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APPLICATION OF SCENARIO PLANNING IN TURBULENT ENVIRONMENT: CASE OF FINANCIAL COMPANIES IN RNM

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ABSTRACT

Today's contemporary environment is characterized with high degree of uncertainty, dynamic changes and innovation. Such a turbulent environment requires from companies to develop ability for identifying and analyzing of factors that drive changes and an ability for anticipating solutions to potential threats. Throughout the history, forecasting and strategic planning have been continuously applied in practice, as ways to establish a vital link between the future of the company and the environment. However, both of these lack the ability to incorporate massive and unexpected political, environmental, economic and social changes into plans. With the advent of scenario planning, plans are being made for significant changes in the environment for which data are limited. Therefore, planners by telling more alternative stories about the future, companies can include structurally different and unexpected future events, factors and actors in their plans for their future environment and answers to them.

The main purpose of this research paper is to examine the degree of scenario planning application in the process of thinking and formulating alternative courses of action for the future in financial companies in Republic of North Macedonia. In order to present the application of scenario planning in turbulent environment this research paper makes literature review of scenario planning characteristics and its advantages and additionally, conducts descriptive statics by using data from author's empirical research conducted in 2016 which covered 9 financial companies (6 banks and 3 non-bank financial companies). The results showed that the degree of application of scenario planning is moderate to significant in Macedonian surveyed financial companies. Also, this research paper strives to encourage companies in financial sector in RNM to use scenario planning as a key technique for dealing with uncertainty in the future global business environment.

KEYWORDS

SCENARIO PLANNING, SCENARIO, TURBULENT ENVIRONMENT, FORECASTING.

JEL CLASSIFICATION CODES

O21, M19, C53

1. INTRODUCTION

The question of scenario planning is addressed by a number of authors and the sources that can be referred to in its definition, methodological explanation and practical usefulness mostly arise from articles by practitioners of scenario planning, literature dedicated to futures research and empirical research on scenario planning as a long-term planning technique. The overall research so far in this area seeks to emphasize the importance, but also the challenge for further study of scenario planning. In fact, there has been a great deal of interest in applying this method of planning in times of declining economic activity when companies face changes that are incomprehensible and unpredictable. In this context, the issue of scenario planning received special attention with the appearance of the first oil shock in 1973, when other planning methods used by companies failed to warn them of possible economic downturns and on the other hand, Royal Dutch Shell was prepared with answers by using their developed scenarios. As a result, scenario planning has been adopted by a number of companies from Western economies. The application of scenario planning method started decreasing its popularity during the 90s and the beginning of the new millennia, but when the economic crisis hit the world in early 2008, again practitioners and academics started researching and examining different methods of creating scenarios and using scenario planning method.

Thomas (1994) defined scenario planning as an inherent learning process that challenges current comfortable and common organizational thinking by focusing on how the future can be different from the present, while Schoemaker (1995) defined it as strictly defined methodology for creating possible futures in which organizational decisions take place. According to KPMG (2010) the term scenario planning encompasses the capabilities, processes, resources, and techniques involved in identifying, analyzing, and communicating selected scenarios. Scenario planning supports the decision-making, description and presentation of possible future events and situations. Therefore, it enables better planning and helps the company find a way to acquire or maintain existing flexibility, adaptability and capability.

The value of scenario planning is not in finding the true picture of the future, but in exposing all of the possible directions in future. In this way, companies are able to aggregate and prepare for a number of scenarios that can drastically affect their operations. Companies that integrate scenario planning into the organizational process of formal planning are aware that today's competition in a turbulent environment sets new rules in strategy building and the way in which economic, social, political, and industry trends interact. Developed and integrated scenarios in the entire organizational planning process keep the company awake and alert to any new changes. Scenarios require information about the deepest concerns of managers and CEOs. Wack (1973) noted that scenarios gained prominence because they met the greatest concerns of managers and according to Georganzas and Akar (1995), the ultimate goal of scenario planning is to enrich the way managers think, learn, and feel about a strategic situation by exploring what they care about most. Furthermore, Huss & Honton (1987) describe scenario planning as a hybrid of many disciplines that encourages planners and managers to think broadly about the future. According to Schwartz (1991), scenario thinking is an art in which macro environment scenarios allow managers to evaluate the answers to a wide array of possible futures. Additionally, scenario planning is recommended as a technique for improving decision-making in conditions of increased uncertainty, even in small companies (Foster, M.J., 1993, pp.123-129).

Dynamic and complex changes in the contemporary company environment impose new rules of "game" in the market. The systemic thinking that the company is an open system that is constantly influenced by changes in the environment means that monitoring, analyzing, anticipating and adapting to changes and development of the environment is a decisive factor for the success of companies. In the new economy, it is necessary to strike a balance between stability in the decision-making process and instability in the continuous adaptation to a turbulent environment.

Empirically, continuous success is recorded by the companies that strive to shape the future, i.e. by constantly asking the question "what if?" managers review company plans and goals in terms of possible future events. Taking business in the present in terms of opportunities or threats that the future brings is the essence of scenario planning. By developing scenarios, which means creating memories for the future and

their permanent integration into the organizational planning process companies create basis for continuous learning and preparing answers for changes in the macro environment.

Today, faced with the Covid 19 pandemic and its outcomes and challenges, companies more than ever should use the scenario planning method, which is most frequently used in conditions of increased turbulence in the global market. Therefore, the main purpose of this research paper is to examine the degree of scenario planning application in the process of thinking and formulating alternative courses of action for the future in financial companies in Republic of North Macedonia and to discover the usefulness that Macedonian financial companies have from the application of the scenarios.

2. CHARACTERISTICS OF SCENARIO PLANNING

In the past two decades, scenario planning has gained immense attention and commitment from research centers, consulting companies and for-profit and non-profit organizations, due to the turbulent global environment. The literature and practical findings point out to a number of scenario planning models that can be all categorized into three schools of scenario planning, i.e. the school of intuitive logic represented primarily by the father of scenario planning Herman Kahn, and then Piere Wack, and later their models to be the basis for a number of consulting firms to develop their own models of scenario planning, then a school of probabilistic modified trends represented by two different methodologies - trend impact analysis and cross-impact analysis, and finally the French school, which integrates the methods of intuitive logic and probable modified trends. This fact points out the importance that many researches, academics and international companies put on the scenario planning and the role that it has for initiating new way of thinking, which leads to increased caution in the future modern business environment.

Scenario planning requires a lot of time and financial resources and is a desirable art for a small number of business participants who understand the usefulness of the methodology. Scenario planning has the potential to affect the lives of all employees in the overall business system. But due to limited expertise, it is not available to many companies. Even today, when managers have many methodologies and consulting firms at their disposal that can guide the scenario planning process, it is difficult to decide on its application, although scenarios are powerful tools for many reasons. First of all, scenario thinking overlaps with the way the mind works, that is, the narrative form of the scenarios makes them easy to remember. One can believe in what can be visualized. Second, scenarios can reduce uncertainty in a complex business environment, but without simplification. Third, the scenarios represent qualitatively different futures. By thinking in qualitatively different directions, the ability to think the unthinkable and to anticipate unusual events is trained. The fourth reason refers to the ease with which scenarios are conveyed and discussed, thus creating a common language and outlook in the company, which in turn is especially important in the decision-making process. But if scenarios are so powerful, why do companies do not use them so much? According to Lindgren and Matts (2003, p.28):

1. Scenario planning does not result in a single future and therefore does not provide sufficient certainty for decision making.

2. According to managerial simplicity there is one correct answer to each question, that each problem can be divided into three parts and that each problem can be solved individually. Scenario planning is more of a holistic or systematic approach to planning than traditional methods.

3. Usually, scenario techniques are qualitative, based on reason and intuition, although they also contain thorough analysis. The results of scenario planning are presented in a descriptive narrative form that does not fit into traditional cultures that require numbers.

4. It takes a long time to conduct a thorough analysis and obtain results. To avoid this "disadvantage" of scenario planning, internal stakeholders can be involved in critical moments of scenario development, but well-selected members with relevant work experience and considerations should be involved in the whole process.

Hence it can be concluded that scenario planning is a complex process that requires a lot of information and communication throughout the company, organizational continuous learning and

development and continuous decision making in which decisions are interdependent, i.e. current decisions entail decisions in the future.

Key features that define the usage of scenario planning in a company, according to Ratcliffe (2002) are:

- creating current alternative images for the future instead of extrapolated trends from the present;
- inclusion of qualitative perspective and quantitative data;
- assessment of sharp and abrupt breaks in trends;
- constant revision and updating of the basic assumptions and
- creating a company that learns and has a common vocabulary and an effective basis for communication.

As a result of the scenario planning process, scenarios inform decision makers and influence and reinforce decision making. In this context, scenarios reshape the existing decisions by providing new context for decisions and identify contingent decisions through research that the company can do if certain circumstances arise.

Based on these characteristics the idea behind scenario planning is to plan for the future in order to minimize surprises and expand the scope of managerial thinking for different possibilities (Porter, M., et al., 1985). According to Wack, the violation of managerial assumptions is followed by a re-perception of reality and the discovery of new strategic openings that represent the essence of entrepreneurship. In this way, scenario planning represents the return of the manager to the state of mind that is needed to start a new business.

3. ADVANTAGES OF SCENARIO PLANNING

From the published literature on scenario planning so far it can be concluded that it differs from other planning methods due to its systemic thinking (compared to linear thinking) and consideration of more possible futures (compared to a presumed future). Hence, the advantages that companies may acquire when applying scenario planning are:

- The concept of "forecasting" is interpreted differently in scenario planning. In the past, attempts have been made to predict the future as accurately as possible, i.e. to have only one future. However, scenarios show several probable or desired futures that are placed next to each other.
- Scenarios open the mind to unimaginable possibilities and challenge the long-held internal beliefs of the company. In this manner, companies that use scenarios face changes in the corporate culture, and encourage managers to rethink the hypotheses on which their strategy is based.
- Scenarios lead to better decision-making for the future, as they involve decision-making centers in the process of learning the factors that shape the future, such as current attitudes and behaviors, patterns and trends.
- Scenario planning encourages employees, middle and top managers to constantly communicate, transfer knowledge and learn. In this way, individual attitudes towards the future are changed and actions are taken before certain problems or questions arise.
- Scenarios are an appropriate way of recognizing "weak signals", technological discontinuities or disruptive events and they are included in long-term planning. As a result, the company is more prepared to deal with new situations as they arise and to take proactive leadership activities.
- One additional benefit from usage of scenarios and its incorporation into business planning is improvement of communication. Scenarios lead to the creation of a common language for dealing with strategic issues by opening a strategic conversation in the company.
- Behind the planning aspect, scenario techniques have the function of coordination, i.e. in the scenario the process, goals, opportunities, risks and strategies are shared between the participants who support the coordination and implementation of activities. In fact, it improves the process of organizational learning and decision making.

- Scenarios provide a basis for testing the impact of current and proposed strategies on organizational performance in the future. This is also called "wind tunneling".

- Through the process of building scenarios, key events are identified that signal that certain technological changes or radical events will occur. In this manner, the company determines in which direction the future develops.

- Considering the fact that a number of different scenario techniques occur, scenario planning is a flexible process and can be adapted to a specific situation or task, in different industries, companies and organizational levels.

However, important to elaborate is that the application of scenario planning requires a lot of time and effort and for a scenario to be effective enough, planning needs to stimulate lengthy discussions, reflection, and debate, which many companies avoid organizing. In order for companies to build realistic and achievable scenarios, it is necessary for the participants in the scenario team to have expert knowledge in the field under research. Gathering data and information from a variety of sources for deeper research and understanding of the area that scenarios describe requires far more time and resources.

So far, the literature lists successful cases of application of scenario planning. Few studies analyze the relationship between scenario planning and organizational success. That's because building scenarios and planning is a practical approach. To overcome these weaknesses of scenario planning it is necessary to develop a method for evaluating scenario planning. And since it takes a lot of time and resources, it is considered that scenario planning is applied by large multinational corporations in general, but the same can be applied to small and medium enterprises. Scenario planning can be improved if it is combined with other methods for the future, such as the Delphi method, Monte Carlo simulation, techniques for encouraging creativity, etc.

Scenarios are tools for learning the unexpected and for thinking "out of the box". While several decades of experience in applying scenario planning has meant that it is a difficult technique, the fact is that scenario planning is more of an art than a science.

4. DATA AND RESULTS FOR APPLICATION OF SCENARIO PLANNING METHOD IN SURVEYED FINANCIAL COMPANIES IN RNM

In order to determine the level of application of scenario planning method in financial companies in Republic of North Macedonia, questionnaires were sent to 9 financial companies, which were supposed to be answered by upper or middle level managers included in the planning process. The questionnaire was sent in two ways: by submitting the questionnaire in hard copy to the selected respondents and by sending the questionnaire in electronic version via e-mail to the selected respondents. The questionnaire was submitted to and completed by managers or persons who are directly involved in the formal process of organizational planning in companies.

The questionnaire contained two parts related to: the character of company’s planning process in general and the level of application of scenario planning.

4.1. Character of business planning in Macedonian financial companies

The aim of the questions from the first part was to determine the character of the business planning process in Macedonian financial companies. The following points were investigated:

1. Degree of application of methods used for thinking about the future. Methods of thinking about the future are presented through several different management techniques applied in the formal planning process in the company, such as financial analysis, market research, Delphi method, SWOT analysis, BCG matrix, brainstorming, time series analysis, strategic planning, scenario planning and simulation modeling. In terms of systemic and situational thinking for the future, Bradfield et al. (2005)

recommends companies to apply other techniques and methods in addition to scenario planning, such as brainstorming, STEEP analysis, stakeholder analysis, Delphi method, time series analysis, morphological analysis, trend impact analysis, and simulation models. Therefore, the application of each of the above mentioned management techniques were evaluated by planners (or managers included in the planning process) on a Likert scale from 1 to 7[1].

The results show that financial analysis and strategic planning are regularly used among interviewed financial companies (weighted average is 7 and 6.67, respectively); market research is used periodically (5.33); SWOT analysis has weighted average of 4.67; brainstorming, time series analysis and scenario planning are rarely used (4, 3.67 and 4.22, respectively); simulation modeling is very rarely used (2.78); and Delphi method and BCG matrix are never used (1.44 and 1.22 respectively).

2. Specialization in planning. The question concerning the specialization in planning was presented as whether the financial companies have a planning department in their organizational structure. Eight respondents of the financial companies have a specialized department responsible for planning and this result implies that financial companies have the necessary precondition for building scenarios and integrating them into company's business plans.

3. Formal education and expertise of top management. According to Linneman and Klein (2001) possession of formal education, experience and expertise of top management indicates application of a complex methodology of scenario planning. Results from respondents show that 78% possess formal education for financial sector; 89% possess experience and 78% possess expertise in financial sector and this indicates that surveyed financial companies have the required knowledge, experience and expertise for applying scenario planning.

4. Type of data involved when decision making. According to Ratcliffe (2002), qualitative and quantitative data are included in the application of scenario planning. Therefore, in the questionnaire four values are added when financial companies for asked for the types of data they use when decision making: intuition; information obtained from informal sources; detailed elaborated data and reports from authoritative institutions - Chamber of Commerce, State Statistical Office, private consulting companies; detailed elaborated data and reports prepared by the planning department and additional open response.

The results show that 22% of the surveyed financial companies use intuition and information obtained from informal sources when making decisions about long term strategies; 56% use detailed elaborated data and reports from authoritative institutions - Chamber of Commerce, State Statistical Office, private consulting companies; and 67% use detailed elaborated data and reports prepared by the planning department. This finding indicates that surveyed financial companies use objective, independent and complete information when resolving strategic issues.

5. Planning goals. According to Chermack and Payne (2006) scenario planning can be applied for decision making at individual, process and organizational level. Furthermore, according to Lindgren and Bandhold (2003), scenario planning enables the integration of short-term, medium-term and long-term planning in the strategic thinking process and therefore, scenarios should be used at every level and whenever there is significant uncertainty in the decision context. In order for better determination of the planning character, financial companies were asked which the goals of their plans are. 44% responded that they used plans for conduction of daily activities, i.e. for routine decisions, 44% responded that they used plans for designing of operational processes, and all of the respondents used plans for strategic decision making.

This finding indicate that not all surveyed financial companies use plans at individual, process and organizational level, but they all consider the long term horizon when planning.

[1] where: 1 stands for "never used", 2 – "almost never used", 3 – "very rarely used" , 4 – "rarely used", 5 – "used periodically", 6 –"almost always used", 7 – "used regularly"

4.2. Scenario planning in Macedonian financial companies

The second part of the questionnaire contained questions related to usage of scenarios, benefits of using scenarios, degree of involvement of different individuals and groups in the scenario building process and the degree of barriers that financial companies face when creating scenarios. The main goal of this part of questions was to determine the level of application of scenario planning method in financial companies in RNM. However, as further exploiting the context in which financial companies use scenarios the author tries to analyze the involvement of different individuals and groups in the planning process, the advantages they have when using scenarios, and the obstacles they have when developing them.

Firstly, the application of scenario planning was measured by using scenario planning characteristics, which were used as criteria to determine the prevalence and degree of use of scenarios in the surveyed nine financial companies. Each of these criteria was evaluated according to given Likert scale from 1 to 7[2] where an average value was calculated. The results show the following:

- The degree to which the future of the company is observed as complex and uncertain is moderate, i.e. 4.11;
- The degree to which the company builds an active and creative attitude towards the future, ie believes that the future is created is significant, i.e. 5.11;
- The degree to which the assumptions for implementation of the formal planning process are continuously revised and updated is significant to high, i.e. 5.56;
- The degree to which in the process of planning and formulation of strategies, in addition to quantitative data, the company includes also and qualitative perspective is significant, i.e. 5.35;
- The degree to which the company continuously learns and creates a common vocabulary of communication is moderate, i.e. 4.44;
- The degree to which the company tests the current and / or newly proposed strategies in different scenarios is moderate to significant - 4.78.

Overall, according to the conducted descriptive statistics the average value of the degree of application of scenario planning in the surveyed financial companies is 4.89, i.e. moderate to significant degree. The highest degree of application of scenario planning is noted when financial companies continuously revise and update assumptions for implementation of the formal planning process, which actually is also one of the most important characteristic of the scenario planning.

Secondly, financial companies were surveyed for assessing the degree of involvement of different individuals and groups involved in the process of building scenarios on a Likert scale from 1 to 7[3]. According to the calculated weighted average values the highest degree of involvement, i.e. degree of periodic involvement with thinking about their regular involvement - 5.67 and 5.56 noted managers from intermediate level of management hierarchy (managers of sectors or business functions) and board of directors or other bodies of top management, respectively. The average value of the degree of involvement of lower level managers of the management hierarchy (managers of smaller organizational units operating within separate departments or business functions is 5. Slightly below this average value is the average value of the degree of involvement of employees from different business units who have specialized knowledge and experience, ie 4.56. Working groups composed of employees from different departments, functional managers and experts or outsiders are periodically included (weighted average 4), while external experts and consulting companies are very rarely included, i.e. 3.33.

These results show that there is an existence of cooperation between employees from different organizational levels and the support and commitment of top management in the process of formulating scenarios.

[2] where: 1 stands for "does not exist", 2 – "very weak degree", 3 – "weak degree", 4 – "moderate degree", 5 – "significant degree", 6 – "high degree", 7 – "extremely high degree"

[3] where: 1 – "not included and there is a thinking for their inclusion"; 2 – "not included, but there is a thinking for their inclusion"; 3 – "very rarely included"; 4 – "rarely included"; 5 – "periodically included"; 6 – "periodically included and there is a thinking for their regular inclusion"; 7 – "regularly included"

In the third question, financial companies were asked to determine the extent to which they note benefits when using scenarios on a Likert scale from 1 to 7[4]. According to a Linneman & Klein's survey conducted between 1977 and 1982 in the largest US and world corporations, 85% of companies surveyed used scenarios to assess the profitability of major investments, and 67% said they used scenarios to initiate new potential areas of business / product, market activity. The results from author's research show the following findings:

- The degree to which financial companies note the benefit of continuous updating of the business model in relation to the changing market conditions is moderate, i.e. 4.44;
- The degree to which financial companies note early warning of threats or an opportunity in the business environment is moderate to significant, i.e. 4.56;
- The degree to which financial companies note better anticipation of the future and preparedness with appropriate activities and strategies for sudden changes in the environment is significant, i.e. 5.22;
- The degree to which financial companies note discovery of new potential areas of business, product or market is moderate, i.e. 4.11;
- The degree to which financial companies note better profitability assessment of capital investments is moderate, i.e. 4.

Overall, the average value of the degree of advantages that financial companies in Republic of North Macedonia note from the usage of scenarios is 4.47, i.e. strongly moderate to a significant degree. The highest degree of noted usefulness when using scenarios is found when financial companies make better anticipation of the future and are prepared with appropriate activities and strategies for sudden changes in the environment. These results indicate that the surveyed financial companies acknowledge the significance that scenario planning has, especially when they face turbulent environment.

Lastly, surveyed financial companies were asked to select the degree to which they note obstacles when creating scenarios on a Likert scale from1 to 7[5]. The highest degree, i.e. with an average value of -3.22, they assessed the obstacle that they do not have enough data and information about the industrial sector in which they operate. According to their responses, the following obstacles: "insufficient expertise and knowledge of the team implementing the scenario planning", "building scenarios takes a lot of time", "insufficient support from the management team", "unclear definition of the strategic problem or issue to be resolved with the scenarios", "too many created scenarios" and "inability of the scenario planning process to relate to existing processes in your organization", are rated as obstacles with very weak degree with intensity towards weak degree.

These results indicate that surveyed financial companies note weak degree of obstacles when creating scenarios, which means that they have the necessary information, data, expertise and support from the management team to apply the scenario planning method when preparing alternative courses of action for turbulent future.

5. CONCLUSION

Scenario planning is a complex process, which requires information and constant communication throughout the company, organizational continuous learning and development and continuous decision-making in which decisions are interdependent, i.e. current decisions entail decisions in the future. Hence the main features of scenario planning are: creating current alternative images for the future instead of extrapolated trends from the present, including a qualitative perspective and quantitative data, evaluating sharp and abrupt interruptions in trends, constantly revising and updating basic assumptions of a company that learns and possesses a common vocabulary and an effective basis for communication.

[4] where: 1 stands for "does not exist", 2 – "very weak degree", 3 – "weak degree", 4 – "moderate degree", 5 – "significant degree", 6 – "high degree", 7 – "extremely high degree"

[5] where: 1 stands for "does not exist", 2 – "very weak degree", 3 – "weak degree", 4 – "moderate degree", 5 – "significant degree", 6 – "high degree", 7 – "extremely high degree"

The results and findings from the conducted descriptive analysis show that the Macedonian financial companies use various methods for thinking about the future, have a specialized department responsible for planning, possess the required knowledge, experience and expertise for applying scenario planning, and use objective, independent and complete information when making strategic decisions. However, not all surveyed financial companies use plans at individual, process and organizational level and by using scenario planning they would be able to create plans at every level and integrate them all into the strategic thinking process. Also, all of them include the long term horizon when planning for the future.

According to the provided statements about the degree of application of scenario planning financial companies note moderate with high intensity towards significant degree of usage of scenarios. They have cooperation between employees from different organizational levels and support and commitment of top management in the process of formulating scenarios. Relating to the advantages that surveyed financial companies have when using scenarios, the results show that they have better anticipation of the future and are well prepared with appropriate activities and strategies for sudden changes in the environment. Most importantly to conclude is that the surveyed financial companies note weak degree of obstacles when creating scenarios.

Finally, it can be resumed that surveyed financial companies have the necessary information, data, expertise, organizational placement, attitude towards long term planning, and support from the management team to apply the scenario planning method when preparing alternative courses of action for turbulent future, but its usage is still moderate.

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