

Cognitive Aspects of the Strategic Management System under Uncertainty

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Abstract: The importance of the topic of the article lies in the need to explain the cognitive aspects of the strategic management system under uncertainty. The purpose of the article is the need to study and substantiate the importance of cognitive aspects of the system of strategic management in conditions of uncertainty; a comparative analysis of different approaches to strategies in conditions of uncertainty, identifying their features and differences from the provisions of the classical strategic management; to classify the angles of the system of strategic management in conditions of uncertainty, comparing different approaches; to characterize cognitive concepts of fast strategies in conditions of uncertainty. The article analyzes the importance of cognitive aspects of the strategic management system in conditions of uncertainty; a comparative analysis of different approaches to strategies in conditions of uncertainty is made, their features and differences from the provisions of classical strategic management are revealed and analyzed; angles of strategic management system in conditions of uncertainty are classified, a comparison of different approaches is made; cognitive concepts of fast strategies in conditions of uncertainty are characterized. At the present stage there is a rather acute need to quickly study the cognitive aspects of the strategic management system under conditions of uncertainty.

Keywords: *postmodern society, dynamic configurations, governance, management, strategic management, strategic decisions, political security, social and political systems, stability.*

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Introduction

The need for strategic management in a multivariate future with implementation makes it necessary to study the system of strategic management in conditions of uncertainty as one or another of the possible scenarios, sometimes significantly different from those predicted. They are a strategic management tool to systematize it in a multivariate future. The basic foundations of strategic management in a multivariate future are: the future is always uncertain, so this means that the development of the management situation, where a strategy is defined and action plans are developed, may not necessarily go according to the scenario that at first glance seems the most obvious and expected. A more constructive concept of strategic management is one in which the future will develop according to one of the most likely scenarios. These scenarios can be worked out, and with a high probability the development of events will be as it is assumed, and the actions taken will ensure the achievement of the set strategic goals and stability (Voronkov, 2009; Sytnyk, Zubchuk, and Orel, 2022).

There are the most probable scenarios of its development in any situation of strategic management, so the development of the situation in which a strategic decision must be made, as well as the situation can develop according to many scenarios. There are scenarios that are more or less probable, which can be realized in the analyzed time interval. Developing a strategic plan must comply with a certain scenario of events and provide for a serious study of the sequence of planned objectives, leading to the fulfillment of the indicators provided by the development of strategy in time and with the necessary technological and raw material support a certain composition of executors. Strategic management deals not with a single, but with a sequence of interrelated management situations (Yanchuk, 2010).

Cognitive aspects of strategic management system in conditions of uncertainty and dynamic changes in the environment is a pressing problem today. Doing business nowadays is becoming dynamic and unpredictable. Since decisions related to classical management become ineffective under such conditions, the problem of uncertainty is particularly relevant. A number of attempts have been made to determine the basic principles of strategy building under conditions of uncertainty to ensure stability.

Risks are an integral part of entrepreneurial activity. They are encountered not only when making management decisions, buying securities, starting new production, etc., but also with inaction in the commercial area, which is associated with the risk of not using cases. New

conditions of life dictate new rights. Changes imposed by the company, to take bold and unconventional, and sometimes even adventurous decisions. In addition, the decision is risky, but the lower the chances of winning in the case of rejection correspondingly increased losses. However, not to take risks means not to interfere. Thus, the study of the cognitive aspects of the system of strategic management in conditions of uncertainty is a relevant topic.

This topic is insufficiently covered in the literature, although there are currently scientific studies devoted to the problem of the need to study and substantiate the importance of studying the cognitive aspects of strategic management system in conditions of uncertainty, so the angle of the study of this issue in the article is the need to study and substantiate the importance of cognitive aspects of strategic management system in conditions of uncertainty; analysis of different approaches to strategies in the context of uncertainty, identifying their features and differences from the provisions of the classical strategic management; classification of different directions of the system of strategic management in the context of uncertainty; feature of the cognitive concepts of rapid strategies in the context of uncertainty.

Thus, the study of the cognitive aspects of the strategic management system under uncertainty is a relevant topic. The problem of strategic change management in the innovative development of the enterprise is presented in the work of Sytnyk, Zubchuk, and Orel, (2022), development of the enterprise Voronkov (2009); the identification of destabilization type's of the political system for preparation strategic decisions in the sphere of political security Orel (2017); the role of benchmarking as a method of enterprise performance management was justified in his work by Honcharuk (2020); the creativity, talent and genius in human beings, identify their grounds for subordination and manifestation and justify the content of their demarcation in a systemic aspect in creativity affect decision-making the work of Nerubasska, Maksymchuk (2020) and Nerubasska, Palshkov, Maksymchuk (2020); the importance of knowing the risks of introducing organizational change: the essence, classification and identification was confirmed in a scientific study by Kostsyk (2010); the use of benchmarking in the formation of a competitive enterprise profile (Ladonko, 2010); the formation of an effective system of management of aircraft enterprises was emphasized in a scientific study by scientist (Appendix A, 2020).

The aim of the article is to study and substantiate the importance of cognitive aspects of the system of strategic management under uncertainty.

The problem of the research consists in the analysis of approaches to strategies under uncertainty, identifying their features; classification of angles of strategic management system under uncertainty, comparing different approaches; characterizing the cognitive concept of fast strategies under conditions of uncertainty.

The study of this issue used theoretical methods: analysis and synthesis of the literature on the problem of research.

The value of this scientific research is the classification of the angles of the system of strategic management under conditions of uncertainty, the comparison of different approaches, the characterization of the cognitive concepts of rapid strategies under conditions of uncertainty.

Classification of angles of strategic management system in conditions of uncertainty, comparison of different approaches

In scientific research, Masyuk (2010) classification of angles of strategic management system in conditions of uncertainty, comparison of different approaches are considered.

1 Robust strategies.

The basic idea of the concept of robust adaptive strategies is to reduce risks through strategic diversification. Since the external environment is a complex system and its behavior is almost impossible to predict. To operate successfully in such an environment, it is necessary to completely abandon the formation of strategies based on attempts to predict the future. Using the analogy with "terrain orientation", which analogizes the success of a company in the survival market to climbers in the mountains, we can derive the basic principles of this approach:

1) Don't stop. Constant monitoring of potential opportunities and threats is vital, even when the company has a leading market position.

2) Moving together. Exploring different technologies in parallel allows you to find and implement new opportunities faster. Instead of one company strategy, an entire system (population) of strategies should be used.

3) Combine long and short "jumps". The quantitative composition of strategies should be balanced and include strategic actions aimed not only at the short term (short jumps), but also at the long term (long jumps).

Despite the fact that the construction of a system of strategies may have problems such as lower efficiency, internal contradictions in the company, as well as blurring the focus of activity, the use of this approach

can significantly reduce risks and create a strong business portfolio, which is important under uncertainty (Bereznoy, 2017).

2. Fast strategies

For the concept of fast strategies, the most important factor in a company's success is speed. Since today's external environment is dynamic, flexibility becomes an important competitive advantage, which implies a company's timely response to rapid and unexpected changes in the external environment. In order to provide such a response, the concept of fast strategies offers an extended set of parameters, changes in which can lead to success (Doz & Kosonen, 2010).

These parameters are grouped into three large groups:

1) Strategy. Orientation on the openness of the strategic process - the speed and ease of distribution of strategic information, constant monitoring of potential opportunities and threats, as well as the ease and effectiveness of internal dialogue in the company.

2) Leadership. Provides not only the leadership style of management, but also the interdependence of employees, their ability and willingness to work as a team.

3) Resources. Focusing on the dynamic allocation of resources, the ability to quickly redirect resources and staff to new tasks, as well as creating conditions for maximum flexibility and turnover of resources.

The authors of the concept of fast strategies emphasize that the success of the company is possible only if the results in all three of these areas (Staryk, 2011).

3. Strategic dynamics

The concept of strategic dynamics is based on the choice between autonomous and forced strategic actions aimed at changing or adapting to changes in the environment. Due to the fact that a relatively small number of companies are able not only to maintain leadership positions, but even to survive in the long term, it is important to identify the factors influencing the "corporate longevity".

Using game theory methodology, we can distinguish two players: the company in question and the external environment, which includes not only competitors but also other interested parties and different market forces. Each of the players can either accept the rules of the game that exist in a particular area or try to change them.

The final market situation will depend on the combination of these two players' decisions. The choice between autonomous and forced strategic actions can be significantly influenced by such factors as the company's

market position, its financial performance, current technology, the behavior of other players, etc. "Strategic leadership" is aimed at ensuring a competent allocation of resources between autonomous and forced strategic processes (Castells, 2004).

Table 1 compares different approaches, characterizing cognitive concepts of rapid strategies under conditions of uncertainty.

Table 1. Comparative characteristics of different approaches, cognitive concepts of fast strategies under conditions of uncertainty.

Name of approaches, characterization of cognitive concepts of fast strategies under conditions of uncertainty.	Collaborative	Distinguishing
Robust strategies	Despite the fact that the construction of a system of strategies may have problems such as lower efficiency, internal contradictions in the company, as well as the blurring of the focus of activity, the application of this approach, can significantly reduce risks and create a strong portfolio of businesses, which is important in conditions of uncertainty.	The basic idea of the concept of robust adaptive strategies is to reduce risk through strategic diversification.
Fast strategies		A competitive advantage becomes flexibility, which implies a company's timely reaction to rapid and unexpected changes in the external environment. To provide such a response, the concept of fast strategies offers an extended set of parameters, changes in which can lead to success.
Strategic dynamics		The concept of strategic dynamics is based on the choice between autonomous and forced strategic actions aimed at changing or adapting to changes in the environment.

From the point of view of the relation to the future, the peculiarity of the strategic dynamics management approach is the consideration of not only macro, but also micro environment of the company. The various stakeholders are an important element of the concept, as their strategic decisions affect the situation in the industry and can lead to significant changes in the external environment. However, different stakeholders as well as the company itself can influence the future. When one of the players tries to influence the environment, non-linear changes in the environment may occur. The most dangerous and unpredictable future state of the external environment, which is similar to the description of robust strategy supporters, occurs only when the situation changes uncontrollably, when several players simultaneously try to change the rules of the game. It is worth noting that these situations are quite unstable (Sytnyk, Zubchuk, and Orel, 2022).

Thus, the cognitive aspects of strategic management systems are robust strategies, fast strategies, strategic dynamics.

Characteristics of cognitive concepts of fast strategies under uncertainty

The concept of fast strategies is the direct opposite of robust strategies according to this provision. The concept of fast strategies is characterized by an emphasis on usage, and the goal is to maximize the flexibility of a particular company with a specific set of resources and competencies. That is, the concept of fast strategies takes as a basis the current internal environment of the company and by changing a number of strategic parameters solves the problem of ensuring optimal use and development of its resources and competencies. All three main provisions of the concept of fast strategies: strategic flexibility, leadership and resource allocation, are mainly related to the processes of use. At the same time, research processes are also represented in this concept.

To ensure the company's flexibility, it is necessary to monitor major trends and changes not only in the area of its core business, but also in other areas, especially related ones, and to understand what the consequences of the mutual influence of these trends may be (Lyzunova & Hantsura, 2008).

Nokia leaders call "planetary mindset" the ability to make such complex observations, which is by and large exploratory in nature.

In the concept of strategic dynamics, the processes of utilization and research are in a balanced position. A short-term movement toward one of the processes depends only on the current market situation.

With a stable industry structure, companies have a prevailing process of researching new opportunities within and outside of their existing business. If changes occur under the influence of other market players, the company also needs to find new industries to develop in order to take the initiative again. During this period, the use also plays a role because the company needs to align its resources and competencies with the new market situation. In a change controlled by the company, leveraging resources and competencies allows it to capitalize on the existing situation and maintain its leadership position in the market. At the same time, it is necessary to carry out research that will determine the success of the company in the future. It is almost impossible to determine the best strategy for a company, and thus the best combination of use and research in uncontrolled change. The assumption is that if a company has some new capability in which development has already begun, it is more appropriate to ensure that it continues to be used. If such capabilities are not available, the necessary research aimed at finding and detecting them (Chandler, 1962).

The concept of robust strategies considered all three time horizons: short-term strategies focused on developing and strengthening the core business of the company, medium-term initiatives to help the company find solutions in other areas of business, and long-term - related to the fundamental reorientation of the company and the creation of fundamentally new business sectors and markets.

In the practical implementation of the concept, the emphasis is on long-term and medium-term strategies, as they are the most necessary for the creation of a portfolio of initiatives and strategic diversification.

The concept of strategic dynamics examines the position of companies in an industry over a long period of time. Most strategic decisions and actions are aimed at changing the position of the company in the long or medium term, regardless of whether the strategy is autonomous or forced.

Of course, short-term decisions and actions related to the functioning and development of the core business are envisaged in the concept of strategic dynamics. But they, as in the case of robust strategies, are represented rather weakly and are not decisive (Liinamaa, 2004).

The concept of fast strategies takes the exact opposite position from the strategic orientation. The main emphasis is on short- and medium-term

decisions and actions, the long-term orientation is presented only in aspects related to "planetary mindset".

Since the main idea of the concept is to make the company more flexible and more responsive to changes in the external environment, strategies that focus on distant time horizons can reduce the company's "agility" and even prevent it from achieving its goal. For example, long-term resource allocation plans reduce the company's flexibility by "locking up" resources and preventing them from being reallocated quickly when needed.

From the position of robust and fast strategies the company can adapt to changes in the external environment and is not able to change the rules of the game independently. The external environment, according to the representatives of these approaches, is complex, heterogeneous, dynamic and changes according to certain laws, incomprehensible to an outside observer, on which an individual company has no influence. The task of the company is simply to adapt to these changes by reducing risks as much as possible or increasing the speed of reaction. The approach of both concepts to the question of compliance with the external environment is similar - the company is kind of detached from the external environment, which changes according to its own laws, but affects the activities of the company (Merton, 1973).

The conceptual approach of strategic dynamics brings to the fore the provisions that there is a mutual influence between the company and the environment. That is, the actions of the company itself, considered as an active system, can lead to changes in the external environment.

In the concept of strategic dynamics the company interacts not with the abstract external environment, but with other players in the market, which are considered as elements of the environment. Different actions of these participants in some cases can lead to non-linear changes in the external environment. At the same time the company itself (if it occupies a central position) is able to change the rules of the game in the industry, for example, by creating a fundamentally new product or technology with increased consumer value. In this case, the company is not limited to adaptive actions to exogenous changes. Both the company and other players have two possible options for strategic behavior: either to try to change the external environment by offering new standards of competition, or to adapt to the changes occurring in the market. Depending on the combination of strategic companies, companies' decisions and their actions, different market situations can arise (Mintzberg, 1994).

The traditional approach to strategy, developed in relation to stable industries with clear boundaries, can no longer adequately describe the current situation associated with the blurring of industry boundaries, the dynamic development of technology, globalization and other factors.

It should be noted that anticipation of the future in the concept of fast strategies does not disappear completely. The part of the traditional approach related to the identification of key trends, opportunities and threats is relevant for fast strategies, but with an emphasis on getting ahead of competitors. It is also very important to identify key technologies and their carriers, and especially to understand why these technologies are developing so rapidly (Rejeski, 2011).

When change is particularly rapid and abrupt, strategic foresight must necessarily be complemented by strategic acumen, the ability to understand, analyze and make sense of complex strategic situations and their developments, and to be prepared for the results. For this purpose, the category "strategic sensitivity" is introduced into the concept. Increased quality and intensity of perception of the external environment, depending on the quality of incoming information and knowledge absorption are very important. The openness of the strategic process to external interactions, maximizing the exchange of knowledge with the outside world, creating and maintaining links with different sources of information, and using the strategic acumen of its partners are the key success factors of companies, which the concept of management strategy in the context of uncertainty is focused on.

Conclusion

The specific contribution of this article to the literature and organizational practice is that it analyzes the importance of the cognitive aspects of the strategic management system in conditions of uncertainty; makes a comparative analysis of different approaches to strategies in conditions of uncertainty, identifying and analyzing their characteristics and differences from the provisions of classical strategic management; classifies the angles of the strategic management system in conditions of uncertainty, comparing different approaches; cognitive concepts of fast strategies under conditions of uncertainty are characterized.

The problem of strategic change management in the innovative development is presented in the work of Sytnyk, Zubchuk, and Orel, (2022), development of the enterprise Voronkov (2009); the identification of

destabilization type's of the political system for preparation strategic decisions in the sphere of political security Orel (2017); the role of benchmarking as a method of enterprise performance management was justified in his work by Honcharuk (2020); the creativity, talent and genius in human beings, identify their grounds for subordination and manifestation and justify the content of their demarcation in a systemic aspect in creativity affect decision-making the work of Nerubasska and Maksymchuk (2020); the importance of knowing the risks of introducing organizational change: the essence, classification and identification was confirmed in a scientific study by Kostsyk (2010); the use of benchmarking in the formation of a competitive profile of the enterprise was noted by scientists Ladonko (2010), Feshchur (2017); on the formation of an effective system of management of aviation industry enterprises emphasized in its scientific research (Appendix A, 2020).

The paper considered three main concepts related to strategies in the context of uncertainty: robust strategies, fast strategies and strategic dynamics. Differences between the main provisions of the concepts and differences between the considered adaptive concepts and the provisions and recommendations of classical strategic management were identified. In general, the results of the study showed that there is no ideal approach to the formation and implementation of strategies in conditions of uncertainty and dynamism, each of the concepts has a number of advantages, disadvantages and its own sphere and conditions of application depending on the situation.

Future prospects: the work may be the basis for future research, as it is one of the first attempts to summarize the various concepts of strategies in the context of uncertainty and dynamism.

In addition, in the strategic concept of dynamics, the company's actions are able to change the market environment, in contrast to traditional management, where changes in the external environment are exogenous in nature. That is, the company can choose both the forced strategy, aimed at adapting to external circumstances, and its own autonomous strategy, which affects not only the development of the company itself, but also the situation and the rules of the game on the market. It is also assumed that the right of choice with the change of rules of competition have other market participants.

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