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STRATEGIES OF ORGANISATIONS BEHAVIOUR IN A CHANGING ENVIRONMENT

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СТРАТЕГИИ ПОВЕДЕНИЯ ОРГАНИЗАЦИЙ В МЕНЯЮЩЕМСЯ МИРЕ

Organisations behavioral strategies are examined. Organisations adaptation strategies concepts, methods and proactive innovative actions are considered. An adaptation of the organisations strategy to changing environmental conditions algorithm is presented. The necessity of constant changes of innovative organisations in the changing world is justified. The innovative strategy formation algorithm is presented. Organisations innovative projects effectiveness evaluation technique is described.

ORGANISATION STRATEGIES. STRATEGIES ADAPTATION. INNOVATIVE PROJECTS. CHANGING ENVIRONMENT. EFFECTIVENESS AND EFFICIENCY. RISKS AND OPPORTUNITIES.

Рассматриваются стратегии поведения организаций. Раскрываются понятие, методы адаптации стратегий и упреждающих инновационных действий организаций. Представлен алгоритм адаптации стратегии организации к меняющимся условиям окружающей среды. Обоснована необходимость постоянных инновационных изменений организаций в меняющемся мире. Приведен алгоритм разработки инновационной стратегии. Описана методика оценки эффективности инновационных проектов организаций.

СТРАТЕГИИ ОРГАНИЗАЦИЙ. АДАПТАЦИЯ СТРАТЕГИЙ. ИННОВАЦИОННЫЕ ПРОЕКТЫ. МЕНЯЮЩИЙСЯ МИР. РЕЗУЛЬТАТИВНОСТЬ И ЭФФЕКТИВНОСТЬ. РИСКИ И НОВЫЕ ВОЗМОЖНОСТИ.

The effectiveness and efficiency of business organisations, as the major businesses of any economic system, to a large extent depend on the environmental conditions of their function. Wherein, the environmental conditions consist of natural environment, as well as a system of institutional relations in the society, characterising informational, economic, social, legal, and other relationships with the rest of the organisation, with economic agents in the society within the existing institutional infrastructure.

The organisation environmental general property is its continuous volatility, influenced by external cosmic impacts, and due to the active human role, transforming the environment and changing the institutional infrastructure. For organisation as a subject of the existing

economic relations, the environment, on the one hand, is a source of new business opportunities, in case the changing parameters are favorable for the organisation development and, on the other hand, it can also be a sphere of potential threats, in case an environmental parameters change is not favorable to the development of the organisation. It is a basic feature of the organisation and its management in the changing world. Thus, the efficiency and effectiveness of business organisations will depend, first of all, on the strategy choice, undertaken by man, and on how organisations use new opportunities, both currently and in perspective also, they depend on their ability to eliminate potential threats and corresponding negative consequences. Therefore, a priority in choosing a behavioral strategy of



organisation in the changing world is the identification and evaluation of an aggregate capacity of its new environment for the business development, as well as prediction and assessment of potential threats, which as a rule, have a probabilistic nature, and in case of their occurrence – direct economic losses and indirect social and reputational consequences.

The capabilities, potential threats and possible consequences, usually depend on the characteristics of the environment, the type of organisation, the type of its specific activity, the degree of development of the institutional infrastructure and the nature of social relations in society. Therefore, the combination of capabilities and nature of environmental potential threats will be different for individual organisations in different countries and within the country, and they will change over time, reflecting the nature of the technological structure of the economy, the state of environmental parameters and principles of formation and functioning of the institutional infrastructure.

Modern fast developing world requires organisations to implement constant changes in their activities by making adjustments to the strategy. The concept of «strategy» is widely used in science and in practice, and in a variety of interpretations and often without a proper definition. However, in the management theory, a term «strategy» has specific and well-established content as a set of solutions and plans (programs) for their implementation in the long run, ensuring growth and high competitiveness of enterprises, strengthening their market positions by enhancing the ability to adapt to a changing environment.

The strategy is based on a multi-criteria selection due to different scenarios. It should contain clear objectives, guiding rules, approval criteria and conditions governing their decisions and actions. Due to the information uncertainty, strategy does not always contain specific solutions and actions (they arise at the tactical and operational levels), and describes behavioral algorithms, based on a deep understanding of the company and the factors of competitive advantage. The strategy retains flexibility to provide the freedom for maneuver within the chosen course of action, and to respond to an environmental change, depending on the situation [1].

Modern organisations operate facing ever-changing environmental factors, so they develop business strategies to meet new realities. In order to identify changes in the organisation environment, it is necessary to carry out continuous monitoring of its factors. Based on monitoring data, organisations need to change or adjust their strategies to remain competitive on the markets [2]. The changes can be adapting to the situation and proactively creating new conditions and methods of activity. Such concept suggests a company's strategy to be flexible, that is, to adapt to changes in the external and internal environment. Initially used in biology, the term «adaptation» is used in technical, natural, and social sciences. Adaptation is a process of in-house management system interaction to the external environment in which requirements and expectations of participants are agreed [3]. The concept of adaptation, in its broadest sense, involves a set of theoretical principles, management principles, ways to implement its special properties, to adapt subsystem characteristics and its parts to change the complete system of which it is part. Adaptation, in a narrow sense, is an economic and mathematical tool, including a special built-in algorithm for models with a changeable structure, which ensure increased realism of the description of the object in uncertain dynamics [4].

An adaptive control system is a property which reflects its ability to respond quickly and flexibly to any changes and to develop adequate administrative impact, allowing the system to minimize the action of disturbing factors [3]. So, the adaptability is regarded as a systems property, manifested in their ability to adapt [5]. Adaptation has to be continuous, focused, and ever-changing.

Considering the above, it is possible to identify a number of requirements for a flexible strategy formation in a changing world:

- 1) constant monitoring of environmental changes;
- 2) the assessment of business organisations threats and opportunities in a changing world;
- 3) the accuracy, adequacy, timeliness and validity of the information control used in the enterprise;
- 4) consideration of a complex system of organisation's relations with other economic agents;

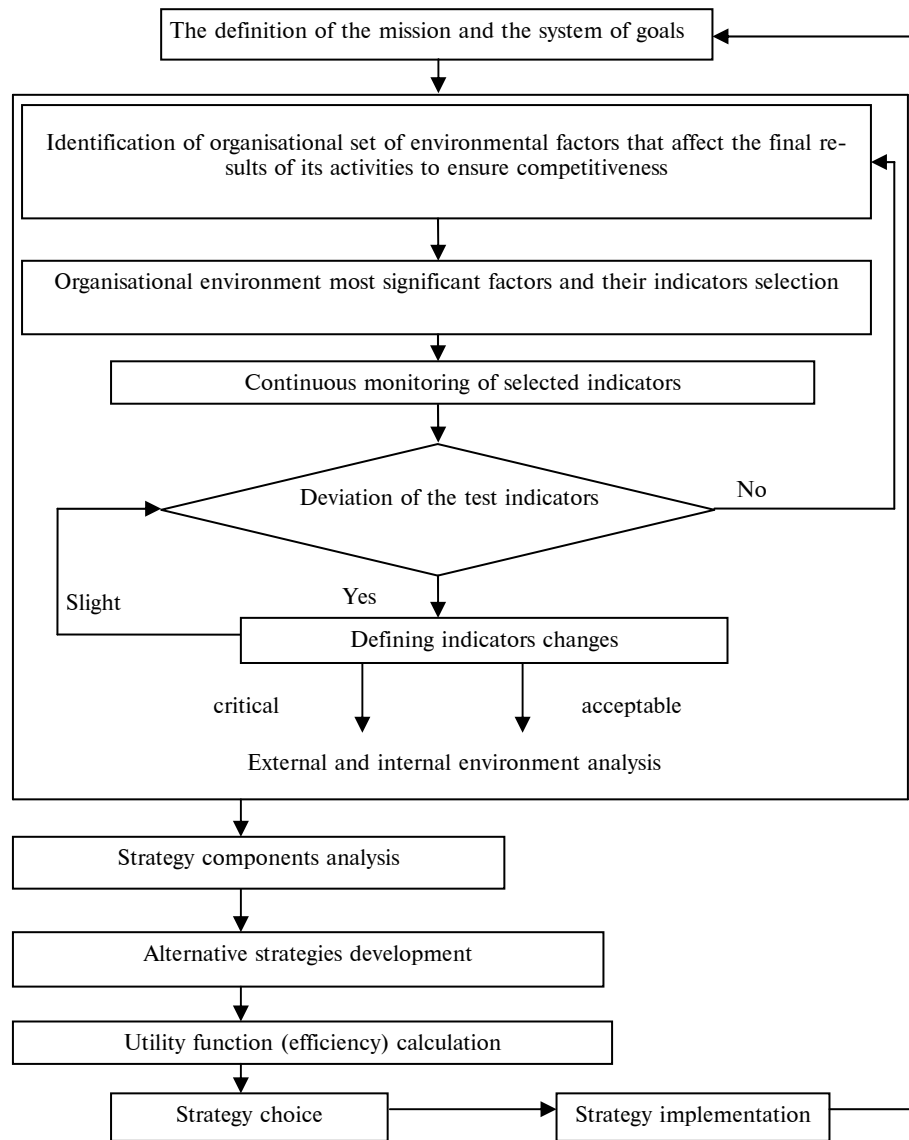


Fig. 1. An algorithm of organisation adaptation strategy to a changing environment

5) increasing the enterprises competitiveness through innovation potential;

6) making permanent changes in the pre-emptive strategy and policy, depending on external and internal conditions.

Adaptive algorithms are used for more effective analysis and company's strategy choice to achieve the main strategic goal of maintaining and enhancing competitiveness in a changing environment.

The proposed company's adaptation strategy algorithm (Fig. 1) allows linking the environmental factors change to the decision to revise the organisation's strategy. It is necessary to

carry out continuous monitoring of the environment at every stage, and make appropriate changes in the strategy of the organisation.

Organisation's strategy adaptation involves a selection of appropriate mechanisms: 1) functional strategies change; 2) contingency planning activities; 3) competitive advantages through innovations; 4) production reserves identification, elements of sparing manufacturing use; 5) constant monitoring of environmental factors.

The first adaptation mechanism is to consider the overall strategy as complex of partial (functional) strategies. This complement each other depending on conditions. That provides



the strategy with flexibility and willingness to change the environment [6].

The second mechanism is based on the strategy construction as a clear plan of action. Multi-variant is ensured by the different states of the environment. For this method strict predefined actions are typical. On the one hand, the stability of the enterprise increases, and, on the other hand, the ability to promptly react to events is limited.

The third mechanism is focused on internal capacity and the environmental forecast. The mechanism involves a determination of the most advantageous position in competition. Most enterprises increase efficiency through innovations [6]. However, the possibility of innovative borrowings and high innovative changes threaten the long-term competitiveness of the enterprise. For enterprise strategy adaptation, a constantly updated technology base and a set of external and internal conditions, necessary for the innovative production, are required.

The fourth mechanism is focused on resource conservation, the organisational structure improvement, etc. The adaptation activity is to match a change in the environment with a change in the object as a result of targeted actions.

The fifth mechanism provides environmental factors monitoring in order to detect changes. Monitoring allows prompt response to changes.

The choice of an adequate mechanism for company's adaptation strategy expands its adaptive capacity, subject to a proper use in a dynamic environment.

Any organisation, functioning in a changing world, must change its activities strategy. The developed algorithm and the set of adaptation mechanisms allow to provide appropriate adaptation solutions.

However, in a constantly changing environment, one of the main organisations adaptation mechanisms should be permanent proactive actions – innovative changes that prevent future negative situations. Currently, innovations are the main mechanism for the competitiveness of organisations. Organisational innovative activities result, primarily, in the development and the implementation of an innovative strategy.

An innovative strategy is a system of organisational long-term development goals and measures to achieve them through innovation; focused on the development and the use of the

organisational capacity as a response to environmental changes. The innovative strategies diversity (product, function, resource, management, etc.) is determined by the internal environment of the organisation.

Organisational innovative strategies include: innovative activities aimed at generating new products, technologies and services; an application of new methods in R&D, production, management; transition to the new organisational structures; the use of new resources, approaches to the use of traditional resources [7].

The process of organisational innovative strategy formation and implementation has the following characteristics:

1) organisational innovative activities are the basis of an innovative strategy, which is considered an optimal functioning means and the development of the organisation as a whole;

2) the main focus of organisational strategic analysis is innovation potential, level and degree of innovation activity assessment;

3) commitment to innovations and focus on innovation in all areas have to be in innovation-oriented organisations mission;

4) innovative strategies implementation efficiency is carried out through a comprehensive assessment of the organisation, which is directly relate to innovation.

Innovative strategies are a source of unfavorable conditions for management: an increase in the uncertainty of investment risks additional changes due to innovative restructuring, sharpening of the contradictions between the leadership.

In order to identify the organisations investment needs for innovative strategies development and implementation, the following stages are distinguished while developing new improving technologies [7]:

1) a research stage;

2) constructive (technological and production design) stage;

3) a concept stage (production process regulation and market launch concept formation);

4) expanded reproduction and distribution stage.

Summarising the existing approaches and the experience of successfully functioning innovative organisations, the innovative strategy formation algorithm is presented in Fig. 2.

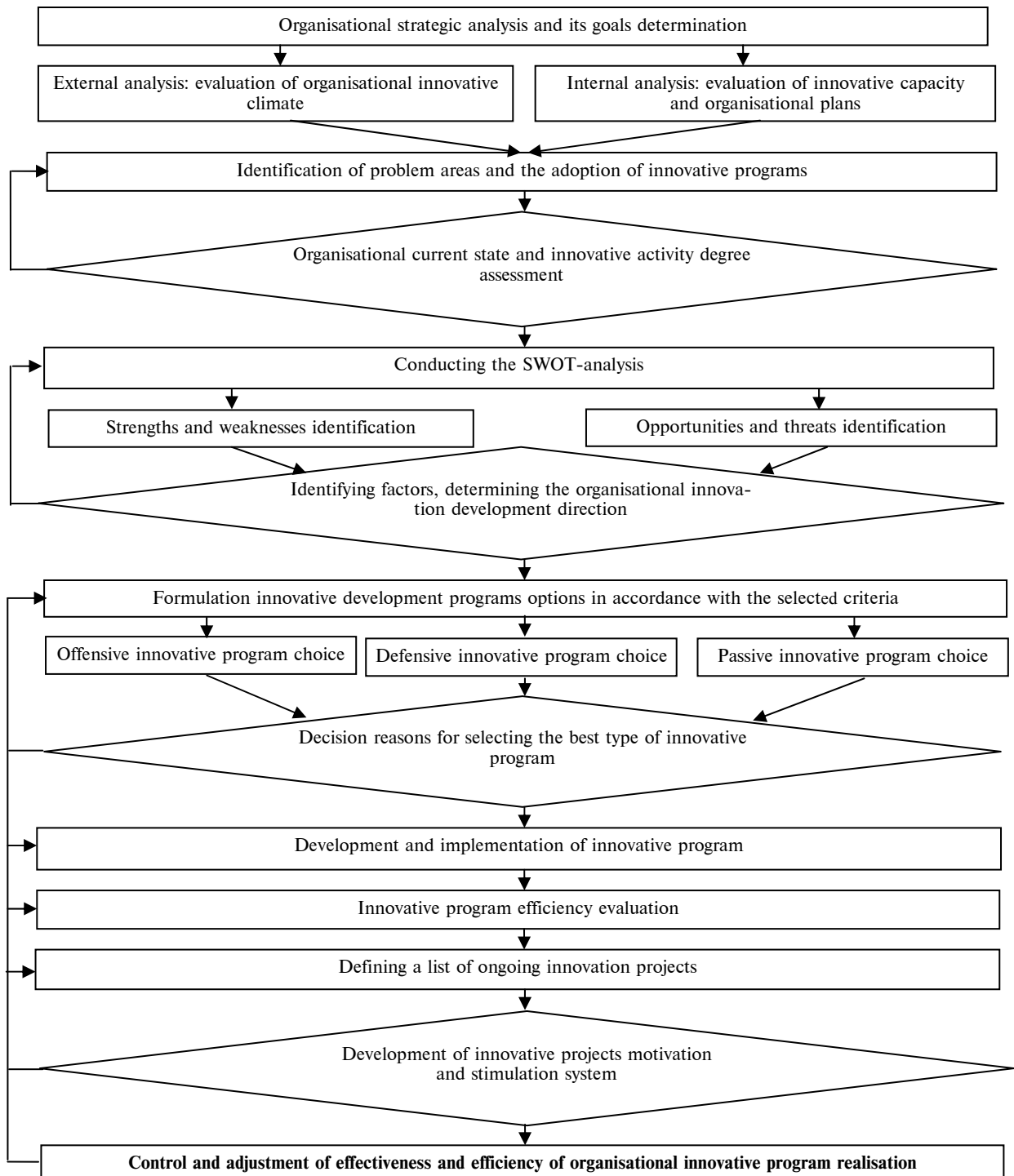


Fig. 2. The algorithm of innovative strategy formation

The organisational analysis provides possibility to determine precisely the innovative investment project (or program), which is required for the current innovation strategy implementation. R&D

projects can be considered as real options, because at initial stages there are shortage and unreliability of financial information, but they can be stopped with a much smaller financial losses.

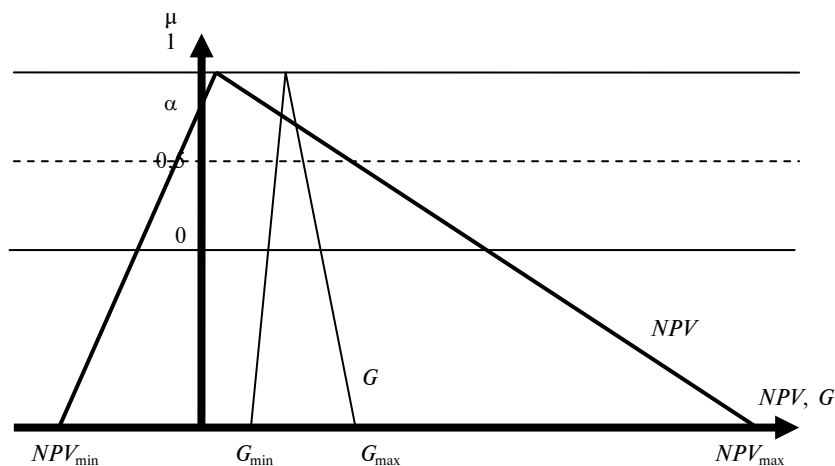


Fig. 3. NPV fuzzy evaluation

Innovation and investment projects are considered from the perspective of real options and are aimed at identifying their additional features and capabilities [8]: 1) varying the project parameters during its implementation; 2) quantitative assessment of the available options and their inclusion in the cost of the project.

According to the fuzzy interval approach, the basic parameters of the innovation project can be estimated in the form of triangular fuzzy numbers (minimum, maximum, and most expected values) and for each level of confidence (from 0 to 1) construct interval estimation of net present value (*NPV*) [9].

As the project goes from phases to phase, further information becomes available, ensuring further adjustment of NPV fuzzy evaluation (Fig. 3) [10]. The method allows constant critical analysis and a search for alternative ways within the internal and external environment; it allows not to assess the entire project at once, but to divide it into individual stages; it allows to evaluate the efficiency and make choices between alternatives without using other methods; it allows to consider the relationship between risk and opportunities for the organisation.

Thus, the environment is a source of both new business opportunities and potential threats for the organization. The effectiveness and efficiency of business organisations in a changing world will depend, first of all, on the choice of the behavioral strategy, which creates new opportunities, both currently and for the future of the organisation, and also eliminates the potential threats and the corresponding negative consequences. Therefore, a priority in choosing an organisational behavioral strategy in a changing world is the identification and evaluation of new aggregate environmental opportunities for the development of its business activities, as well as the prediction and assessment of potential threats impact.

Organisational strategies should be different in various conditions. Strategy formation should be a continuous process, which either adapts to the enterprise changing environment or prevent undesirable effects. The suggested algorithm, the set of mechanisms of adaptation and pre-emptive actions, the method of estimating the efficiency of innovative projects proposed above, ensure appropriate management decisions and the evaluation of their effectiveness and efficiency.

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