

The Effective Mechanism for Decision-Making in Business Administration: Formation Conceptuality, Systemic and Intersystemic Links

Vira Chevhanova¹, Olesya Hryhoryeva², Oleksandr Khadartsev^{3*}, Inna Miniailenko⁴

¹Poltava National Technical Yuri Kondratyuk University, Ukraine

²Poltava National Technical Yuri Kondratyuk University, Ukraine

³Poltava National Technical Yuri Kondratyuk University, Ukraine

⁴Poltava National Technical Yuri Kondratyuk University, Ukraine

*Corresponding author E-mail: alexkhadartsev@ukr.net

Abstract

The article deals with the concept of an effective mechanism for decision-making in business administration, which the authors propose. While creating the conceptual foundations of the mechanism in the framework, authors considered: differentiations of the concepts of "management" and "administration" hierarchy of logical-structural and causal relationships of external and internal decision-making environment. Heuristic vision of the category "mechanism" is presented in conjunction with business administration specifics, for determining the sequence of stages and phases of the decision-making mechanism. Authors represent the conceptual construction of decision-making mechanism in the article, and show the decomposition of such mechanism systems, and its intersystem dependencies with visual tools. In the article authors determined, that practical implementation of the proposed concept will allow to make reasonable choices of useful business administration tools for: improving business management efficiency; improving business-processes, their functional vectors and tasks; taking into account the peculiarities of the economic environment dynamics.

Keywords: business administration; business-entity; business-processes; decision-making; efficiency; mechanism.

1. Introduction

Due to established terminology, business administration is understood as the process of business management and related decision-making. The key functions of business administration include management and execution of business operations, monitoring and control of business-processes; organization of personnel and resources, and other aspects of business activities. At the same time, an important point is to identify the interaction between different categories of the business environment: market conjuncture, marketing, competition and competitiveness, finance, information interactions, and others [5]. In addition, decision-making and performance of managerial functions should ensure the achievement of particular business-entity goals. Business and entrepreneurship (especially for small business-entities) by their very nature are constant processes for ensuring a balance between the business-entity's potential and market requirements [17]. Therefore, spontaneity, inconsistency and subjectivity in business decision-making processes can lead to fatal consequences for a business-entity.

The nature of business management and supervision has changed dramatically in recent years. This requires more challenging skills and a wider, deeper understanding of the strategy and issues that affect the organization and its market [3]. It is also necessary to take into account the dynamic transformation of the business environment [13]. Modern peculiarities determine the merger and interconnectivity between "clean" business environment and social sphere. Sergio G. Lazzarini [9] substantiates the need for a de-

tailed study of such interactions, as well as the effect that it has on the environment. Therefore, it must be agreed that the relevant transformations also have to influence on the decision-making mechanism. In particular: from the point of view of adequate comparison between alternative solutions, to figure out explicit and implicit gains, which will allow to establish the real value of the chosen alternative. Researchers also point out that modern methods and tools for public administration are often borrowing from business administration methodology [10]. Both public administration and business administration use the same supporting (or general internal) issues, such as planning, communication, operation research, mathematical and statistical methods, and probability theory. Indeed, managerial thinkers Henri Fayol, Mary Parker Follett, Elton Mayo don't distinguish between public administration and business administration. They argue that every administration, both public and business, are the same and also have the same basic characteristics.

On the other hand, effective business administration contributes to the national economic development. Jianye Zang, Yue Feng, Yaowei Guo [22] showcased this on the example of China, where the goal is to create a competitive and orderly market environment, to support for market balance for the economy and society. Thus, business administration should help boosting marketing and attract more investment. In addition, there is a need to take into account the specifics of the modern transformational process of an industrial economy into a post-industrial one. It also sets new requirements and a revision of established sequences for decision-making processes [2]. I. Sotnyk notes that the management of socio-economic systems dematerialization requires complex inno-

vative approaches, in accordance with the hierarchy of decision-making. The basis of such innovative change should be the appropriate economic mechanism [20]. Therefore, the purpose of this study is to present a conceptual vision of a multifaceted decision-making mechanism in business administration. Such a mechanism should be capable of displaying system elements and intersystemic links in the business administration environment.

2. Basic imperatives in administrative and managerial mechanisms

To achieve the goal of the study, it is necessary to clearly understand what should be the object, and what should be the subject of research. Therefore, if we follow the aforementioned terminology, it is necessary to establish what is the essential difference between definitions of "management" and "administration". Classics in the field of management P. Drucker and F. Taylor in their works noted, that management is "the art of precisely knowing what should be done in the best and the cheapest way"; the result is that "the necessary and proper things are done"; the efficiency - "things are created correctly". Implementing any business solution involves a balance between two system-building components:

- methodology – setting goals, business environment analysis, tools definition, direction search, alternatives evaluation;
- procedure – putting processes in order, sequence of actions, distribution of competencies, time management, coordinating participants, formalization.

For the "management" concept, the methodological aspect is more characteristic, the effectiveness of management can be defined as the adequacy for the object of management actions. For the "administration" concept, a procedural aspect will be more specific, it can be described as "commissioning" or "launching an object", which is also necessary for the efficient execution of business tasks. This approach allows us to form a decomposition of systemic and intersystemic interactions in the conceptual vision of the decision-making mechanism. In other words, the construction of this mechanism makes it possible to solve the problem of the methodological elements ordering with procedural ones.

Decision-making by business-entities is conditioned with the specifics of their management, chosen business strategy, the state of the external economic environment. B. Andrushkiv and L. Mel'nyk note that in the modern economic environment, the methods of business processes managing of the company are primary. They must be defined in accordance with the existing system of business processes in company, which in turn are structured on [1, p. 94]:

- operational – that creates value added and the product itself, and form the result;
- supporting – providing key company processes and infrastructure, and auxiliary processes;
- management – aimed to coordinate the main and supporting business processes, as well as the implementation of corporate development.

Such a hierarchical mosaic of business processes creates the basis for logical and structural concept of the decision-making mechanism. In this sequence, chain-forming domination will belong to a procedural system that will determine the individual elements placements of the decision-making mechanism. In line with practice of making effective decisions, ignoring such specificity will be a major factor in strategic business mistakes. D. Power and A. Mitra point out that even future development of computing systems and accumulated experience cannot eliminate causation errors in the decision-making process itself, when the ultimate error is the aggregated result of minor failures and shortcomings [14]. J. Jeston in his book [6] indicates business leadership is responsible for matching creating of business-processes to the relevant economic environment. In his opinion, an adequate strategy has de-

veloped to the economic environment specifics, according to one will be available a set of business-operating models for the company. At the same time, business-process management models are based on the following key elements [15]:

- strategic alignment;
- coordination;
- methodical toolkit;
- digitization;
- mentality;
- culture and traditions.

An effective decision-making mechanism should ensure the integration of the economic environment functioning laws in accordance with its hierarchical structure, which allows to improve the provision of business-processes, and to achieve the focus on sustainable development of business-entity. Concept of "mechanism" indeed comes from technical disciplines and is adapted to the economic phenomena needs – as a system of links for the conversion of one element into the necessary movement of others. Based on the works of the notion of "economic mechanism" founder A. Kulman, scholars interpret his ideas as follows:

- system of interconnection of unrelated economic phenomena;
- stable sequence of economic phenomena;
- the process that occurs between phenomena;
- presence of the root cause and consequence of functioning.

Entrepreneurial activity of business-entities is the main source of economic development as driving force behind satisfaction of economic interests, especially in the conditions of dynamic imbalance and contradictions in the economic environment. In this case, the function of the state as a regulator is to coordinate the purposeful interaction of the of economic process subjects totality, within the institutions of activity, resources and strategies [19]. The effectiveness of functioning as a regulator is creating such methods and tools of types of economic policy that help eliminate the bias and selectivity of regulation, eliminate discriminatory restrictions and take into account the heterogeneity of the economic environment components [22]. The construction of an effective decision-making mechanism should be made with taking into account the economic nature of management, causal relationships between the economic activity conditions and factors, motivation and market behavior of the business-entity.

Such a mechanism function becomes the actual value as the establishment of the number of degrees of freedom – independent parameters determining in time the trajectory and the velocity of motion for all elements of the mechanism, in the aspect of the effective business-administration formation. Regulating the extent of economic freedom is one of the target criteria for management and implementation of business strategy in general, and therefore inevitably manifests itself in methodology and decision-making processes. Accordingly, an effective mechanism should provide the optimal combination of policy and incentive levers of influence on the business processes functioning, as well as creating conditions for maintaining the balance of economic interests of all business-entity potential stakeholders. To create connections between elements of the decision-making mechanism, the foundation must include the basics of objective laws of the internal economic processes effective flow and the impact of the external market environment factors. In particular, this view on the mechanism concept is confirmed by I. Sotnik's studies [20] on the examples of resources-saving processes management in Ukraine. The author notes that the mechanisms of state management of resource saving, which are operating in Ukraine today, and are components of the general economic mechanism, did not provide a sufficient level of using common producing efficiency. In her opinion, ineffectiveness is entirely related to the administrative tools dominance in economic policy, and the lack of consideration for economic methods effectiveness.

Therefore, to make effective decisions in business administration, it is necessary to form an analytical framework, which will be the first stage in the functioning of the mechanism (fig. 1). At this stage a complex and comprehensive analysis of business processes and business environment should take place. The goal of this stage is to identify the current situation and receive a complete description of the current situation in business-processes effectiveness, the existing business administration system, to make comparisons, and to identify existing disadvantages, problems, barriers and consequences for the decision-making mechanism.

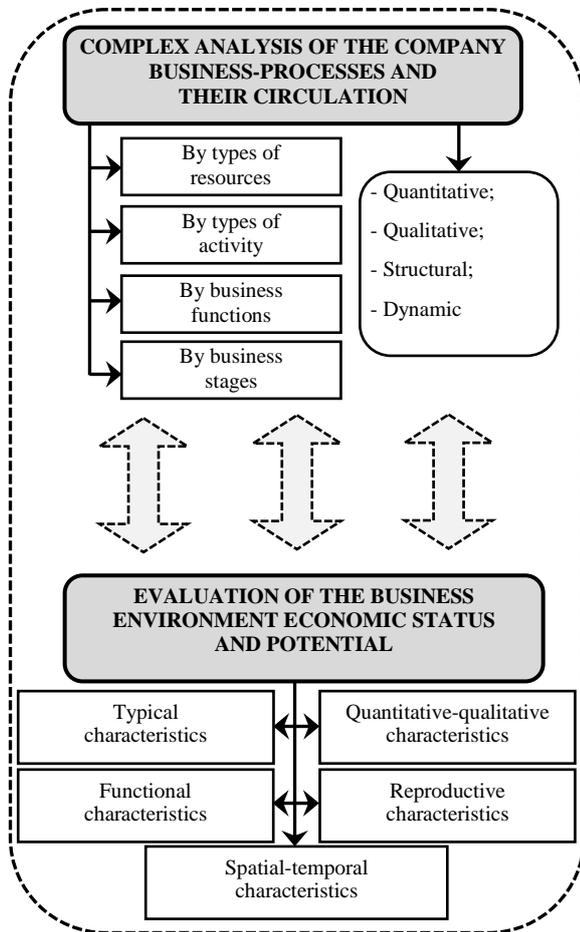


Fig. 1: The first stage of the mechanism's functionality – analytical framework for decision-making (developed by authors).

As part of this stage, one of the tasks of the complex analysis is to conduct benchmarking with other business units on the quantitative, qualitative and structural indicators of effectiveness and efficiency, as well as on the levels of management, types of activity and taking into account other features. Therefore, a business profile (similar to the competitiveness profile) should be considered as an initial stage in the mechanism creation: the establishment of trends in the business environment, the definition and analysis of factors that determine the specifics of business processes, the identification of the role of business administration. This will create a business model at the macro level and obtain a comprehensive quantitative and qualitative characteristic of business-processes. Such an approach will allow the formation of objective conceptu-

al, organizational, and managerial principles, as well as create the prerequisites for adequately taking into account the dynamic externalities of the business environment.

Determination of the communication types and their optimal formation between the elements of the mechanism are the initial factor in its effective functioning [11]. By its nature, connections can be both deterministic and stochastic. This, in turn, forms the degree of openness of the organizational and economic mechanism and the direction of the results of its functioning:

- mechanisms of balance, where, as a result of its operation, upgrades and development should be considered;
- mechanisms of multiplicity or reproduction, where the result of its operation should consider the stability and continuity of the sequence of business processes.

The mechanism of decision-making has both features, so the construction of vertical and horizontal connections should reflect them. It will be logical to assume that for a particular business process the highest priority is the reproduction property, since administration is a means for it to achieve business goals. The business-entity has a fairly limited economic impact on the external environment and has no regulatory influence, but the attraction of resources and the transfer of results of the business unit takes place precisely in the external environment. Under such a disposition, the initial thing will be adaptation to the environment conditions and ensuring situation of business entity normal functioning. From the point of view of achieving the goals and objectives of business administration, the question arises of the effectiveness of business and ensuring the effective management of this process. "Business Administrator" essentially functions as the company's manager, but controls those who hold executive positions to ensure that they adhere to the company's policies and work best on achieving the goals of the company. On such a scale, the levers of control (together with the administrative and economic tools) acquire new quantitative and qualitative properties. The company as an institutional unit has the ability to operate with a substantially higher level of resource potential. Taking into account the principles of creating a system, it is precisely at higher hierarchical levels of business administration that sufficient prerequisites are created to obtain a synergistic effect of using the aggregate potential of a business unit. This determines the priority of growth and development as part of the strategic goals of functioning; therefore, the highest priority in the construction of the mechanism will have the balance and balance property.

The influence on the decision-making effective mechanism formation carries out a number of various factors. First, it is the development of information technology and business management tools. M. Iansiti and K. Lakhani note [4] that digital transformation extends even to the most traditional branches of the economy, and creates impressive opportunities and threats for business. Digitization of tasks and processes, as well as the industrial Internet have become important for competition: digital sensors; cloud software platforms; create an opportunity for analytics to develop products based on the "crowd technology". Specialists note that monitoring with the use of modern information and analytical tools can increase the efficiency of business process management of the enterprise and determine the strategic development of the enterprise, provide an effective formulation of the goals of development and their solution [12]. It should also be noted that the development of information technologies is potentially a driving force in achieving sustainable development and allows for a positive ecological and economic effect [21].

Another group of researchers rightly believes that the most important aspect of successful business administration is effective HR-management [7], which determines the effectiveness of decision-making. According to the results of their researches (with using the economics and mathematical tools) it's established that successful running of a business, prospects for increasing the efficiency of business administration of modern enterprises are related to the growth of human capital. Personnel is the least predictable factor of production and a source of actions that contradicts on the general development strategy enterprises. It is also necessary to note, that with the growth of the scope of the entity's operations or taking into account the specifics of the management, both the integration and the disintegration of the types of mechanism can take place. For example, growth to a transnational corporation is inextricably linked with the transformation of the economic potential of the business entity to a higher level of quantitative and qualitative characteristics. Another example can be strategically or socially important enterprises, for which the state takes over the resolution of particular problems of functioning, or transfers them to society. For differentiated subjects of management at different stages of economic relations will be characterized by various factors of decision-making. Specificity of products and industry, in which the business unit operates, determines its dependence on the organizational and technical system of production - such as technological structuring, volume and structure of resources, as well as the sequence of the production process.

The manifestation of the business decision effects is not only on the level of elements, but also process and procedure. Such specificity is due to increased technological intensification, controllability, flexibility, adaptability, speed of implementation, stability and reliability of production and economic operations. Identifying the causal relationship of decision-making with tangent environments and spheres allows you to obtain a list of obvious benefits:

- to carry out an objective, relevant and comprehensive evaluation of the results of business administration;
- to determine the most effective forms and means of realization of management of business processes in comparison with the action of specific dominant environmental factors;
- to identify alternative perspectives and ways of transformation of the economic and technological structure, which should be foreseen in business strategy, for development;
- to prove the advantages of the corresponding business administration tools in accordance with the levels of the business unit hierarchy, which enhances the motivation and disciplines of the chosen strategy.

3. Decision-making system and its inception

The first phase is research. This phase should identify the driving forces and factors of the effectiveness of business processes and business administration, their distribution and ranking based on relevant features, as well as the establishment of inter-system and inter-categorical relationships and regularities in business administration. The general purpose of the phase is to provide an answer from the standpoint of availability and use to question the actual vectors of the movement, the need for transformation and the prospect of future achievements, taking into account the determining forces and the conditionality of administration. Therefore, in this phase, it will also be practical to investigate based on simulation real alternative business development paths [6; 16].

The second phase is search. In this phase, creating the conceptual foundations of business decisions takes place. The main purpose of the phase is to create the basis for the decision, define the strategies, goals, tasks, tools and means for its implementation. One of the key elements should be the justification of the levers of stimulation and motivation, since they determine the effectiveness of individual methods and tools when making business decisions.

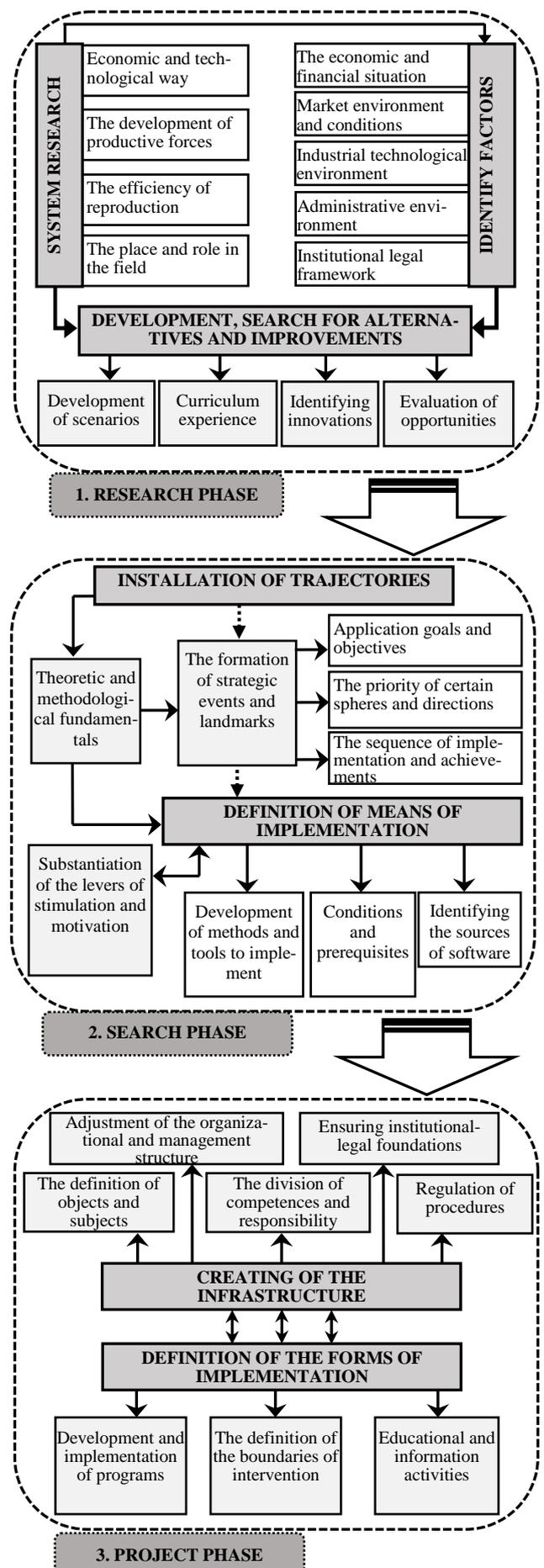


Fig. 2: The second stage of the mechanism functioning – the concept of a decision-making system (developed by authors)

In this aspect, attention should be paid to stochastic relationships between the elements of individual decision-making phases and their impact on the overall process.

The third phase is project. In this phase, the establishment of the principles necessary for effective implementation and administration of the decision, which determines both the form of implementation and the formation of support infrastructure for this solution, is being developed. The main objective of the phase is to bring all the components of the business processes to the state and appearance necessary for the effective implementation of the solution. This is due to a variety of business unit environments, as well as focusing on specific business-process sectors.

The third stage of the functioning of the mechanism involves evaluating the consequences and results of the decision. It also reflects the interplay and interconnection with the first stage, and may be to some extent a source for a new cycle of the mechanism (fig. 3).

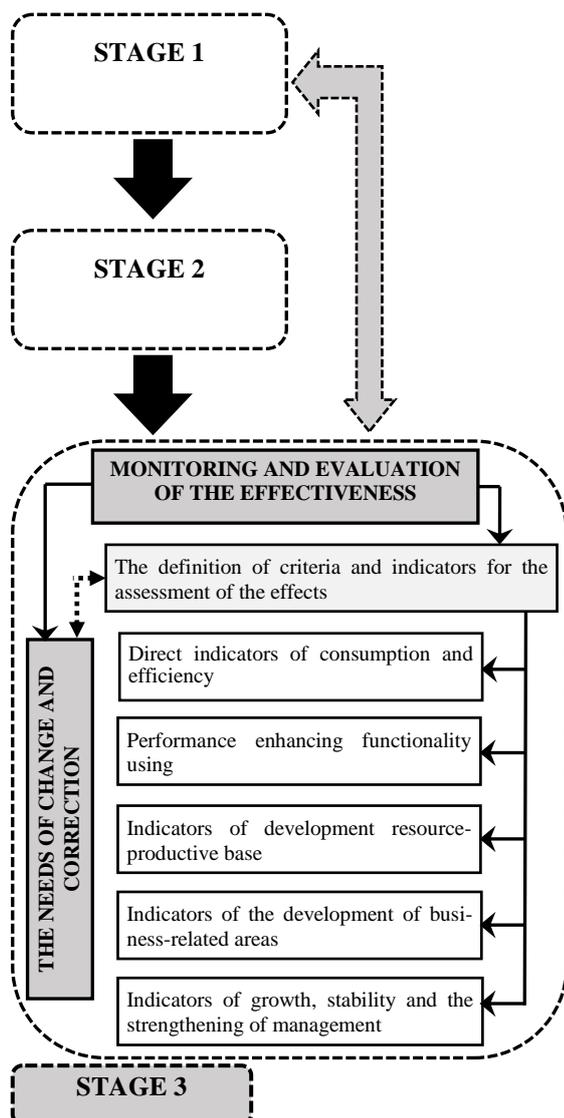


Fig. 3: The third stage of the operation of the mechanism - the evaluation of the results and consequences (developed by authors).

The purpose of this stage is to determine the results of the decision, identify shortcomings and its critical aspects in order to further improve and improve efficiency. In this case, the evaluation criteria should cover all aspects and results of business administration, so it is advisable to group them appropriately [6; 16; 18]:

- cost and efficiency indicators of the use of resources reflecting absolute and relative efficiency in actual and comparative metrics: volumes by type and nature of consumption, per unit of output, savings and relative savings, return on measures to optimize re-

source use, and other similar indicators;

- indicators for increasing the functionality of business processes that reflect the optimization and improvement of relationships, procedures and operations resulting from the use of business administration tools, for example: the level and effects of clustering, combination, co-production and synergy, circularity and the growth of the degree of useful output, other similar indicators;

- indicators of the development of the resource and production base reflecting the identification, enhancement and expansion of the components of the resource potential and production potential: the definition of alternatives and substitute resources; the establishment of new practical and suitable properties and characteristics of traditional resources, the growth of capacities and labor security, reducing transformational and transfer losses, increasing the reproducibility of spatial-temporal features and other similar indicators;

- indicators of the development of interrelated areas reflecting the positive effects of effective business administration, such as indicators of investment and innovation activity, improvement of the environment and reduction of negative influence, increase of the level of remuneration at the expense of economy, satisfaction of social needs and requirements, other similar Indexes;

- indicators of the growth of sustainability and strengthening of the economy, reflecting the improvement of certain aspects of business activity, as a result of policies to improve the decision-making at the level of the business unit and the state: the growth of profit and financial stability, the release of capital and cash, the reduction of the duration of production and business cycles, increase of competitiveness, growth of economic security and other indicators.

It should be noted that an abstract conceptual interpretation of the mechanism must be put in place by an adequate sequence of stages and processes, which is the basis for the effective functioning of such a mechanism in the realities of the economic environment. Thus, the detailed development and implementation in practice of the concept of a mechanism for effective decision-making in business administration will allow for the effective management and implementation of business processes, as well as create the prerequisites for the sustainable development of business units.

4. Conclusions

The principles enshrined in the mechanism allow forming functional connections between elements of the mechanism of decision-making in business administration. Compliance with these principles ensures effective coordination between decision-makers, creates interdependence and a common focus of the methodological tools of business administration on achievement of the set goals, establishes an adequate relationship between the defined tasks and the available resource support, promotes sustainable, planned and efficient development. The effectiveness of business administration methods and tools depends entirely on how much they will be able to provide sufficient motivation for decision makers. Since the starting point is the decision-making, one of the key tasks should be the formation of a set of objective factors of influence, if the starting basis is the needs, priorities and quality of business units.

The influence of the causal relationship between the production system and the market determines the regularities of the functioning of the decision-making mechanism. Accordingly, the proposed concept of an effective decision-making mechanism in business administration includes a set of processes and actions for the creation, maintenance, operation and improvement of system and system-based economic relations between entities and objects of management. The concept includes features of the influence of individual groups of factors, takes into account the components of the business administration effects, defines the conditions, forms, methods and tools of implementation of the decisions and allows evaluating the effectiveness in accordance with the established

criteria. Taking into account the peculiarities of the current dynamics of development of world economic relations and the focus on innovative development, the conceptual vision presented also allows us to determine the tasks of business management policy in order to achieve the established strategic priorities.

References

- [1] Andrushkiv BM & Mel'nyk LM, "The formation of enterprise business processes system in context of sustainable development", *Theoretical and practical aspects of economics and intellectual property*, No. 2(1), (2015), pp: 91-97, (in Ukrainian). <https://doi.org/10.31498/2225-6407.12.2015.82065>
- [2] Chang JF, *Business process management systems: strategy and implementation*, New York: Auerbach Publications, (2016), 304 p., available at: <https://www.taylorfrancis.com/books/9781420031362>.
- [3] Cole K, *Business Administration and Supervision*, Cengage AU, (2017), 467 p.
- [4] Iansiti M & Lakhani K, "Digital Ubiquity: How Connections, Sensors, and Data Are Revolutionizing Business", *Harvard Business Review*, Vol. 92, No. 11, (2014), pp: 90-99.
- [5] Jan vom Brocke & et al., "Ten principles of good business process management", *Business Process Management Journal*, Vol. 20 Is. 4, (2014), pp: 530-548
<https://doi.org/10.1108/BPMJ-06-2013-0074>.
- [6] Jeston J, *Business Process Management*, London: Routledge, (2014), 688 p., available at: <https://www.taylorfrancis.com/books/9781136172984>.
- [7] Kayl II & et al., "Effective HR Management as the Most Important Condition of Successful Business Administration". In: *Popkova E, Sukhova V, Rogachev A, Tyurina Y, Boris O, Parakhina V (eds) Integration and Clustering for Sustainable Economic Growth. Contributions to Economics*, Springer, Cham, (2017), pp: 23-30, https://doi.org/10.1007/978-3-319-45462-7_3.
- [8] La Rosa M & et al., "Business process variability modeling: a survey", *ACM Computing Surveys*, Vol. 50, Is. 1, (2017), Article No. 2 <https://doi.org/10.1145/3041957>.
- [9] Lazzarini S, "The measurement of social impact and opportunities for research in business administration", *RAUSP Management Journal*, Vol. 53, Is. 1, (2018), pp: 134-137 <https://doi.org/10.1016/j.rauspm.2017.12.010>.
- [10] Marume SBM, Jubenkanda RR & Namusi CW "Similarities and differences between public administration and business administration", *International Journal of Scientific Engineering and Research*, Vol. 4, Is. 1, (2016), available at: <https://lis.zou.ac.zw:8080/dspace/handle/0/274>.
- [11] Mendling J & et al., "Blockchains for business process management - challenges and opportunities", *ACM Transactions on Management Information Systems* Vol. 9, Is. 1, (2018), Article No. 4 <https://doi.org/10.1145/3183367>.
- [12] Pavlova VA & Parshyna OA, "Enterprise business processes management on usage of modern analytical technologies", *Academic Review*, No. 1(46), (2017), pp: 54-61, (in Ukrainian), available at: <http://ir.duan.edu.ua/handle/123456789/150>.
- [13] Polato M & et al., "Time and activity sequence prediction of business process instances", *Computing*, Vol. 100, Is. 9, (2018), pp: 1005-1031 <https://doi.org/10.1007/s00607-018-0593-x>.
- [14] Power DJ & Mitra A, "Reducing "Bad" Strategic Business Decisions", *Drake Management Review*, Vol. 5, Is. 1/2, (2016), pp: 15-21, available at: <https://faculty.cbpa.drake.edu/dmr/0512/DMR051202V.pdf>.
- [15] Rosemann M & vom Brocke J, "The Six Core Elements of Business Process Management". In: *vom Brocke J, Rosemann M (eds) Handbook on Business Process Management 1. International Handbooks on Information Systems*. Springer, Berlin, Heidelberg, (2015), pp: 105-122 https://doi.org/10.1007/978-3-642-45100-3_5.
- [16] Sawyer TY, "Making Business Decisions Using Quantitative Models: Decision Analysis Best Practices". In: *Financial Modeling for Business Owners and Entrepreneurs*. Apress, Berkeley, CA, (2015), pp: 213-230 https://doi.org/10.1007/978-1-4842-0370-5_10.
- [17] Scarborough NM, *Essentials of entrepreneurship and small business management*, Pearson, (2016), 722 p., available at: <http://lib.hpu.edu.vn/handle/123456789/23886>.
- [18] Schneider M & Gouveia J, "Making Better Business Decisions Evaluating Multi-Prospect Plays Using a Clustered Development Basis", *Offshore Technology Conference Asia*, 20-23 March, Kuala Lumpur, Malaysia, (2018) <https://doi.org/10.4043/28499-MS>.
- [19] Schoknecht A & et al., "Similarity of business process models – a state-of-the-art analysis", *ACM Computing Surveys*, Vol. 50, Is. 4, (2017), Article No. 52 <https://doi.org/10.1145/3092694>.
- [20] Sotnyk I, "Trends and problems of dematerialization managing for production and consumption", *Actual Problems of Economy*, No. 8, pp: 62-67, (in Ukrainian), available at: <http://essuir.sumdu.edu.ua/handle/123456789/28907>.
- [21] Sotnyk I, Volk O & Chortok Y, "Ecological and economic efficiency improvement on introduction of information and communication technologies as an innovative direction of resources saving", *Actual Problems of Economy*, No. 9, (2013), pp: 229-235, (in Ukrainian), available at: <http://essuir.sumdu.edu.ua/handle/123456789/33325>.
- [22] Zang Jianye, Yue Feng & Yaowei Guo. "Correlation between Business Administration and Economic Development", *Business Administration and Management*, Vol. 1, No. 1, (2018) <http://dx.doi.org/10.24294/bam.v1i1.223>.