

## THE BALANCED SCORECARD CONCEPT APPLICATION AS AN ACCELERANT OF ORGANIZATIONAL STRATEGY IMPLEMENTATION QUALITY

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### ABSTRACT

*The purpose of this paper is to present results of the investigation, which has conducted in Bosnia and Herzegovina during the last two years. The research model has created to associate certain familiar operational managerial concepts to every balanced scorecard concept perspective. The intention of the investigation is to measure the impact intensity of the balanced scorecard model variables to the organizational strategy implementation quality and the financial results of the domestic companies. The sense of the model is an assumption that knowledge management, total quality management and customer relationship management represent main elements of first three balanced scorecard perspectives and the intensity of properly using its postulates has a positive influence to the other balanced scorecard perspectives and especially, to the strategy implementation quality and better financial results. For testing and confirmation of research model it has been used apart the methods of the descriptive statistics analysis as well as multiple regressions and correlation analysis and other appropriate statistical methods.*

**Keywords:** Balanced Scorecard Concept, Business Measurement System, Strategy Implementation Quality, Strategy Cause-Effect Map, Partially Mediated Model

### 1. INTRODUCTION

In today's dynamic, highly competitive environment, organizations must devote significant time, as well as human and financial resources to measuring their performance in achieving strategic goals. Therefore, organizations must implement an appropriate strategic management concept and performance measurement system, which is suitable for capturing the value of intangible assets such as employee satisfaction, innovation, and customer and supplier relationships to describe and implement their strategies in a properly way. In fact, the importance of strategy in general and quality of strategy implementation specially is more important today than it has ever been before. The balanced scorecard has emerged as a proven and effective tool in organization's quest to capture, describe, and translate intangible assets into real value and allow organization to implement differentiating strategies successfully.<sup>1</sup>

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<sup>1</sup> Niven R. Paul, (2002/28), *Balanced Scorecard-Step by Step (Maximizing Performance and Maintaining Results)*, John Wiley & Sons, Inc., New York.

Diagnostic feedback into various processes has to guide organizations to improvement their non-financial and financial results and strategy implementation quality on a continuous basis. Most of strategic management authors agree that implementation of an organization strategy is more difficult than its formulation. Many investigations of implementation and formulation strategy indicate these facts. Thus, for example, 35 percent strategy implementation improving in a company means 30 percent grow of company value for various stakeholders especially shareholders, but only 10 percent companies succeed to implement their strategy in the right way. By the year 2006, over half of the Fortune 1000 companies in the United States have implemented the balanced scorecard concept.<sup>2</sup> It means that if management wants to measure company performances and drive value, the balanced scorecard concept is possibly the best strategic management system that could be implemented.<sup>3</sup> These facts, mentioned above, were the key reason and inspiration for the investigation, which has conducted in Bosnia and Herzegovina and described hereafter.

### **1.1. Balanced Scorecard Perspectives Explanations**

The main perspectives, which balanced scorecard concept consists, are The Learning and Growth Perspective, The Internal Business Process Perspective, The Customer Perspective, The Financial Perspective and The Strategy Implementation Quality Perspective. The Learning and Growth Perspective is the main perspective of balanced scorecard concept. It includes employee education and training in order to develop employee potential and performance to setup corporate cultural attitudes related to both individual and corporate behavior and improvements. The next perspective is internal business process perspective and the metrics based on this perspective allow the managers to know how well their business is running, and whether its products and services conform to customer requirements and the organization mission. The customer perspective is the third perspective and it represents recent management philosophy, which has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. These metrics represent set of leading «final» indicators and if customers are not satisfied, they will eventually find other suppliers that will better meet their needs. The financial perspective is the next balanced scorecard perspective, but this is not the end of balanced scorecard concept working, understanding and explanations. This perspective is very important because it represents clear quantitative aspects and expression of the whole aspects of business.<sup>4</sup> This financial perspective could have been explained through the prism of two concepts such as value based management and economic value added elements, activities and indicators. The fifth perspective is Strategy Implementation Quality Perspective, which is direct on integral observation of organization functioning quality. Finally, using balanced scorecard concept creates some platform for better quality of organization strategy implementation and the consequence of that are better financial results of the company.

## **2. RESEARCHING PROCESS CONDUCTED IN BOSNIA AND HERZEGOVINA**

Investigation questionnaire was built according to perspectives of the balanced scorecard concept. The investigation has comprised of 102 organizations in Bosnia and Herzegovina during the last two year. The model have posted so that quality of strategy implementation is a dependent

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<sup>2</sup> Kaplan, R., S., and Norton, D., P., (2006/85) Alignment, Using the Balanced Scorecard to Create Corporate Synergies. Harvard Business School Press, Boston, MA.

<sup>3</sup> Niven R. Paul, (2005/11), Balanced scorecard Diagnostics-Maintaining Maximum Performance, John Wiley & Sons, Inc., Hoboken, New Jersey.

<sup>4</sup> See: Lawrie, Gavin, (2003/4), Combining EVA with Balanced Scorecard to Improve Strategic Focus and Alignment, 2GC Active Management Limited.

variable of first three balanced scorecard perspectives with presumption that there is their significant impact on strategy implementation quality and financial position in B&H companies. Working through the balanced scorecard process enables management to define those key perspectives and their indicators that will drive the business to success, as well as to define how to measure them. Balanced scorecard methodology translates strategy into concrete business action through added value chain propositions.<sup>5</sup> Communicates strategic objectives is very important for every organization and the best way for reaching that goal is harnessing strategy map. To maximize effectiveness of a strategy map's communication ability, it is necessary to create accompanying story that brings the map to life in the minds of employees. Because that balanced scorecard concept is appropriate tool that is able to communicate understandable information to all employees on all levels of an organization.

## 2.1. Balanced Scorecard Researching Problems in Domestic Organizations

The main goal of the researching process was to define the intensity of using some aspects of balanced scorecard concept in organizations in Bosnia and Herzegovina and relationship between balanced scorecard model variables (perspectives). For testing of balanced scorecard using possibilities, it is used adapted structural equation model called Partially Mediated Model, developed by Norton and Kaplan in the only start. The main researching goal was to investigate whether better strategy implementation quality appears as a consequence of simple mechanism beginning with the employee's education and culminating with better financial outcomes in B&H organizations. It means that the using model represents a mix of the Partially Mediated Model and the Fully Mediated Model, which allows us to use complex cause-effect relationships using structural equations system in a following way:

$$\begin{aligned}
 SKN_{TQM} &= a_0 + a_1 KMG + \varepsilon_1 \\
 QIP_{CRM} &= b_0 + b_1 TQM + b_2 SKN + \varepsilon_2 \\
 CSF_{SIM} &= c_0 + c_1 CRM + c_2 SKN + c_3 QIP + \varepsilon_3 \\
 SIM_{VBM} &= d_0 + d_1 BSC + d_2 SKN + d_3 QIP + d_4 CSF + \varepsilon_4 \\
 &\quad \downarrow \dots \dots \dots \\
 FIN &= e_0 + e_1 SIM + \varepsilon_5
 \end{aligned}
 \quad \dots (1)$$

Apropos:

$$\left. \begin{aligned}
 SKN_{TQM} &= a_0 + a_1 KMG + \varepsilon_1 \\
 QIP_{CRM} &= b_0 + b_1 TQM + b_2 SKN + \varepsilon_2 \\
 CSF_{SIM} &= c_0 + c_1 CRM + c_2 SKN + c_3 QIP + \varepsilon_3 \\
 SIM_{VBM} &= d_0 + d_1 BSC + d_2 SKN + d_3 QIP + d_4 CSF + \varepsilon_4
 \end{aligned} \right\} \Rightarrow FIN = e_0 + e_1 SIM + \varepsilon_5 \quad \dots (2)$$

This model could be presented graphically, using specific kind of cause-effect strategy map tool as can be seen at the figure 1.<sup>6</sup>

The model works in a way that every independent variable, there is no matter if they are Skills and Knowledge of employees ( $SKN_{TQM}$ ), Quality of Internal Processes ( $QIP_{CRM}$ ), Customer Satisfaction ( $CSF_{SIM}$ ), Strategy Implementation Quality ( $SIM$ ) or as a consequences first four variables, Financial aspects ( $FIN_{VBM}$ ), depend successively from some number of variables which correspond to the balanced scorecard perspectives.

<sup>5</sup> Kaliski, S., Burton, (2007/13) Encyclopedia of Business and Finance, Second edition, MacMillan Reference USA.

<sup>6</sup> Adapted: Bryant, L., Jones, D.A., Widener, S.K. (2004), 'Managing value creation within the firm: an examination of multiple performance measures', Journal of Management Accounting Research, Vol. 16 pp.115 (modified)

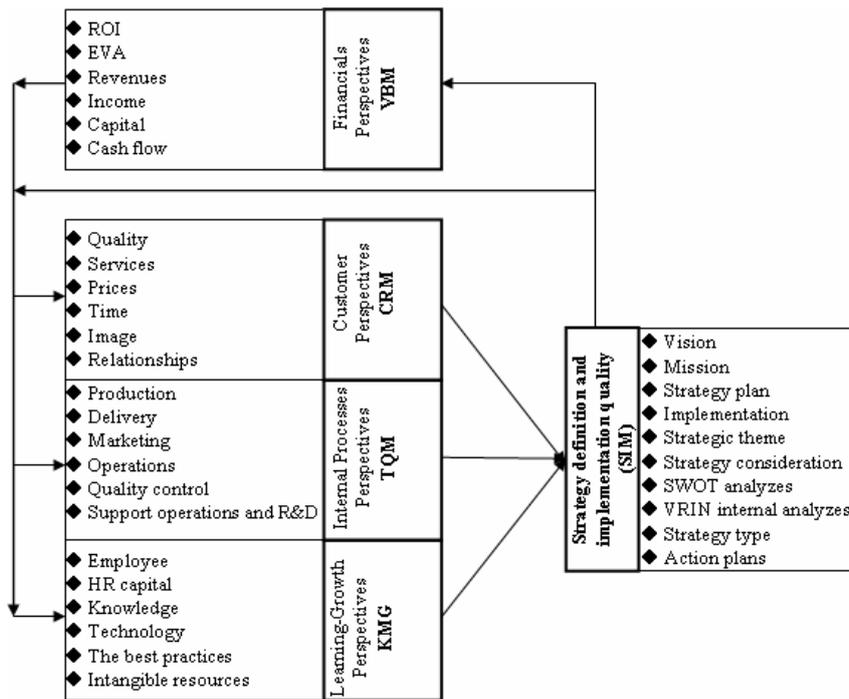


Figure 1. Cause-effect Relationship Between Variables of The Balanced Scorecard Model

For example The Learning and Growth Perspective which, in general, represents Knowledge Management activities (*KMG*), The Internal Business Process Perspective which, in general, represents Total Quality Management (*TQM*), The Customer Perspective which, in general, represents Customer Relationship Management (*CRM*). Furthermore the way of strategy implementation and strategy frame for organizational managing is defined according to the balanced scorecard concept (*BSC*) and The Financial Perspective as depend variable of strategy implementation quality is defined by the Value Based Management (*VBM*). Letters  $a_0$ ,  $b_0$ ,  $c_0$ ,  $d_0$  and  $e_0$  represent parameters of the regression equations of the model or excerpts of the independent variables of the model posted on a vertical axis of coordinate system. The operator  $\varepsilon$  represents the residual of the structural model equations and is not especially explained, while the coefficients  $a$ ,  $b$ ,  $c$ ,  $d$ , and  $e$ , which are more than null, with some index numbers represent intensity of changing dependent variable when some of the independent variables has changed for one.

## 2.2. Presentation and Explanation of the Researching Results

During analyzes it is defined direct correlations between balanced scorecard concept using intensity and organizational strategy implementation quality and better financial success. It means that organizations, which invest more in first three balanced scorecard concept perspectives such as The Learning and Growth Perspective, The Internal Business Process Perspective and The Customer Perspective, implement their strategy more effective and have better financial results. It means that is necessary to investigate impact of knowledge management (The Learning and Growth Perspective) to the potential and performance of employees connected with their knowledge and skills for creating new product, services or defining the new business models.

It is confirmed that existing significant impact of knowledge management to the employee and organizational potential and to the quality of internal processes so the first stochastic equations of the model can be apprehended as a auxiliary hypothesis of this researching process. This relationship show scatter plot diagram, which indicates existing a linear

expected dependency between variations of the independent and dependent variable with very small standard error of regression and significant value of coefficient of determination and coefficient of correlation (figure 2.).

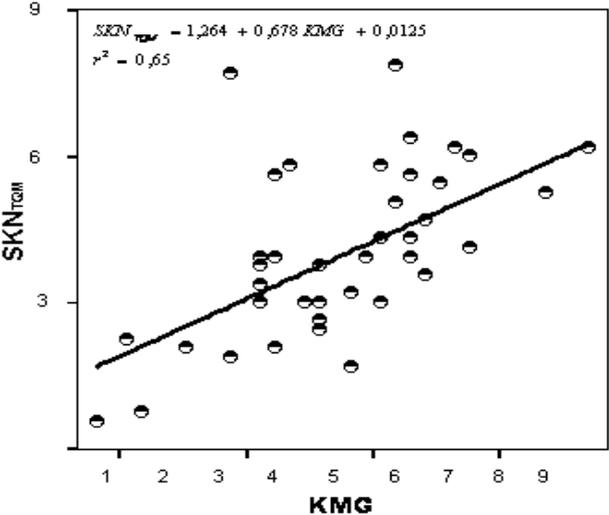


Figure 2. Impact of The Learning and Growth Perspective to The Internal Processes Perspectives

The investigations and testing show that there is a linear regression and enough high intensity of correlation and there is a good accordance of these two variables variation and the line is positive increasing shape and show existing a positive relationship between knowledge management and skills and knowledge of employees which has a positive impact on internal business processes. According to this analyze, which has done during this investigation and testing it could be easily seen that the first model equation looks as follow:

$$SKN_{TQM} = 1,264 + 0,678 KMG + 0,0125 \quad \dots (3)$$

From this equation which is product of analyze of concrete data one can see that parameter  $a_0$  equals 1,264 , while parameter  $a_1$  equals 0,678, so it means that every increasing of implementation knowledge effort inside The Learning and Growth Perspective for one, results with 67,8 percent of improving employee potential and using of principles of TQM and progress of internal business process. Coefficient of determination is  $r^2 = 0,65$  and it means that the variations of the mean, which describes potential of employees and their skills and knowledge, have significant influence to TQM and internal business processes and determine it with 65%. It is possible to infer that there is enough high coefficients of correlations and it means that there is good stochastic relationship between independent and dependent variable with means that the first researching auxiliary hypothesis which assumes existing positive correlation relationship between variables stated before, can be accepted.

Partially analyzing which is, earlier, presented makes justifiable basis for continuing of this investigation connected to the researching presumptions proving. Through additional analyzes of the researching data, using the multiple regression and correlation, there are the results which show that it exist a significant impact of total quality management and knowledge management to the quality of internal organizational processes apropos customer perspective elements of the model. It means that there is a positive correlation between quality of internal processes and client satisfaction, where its consequence and the regression curve, looks as follow:

$$QIP_{CRM} = 0,243 + 0,333TQM + 0,563SKN + 0,0118 \dots (4)$$

From the equation presented before it could be concluded that every change in improving of TQM for one, generate improving quality of internal processes for 33%, apropos customer satisfaction «ceteris paribus». Furthermore, every change of knowledge management through skills and knowledge of the employees for one generate 56% percent of improving internal processes quality apropos customer satisfaction «ceteris paribus» and it means that there is significant correlation between independent and dependent variables in this equation of the model. It means that the variation of features, which describes quality of internal processes, apropos customer satisfaction determined with the features variations, which describe the height of the employee potential, which are consisted of the skills and knowledge of employees and intensity of TQM implementation apropos customer perspective elements. The same proceeding is simultaneously analyses with all other variables in a cascade way according to the balanced scorecard model and it shows that there is a significant correlation relationship between intensity of using principles of balanced scorecard concept and strategy implementation quality.

### 3. CONCLUSION AND RECOMMENDATION

The results of this research could be very important for business practice and managers of domestic companies for constantly searching for methods and resources of the sustainable competitive advantages. This model can help for finding strategic answers to the continuous pressures put on efforts to improve the business performance quality. In the applicability sense, the investigation contribution could be seen through two following sense. The results and findings of the empiric analysis, according to the tested balanced scorecard conceptual model, indicated the concrete problems in domestic organizations thus bringing this problem issue closer to the average manager in Bosnia and Herzegovina. According to the antecedents of the balanced scorecard concept, the significance of the top-management in the creation of the ambience, organizational culture, acceptance and implementation of the above concept has confirmed as inviolable contemporary business wisdom. The range of possible interventions is large but this researching regards a good base to spur the company quality running and its development.

### 4. REFERENCES

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