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MANAGEMENT OF THE BUSINESS SYSTEM OF THE ENTERPRISE

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The article is devoted to topical issues of the development of modern enterprises. Today, one of the main elements of the profitability of any production is the rational management of the enterprise's business system. The business system is one of the innovative forms of ensuring the competitiveness of enterprises on national and international markets. Despite the existence of facts of the successful functioning of business systems and significant scientific interest in the peculiarities of their formation and development, today there is no adequate definition of the concept of «business system», the types of business systems are not sufficiently substantiated, and the approaches to them are largely described in fragments formation. To build a business system, it is necessary to cover not only the entire organizational model, but also pay attention to individual elements of management systems. The formation of the business system is carried out by means of modeling business processes, while the activities of the business system are sequentially broken down into a hierarchical structure of business subsystems and individual business processes, which makes it possible to determine fairly repetitive, separate sets of business processes that can be correlated with individual business subsystems, etc. Modern changes in the external environment require the formation of scientifically based methods and mechanisms for managing the development of business systems. Anticipation of changes in the state of the business system, anticipating the actions of competitors, consumers and suppliers, the ability to resist negative factors, where business system development stimulators require appropriate management skills and sufficient potential. The strategic task of business systems is to create conditions for stable continuous development, positive dynamics of expected results. In turn, the assessment of the problematic business space for the development of business systems is the basis for the development and adoption of management decisions regarding the trajectory of their further development. In this regard, the article highlights the main reasons for implementing a business system at an enterprise. To build an effective business system, first of all, a strategy is necessary, that is, the business system should be built from the strategy, and not the other way around. An attempt to build a business system based on «crooked» business processes ends in fiasco.

Keywords: enterprise, business system, business processes, external environment, production, enterprise, strategy.

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Introduction and statement of the problem

Modern trends in the development of business structures require their owners to be aware of the need for management on a qualitatively new basis, characterized by the use of tools of financial,

economic and strategic analysis, the presence of an innovative component and the effect of such factors as creativity and non-standard in the vision of further business development. The formation of an effective business model acts as a form of strategy

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implementation and a reflection of the company's chosen tactics for achieving a given goal. The formation of a business model takes place only in conditions where the company accumulates a resource-competitive base, which leads to the growth of its business activity, contributes to the intellectualization of business, provides irreproducible competitive advantages, the most optimal use of existing and promising opportunities, as well as the growth of market value [1].

The civilizational development of the world is acquiring new features and trends, which are due to the innovative type of development of society in the 21st century. Thanks to new technologies, traditional systems of production and exchange of goods are being destroyed, structural changes are taking place in the sphere of employment and consumption, and there are rapid and short-term changes in the economic and social organization of people's activities. In the conditions of deepening globalization, it is impossible to ensure the competitiveness of the enterprise without improving the business management system [2].

The purpose of the article

The purpose of the research is scientific substantiation of the expediency of managing the enterprise's business system.

Analysis and research of publications

Issues of the formation and development of the business system at enterprises were studied by such Ukrainian and foreign scientists as B.S. Alyoshin, B. Andersen, O.V. Vynogradova, O.P. Hludkin, V.V. Gerasimchuk, V.G. Yefimov, K.A. Yesipova, V. Ivlev, A.I. Kuznetsov, O.E. Kuzmin, M.A. Kozoriz S.E. Sardak, D. North, S.F. Pokropivny, M. Porter, V.I. Totskyi, T.M. Tsugel, T.V. Stahl, P.N. Shikhirev, A. Shulus and other scientists. However, in their works, scientists offer different approaches to the analysis of business systems according to different characteristics and types, either in a generalized form or depending on the type of activity of the studied enterprises.

Introduction and problem statement

Nowadays, many domestic enterprises have developed a rather low management culture, due to the presence of unconscious elements in professional actions, the phenomenon of «rapid aging» of knowledge, and the processes of intensive informatization of society. These circumstances do not allow production to develop effectively. The absolute majority of management systems used by enterprises do not meet the requirements set for them under the new conditions. It is the management systems under such circumstances that are called to reorganize, organize, reorient the activities of other systems and subsystems of the

enterprise so that they are adapted to the conditions of the market environment. The developments of foreign and domestic economists in this field of knowledge and the world practice of the functioning of enterprises, starting from the middle of the last century and until today, forced the heads of economic entities to recognize the need for the development of management systems. A business system is a connected and complete number of business processes that are implemented within the framework of one organizationally designed business unit when achieving its goals. A business system is a category of a process model of an enterprise, expressed using a system approach within the framework of process management.

A business system is an integral set of business processes implemented by an organizational unit to achieve its strategic goals.

A business system is a consciously coordinated socio-economic formation with certain boundaries, which functions on a relatively permanent basis to achieve a set goal or relevant goals. The business system is a projection of the mission, goals and strategies of the organization and business. The goals of the business system, in turn, form a «tree of goals», at each level of which a goal is formed and corresponding boundaries exist.

Any business system always faces a double economic goal - profit maximization and business price minimization. Obtaining the maximum possible profit can be considered as the upper economic limit of the business, and minimizing the cost or price of the business as the lower. The correct construction of a business system is unthinkable without solving the issues of optimizing the upper and lower expedient limits of its business, without optimizing the level and way of embedding the business into the relevant market environment. Achieving the realization of its economic interests, the business system cannot do as it wishes. It is forced to function under the conditions of restrictions imposed by various factors of the internal and external environment. Therefore, in order to understand the behavior of the business system on the market, the conditions of its functioning and development, it is necessary to first of all identify and structure the environment.

The business system depends on the nature of competition in the economic space. It's one thing if there is product competition, that is, competitors can be goods that are different in terms of quality properties and economic characteristics, but the same in their consumer parameters. It is another matter when carriers and performers of certain functions compete.

The process of effective development and application of rational options for management

decisions is carried out within the framework of the concept of general management of the quality of the functioning of the business system. Maintaining the quality of business system activity requires taking into account changes in internal and external environmental factors. Fulfillment of this task requires the formation of a mechanism for constant optimization of the functioning of the business system. Modern management theory singles out several groups of parameters that characterize business systems: structure, flows, processes and culture. Taking into account these groups of parameters, it is advisable to build business systems.

Creating effective business systems often combines problem solving and management decision-making in the organization. A business system means any economic, administrative, organizational and other system under market conditions with the sole purpose of obtaining the maximum possible benefit.

To build a business system, it is important to define system constraints. A business system can cover both the entire organization (organizational model) and a separate part of it (for example, a personnel system for searching, selecting and hiring qualified workers).

The following features are characteristic of the business environment:

- the business environment is part of the social environment and ideally serves to increase national wealth and well-being;

- the efficiency of economic processes in the country is a function of the quality of the business environment;

- the business environment has the properties of territorial integrity, within which it is formed by business people, the nation and institutions (state, financial and credit, etc.) with their interconnections and mutual relations;

- the business environment is formed by factors (of a legal, political, social, economic nature), the totality of which creates conditions for the functioning of the business of economic subjects of a particular society, the implementation of business relations and functions [3, p. 435].

In most cases, a business system has about 20 key business processes, the performance of which depends on its success in the market. The total number of business processes of a business system can reach several hundreds. The most common are eight main categories of business processes: product development, marketing, sales, production, service, supply, management, and provisioning. The main purpose of the business process is to transform the input, i.e., the resources input into the process,

necessary for the implementation of the process, into the output, i.e., the result, the output of the process. The formation of the business system is carried out by means of modeling business processes, while the activities of the business system are successively broken down into a hierarchical structure of business subsystems and individual business processes. This allows:

- to define fairly repetitive, separate sets of business processes that can be correlated with separate business subsystems, for example, warehouse operations, accounting operations, personnel work, etc.;

- determine the workplace, position as a unit and organizational structure,

- as a unit of a business operation of a certain business process.

Modern business systems are systems of different and not always interconnected «businesses» (separate areas of activity, for example, production of building structures, electric lamp production, etc.). As part of the optimization of the structural elements of the business system, it is necessary to set the task not of a simple enumeration of «businesses», but of ensuring their effective interaction, and in an optimal way [4].

Modern changes in the external environment require the formation of scientifically based methods and mechanisms for managing the development of business systems. Anticipation of changes in the state of the business system, anticipating the actions of competitors, consumers and suppliers, the ability to resist negative factors, where business system development stimulators require appropriate management skills and sufficient potential. The strategic task of business systems is to create conditions for stable continuous development, positive dynamics of expected results. In turn, the assessment of the problematic business space for the development of business systems is the basis for the development and adoption of management decisions regarding the trajectory of their further development. In this regard, the following reasons for implementing a business system at an enterprise are distinguished:

- productivity improvement. A part of the business system is the development and implementation of strategies, business processes and strategic planning in the organization. These basic elements allow not only to clearly define the goals (where the company will move), but also to optimize the tools for their achievement (how the goals will be achieved). The result of such optimization is increased productivity;

- satisfaction of the client's expectations. If the company uses a systematic approach, it will be able to measure, compare and analyze all the needs

of customers. This, in particular, will allow for regular information on those areas that need improvement and, more importantly, will allow for timely identification of unmet customer needs. A business system is the key to improving the brand that an organization projects to the community, including customers, employees and suppliers;

– agreed results. Whether we are looking at safety, quality or timeliness of tasks, a business system is designed to deliver efficient, effective and regular results. Figuratively speaking, a business system is «a process for improving your processes». An established business system allows you to eliminate duplicate, conflicting and unnecessary operations;

– involvement of employees. The purpose of the business system is to provide adequate education (advanced training) for all employees and opportunities to implement their creative ideas in order to increase the personal interest of the staff, which will ultimately affect the efficiency and effectiveness of their work. In addition, the presence of a business system will allow the rapid integration of new employees and allow them to see their role in the organization and put forward new ideas;

– cost reduction and profit increase. It has been repeatedly proven that the implementation of a reliable business system helps to reduce costs and increase profits. At the same time, the business system allows you to reduce costs without «cutting» costs, which usually occur to the detriment of the quality of the products produced or the level of service [5].

The algorithm for evaluating the enterprise's business process management includes six stages. At the first, system diagnostics of the business system is carried out. After obtaining qualitative and quantitative indicators of management efficiency, problem areas are identified and the potential opportunity of the enterprise to improve its own activities with available resources is analyzed. At these stages, a number of analysis tools are used to make rational management decisions regarding modeling and improvement of business processes.

To build an effective business system, first of all, a strategy is necessary, that is, the business system should be built from the strategy, and not the other way around. An attempt to build a business system based on «crooked» business processes ends in fiasco.

The strategy is a well-founded program of business organization improvements in four key areas: competitive advantages; informational and organizational transformations; financial optimization; operational improvements.

All these elements are interconnected and depend on the path of development that is chosen

based on the results of the strategy development project. Also, don't forget about technology, personnel and management of the business system.

Technology is a complex of various methods and processes in a certain field of activity of the system to achieve the predicted result. Practically, technology transforms available resources (entry point) into acceptable results (exit point). Technology contributes to the achievement of set goals and objectives. Technologies must take into account the factors of the external and internal environment of the organization, as well as the available resources, and in case of their change, they must be revised (adjusted) to achieve maximum efficiency.

The personnel of the organization activates the technologies of the business system, therefore it is very important that not only the competent selection of personnel with the appropriate level of qualifications is carried out, but also the appropriate work with employees is carried out. In particular, personal goals and objectives should be announced, appropriate training should be given, etc.

Management is designed to ensure the correct functioning of technologies only at the level of the business system. For the implementation of management functions in the organization, for example, a system of key performance indicators should be established, an appropriate work motivation system should be approved and implemented, etc. [6].

The main business processes are formed depending on the requirements of consumers. The output of these processes is finished products or services that are sold to consumers. As a result of implementation, the enterprise receives income and profit, due to which the enterprise functions. In turn, outputs of service business processes are directed to support the main ones. The mechanism of providing business processes is formed depending on the requirements of the enterprise. Business development processes are important for the enterprise. The mechanism is formed based on the conditions of the external environment and is designed to adapt existing business processes depending on the influence of changing external factors. In general, this classification allows you to determine the priority of business processes, their importance and place in the general model of the business system, choose development paths, set goals for the execution of processes, and control the results.

An analysis of the business systems of some companies indicates the presence of certain features, among which we can name:

– uniqueness. Existing analogues of business systems are noticeably different from each other;

– weak structure of theoretical and factual knowledge about the system. Since the studied business systems are unique, the process of accumulating and systematizing knowledge about them is difficult. It should be noted that a number of processes are poorly studied, the significant influence of the human factor, the impossibility or limitations of a «natural experiment»;

– component nature of the system. One of the main characteristics of complex systems is the interaction of selected subsystems (business processes). To ensure the functioning of the entire system as a whole, it is necessary to take into account the effect of one subsystem on another and their interaction with the external environment;

– heterogeneity of subsystems and elements that make up the system. The constituent elements of the system are heterogeneous in different senses: physical, functional, informational, mathematical;

– randomness and uncertainty of factors operating in the system. Examples of such factors can be weather conditions, random failures of equipment, transport, stacking devices, etc. Taking these factors into account leads to a sharp complication of the tasks and increases the complexity of research;

– multi-criteria assessment of the processes taking place in the system. The impossibility of an unequivocal assessment is dictated by the following circumstances: the presence of multiple subsystems, each of which is assessed according to its own criteria; multiplicity of indicators (sometimes contradictory) that characterize the operation of the entire business system (for example, profitability, rate of return on investments, etc.); the presence of non-formalized criteria used during decision-making (in the case when decisions are based, for example, on the practical experience of decision-makers);

– the large size of the system. This feature of the system determines the need for special methods of building and analyzing models.

Therefore, the business system of each individual region and the national economy as a whole will depend on the quality of management decisions at the level of state authorities and local self-government. Considering the current situation, with the crisis and the low level of investment, innovation, social, demographic, foreign trade and economic security, there is a need to implement effective investment projects [7].

Conclusion

Business systems are innovative and active enterprises engaged in purposeful development of the used management system in the direction of

improving local business subsystems, as well as business subsystems in the form of investment projects and projects for the creation of statutory and contractual associations. The technology of forming business systems involves: defining the mission of the business system; establishment of strategic goals of the business system; accumulation and processing of information about alternative ways of achieving strategic goals; choosing the best option for achieving the strategic goals of the business system; formation of a hierarchy of tasks that must be completed to achieve strategic goals; specification of selected tasks in terms of management objects (business processes); formation of the organizational structure of business system management; preparation of staff list in size.

REFERENCES

1. Bakulina, O.S (2017). *Cosialne pidpriemctvo ak innovasiuna model ekonomichnogo rozvutky cypilctva* [Social entrepreneurship as an innovative model of economic development of society]. Proceedings from MIIM “17: *III Mizhnarodna naukovo-praktychna konferentsiia «Ypravlinnaj bisnec-procecamy pidpriemctva» « The Third International Scientific and Practical Conference «Management of business processes of the enterprise»*. (pp. 169-172). Gitomur. [in Ukrainian].
2. Myroslav Kryshtanovych, Ivan Dragan, Nataliia Chubinska, Natalia Arkhireiska, & Roman Storozhev (2022). *Personnel Security System in the Context of Public Administration. International Journal of Computer Science and Network Security*, 22,248-254 [in English].
3. Melnyk, M.I. (2007). *Teoretiko-metodologichni pidhodu doclidgennia bisnes-seredovushia* [Theoretical and methodological approaches to business environment research]. *Cosialno-ekonomichni doclidgenna v perehidnyi period – Socio-economic research in the transition period*, 5, 423-436 [in Ukrainian].
4. Kulyk, Yu. R. (2008). *Economichne ocinjvannaj ta funkcionalno-varticnus analsz dialnocti bisnec-cictemu electrolampovogo virobnihtva* [Economic evaluation and functional cost analysis of the business system of electric lamp production]. *Candidate’s thesis*. Lviv: NULP [in Ukrainian].
5. Lelyuk, V.O., Lelyuk, O.V., & Pan, M.P. (2020). *Udoskonalennia biznes-system* [Improvement of business system]. Kharkiv: HNAMEG [in Ukrainian].
6. Sait *SecureIDNews* [Sitec *SecureIDNews*]. *secureidnews.com*. Retrieved from <https://www.secureidnews.com/news-item/e-gates-ease-and-secure-international-travel/> [in English].
7. Kuchkova, O.V., Ovcharenko, O.V., Korotka, L.A., & Smiesova, V.L (2022). *Economic security of regions: A methodological approach to assessment, management, and legal regulation. Region*, 9(1), 83–100 [in English].

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УПРАВЛІННЯ БІЗНЕС-СИСТЕМОЮ ПІДПРИЄМСТВА

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Стаття присвячена актуальним питанням розвитку сучасних підприємств. На сьогоднішній день одним із основних елементів прибутковості любого виробництва є раціональне управління бізнес-системою підприємства. Бізнес-система є однією з інноваційних форм забезпечення конкурентоспроможності підприємств на національних і міжнародних ринках. Незважаючи на наявність фактів успішного функціонування бізнес-систем і значний науковий інтерес до особливостей їх формування і розвитку, на сьогодні відсутнім є адекватне означення поняття «бізнес-система», недостатньо обґрунтованими є види бізнес-систем, значною мірою фрагментарно описаними є підходи з їх формування. Для побудови бізнес-системи необхідно охоплювати не тільки всю організаційну модель, а й приділяти увагу окремим елементам систем управління. Формування бізнес-системи здійснюється засобами моделювання бізнес-процесів, при цьому здійснюється послідовне розукрупнення видів діяльності бізнес-системи на ієрархічну структуру бізнес-підсистем й окремих бізнес-процесів, що дозволяє визначити досить повторювані, відособлені комплекси бізнес-процесів, які можна співвіднести з окремими бізнес-підсистемами тощо. Сучасні зміни зовнішнього середовища потребують формування науково обґрунтованих методів і механізмів управління розвитком бізнес-систем. Передбачення зміни стану бізнес-системи, випередження дій конкурентів, споживачів та постачальників, здатність здійснювати опір негативним чинникам, де стимулятори розвитку бізнес-систем потребують наявності відповідних управлінських навичок і достатнього потенціалу. Стратегічним завданням бізнес-систем є створення умов для стабільного безперервного розвитку, позитивної динаміки очікуваних результатів. В свою чергу, оцінювання проблемного бізнес-простору розвитку бізнес-систем є підґрунтям розробки та прийняття управлінських рішень щодо траєкторії їх подальшого розвитку. У зв'язку з цим в статті виділені основні причини впровадження бізнес-системи на підприємство. Для побудови ефективної бізнес-системи насамперед необхідна стратегія, тобто, бізнес-система має будуватися від стратегії, а не навпаки. Спроба збудувати бізнес-систему на основі «кривих» бізнес-процесів закінчується фіаско.

Ключові слова: бізнес-система, бізнес-процеси, зовнішнє середовище, виробництво, підприємство, стратегія.

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The article is devoted to topical issues of the development of modern enterprises. Today, one of the main elements of the profitability of any production is the rational management of the enterprise's business system. The business system is one of the innovative forms of ensuring the competitiveness of enterprises on national and international markets. Despite the existence of facts of the successful functioning of business systems and significant scientific interest in the peculiarities of their formation and development, today there is no adequate definition of the concept of «business system», the types of business systems are not sufficiently substantiated, and the approaches to them are largely described in fragments formation. To build a business system, it is necessary to cover not only the entire organizational model, but also pay attention to individual elements of management systems. The formation of the business system is carried out by means of modeling business processes, while the activities of the business system are sequentially broken down into a hierarchical structure of business subsystems and individual business processes, which makes it possible to determine fairly repetitive, separate sets of business processes that can be correlated with individual business subsystems, etc. Modern changes in the external environment require the formation of scientifically based methods and mechanisms for managing the development of business systems. Anticipation of changes in the state of the business system, anticipating the actions of competitors, consumers and suppliers, the ability to resist negative factors, where business system development stimulators require appropriate management skills and sufficient potential. The strategic task of business systems is to create conditions for stable continuous development, positive dynamics of expected results. In turn, the assessment of the problematic business space for the development of business systems is the basis for the development and adoption of management decisions regarding the trajectory of their further development. In this regard, the article highlights the main reasons for implementing a business system at an enterprise. To build an effective business system, first of all, a strategy is necessary, that is, the business system should be built from the strategy, and not the other way around. An attempt to build a business system based on «crooked» business processes ends in fiasco.

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REFERENCES

1. Bakulina, O.S (2017). *Cosialne pidpriemctvo ak innovasiuna model ekonomichnogo rozvutky suspilctva* [Social entrepreneurship as an innovative model of economic development of society]. Proceedings from MIIM '17: *III Mizhnarodna naukovopraktychna konferentsiia «Ypravlinnaj bisnec-procecam pidpriemctva» « The Third International Scientific and Practical Conference «Management of business processes of the enterprise»*. (pp. 169-172). Gitomur. [in Ukrainian].
2. Myroslav Kryshchanovych, Ivan Dragan, Nataliia Chubinska, Natalia Arkhireiska, & Roman Storozhev (2022). *Personnel Security System in the Context of Public Administration. International Journal of Computer Science and Network Security*, 22,248-254 [in English].
3. Melnyk, M.I. (2007). *Teoretiko-metodologichni pidhodu doclidgennia bisnes-seredovushia* [Theoretical and methodological approaches to business environment research]. *Cosialno-ekonomichni doclidgenna v perehidnyi period – Socio-economic research in the transition period*, 5, 423-436 [in Ukrainian].
4. Kulyk, Yu. R. (2008). *Economichne ocinjvannaj ta funkcionalno-vartichnus analsz dialnocti bisnec-cictemu electrolampovogo virobnichtva* [Economic evaluation and functional cost analysis of the business system of electric lamp production]. *Candidate's thesis*. Lviv: NULP [in Ukrainian].
5. Lelyuk, V.O., Lelyuk, O.V., & Pan, M.P. (2020). *Udoskonalennia biznes-system* [Improvement of business system]. Xarkiv: HNAMEG [in Ukrainian].
6. Sait SecureIDNews [Sitec SecureIDNews]. *secureidnews.com*. Retrieved from <https://www.secureidnews.com/news-item/e-gates-ease-and-secure-international-travel/> [in English].
7. Kuchkova, O.V., Ovcharenko, O.V., Korotka, L.A., & Smiesova, V.L (2022). *Economic security of regions: A methodological approach to assessment, management, and legal regulation. Region*, 9(1), 83–100 [in English].