented concept. The practical part of this approach was the development of a questionnaire that would give answers to the major challenges of the BSC concept. This is the reason why we did not insist on pursuing the elements necessary to actual develop and implement the concept, as these will be the subject of future research.

The fact that the researched subject is so new made the personal contribution to aim at a wide range of aspects, out of which we underlined at least two levels. The first one refers to the skimming of the theories related to the BSC concept on three levels: the private sector considered the first to implement the BSC concept, the public sector that succeeded in undertaking and adapting this concept to its own characteristics and the last, as a component of the public sector but with particular characteristics, the Universities. The second level refers to the possibility of implementing the BSC concept in the public Romanian Universities, one subject that has not yet been researched at a national level. We tested this possibility by developing a questionnaire that enables us to obtain answers to the issues raised by this new concept.

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