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Економіка та управління підприємствами

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**SECURITY-ORIENTED CHANGE MANAGEMENT IN THE BUSINESS
PROCESSES OF AN INDUSTRIAL ENTERPRISE¹**
**БЕЗПЕКООРІЄНТОВАНЕ УПРАВЛІННЯ ЗМІНАМИ В БІЗНЕС-
ПРОЦЕСАХ ПРОМИСЛОВОГО ПІДПРИЄМСТВА**
БЕЗОПАСНОСТНООРИЕНТОВАНЕ УПРАВЛЕНИЕ
ИЗМЕНЕНИЯМИ В БИЗНЕС-ПРОЦЕССАХ ПРОМЫШЛЕННОГО
ПРЕДПРИЯТИЯ

***Summary.** In a complex dynamic environment, characterized by constant uncertainty and variability of political, economic and social factors, the basis for the successful operation of commercial entities is the adoption of adequate management decisions. With the help of decision support systems, which concentrate powerful methods of mathematical modelling, management theory, information technology, you can choose solutions to some unstructured and poorly structured problems, including multicriteria, such as business process management, so decision support systems, as a rule, it is the result of interdisciplinary research, which includes theories of databases, artificial intelligence, interactive computer systems, simulation methods, etc. However, most papers do not study the decision-making system in the decision-making mechanism in the system of security-oriented change management in the business processes of an industrial enterprise. This determines the need for and relevance of systematic research of this problem.*

The aim of the article is to study the theoretical issues of using the essence of safety-oriented management when an industrial enterprise plans to make adjustments in its activities, in particular in business processes.

Managing the economic security of business processes, which is an

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integral part of the enterprise management system, requires that management decisions are considered and evaluated in terms of their impact on economic security, both in the current state and in perspective. Therefore, the components of the concept of security-oriented change management in the business processes of an industrial enterprise should cover the tasks of strategic management to support the development of the enterprise and those that are characteristic of the current management, security-oriented. Given the principle of manageability of security-oriented management, to solve the problem of its integration into the management system of operation and development of the enterprise, the theoretical basis of its research and management is a systematic approach, which necessitates coordination of the functions of strategic development management with security-oriented management analysis and evaluation, diagnosis, monitoring; planning and forecasting, which provides the development of plans and programs; organizational, which is determined by integration, coordination, support, implementation, control; motivational orients staff to development and training, ensures their readiness to implement innovative changes.

Management of economic security, which is an integral part of the enterprise management system, provides that management decisions made in any area of the enterprise must be considered and evaluated in terms of their impact on economic security as in the current state and in the future. Therefore, the components of the concept of ensuring the security-oriented development of business processes of the enterprise should cover the tasks of strategic management to support the development of the enterprise and those that are specific to the current security-oriented management.

Key words: *security-oriented management, business process, changes, industrial enterprise.*

Анотація. *В умовах складного динамічного середовища, що*

характеризується постійною невизначеністю та мінливістю політичних, економічних і соціальних факторів, основою успішного функціонування господарюючих суб'єктів є ухвалення адекватних управлінських рішень. За допомогою систем підтримки прийняття рішень, в яких сконцентровані потужні методи математичного моделювання, теорії управління, інформаційних технологій, може здійснюватися вибір рішень деяких неструктурованих і слабоструктурованих задач, у тому числі й багатокритеріальних, такі як управління бізнес процесами, тому системи підтримки прийняття рішень, як правило, є результатом міждисциплінарного дослідження, що включає теорії баз даних, штучного інтелекту, інтерактивних комп'ютерних систем, методів імітаційного моделювання тощо. Проте, в більшості праць не досліджуються система прийняття рішень в механізмі прийняття рішень в системі безпекоорієнтованого управління змінами в бізнес-процесах промислового підприємства. Саме це обумовлює необхідність і актуальність системного дослідження цієї проблеми.

Метою статті є дослідження теоретичних питань використання сутності безпекоорієнтованого управління, коли промислове підприємство планує вносити корективи у свою діяльність, зокрема у бізнес-процеси.

Управління економічною безпекою бізнес-процесів, що є невід'ємною частиною системи управління підприємством, вимагає, щоб управлінські рішення розглядалися та оцінювалися з точки зору їх впливу на економічну безпеку як у поточному стані, так і в перспективі. Тому складові концепції безпекоорієнтованого управління змінами в бізнес-процесах промислового підприємства повинні охоплювати завдання стратегічного управління для підтримки розвитку підприємства та ті, які характерні для поточного управління, орієнтованого на безпеку. З огляду на принцип керованості безпекоорієнтованим управлінням, для вирішення завдання її інтеграції в

систему управління функціонуванням та розвитком підприємства теоретичною базою її дослідження та управління виступає системний підхід, що обумовлює необхідність узгодження функцій системи стратегічного управління розвитком з функціями безпекоорієнтованим управлінням: оцінювально-аналітична, що представлена аналізом та оцінкою, діагностикою, моніторингом; планово-прогнозна, що забезпечує розробку планів та програм; організаційна, яку визначають інтеграція, узгодження, координація, підтримка, реалізація, контроль; мотиваційна орієнтує персонал на розвиток та навчання, забезпечує його готовність до реалізації інноваційних змін.

Управління економічною безпекою, що представляє собою невід'ємну складову системи управління підприємством, передбачає, що управлінські рішення, що приймаються в будь-якій сфері діяльності підприємства, повинні обов'язково розглядатися й отримувати оцінку з точки зору їх впливу на економічну безпеку як в поточному стані, так і на перспективу. Тому компоненти концепції забезпечення безпекоорієнтованого розвитку бізнес-процесів підприємства повинні охоплювати завдання стратегічного управління щодо підтримки розвитку підприємства та такі, що є специфічними для поточного безпекоорієнтованого управління.

Ключові слова: *безпекоорієнтоване управління, бізнес-процес, зміни, промислове підприємство.*

Анотація. *В условиях сложной динамической среды, характеризующейся постоянной неопределенностью и изменчивостью политических, экономических и социальных факторов, основой успешного функционирования хозяйствующих субъектов является принятие адекватных управленческих решений. С помощью систем поддержки принятия решений, в которых сконцентрированы мощные методы математического моделирования, теории управления, информационных*

технологий, может осуществляться выбор решений некоторых неструктурированных и слабоструктурированных задач, в том числе и многокритериальных, таких как управление бизнес-процессами, поэтому система поддержки принятия решений, как правило, является результатом междисциплинарного исследования, включающего теории баз данных, искусственного интеллекта, интерактивных компьютерных систем, методов имитационного моделирования и т.п. Однако, в большинстве работ не исследуется система принятия решений в механизме принятия решений в системе безопасноориентированного управления изменениями в бизнес-процессах промышленного предприятия. Именно это обуславливает необходимость и актуальность системного исследования этой проблемы.

Целью статьи является исследование теоретических вопросов использования сущности безопасноориентированного управления, когда промышленное предприятие планирует вносить коррективы в свою деятельность, в частности в бизнес-процессы.

Управление экономической безопасностью бизнес-процессов, являющееся неотъемлемой частью системы управления предприятием, требует, чтобы управленческие решения рассматривались и оценивались с точки зрения их влияния на экономическую безопасность как в текущем состоянии, так и в перспективе. Поэтому составляющие концепции безопасноориентированного управления изменениями в бизнес-процессах промышленного предприятия должны охватывать задачи стратегического управления для поддержки развития предприятия и те, которые характерны для текущего управления, ориентированного на безопасность. Учитывая принцип управляемости безопасноориентированным управлением, для решения задачи ее интеграции в систему управления функционированием и развитием предприятия теоретической базой ее исследования и управления

выступает системный подход, что обуславливает необходимость согласования функций системы стратегического управления развитием с функциями безопасноориентированого управления: оценочно-аналитической, которая представлена анализом и оценкой, диагностикой, мониторингом; плано-прогнозной, которая обеспечивает разработку планов и программ; организационной, которую определяют интеграция, согласование, координация, поддержка, реализация; мотивационной, которая ориентирует персонал на развитие и обучение, обеспечивает его готовность к реализации инновационных изменений.

Управление экономической безопасностью, представляющее собой неотъемлемую составляющую системы управления предприятием, предусматривает, что управленческие решения, принимаемые в любой сфере деятельности предприятия, должны обязательно рассматриваться и получать оценку с точки зрения их влияния на экономическую безопасность как в текущем состоянии, так и на перспективу. Поэтому компоненты концепции обеспечения безопасноориентированого развития бизнес-процессов предприятия должны охватывать задачи стратегического управления по поддержке развития предприятия и специфические для текущего безопасноориентированого управления.

***Ключевые слова:** безопасноориентированое управление, бизнес-процесс, изменения, промышленное предприятие.*

Formulation of the problem. Today, in a complex dynamic environment, characterized by constant uncertainty and variability of political, economic and social factors, the basis for the successful operation of economic entities is the adoption of adequate management decisions. With the help of decision support systems, which concentrate powerful methods of mathematical modelling, management theory, information technology, you can choose

solutions to some unstructured and poorly structured problems, including multicriteria, such as business process management, so decision support systems, as a rule, it is the result of interdisciplinary research, which includes theories of databases, artificial intelligence, interactive computer systems, simulation methods, etc. However, most of the works of scientists do not study the decision-making mechanism in the system of security-oriented change management in the business processes of an industrial enterprise. This determines the need for and relevance of systematic research of this problem.

Analysis of research and publications. The issue of economic security management of enterprises over the past decade has been the subject of many scientific studies, in particular, scientists, I. Bashynska [1], S. Cherkasova [2], S. Filyppova [3], I. Khoma, D. Komarkov [4], O. Lyashenko, I. Otenko [5], Yu. Pogorelov, R. Shkreben, L. Voloshchuk [6]. S. Cherkasova and S. Filyppova identify the main problematic aspects of managing the process of strengthening the economic security of enterprises in the context of defining its essence and interaction with the concept of competitiveness and offer an author's approach to determining the structure and main components of the organizational and economic mechanism of management of the process of strengthening the economic security of industrial enterprises in the organization of its accounting and analytical support. L. Voloshchuk proposes the concept of security-oriented management of innovative development of industrial enterprises, which from the standpoint of systemic and integration approaches reveals its feasibility as a type of management activity in innovation management, aimed at ensuring a satisfactory level of economic security in the process and as a result of innovative development concerning elements of the system, goals, tasks, objects, principles, mechanism, resource provision of security-oriented management of innovative development of an industrial enterprise, and its conceptual model that highlights their connections. I. Bashynska proposes a scheme of security-oriented management, which is based on the identification,

assessment and monitoring, as well as measures to reduce the degree of risk threat, which includes selected stages with appropriate actions. I. Otenko, D. Komarkov, R. Shkreben consider strategic tools for security-oriented development of the enterprise, which consists of strategy, mechanisms (coordination, training, regulation, preservation and protection), organizational methods, forms of strategic management of economic security, and also methods of a choice and coordination of the adaptive actions corresponding to landmarks of development of the enterprise. Despite their significant contribution, there are issues that need more detailed research, namely security-oriented business process management of an industrial enterprise.

The purpose of the work. The purpose of the article is to study the theoretical issues of using the essence of safety-oriented management when an industrial enterprise plans to make adjustments in its activities, in particular in business processes.

Research methods. The following methods were widely used in the research process: theoretical generalization, abstraction, comparison, a generalization of the system approach. The methodological and informational basis of the work is scientific works of domestic and foreign scientists and practitioners, materials of periodicals, Internet resources.

Results. Management of economic security of business processes, which is an integral part of the enterprise management system, requires that management decisions made in any area of the enterprise must be considered and evaluated in terms of their impact on economic security both in the current state and in the future. Therefore, the components of the concept of security-oriented management of changes in business processes of the enterprise should cover the tasks of strategic management to support the development of the enterprise and those that are specific to the current security-oriented management (Table 1).

Restrictions on the protection of the enterprise from threats require the

system of security-oriented management of developed information and analytical support to identify and prevent threats, assess their impact, changes in the financial and economic condition of the enterprise, the adequacy of its resources.

Table 1

Formation of a conceptual model of providing a system of security-oriented management of changes in business processes of the enterprise

Components	Traditional conceptual model of providing a security-oriented management system	A strategic model of providing a system of security-oriented management of enterprise development
1. The conceptual approach to ensuring security-oriented management	Protective – confrontation of threats at the expense of resource provision, liquidation of consequences of threats	Security-oriented development - support for development through the search for and use of opportunities, active formation of favourable conditions
2. The main task of security-oriented management	Ensuring safety-oriented management of sustainability and efficiency	Ensuring the stability of the competitive position, innovation activity, organizational adaptability, harmonization of the interests of the enterprise with the subjects of the external environment
3. The reaction of the system of safety-oriented management to the influence of external and internal environment	Focus management's efforts on the threats and risks associated with changes in the internal environment	The concentration of management efforts on support and ensuring sustainable development of the enterprise by identifying threats to the external environment and eliminating their impact on the danger of the internal environment
4. Type of organizational support	It is based on the rational use of material and energy resources and the reliability of technical and technological potential	Relies on organizational forms and information technologies that focus on knowledge and mutually beneficial cooperation, strategic partnership
5. Model of managerial actions	Current management to minimize production costs, stable profits	Strategic management through vision, the flexibility of strategic decisions, changing circumstances in the interests of the enterprise
6. Potential for security-oriented enterprise management	Opportunities from the effective use of technical and technological, informational, organizational and human resources of the enterprise	Ability to ensure sustainable implementation of strategic goals through conflict resolution, identification of threats, elimination of risks, compliance with the principles of social responsibility and environmental friendliness

The strategic orientation of the system of security-oriented management on development obliges to make flexible strategic decisions for the production of innovative products and technologies taking into account and coordinating the interests of the external environment to provide measures to protect the interests of the enterprise in the future. This provision is determined by the fact that "the suppression of the economic interests of the enterprise can most significantly affect its stability and competitiveness" [7].

The main goals and objectives of security management are determined by the essence of economic security and therefore require a presentation of its properties. Recognition that "the quality of the object of knowledge is revealed in the set of its properties, which are in some way structurally ordered" [1; 6], allows us to present security-oriented management as an integral characteristic of the enterprise, combining features such as adaptability, stability, flexibility, activity, mobility, manoeuvrability, etc.

In real situations, most companies cannot implement change as quickly as the market demands. The speed of the company's response to its competitors reflects the inertia/mobility of management and therefore provides economic security with characteristics such as flexibility and adaptability. Flexibility and mobility not only give a stable competitive advantage to the company in the market but also allow "to actively shape it, change the circumstances in their interests" [8]. The properties of flexibility and mobility of strategic decision-making processes form a strategic vision is the most important competence to create long-term competitive advantage. Stability and resilience are necessary for the internal cohesion of the organization and in order to prevent "self-destruction and chaos", to maintain the security of the enterprise, mobility and flexibility – to restore its activities.

Thus, the manifestation of a property with varying degrees of intensity characterizes the state of adaptability and security of the enterprise. At the same time, both individual enterprises and the economy as a whole are considered as

adaptive systems. These systems are divided into self-tuning and self-organizing. Self-tuning systems in accordance with changes in the external environment change the way of functioning (the company expands production following the increase in demand), self-organizing – change the structure, organization of the system (the company has a standardization department due to increasing product quality requirements). Thus, it can be argued that security processes are spontaneous adaptive processes that ensure the sustainability of the processes of operation and development of the enterprise.

Security-oriented management in accordance with the goals of development is provided by such properties-abilities as adaptability, which is achieved by harmonization of interests and goals, reliability of organizational relationships with partners, compliance with the organizational structure; stability, which is created due to competitiveness and stable position in the market, financial and economic condition and efficiency of functional areas of activity; environmental and social responsibility, which are realized by compliance with social standards and minimization of harmful effects on the environment.

Conceptual provisions for the formation of security-oriented development management, in addition to defining the essential characteristics of security-oriented development management, should be based on principles that meet the specifics of management, economic security in the enterprise and have a strategic focus on these development goals.

Given the principle of manageability of security-oriented management, to solve the problem of its integration into the management system of operation and development of the enterprise, the theoretical basis of its research and management is a systematic approach, which necessitates coordination of the functions of strategic development management with security-oriented management. Analysis and evaluation, diagnosis, monitoring; planning and forecasting, which provides the development of plans and programs;

organizational, which is determined by integration, coordination, coordination, support, implementation, control; motivational orients staff to development and training, ensures their readiness to implement innovative changes [4].

The strategic direction of the security-oriented management system is represented by the principles (compiled by authors based on studies [4-5] and results of author`s own studies [9-10]):

- innovation activity – when innovative changes are proactive, initiated by the enterprise and avoid the deterioration of the situation, the suspension of development, contribute not only to the preservation but also further increase its pace. In such cases, the emphasis is on the strategic potential of certain activities. Depending on the characteristics of this potential, some areas should be abandoned; others need to be developed, as they have promising opportunities in certain markets. The strategic vision and effective use of these opportunities should answer the question of the sustainability of development processes;
- the stability of the competitive position of the enterprise in the market, which is provided by the active search for the best model of strategic action, the choice of appropriate ways to achieve strategic goals. This principle is related to the need to meet real external and internal conditions, constantly take into account the emergence of new threats and opportunities, continuously monitor changes in the market situation, as well as provide reliable support for such processes through resources, financial and economic stability, strategic management competence. Staff – his knowledge, experience, skills. From this point of view, the development management system needs to have a set of possible strategies, methods, models and organize clear feedback from the market to obtain information about changes;
- organizational adaptability is ensured by the use of new forms of cooperation, between organizational interaction, reliability of partners. The

system of priority interests of the enterprise should be coordinated with the interests of the subjects of the external environment interacting with it, and such organizational forms and means of harmonization or coordination of these interests should be chosen so that the results of interaction with these subjects ensure achievement of goals, attraction and creation of new strategic knowledge;

- corporate social responsibility and environmental friendliness of the enterprise through the coordination of interests and consensus building in strategic decision-making. According to the modern concept of corporate social responsibility, this principle represents the voluntary activities of private and public sector companies aimed at maintaining high standards of operating and production activities, social standards and quality of work with staff, minimizing environmental impact, in order to equalize existing economic and social imbalances, creating a trusting relationship between business, society and the state;
- functional efficiency – is achieved through the formation and effective use of technical, technological and organizational potential; modernization and rearmament, the introduction of new equipment that will reduce and minimize production costs; detection of discrepancies in the use of means of production; high level of staff qualification and intellectual potential, the efficiency of corporate R&D.

Conclusions and prospects for further research. Management of economic security, which is an integral part of the enterprise management system, provides that management decisions made in any area of the enterprise must be considered and evaluated in terms of their impact on economic security as in the current state and in the future. Therefore, the components of the concept of ensuring the security-oriented development of business processes of the enterprise should cover the tasks of strategic management to support the development of the enterprise and those that are specific to the current security-

oriented management.

A promising direction for further studies of the problem considered, the authors see a safety-oriented management of the smartization of business processes of industrial enterprises.

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