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ANALYSIS OF THE APPLICATION OF STRATEGIC MANAGEMENT TOOLS IN INSURANCE COMPANIES IN BOSNIA AND HERZEGOVINA

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SUMMARY: Insurance companies as financial institutions and institutional investors occupy a particularly prominent place on the global level. They also have a clear role in the market of Bosnia and Herzegovina, which, although unregulated from an insurance perspective, has an impact on the economic development of our country. This is primarily in the function of protecting business entities and individuals by accumulating funds in the form of a fund from which significant funds are drawn to cover the risks assumed. The laws of supply and demand rule the market, and insurance companies have the task of satisfying all interest groups in that process but also achieving their goals. The race of insurance companies exclusively for insurance premiums is clear, while the fundamental aspects of the insurance profession and the management of such companies are ignored, without a clearly defined mission, vision and strategy. In conditions of constant and dynamic changes, managers have no choice but to set and continuously review implemented business strategies to make effective long-term decisions. The question is, how are managers prepared in every respect to respond to the challenging demands of the market and the times we live in. Continuous learning is the best answer to such a question. Today, there are various tools and methods used in strategic management. Unlike traditional methods, modern methods used in strategic management of organizations deal with harmonizing activities set by the mission, vision and strategy with the aim of improving internal and external communications, while constantly watching organizational performance following strategic goals. This paper aims to investigate and decide which tools and practices of strategic management are used by insurance companies in Bosnia and Herzegovina. The results of the research consistently confirm the statistical significance of the impact of the level of professional knowledge and the application of modern strategic management tools in relation to the total income or total expenses of insurance companies. It was also seen that top managers of insurance companies do not have an important level of professional knowledge in the field of management fundamentals, and their other education in this segment is necessary.

KEYWORDS: Strategic management, Balanced Scorecard, insurance company, analysis, mission, vision, strategy, performance.

I. INTRODUCTION

In modern business conditions, the competitive success of a company depends primarily on its ability to engage and effectively use its intangible resources, on the ability to quickly adapt to constantly changing environmental conditions and to recognize and satisfy the changing needs and specific requirements of consumers or service users before others. The use of traditional methods for measuring the performance and control of a company, based primarily on a traditional system, is no longer sufficient in modern business conditions to meet the stated needs of a company. As a result of the need for a company to have and use more adequate methods for measuring business performance that would better respond to modern business conditions and modern requirements for successful management of a company, a whole series of modern methods for measuring the performance of a company have emerged. Research that has had an impact on the formation of a series of performance measurement models in the past period, such as: the EFQM model of organizational excellence, the works of Schreurs and Moreau, Brown, Keegan et al. or Fitzgerald et al. pointed out the fact that the use of classical performance measurement methods based on the financial-accounting system of business operations is not sufficient to understand the entire process whose goal is to make quality management decisions.In organizations, managers most often ask themselves the following questions: How to formulate a development strategy? How to implement it in work-operational actions? How to respond to constant changes and customer needs? How to ensure the conditions for the organization to work stably in the long term and how to motivate employees to be ready for all challenges?

The conducted research aimed to introduce us to various strategic management tools used in insurance companies, the level of their knowledge and their impact on certain dimensions of insurance companies in Bosnia and Herzegovina.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Achieving optimal business results and organizational goals in a competitive environment, organizations opt for the implementation of modern models and methods of strategic management. By including as many dimensions and stakeholders as possible in the study of organizational performance, the Performance Prism was created, which in itself represents a widely divergent view. However, with further development of the initiative, a framework is formed and we also get a tool, or instruments, that provide managers with support in the process of managing organizations. In this sense, in relation to the previously elaborated concept of the Balanced Scorecard, which also represents a widely divergent view, it is also a framework and tool that provides managers with support in managing organizations and which they can adapt to their needs.The EFQM organizational excellence model was created in 1992 and was developed by the European Foundation for Quality Management (EFQM). This model, like its American counterpart The Malcolm Baldridge Quality Award, was not primarily developed as a framework for measuring performance but for the awarding of European quality awards. The BSC and EFQM models are non-prescriptive frameworks or templates for measuring organizational performance, with the BSC concept being more flexible for adapting to the specific needs of organizations.

Schreurs and Moreau (2006) proposed using a unified model for measuring organizational performance that combines the BSC concept and the EFQM model of organizational excellence, with the primary role of the EFQM model being in self-evaluation, and the establishment of indicators and performance measurement being carried out through the Balanced Scorecard. Brown (1996), as the author of the Organizational Macro-Process Model, pointed out a clear connection between the five phases of a business process and the performance measures of those processes. The phases mentioned are: inputs, processing, outputs, results and objectives. This model demonstrates how inputs affect processes and ultimately objectives. Keegan et al. (1989) developed the Performance Measurement Matrix as a response to the need to introduce balanced measures of organizational performance. According to this matrix, organizational performance measures are categorized depending on whether they are cost or non-cost, internal or external.

Fitzgerald et al. (1991), presented the Model of Causality of Results and Its Determinants, which distinguishes two types of organizational performance measures, those that are related to results (competitiveness, financial performance) and those that are focused on the determinants of results (quality, flexibility, resource utilization and innovation). The environment in which modern companies operate is becoming dynamic, diverse, challenging, unpredictable and with many discontinuities. The only certainty in organizational life is the certainty of change, and the only stability is stability in movement. For this reason, we can ask a number of questions, such as: how to formulate a development strategy for a modern economic company, how to implement the strategy into operational actions with the aim of achieving planned performance and how to ensure that the company operates stably in the long term.

In accordance with the above, we propose the following research hypotheses:

H1: "Top managers of insurance companies do not have a sufficient level of knowledge in the field of strategic management and are therefore oriented towards traditional strategic management tools;

H2: "A higher level of knowledge and application of modern strategic management tools contributes to the achievement of higher total revenues for insurance companies."

H3: "A higher level of knowledge and application of modern strategic management tools contributes to the reduction of total costs in insurance companies."

III. METHODOLOGY

The subject research was conducted in Bosnia and Herzegovina within the insurance sector. Out of a total of 27 insurance companies in the entire territory of Bosnia and Herzegovina, 13 of them submitted feedback with a response rate of 48.15%. A structured questionnaire was used for the research. The questionnaires were delivered to the respondents (top managers of insurance companies) directly - via e-mail or fax. The structure of the questionnaire for the purposes of data collection is based on a complex algorithm in which the basic research sets are defined as follows:

- Assessment of general and professional knowledge in the field of management;
- Missing professional knowledge and skills of strategic management;
- Basic financial indicators;
- Internal business process indicators;

- Customer indicators;
- Employee training and development indicators;
- Socio-demographic characteristics of the respondents;

Statistical data processing was carried out using IBM SPSS Statistics v.22 and MS Excel. Absolute and percentage frequencies, as well as arithmetic means with associated standard deviations, were calculated from descriptive statistical parameters. Non-parametric statistical methods were applied when testing hypotheses. The Kruskal-Wallis H test was used to test three independent samples, while the Spearman rank correlation was used to test the relationship between variables. Measurement scales were also used as one of the instruments used in the survey data collection method. The Likert scale was used in particular as a descriptive scale. In order to make a decision on the application of parametric or non-parametric statistical methods, before testing research hypotheses, the normality of the frequency distribution was checked for variables expressed on quantitative scales. Hypothesis testing was carried out at an alpha level of 95%, i.e. with a 5% risk. Research results are presented in tables and graphs.

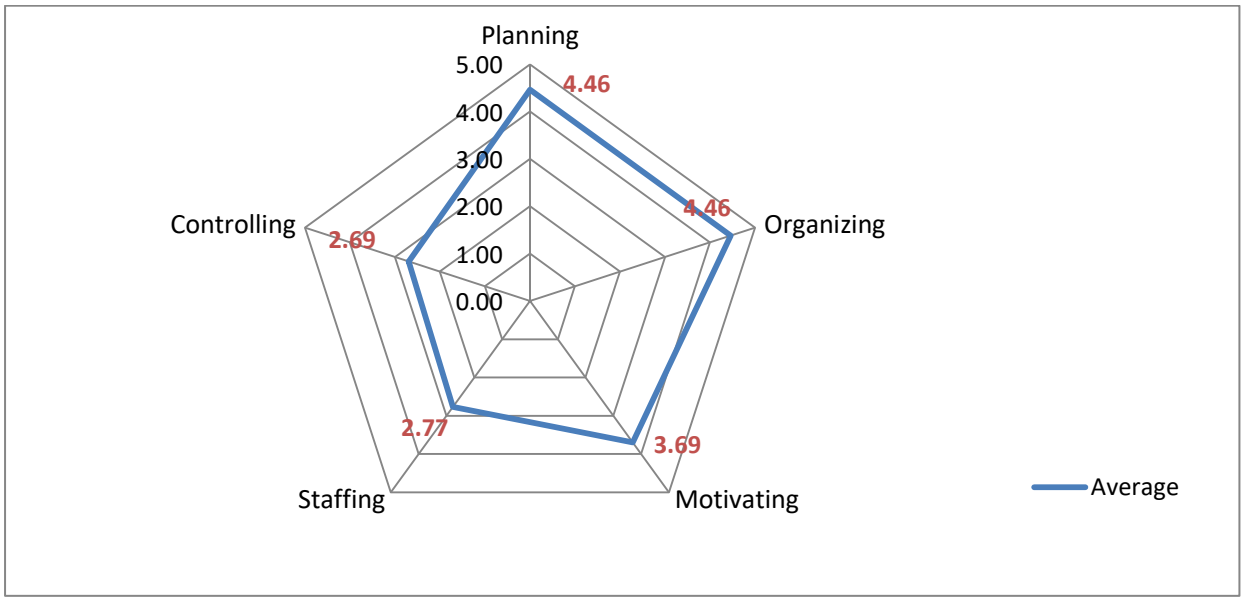
IV. RESULTS

The first step in the research analysis was to assess the reliability of the measurement scales used in the questionnaire. Reliability is determined by Cronbach's alpha coefficient, which shows the degree of internal consistency of statements, and its values can vary between 0 and 1. The closer the value is to 1, the greater the precision and stability of the measuring instrument. Based on the collected results and their analysis, it can be concluded that the measuring instruments used in this research have a high degree of reliability, which ensures the credibility of the collected data.

Analysis of the assessment of the general and professional level of knowledge of strategic management and strategic management tools in insurance companies

According to the opinions expressed by the respondents in the conducted research, insurance companies have the greatest knowledge of planning and organization (Average=4.46), while they have the least knowledge of control (Average=2.69) and staffing (Average=2.77), which is presented in Chart 1. Regarding the key elements of organizational design, the respondents believe that strategy comes first, then organizational structure, employee competencies and skills, while the reward system comes last.

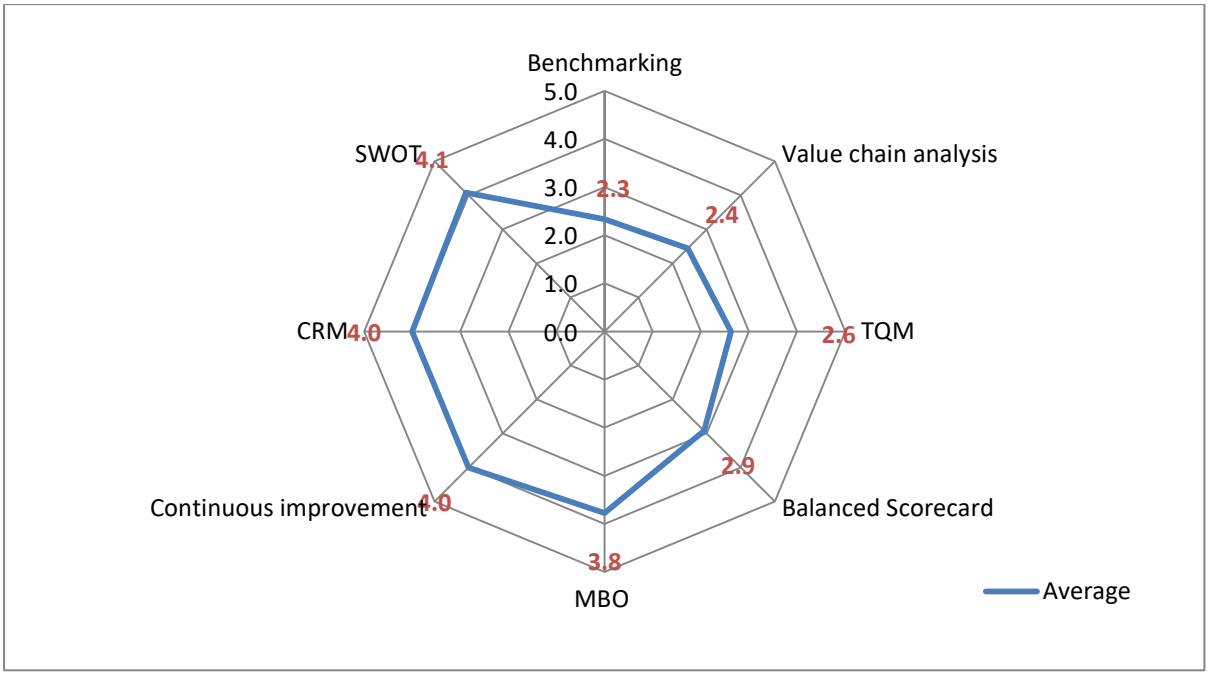
Chart 1. Average level of knowledge in various areas of management



The highest level of knowledge about strategic management tools that insurance companies have is SWOT analysis (Average=4.1), followed by CRM (Average=4.0), continuous improvement (Average=4.0), and MBO (Average=3.8), while the lowest level of knowledge is Benchmarking (Average=2.3) and value chain analysis (Average=2.4), as can be seen in Chart 2. More than 1/2 of respondents believe that CEOs of insurance

companies in Bosnia and Herzegovina use strategic management tools well, while 15% of respondents believe that CEOs do not use such tools enough.

Chart 2. Average level of knowledge on strategic management tools in insurance companies



From the previous graphs, it is clearly visible that the responsible persons in insurance companies do not have a sufficient level of basic knowledge in the field of management and that in their strategic decisions they are still oriented towards traditional strategic management systems, indicating statistically significant indicators that confirm that modern strategic management tools are not used sufficiently in insurance companies, which confirms the first hypothesis H1.

The results show that there is a synergy between the level of general and professional knowledge in the field of strategic management and the level of application of strategic management tools in insurance companies, which results in useful guidelines for raising the level of competence through additional training and development systems for top managers of insurance companies.

Analysis of the connection between the level of knowledge and the impact of different strategic management tools on the total revenues of insurance companies

Spearman's rank correlation was used to examine the connection between the level of total revenues of insurance companies and the level of their knowledge of various strategic management tools (Table 1). A moderately strong positive correlation was found between the level of knowledge about the Benchmarking system, Balanced Scorecard, continuous improvement, value chain analysis, MBO and the amount of total revenues of insurance companies. Based on the results, we can say that insurance companies with a higher level of knowledge about the above areas usually achieve higher total revenues.

Table 1. Relationship between the level of knowledge about strategic management tools and total revenues of insurance companies

		Total revenue of the insurance company (KM)
TQM - Total Quality Management	rho	0,370
	p	0,470
	n	6
SWOT analysis	rho	-0,171
	p	0,615
	n	11
Benchmarking	rho	**0,507**
	p	0,135
	n	10
Balanced Scorecard	rho	**0,477**
	p	0,138
	n	11
Continuous improvement	rho	**0,593**
	p	0,121
	n	8
Value chain analysis	rho	**0,558**
	p	0,193
	n	7
MBO - Management by Objectives	rho	**0,449**
	p	0,312
	n	7

n-sample size, rho-Spearman's rank correlation coefficient, p-probability of rejecting the null hypothesis at a risk of 5%,

Spearman's rank correlation was used to investigate the relationship between the total revenue of insurance companies and their level of knowledge on various strategic management tools. A moderately strong positive correlation was found between the level of knowledge of strategic management tools and the total revenue of insurance companies. From the previous graph it is clearly visible that the higher the level of knowledge of certain strategic management tools, the higher the total revenue of insurance companies. In addition, it is evident that modern, unlike traditional strategic management tools, also contribute to the increase in total revenue of insurance companies, indicating statistically significant indicators, which also confirms the second hypothesis H2.

The results show that if we want to have growth in total revenue in insurance companies, then the level of knowledge and application of modern strategic management tools should be at a high level.

Analysis of the relationship between the level of knowledge and the impact of different strategic management tools on the total costs of insurance companies

The relationship between the level of knowledge about strategic management tools and the total costs of insurance companies was also analyzed. Spearman's rank correlation coefficient showed a medium-strong positive correlation between the total costs of insurance companies and the level of knowledge about strategic management tools such as: Benchmarking, Balanced Scorecard and Value Chain Analysis, which is presented in

Table 2.

Table 2. Relationship between the level of knowledge about strategic management tools and the total costs of insurance companies

		Total costs of the insurance company (KM)
TQM - Total Quality Management	rho	-0,316
	p	0,684
	n	4
SWOT analysis	rho	-0,142
	p	0,716
	n	9
Benchmarking	rho	**0,643**
	p	0,086
	n	8
Balanced Scorecard	rho	**0,618**
	p	0,076
	n	9
Continuous improvement	rho	0,235
	p	0,653
	n	6
Value chain analysis	rho	**0,527**
	p	0,361
	n	5
MBO - Management by Objectives	rho	0,213
	p	0,686
	n	6

n-sample size, rho-Spearman's rank correlation coefficient, p-probability of rejecting the null hypothesis at a risk of 5%,

Spearman's rank correlation coefficient showed a moderately strong positive correlation between the total costs of insurance companies and the level of knowledge on strategic management tools. From the previous graph, it is clearly visible that the higher the level of knowledge of certain strategic management tools, the lower the total costs of insurance companies. In addition, it is evident that modern strategic management tools have a greater impact on reducing the total costs of insurance companies compared to traditional ones, indicating statistically significant indicators, which also confirms the third hypothesis, H3.

The results clearly show that if we expect a reduction in total expenses in insurance companies, then the level of knowledge and application of modern strategic management tools should be at a higher level than the current one.

V. DISCUSSION

The analysis of the level of knowledge and application of modern strategic management tools has been proven by research conducted in the insurance sector in Bosnia and Herzegovina. The research results confirm and build on the results of previous studies that dealt with similar topics. The first hypothesis (H1) on the analysis of the assessment of the general and professional level of management knowledge and strategic management tools in insurance companies was confirmed by the analysis of the level of knowledge of key management elements such as planning, organizing, motivating, staffing and control. The assessment of the level of knowledge in the above areas showed that the lowest level of knowledge is in the area of control (average 2.69) and the highest in the areas of planning (average 4.46) and organizing (average 4.46). In addition, the analysis of the level of knowledge of certain strategic management tools showed that the highest level of knowledge is in the area of SWOT analysis (average 4.1) and the lowest in the area of Benchmarking (average 2.3). These results confirm previous research that emphasizes that traditional strategic management tools are used to a greater extent in insurance companies.The second hypothesis (H2) was also confirmed, which refers to the connection between the level of knowledge about strategic management tools and the total revenues of insurance companies. Continuous improvement (rho=0.593) and value chain analysis (rho=0.558) were shown to be the most important predictors that have an impact on the total revenues of insurance companies. These results show that a higher level of knowledge and influence on the total revenues of insurance companies is on the side of

traditional strategic tools, unlike modern ones, of which it is worth highlighting the influence of the Balanced Scorecard (rho=0.477) on the total revenues of insurance companies. The third hypothesis (H3) was also confirmed about the positive connection between the level of knowledge and the influence of various strategic management tools on the total costs of insurance companies. The dominant tools that contribute to reducing the total costs of insurance companies were Benchmarking (rho=0.643) as a traditional strategic tool and Balanced Scorecard (rho=0.618) with the greatest impact as a modern strategic management tool. In these areas, the research showed that managers also possess the highest level of knowledge. Insurance sector organizations that implement strategies based on strategic management tools such as Benchmarking or Balanced Scorecard have the best chance of reducing overall costs.

VI. CONCLUSION

In order to be implemented as a system that will serve for the efficient implementation of the strategy, the concept of modern strategic management tools should be presented to all employees of insurance companies without exception. In addition, the organization's management should know professionally how and in what way to set up such a system in the organization. The concept also implies the competence of managers with a strong knowledge of the field of strategic management and special attention to the organizational structure, business processes, and conceptual knowledge and skills. Although the research showed that half of the respondents have adequate knowledge in the field of strategic management tools (with special attention to SWOT, continuous improvement, CRM or MBO), the concept of modern strategic management tools itself, the most important of which is the Balanced Scorecard, is still not sufficiently known. The advantage of modern strategic management tools compared to other tools or methods is that they do not take into account only and exclusively one sphere of business, but take into account crucial parts of an organization and establish clear cause-and-effect relationships. The "causality" system provides a completely different picture of the efficiency of an organization, and this also implies the setting of appropriate business strategies.

The results of the research consistently confirm the statistical significance of the impact of the level of professional knowledge and the application of modern strategic management tools in relation to the total income and total expenses of insurance companies. The most important research component in the part of the examination of the level of knowledge of basic management functions clearly indicates an insufficient level of knowledge of basic managerial functions by the top management of insurance companies. What should be emphasized is that insurance companies in this context should pay additional attention and provide professional seminars and training for top management of insurance companies with the aim of optimal development of competencies. Given the confirmed statistical relevance, it can be concluded that insurance companies whose top managers possess a high level of knowledge in the field of management and apply mainly modern strategic management tools achieve a significantly higher level of total income and lower total costs.The theoretical contribution of this research is reflected in the improvement of existing theoretical frameworks in the part of the general and professional knowledge of top managers in the field of management, their missing professional knowledge and skills in strategic management, as well as the relevance of the application of certain strategic tools.The social contribution of this research lies in the expanded understanding of the role and importance of the insurance sector in Bosnia and Herzegovina and the impact of their work on certain economic dimensions, as well as on the level of satisfaction of employees, as well as users of insurance products and services.

Future research aimed at optimizing the work of insurance companies through achieving a higher level of knowledge in the field of strategic management, with a special focus on the preparation and implementation of strategies using modern strategic tools, will, among other things, be focused on:

- Research to what extent insurance companies comply with the strict application and control of legal and insurance legislation by the Insurance Supervision Agency, with the aim of achieving a satisfactory level of competitiveness in certain types of insurance prescribed by law;
- Research to what extent insurance companies organize seminars in the field of strategic management for the management of the organization, with a special focus on modern strategic management tools (Balanced Scorecard concept). The research has determined that the most significant limitation in the application of modern strategic tools is the lack of knowledge of the concept itself and the complexity of its implementation. Although managers are engaged in the implementation of a defined strategy in their daily activities, they are less dedicated to control and staffing, which was confirmed by the conducted research;
- Research to what extent insurance companies should strategically diversify their portfolio with innovative products, with the obligation to use market research and examine the needs of potential users, and in no case base their sales potential strategically oriented exclusively on one type of insurance and one product (directly affects the efficiency and business performance of the insurance company);

- Research the extent to which insurance companies promote team spirit, ethical behavior at all times, and provide a transparent system of employee motivation, as well as the extent to which the demands and needs of insurance users are built into the product, and examine the social responsibility of insurance companies;

The main limitation of this research is that it was conducted only in the insurance sector. It cannot be confirmed with certainty that the results obtained could also apply to other business areas (banking, metallurgy, chemical industry, automotive industry, mining, etc.) that differ in their internal business processes compared to insurance companies. Also, the assessment of the level of basic managerial knowledge, as well as the level of application of modern strategic management tools, may be subject to the subjective interpretations of managers, which may additionally affect the relevance of the collected data. In addition, the impact of modern strategic management tools on total revenues or expenses may differ depending on the industry, so future research for certain sectors would provide a more efficient understanding of these differences. These limitations confirm the need for future research that should include larger sets of respondents, and combine modern quantitative with qualitative methods, which will optimize the results and present more efficient conclusions.

REFERENCES

1. Bakotić, D., (2013), Contemporary Models for Measuring Organizational Performance, professional paper, p. 376,;
2. Bossidy, L., Charan, R., Burck, C., (2002), Execution: The Discipline of Getting Things Done, Crown Business;
3. Brown, M. G., (1996), Keeping Score: Using the Right Metrics to Drive World-Class performance, New York: Quality Resources;
4. Ćirović, M., (2009), Strategic Management, Scientific Society of Serbia, Singidunum University;
5. Dess, G. G., Lumpkin, G.T., Eisner, A, B. (2007), Strategic Management, Data Status, Belgrade;
6. Dobrović, Ž., Tomović, M. (2007), Performance measurement in Public sector organization – Implementation of BSC, Vilnius;
7. Drucker, P. F., (1995), Managing in a Time of Great Change, New York;
8. Džunić, M., (2009), Strategy for the Best Results, Ekonomist Magazine No. 467;
9. Đokić, I., Managing Corporate Change Using the Balanced Scorecard, available at www.cqm.rs;
10. Fitzgerald, L., Johnston, R., Brignall T. J., Silvestro, R., Voss, C. (1991). Performance measurement in service organizations, Management Accounting, 34-36;
11. Gajić, B., Economic Annals No. 161, April 2004 – June 2004, available at www.doiserbia.nb.rs;
12. Golijanin, G., (2010), Marketing in Trade, Singidunum University, Belgrade;
13. Hrebiniak, L.G., (2005), Making Strategy Work - Leading Effective Execution and Change, Wharton School Publishing;
14. Jobber, D., Fahy, J., (2006), Osnovi marketinga, Data Status, Belgrade;
15. Kaličanin, Đ., Economic Annals no. 158 July 2003 – September 2003, available at http://www.doiserbia.nb.rs;
16. Kaplan, R. S., (2008), Using Strategy Maps and the Balanced Scorecard to Describe and Implement Your Strategy, presentation material, Palladium Group Inc.;
17. Kaplan, R. S., Norton, D. P., (2008), Premium for success, FEFA, Belgrade;
18. Kaplan, R. S., Norton, D. P., (2008), The Execution Premium: Linking Strategy to Operations for Competitive Advantage, Harvard Business Press;
19. Kaplan, R. S., Norton, D. P., (2006), Alignment: Using the Balanced Scorecard to Create Corporate Synergies, Harvard Business School Press, Boston;
20. Kaplan, R. S., Norton, D. P., (1998), The Balanced Scorecard – Measures that Drive Performance, Harvard Business Review, January – February 1992 and HBR on Measuring Corporate Performance, Harvard Business Press;
21. Kaplan, R. S., Norton, D. P., (1996), Using the Balanced Scorecard as a Strategic Management System, Harvard Business Review, HBR on Measuring Corporate Performance, Harvard Business Press, Boston;
22. Keegan, D. P., Eiler, R. G., Jones, C. R., (1989), Are you performance measures obsolete?, Management Accounting, 45-50.
23. Kozarević, S., (2010), Risk management and insurance, CPA, Tojšići;
24. Leesemann, K., (April 2001), Cost Improvements - How CSC addresses this target in insurance business, IBM conference for insurers, Zagreb;
25. Lončarević, R., Mašić, B., Đorđević-Boljanović, J., (2007), Management: Principles, concepts and processes, Singidunum University, Belgrade;

26. Marr, B., Schiuma, G., (2003), Business performance measurement – past, present and future, Management Decision, (41), 8: 608-687.
27. Mašić, B., (2009), Strategic Management, Singidunum University, Belgrade;
28. Mašić, B., Džunić, M., Nešić, S., (2014), Contemporary Management Theory - Schools and New Approaches, Data Status, Belgrade;
29. Mašić, B., Džunić, M., Boljanović, J., (2011), Entrepreneurial and Strategic Component of Leadership - Key Factors of Economic Development, Proceedings of the International Conference "Economic Development through the Prism of Entrepreneurship", Faculty of Economics, Podgorica;
30. Nair, M., (2004), Essentials of Balanced Scorecard, John Wiley & Sons Inc., New Jersey;
31. Neely, A., Adams, C., Crowe, P. (2001), The Performance Prism in Practice, Measuring Business Excellence, (5), 2: 6-12.
32. Niven, P. R., (2007), Balanced Scorecard, Step by Step, Masmedia, Zagreb;