



3rd GLOBAL CONFERENCE on BUSINESS, ECONOMICS, MANAGEMENT and TOURISM,
26-28 November 2015, Rome, Italy

Role of Strategic Analysis in Strategic Decision-Making

Zuzana Papulova^{a*}, Andrea Gazova^a

^aComenius University in Bratislava, Faculty of Management, Odbojarov 10, 820 05, Bratislava

Abstract

The crucial role in strategic decision-making process has strategic analysis. It often brings the important information about evaluation and development of environment inside and outside the company and reveals possible opportunities and threats that need to be consider in strategic decision-making. In this paper we will discuss strategic decision-making process and possibilities how companies can improve their approaches in this process. We examined companies operating in Slovak Republic and evaluated their approaches to strategic decision-making, especially from view of application of strategic analysis and strategy formulation. Article presents the level of the application of strategic analysis and brings insights to current state of usage of analytical tools used in strategic management..

© 2016 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the Organizing Committee of BEMTUR- 2015

Keywords: Strategic decision-making; Strategic Analysis; Strategic Thinking; Types of Thinking;

1. Introduction

Strategic decision-making belongs to the one of the most important areas of current management and plays a crucial role in achieving success and survival of the company. In this connection, many researches are pointing out two important areas: the role of top management (Balta et al., 2009; Mussoa & Francioni, 2012) and the process of making strategic decisions (Rajagopalan et al., 1993; Papadakis, 2006). There is always an interest to improve strategic decision-making among both managers and researchers. Interest in improving the strategic decision-making is related to changes in current environment and to the difficulty that managers have to face in decision-making nowadays. The environment is constantly changing and is much more dynamic and less predictable than in the past. Changes in the environment have an exponential trend. In the past, changes were slower and much less

* Zuzana Papulova. Tel.: +4-345-434-2342.

E-mail address: Zuzana.Papulova@fm.uniba.sk

marked by the dynamics. Today, changes are much faster and bring trends, which previous generations of entrepreneurs and managers did not know about. We can look at the tempo of innovation, tempo of globalization, ongoing changes in legislation, in culture and in other parts of environment. These changes can bring new opportunities for companies' development, but also at the same time, they mean threats. Monitoring, researching and predicting the development of environment has become increasingly difficult, and these difficulties affect also decision-making of managers. Especially decision-making at strategic level is extremely difficult and demands new set of skills and approaches. We consider strategic analysis as crucial in strategic decision-making process. Strategic analysis brings the important information about evaluation and development of environment and also reveals possible opportunities and threats that need to be consider in decision-making. Therefore, the main purpose of our study is to search for the possibilities how to improve approaches to strategic analysis as a part of improvement of strategic decision-making. The aim of our research is to assess how managers in current praxis approach the strategic decision-making, what type of thinking they apply in strategic analysis and if performed analysis are truly in strategic nature.

The paper is organized as follows. After introduction, in the literature review we discuss the approach to strategic decision-making, brief development of various approaches and way of thinking used in strategic analysis. In the next section we describe the data and methodology of our research. The results of research and analysis are presented and summarized in the section Results. Last section summaries and concludes our main findings.

2. Literature Review

2.1. Strategic analysis in Strategic Decision-Making

Strategic decision-making is growing of importance because of the characteristics of strategic decisions (Papadakis & Barwise, 1998; Papadakis, 2006): they are large-scale, risky and hard to reverse; they are a bridge between deliberate and emerging strategies; they can be a major source of organizational learning; they play an important part in the development of individual managers and they cut across functions and academic disciplines. Strategic decision-making is crucial because it involves fundamental decisions which shape the course of a firm (Eisenhardt & Zbaracki, 1992), thus the approach to strategic decision-making should be considered very carefully. First we can look shortly at the some views and approach to decision-making.

The current environment is in constant motion and it is necessary to respond to ongoing changes. This knowledge is not new. As already ancient philosopher Heraclitus pointed out "Panta Rhei" - everything flows. The change and life are interdependent and interconnected. People can adapt to living in changing environment due to their thinking ability. We know how to monitor environment, how to identify the effects, how to understand and how to make decisions. The process of human thought reflected well-known philosopher Immanuel Kant (Kant & Smith, 2003) when he stated that all our knowledge begins with the perception, then proceeds to the understanding and ends with judgment/idea. On this basis, we can propose of model of thinking and decision-making (Fig. 1) to describe how people are reaching decisions or how the people should approach decision-making.

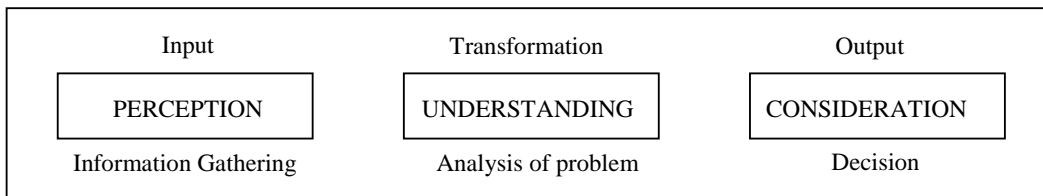


Fig. 1. The process of thinking and decision-making.

Decision-making is undoubtedly one of the basic management functions despite the fact that the founders of management theory (especially by Fayol) set the basic functions of management as planning, organizing, leading people and controlling (Robbins & Coulter, 2013). Decision-making has an important cross-cutting feature that is

organically incorporated into all other management functions. The importance of decision-making and the need for a separate investigation and improvement has begun to draw attention in the sixties of the twentieth century by H. Simon (1960), who pointed out the need to understand the decision-making as a process (Fig. 2).

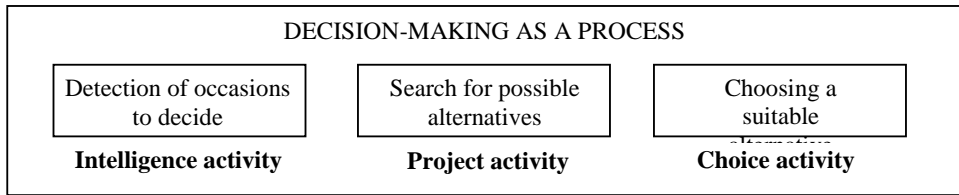


Fig. 2. Decision-making process by Simon.

The decision-making theory, which is based on the initiative of H. Simon, has begun to develop since then. Since that time, theory has created a multitude of analytical methods and techniques that are used in detecting opportunities, searching and developing of alternative solutions, as well as making choice of suitable alternatives to solve problems. Various techniques were created also for decision-making at the strategic level. Especially, the theory of strategic management provides us with many tools and techniques suitable for strategic analysis and for creating variants and appropriate solutions (Savanevicien et al., 2006). In strategic management, we usually recognize strategic management process, in which strategic decisions are based on understanding and prediction of environment development as a part of strategic analytical phase (Papula & Papulova, 2015). At Fig. 3 we can see that strategic analysis is the initial step for formulation of strategy and other strategic decisions. Based on results of analysis of external and internal environment, we are able to develop a strategy that will guide our progress in achieving the strategic objectives (David, 2013).

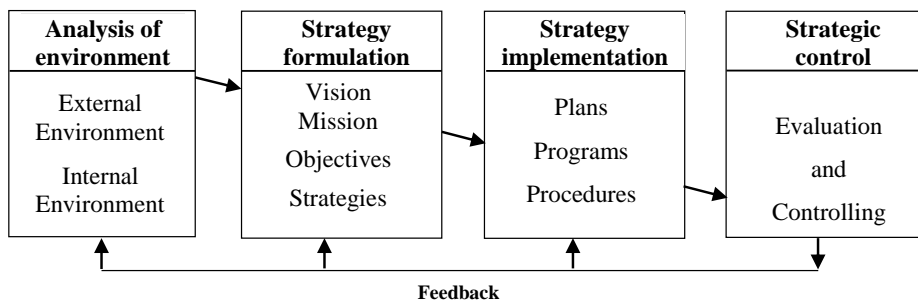


Fig. 3. Strategic Management Process.

Strategic analyses enable us to assess the initial situation, to evaluate the situation inside and outside of the company, to reveal the factors that will cause changes in the environment (David, 2013). We use analyses to uncover problems, to identify the underlying factors and to study their impact (Sternberg, 2009). Strategic performance also depends on resources and capabilities of the company and on understanding of their impacts (Volna, Papula, 2013). If within strategic decision-making we want to prepare a decision which will be timely and effective in the future, it should be based on anticipation of changes in the environment. Strategic analysis therefore should have an important role in strategic decision-making.

2.2. Approaches to strategic analysis in strategic decision-making

With the development of decision-making theory, managers have begun to apply analytical methods and procedures based on rational and logical thinking beside the traditional use of intuition. Methods and procedures proposed by theory were developed not only in detail but also verified in practice. Therefore they are recommended by theory as trustworthy. In a relatively stable environment of the past, they were also effective. But many of these techniques were created under different conditions and more stable environment as we face today. The amount of analytical methods and techniques that have been created only in the first half of the twentieth century, but especially in the fifties and sixties were widely applied. In countries with centrally planned economies, they were still widely used for nearly two decades to come (seventies and eighties). It was not only the analytical techniques developed within traditional financial analysis, but also the methods and techniques developed through operational research, which was based on economic-mathematical modeling and had a wide application particularly in the operational management (Robbins & Coulter, 2013). Ongoing changes in environment from the mid-seventies greatly restricted the application until quite successfully propagated and applied quantitative analytical calculations. Their implementation boosted the emergence and development of modern computer technology. Emerging petroleum, energy and economic crises in the mid-seventies strongly affected the application of analytical methods and techniques (Papula & Papulova, 2015). Many other changes and developments in the world nowadays are shaping environment that is usually characterized as dynamic, unstable and unpredictable. Monitoring, researching and predicting development of environment has become increasingly difficult, and the difficulty affects decision-making of managers. The world becomes ever more unstable, more disordered and more uncertain and hence requires more and more and better and better analytical tools for strategic decisions making (Bhushan & Rai, 2004) and better approach to strategic analysis. Changes in the environment have begun to put ever greater demands on the ability to predict future trends in the environment. In addition to previously successful and efficient rational and logical thinking, there is a need to apply more suitable approach called "strategic thinking". The essence of strategic thinking aptly characterizes Ohmae (1982), mainly by pointing its difference comparing to mechanical and intuitive thinking.

Managers in decision-making are using all three ways of thinking. In fact, they often do not realize positives or negatives of application of those procedures in the framework decision-making (Ohmae, 1982; Papula & Papulova, 2015):

1. Mechanical thinking is based on the application of rational and logical procedures that are generated by the theory and verified by the practice. It has many advantages. It applies scientifically developed analytical and analytical-synthetic procedures that managers engage in analytical processes. Using them, teams of professionals can develop credible and comprehensive solutions. Analytical procedures, and thus the decision-making process is generally time consuming, tedious, therefore inflexible and not innovative. In mechanical thinking, we use more rational and logical analyzes, that usually generate solution to removes the problems, but the solution itself is more conservative than creative. Conservatism of procedure is determined by adherence to proven and best practice in the past, and does not respect the ongoing changes in the environment. The application is rather still then dynamic and not on the course of changes in the environment. Bhushan and Rai (2004) also pointed out interesting aspect, problems in which the stakes are extremely high, in which human perceptions and judgments are involved, and whose solutions have long-term repercussions, call for a rational approach to their solution. But at the strategic level, the problems are usually presented in terms as uncertain, fuzzy and confusing, while many problem-solving techniques are based on mathematical principles and can be only applied to systematic and well-formed problems.

2. Intuitive thinking is based on creativity and innovation but it relies more on the intuitive skills of manager. In the intuitive solving and decision-making, managers are not performing analyzes, or synthetic-analytical procedures, but their solutions appearing very mysteriously, in the way they emerge from their heads. Intuitive thinking is based on knowledge, experience, but also on innate features and capabilities of managers. Given that intuitive thinking does not require making analysis or application of time-consuming analysis and analytic-synthetic method, it is very fast and gives the flexibility to respond to emerging opportunities and threats. On the other hand, it does not focus on a comprehensive solution to the problem, but rather only on the center of gravity of the solution, and gives the opportunity to receive even unconventional and yet unapplied solutions. Many of the managers in a constantly changing and unpredictable environment prefer just such a procedure in their decision-making. Its weakness is high

risk due to the fact that it contains subjective views and rather locally oriented solutions. Such a procedure causes that this decision-making procedure lacks arguments; it is not possible to oppose or verify the correctness of the decisions. But to the future, it can open the door for many unresolved specific questions within the overall problem. Therefore, many authors of strategic management books (e.g. David, 2013) suggest that intuition should be accompanied with analysis to provide a basis for strategic decisions.

3. Strategic thinking is the third type of thinking, which in principle differs from the two previous ones. But it takes over positive aspects from the prior types of thinking. Comparing the mechanic thinking, they have in common procedure that is based on the analysis and application of analytical and synthetic procedures. So the outcome of decision-making can be examined, reviewed and critically assessed. From intuitive thinking on the other hand, it takes a creative approach to creating solutions. This type of thinking is trying to reduce the weakness of mechanical thinking, the conservative approach and disregard for the changes occurring in the environment. Strategic thinking is primarily thinking about the future. Mechanical thinking is also trying to predict the future, yet based only on the information from the past and present. Strategic thinking is looking forward, trying to predict the future and find in it the specificities how the future will be different from past and present.

Strategic analysis as an integral part of the strategic decision-making should be based on the application of strategic thinking. Through the strategic analysis, it is necessary not only to search for specific features which will characterize the future, but mainly detect the factors that will cause changes in the environment. The role of strategic analysis is therefore primarily focusing on examining the effect of key critical factors that cause changes in the environment and, consequently, allowing to anticipate changes in the environment. The basis of strategic analysis is not only the ability to distinguish past, present and future, but above all, the ability to distinguish the weight of factor impact under the influence of time. With a simplified view of the effect of factors in the environment, it can be argued that each of the factors is going through phases of its life cycle (Fig. 4).

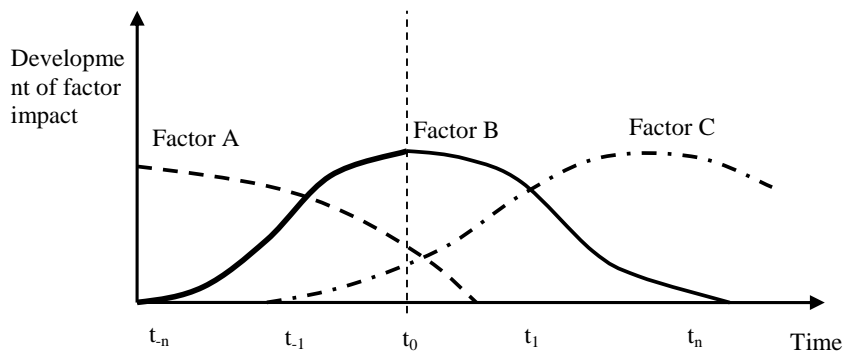


Fig. 4. The life cycle of factors affecting the environment.

If we look at developments in the past and the state at present, and through mechanical thinking, we perceive reverberant of factor A, but as a decisive factor which most affects the environment. Thus we most draw our attention of strategic decision to consider the factor B while factor C escapes our attention because in the analyzed information there are no significant traces of its past and we have no experience with it. Therefore we are not hunting for its possible future role (Fig. 4, factor C). If we want to prepare a strategic decision which will be timely and effective in the future, the strategic decision-making should be based on anticipating changes in the environment. Changes in the environment will depend primarily on changes of key factors, in our example (Fig. 4), it is the factor C. View on the environment is constantly changing with the regard how far to the future we look. Thus, the capability to discernment the past, the present and the future regarding the evolution of the factor impact is one of the decisive conditions for the application of strategic thinking in managerial decision-making. It is a fundamental condition for the development and implementation of strategic analysis in strategic decision-making.

3. Methodology

3.1. Research Goal and Data Collection

Based on the literature review, the main goal of our research is to assess how managers in current praxis approach strategic decision-making, what type of thinking they apply in strategic decision-making and if performed analysis that are truly of strategic nature. To understand and to identify the approach to strategic decision-making, we used a questionnaire and qualitative research on the selected sample of respondents from management practice. During the period of February 2015 - June 2015 were able to collect data from 271 respondents. Our sample contains managers from various companies operating in the Slovak Republic. We structured respondents based on their managerial hierarchy, company size and company life cycle (Table 1 and Table 2).

Table 1. Types of managers in the research.

Types of managers	Number	%
First-line managers	110	40,59%
Middle managers	82	30,26%
Top managers	79	29,15%

Table 2. Sizes of companies and life cycle of companies in the research.

Types of managers	Number	%	Life cycle	Number	%
Micro Enterprises	48	17,71%	New-founded	27	9,96%
Small Enterprises	66	24,35%	Growth	80	29,52%
Medium Enterprises	80	29,52%	Stabilization	152	56,09%
Large Enterprises	77	28,41%	Decline/crisis	12	4,43%

The first part of questions in questionnaire was formulated to identify the most preferred thinking of managers under different situations connected with application of strategic decision-making and formulating of strategic decisions and strategies. We mainly focused on analyzing behavior and the most preferred approach to thinking in the categories of three types of thinking: (1) Mechanical thinking, (2) Intuition, (3) Strategic thinking. Then in the second part of questionnaire, we asked about content of strategic analysis and the key factors from environment (external or internal) they are considering and evaluating in strategic analysis while preparing strategic decisions. In the analysis we used frequency tables, 2-D bar chart and correlations.

4. Results

4.1. Approaches to strategic decision-making

Based on results from questionnaire, it was possible to select the type of thinking of managers in strategic decision-making especially during their assessment of internal and external factors of environment. The identification was showing the tendency or the most preferred style of thinking while approaching strategic decisions in the company. The most interesting results of research are shown in Table 3.

Table 3. Approach to strategic decision-making.

Types of thinking	Overall results	Large Companies	Small Companies	Companies in decline/crisis
Mechanical thinking	41,51%	52,56%	29,17%	97,25%
Intuition	9,59 %	2,56%	18,72%	2,50%
Stratetic thinking	48,15 %	44,87%	52,08%	1,23%

The overall results shows that the intuition is the less used and applied type of thinking and it is more preferred in small and micro companies 18,72% (in comparison with large companies only 2,56%). The mechanical thinking still has a strong position in any type of the company. Especially in category of companies in crises or decline it can be also seen as an effect of its bad position (97,25% used mechanical thinking). On the other hand these companies in decline/crises reported a very low percentage of strategic thinking (1,23%). Strategic thinking is quite used by many of managers; it is shown as the most preferred style of thinking of 48,15%, but it is still less than half of managers in our sample. We also studied the approach of managers on different hierarchical level, but results were very similar to overall results, only difference was in middle management, where the most preferable thinking was mechanical thinking. This results shows that trends in behavior and thinking of managers are leading towards the application of strategic thinking, however there are still many managers that are approaching strategic decision-making in more conservative ways, using models and standard procedures. This research also shows that companies preferring to do analysis and not approach the strategic decisions only with intuition, there is always only small percentage of managers using intuition.

4.2. Types of factors considering in strategic decision-making

In our research we were interested what kind of factors and information from environment managers consider and examine when approaching important strategic decisions. Perception and cognition as well as information gathering and analyzes are the basis for thinking and decision-making in the context of human thought, and thus as the basis for strategy development. Strategic management theory suggests to start with understanding, analyzing and forecasting of environment development before making strategic variants and choosing strategic decisions. Theory also offers wide apparatus of techniques that can be used in strategic analysis. The term “environment” is a very broad term. If we want examine the environment we should approach it systematically. It is useful to classify the specific layers of environment that differ in their specificity and effects of the factors, which affect the subsequent choice of methods and techniques of investigation. In theory we usually recognize macro level (e.g. economical, political, socio-cultural, technological and legislation factor), micro level (e.g. industry, competition, external stakeholders) and internal assessment of the company (e.g. finance, internal processes, productions, human resources). From the results, the strongest interest, the top five factors that manager examine and analyze are the financial and economic development, then the people in the company, their skills and performance, satisfaction with the product and overall performance of the company, while they follow vision and mission of the company. If we compare these factors to techniques in strategic management, many of the factors are similar to factors in PEST analysis, Porter Model of Five forces, SWOT analysis, Performance Measurements, Business Model analysis. But not all companies are evaluating all factors or not focusing on factors from the whole environment inside and outside of the companies and some factors have less importance to them.

4.3. Problematic areas of strategic decision-making

In our research we also studied problematic areas and difficulties managers are facing today in strategic-decision making. Because of the diversity of problems related to specifics of the each business, we will mention only the problems that were most frequent answers of our responds and pointing out the need of praxis:

- There are many of strategic methods and tools and recommendations from theory and practice of strategic management that managers were not familiar with or don't know how to apply them properly. Especially small firms and entrepreneurs were many times providing analysis mostly based on their experiences, intuitions and with narrow view of factors they should analyze. If we look at the Fig. 6, we can see that many companies are not considering only some factors as important and other do not consider as important for analysis.
- The other problem was problem of communication and information gathering, processing sharing and selecting. Un-complete, misleading or faulty information affects the results of analysis and thus the final decision. There is a need for systematic approach; for verifying information and for proper work with data and information. In many companies, the information systems should be also a part of process to improve strategic decision-making.
- For many managers, the most difficult part is forecasting and assessing consequences of the implemented strategic variants because of the dynamicity of environment. It is also a problem of many strategic tools and

techniques in theory, that they are primarily focusing on assessing of current state but the strategic decision should be based also on understanding and evaluation of future development. It is also resulted in preference of mechanical thinking.

- Many of managers admits that nowadays the macro level of environment have strong influence on their businesses and strategies (mainly the economical situation, innovation and technology development) although in many companies the focus and attention is given mainly to competitors actions, competition fight between companies on the market, and managers are thinking more in terms of price wars and influences of customer behavior and marketing activities instead.
- Partners and hierarchical levels and politics inside the company many times also cause a problem or limit, that affect the final strategic decision. Many times the owners, stakeholders, parent company or partners influence and change the proposed strategic decision. Strategy is usually created separately and only a top management or special department is part of the strategy development and other level are not involved in this process.

5. Conclusion

Decision-making in the dynamic and rapidly evolving world is a challenge, especially on the strategic level. In the article, we discussed some of the approaches and important aspects of strategic decision-making. We pointed out that as a respond to changes in the character of environment; also theory should react with finding better solutions and approaches to managerial decision-making to fit the current business practice. Strategic decision-making has crucial role in business management because it involves fundamental decisions which shape the course of a firm and its future orientation and direction. Strategic decisions are large-scale, risky, and hard to reverse and require a systematic approach. In the process of strategic decision-making, we consider strategic analysis to have a crucial role. We follow the concept of Kant and propose model of thinking and decision-making, in which decision-making process can be described in three steps: to start with the perception (information gathering, selecting and proceeding), then to proceed with the understanding (with analysis) and to end with final judgment and decision. Strategic analyses enable us to assess the initial situation, to evaluate the situation inside and outside of the company, to reveal the factors that will cause changes in the environment. If within strategic decision-making we want to prepare a decision which will be timely and effective in the future, it should be based on anticipation of changes in the environment.

Nowadays environment put even greater demands on the ability to predict future trends. In addition to previously successful and efficient rational and logical thinking, there is a strong tendency to apply the "strategic thinking". Strategic thinking is based on thinking in advance, on acting led by thinking and on having a future under control. This type of thinking requires an ability of understand the environment, to predict the factors interaction and an ability to anticipate the actions and the reactions of different subjects. Long-term success is dependent on knowledge.

In our research we were studied and examine behavior and approaches of managers in strategic decision-making process especially from the view of their thinking and types of information and factors they are incorporating into strategic analysis. In the end of our research we also summarized the main problematic areas of strategic decision-making. Some of the problems are connected with narrow view of environment analysis, with selection and procession of data and information, with limitations caused by centralization or politics in the organization. Besides strategic thinking, many managers follow approach that is more close to mechanical thinking. But mechanical thinking is not enabling companies reacting properly to current dynamicity and changes of environment. We also noticed that managers do not know what factors from environment they should understand, examine and forecast.

References

- Balta, M., Woods, A., & Dickson, A. (2009). Decision-Making Amongst Greek Executives: Their Attributes and Environment. *Journal of Economic Asymmetries*, 6(1), 29-47.
- Bhushan, N., & Rai, K. (2004). *Strategic Decision Making: Applying the Analytic Hierarch Process*. London, UK: Springer-Verlag.
- David, F. R. (2013). *Strategic management: Concepts and cases*. Harlow, UK: Pearson.
- Eisenhardt, K. M., & Zbaracki, M. J. (1992). Strategic decision making. *Strategic management journal*, 13, 17-37.

- Kant, I., & Smith, N. K. (2003). *The Critique of Pure Reason* (2nd ed.). London, UK: Macmillan.
- Mussoa, F., Francioni, B. (2012). The Influence Of Decision-Maker Characteristics On The International Strategic Decision-Making Process: An SME Perspective. *Procedia - Social and Behavioral Sciences*, 58, 279 – 288.
- Ohmae, K. (1982). *The Mind of the Strategist: Business Planning for Competitive Advantage*. New York, NY: Penguin Business Library.
- Papadakis, V. (2006). Do CEOs shape the process of making strategic decisions? Evidence from Greece. *Management Decision*, 44(3), 367-394.
- Papadakis, V., & Barwise, P. (1998). *Strategic Decisions*. Boston, MA: Kluwer Academic Publishers.
- Papula, J., & Papulova, Z. (2015). Stratégia a strategický manazment ako nástroje, ktoré umožňujú superenie i spoluzitie Davida s Goliášom. Bratislava, SK: Wolters Kluwer.
- Rajagopalan, N., Rasheed, A. M., & Datta, D. K. (1993). Strategic Decision Processes: Critical Review and Future Directions. *Journal of Management*, 19(2), 349-384.
- Robbins, S. P., & Coulter, M. (2013). *Management* (12th ed.). Harlow, UK: Pearson.
- Savanevicien, A., Vaitkevicius, S., & Merkys, G. (2006). Model of Strategic Analysis Tools Typology. *Engineering Economics*, 2(47), 99-109.
- Simon, H. A. (1960). *The New Science of Management Decision*. New York, NY: Harper&Row.
- Sternberg, R. J. (2011). *Cognitive psychology* (6th ed.). Belmont, CA : Wadsworth Publishing
- Volna, J. & Papula, J. (2013). Analysis of the behavior of Slovak enterprises in the context of low innovation performance. *Procedia - Social and Behavioral Sciences*, 99, 600-608.