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Analysis and control as tools for optimizing business process management under conditions of uncertainty

Abstract. The object of the study is the enterprise business process management system, which under martial law operates under the influence of increased uncertainty, risks, and dynamic changes in the external environment. The key tools ensuring its effectiveness are analysis and control as fundamental management functions.

Problem statement. The intensification of uncertainty factors necessitates the improvement of enterprise business process management, particularly through enhancing the role of analysis and control as tools for ensuring their performance and efficiency.

Unresolved issues. Despite a significant number of scientific studies, issues related to the integration of analysis and control into the system of business process optimization, taking into account industry-specific features of enterprises, as well as the development of relevant competencies of specialists under conditions of uncertainty, remain insufficiently explored.

Purpose of the article. The purpose of the study is to generalize and further develop theoretical, methodological, and practical provisions regarding the role of analysis and control in optimizing enterprise business process management.

Main material. The methodological basis of the study includes general scientific and special methods, such as comparison, systematization, generalization, analysis and synthesis, induction and deduction, as well as systemic and comprehensive approaches. The paper generalizes approaches to defining the essence of business processes, substantiates the role of analysis and control as key tools for their optimization, identifies factors influencing the business process management system, and outlines the necessary competencies of specialists in accounting and analytical fields. The list of components and methods of business process optimization has been expanded depending on the implementation period and the depth of changes.

Conclusions. The study demonstrates that effective management of enterprise business processes under conditions of uncertainty requires the integration of analysis and control at all stages of management. The practical significance lies in the development of recommendations for improving methodological and organizational approaches to business process optimization, as well as in specifying the professional competencies of specialists capable of enhancing enterprise performance in a turbulent environment.

Keywords: *business process, analysis, control, optimization, strategic management, performance, professional competencies.*

Formulas: -, Figures: -, Tables: 2, References: 16.

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Introduction. In the current political and socio-economic environment, characterized by a high level of uncertainty under martial law, particular importance is attached to the development of analysis and control functions as key tools for managing enterprise business processes. Their effective application ensures improved quality of managerial decision-making, rational use of resources, and the adaptation of enterprises to dynamic operating conditions. Such a system is primarily focused on the formation and development of competencies that are critically needed today, including a deep understanding of analytical thinking mechanisms, tax administration, and financial control methods, which are essential for effective enterprise management in present-day realities [1,2].

It is well known that theory without practice is dead, while practice without theory is blind and meaningless. Today, the socio-economic practice of our country largely outpaces theory, whose mission is to thoroughly develop and describe a system of generalized knowledge, as well as to explain the diversity of socio-economic phenomena occurring in society and the economy, including at domestic enterprises, whose business models consist of a set of interrelated business processes. The efficiency of these processes determines business success and the sustainable development of Ukraine’s economy as a whole.

A relevant task of the management system of a modern enterprise is to identify ways to optimize the management of its business processes. Many enterprises are currently structured according to a functional principle, where personnel are primarily responsible for the performance of individual units, which does not ensure the timely and high-quality execution of business processes as a whole. It is precisely the optimization of business processes that enables enterprises to improve business efficiency. Such optimization should be based on the use of specific methods and models of business processes, taking into account enterprise specifics, industry characteristics, and both subjective and objective influencing factors. This toolkit allows enterprises to formalize responsibilities among employees, improve organizational and informational support, and ensure the logical sequence of interconnected business processes aimed at achieving a common goal—enhancing overall business efficiency.

Today, business process optimization is a vital step for domestic enterprises to improve their efficiency and performance. However, under wartime conditions and the shortage of material, technical, and financial resources, the main source of increasing enterprise profitability is primarily cost-saving and the rational use of resources. Therefore, priority should be given to a process-oriented approach, which enables the prompt identification of resource-saving reserves and cost reduction through business process optimization.

It should be noted that the dynamism of the external environment significantly affects enterprise business processes. Therefore, it is advisable to develop an effective management system based on methods for adapting business processes to external conditions, which will enable the achievement of the enterprise's key business objectives. The formation of such a management system should rely on modern analytical technologies to support well-grounded decision-making in business process management, taking into account industry-specific features. Particular importance should be given to the formation of an optimal structure of business process management, as it constitutes the foundation for managing the company as a whole.

Thus, an urgent educational, scientific, and practical task today is to define the key directions of analysis and control in optimizing enterprise business process management, as well as to train specialists in accounting, analytical, and control fields who are capable of integrating analytical approaches to assess business process efficiency and develop recommendations for their strategic improvement based on accounting, tax, and auditing information [3].

Literature review. In the works of foreign and domestic scholars and practitioners, continuous attention has been and continues to be paid to both theoretical and methodological approaches to strategic enterprise management as a complex system in which numerous interrelated business processes take place. This ensures the efficient use of resources and ultimately determines the effectiveness of achieving the set objectives.

In today's realities, increasing relevance is attached to the issues of optimizing business process management of enterprises and enhancing their performance. Addressing these issues requires appropriate methodological support for the evaluation of business processes and the application of modern management technologies. The process approach is aimed not only at describing a business as a set of interrelated business processes but also at their continuous analysis, control, and improvement within the management system.

Among the scholars who have addressed this issue are Michael Porter, Mark Kramer, A. Björn, James Harrington, K. S. Esseling, O. V. Olshanskyi, L. I. Chernobai, O. I. Duma, O. M. Khodakivskyi, N. Ya. Boichuk, V. A. Tiharieva, I. V. Stankevych, I. Blyzniukova, I. Semko, S. Kiiko, Ya. M. Yatskiv, Yu. P. Vorzhakova, N. I. Sytnyk, S. O. Perminova, V. O. Hurova, A. I. Sadekova, and others [4–16].

At the same time, an analytical review of publications in this area has made it possible to draw certain conclusions, namely that issues related to the optimization of enterprise business process management are not only interpreted ambiguously but are also insufficiently developed both in scientific and in organizational-methodological terms. In addition, there is a lack of clarity in defining the place and mission of analysis and control in optimizing business process management as significant tools of the enterprise management system, both from academic and practical perspectives.

The relevance of the studied problem is further reinforced by the fact that the organization of accounting-analytical, control, and management processes under wartime conditions requires new, specific approaches to strategic management and the formation of optimal enterprise business processes. Therefore, in the current conditions of the country's economic development, it is necessary to ensure timely and high-quality analysis, evaluation, and control not only of the overall performance of an enterprise but also within its individual segments. This is because an enterprise represents a complex system in which numerous interrelated events and processes occur, ultimately determining its financial condition and the overall efficiency of its organizational system.

In addition, there are differing views among both scholars and practitioners regarding the role of the process-oriented approach in optimizing business processes, particularly with regard to industry-specific characteristics of enterprises. Therefore, it is considered necessary to clarify and further develop the theoretical and practical aspects of the process-oriented approach to managing the costs of business processes.

Thus, scientific and practical interest in the outlined problem is primarily driven by the need to identify and substantiate the place and role of analysis and control in optimizing enterprise business process management, as well as to highlight the professional competencies required for future graduates in accounting, analytical, and control fields. Such specialists should be capable of effectively and promptly applying relevant approaches and methods for analyzing and evaluating the efficiency of enterprise business processes and, where necessary, optimizing their management to ensure the successful functioning of Ukrainian enterprises in accordance with modern market conditions and consumer needs.

The theoretical contribution to the studied problem lies in the generalization of existing scholarly views on the role and functions of analysis and control in optimizing enterprise business process management in order to enhance efficiency and performance. The practical significance of the study is reflected in the further development of methodological and organizational approaches to strategic management and the formation of optimal business processes in modern enterprises, as well as in identifying the necessary competencies of future specialists in accounting, analysis, and control who will be able to determine and implement directions for optimizing business process management of domestic enterprises in current realities.

Purpose, objectives and research methods. The purpose of the study is to generalize and further develop issues related to the role and mission of analysis and control in optimizing enterprise business process management from educational, scientific, and practical perspectives. The methodological and informational basis of the study includes regulatory and legal acts, scientific works, periodical publications, and data from the Internet.

General and specific scientific research methods, as well as special approaches to the study of economic phenomena and processes, were applied, namely: comparison, systematization, and generalization – in the process of studying and defining the essence of business processes, the necessity of their optimization considering the specifics of the enterprise and its industry characteristics, as well as in substantiating the place and role of analysis and control in business process optimization as significant tools of the management system; a systems approach, analysis and synthesis – to identify objective and subjective factors influencing the business process management system of a modern enterprise, as well as to outline the necessary professional competencies of future specialists in accounting and analytical fields who will be able to professionally apply effective approaches and methods in analyzing and evaluating the efficiency of enterprise business processes and, where necessary, optimize their management; abstract-logical methods, methods of induction and deduction, and a comprehensive approach – to generalize and expand the key components of business process optimization within the enterprise management system, as well as existing methods of business process optimization depending on the implementation period and the degree of change.

Research results. The deepening of uncertainty under wartime conditions, along with the associated political and socio-economic processes, increasingly highlights a critical issue facing domestic enterprises today—namely, the improvement of business processes in order to generate profit and satisfy consumer needs. First and foremost, this concerns the identification and substantiation of directions, approaches, and methods for optimizing business processes, the effectiveness of which determines business success and the sustainable development of the national economy as a whole.

The optimization of business process management is currently one of the key factors ensuring the efficient functioning, development, and further growth of an enterprise. As is well known, as an enterprise expands its activities as a complex system, the number of its business processes also increases, making it increasingly difficult to organize, analyze, and control them independently. This fact indicates the necessity of optimizing business processes within the enterprise management system.

Before considering the mission, directions, and methods of optimizing business process management in modern enterprises, as well as determining the place and role of analysis and control in this process, it is necessary to clarify the essence of business processes themselves, taking into account the ambiguity of their interpretation by various scholars and their specific characteristics in today's realities.

Research by one group of scholars [4,5] shows that an enterprise business process is a set of interrelated actions and functions necessary to produce a specific result that has value for an external (or internal) customer.

Indeed, in modern business environments, enterprises must respond quickly to changes and make well-grounded decisions regarding production management, including the identification of negative influencing factors and their prompt elimination. It should be noted that, on the one hand, all types of business processes within production should function as a unified mechanism, while on the other hand, each group of business processes must perform its specific functions and ensure the achievement of the main objective - enhancing profitability.

Another group of scholars and practitioners [6,7] considers a business process to be a logical sequence of interconnected actions that transform inputs into outputs or results. This interpretation is based on the formal identification of the main components of the process, including such elements as "input," "process," "process supplier," "process customer," "process management," and "output".

Thus, the majority of scholars and practitioners define a business process as a set of actions aimed at transforming input flows into results through the use of necessary resources and managerial actions to achieve the strategic mission of the enterprise and maximize the satisfaction of internal and external customers. In other words, a business process should be understood as a logically structured sequence of actions related to performing a specific type of activity that encompasses all stages of the lifecycle of the object of operation.

In addition, a business process represents a set of specific, defined activities that reflect the implementation of individual enterprise functions, within which one or more resources are engaged at the "input," and as a result of such functioning, an "output" is formed in the form of a product that has value for a particular customer [4–6].

Thus, a business process is a set of sequential, interrelated business operations managed by the enterprise's leadership, who are responsible for the results of the process. Using input information (such as data on raw materials, supplies, etc.) and the resources available to the enterprise (personnel, equipment, technologies, etc.), these operations transform inputs into output information (such as data on produced goods, efficiency, and performance), i.e., the results of the business process that are directly used by customers. In other words, for successful business process management, enterprise management must receive comprehensive feedback from customers regarding the progress and results of its execution.

As is well known, process management is based on grouping business processes according to the specifics and industry characteristics of a particular enterprise. One of the most popular and, in our opinion, effective concepts in this area of business practice is the approach developed by L. I. Chernobai and O. I. Duma, according to which business processes should be divided into the following groups [7,8]:

- core business processes (create added value of products or services, as they generate outputs that have value for customers in terms of consumer properties for which customers are willing to pay, thereby ensuring profit generation);
- supporting business processes (designed to ensure the execution of core processes and the functioning of the company's infrastructure, i.e., aimed at producing necessary internal products and providing internal services in accordance with defined business areas);
- development business processes (processes aimed at improvement, освоєння нових напрямків, methods and technologies, as well as innovations, focused on achieving profit, increasing efficiency, and ensuring long-term business performance);
- management business processes (aimed at managing all three aforementioned groups of business processes, as they encompass the full range of management functions at the level of each business process and the business system as a whole).

Ensuring the successful functioning of Ukrainian enterprises is inextricably linked to continuous monitoring of the external business environment and the improvement of their own business processes on this basis in accordance with market conditions and consumer needs. Therefore, identifying the features, directions, and methods for optimizing business process management of domestic enterprises, outlining methods of analysis and control for their improvement, as well as revealing the essence and substantiating the necessity of a process-oriented approach to managing an enterprise as an integrated system, defines today the key guideline and trajectory toward effective performance, achievement of strategic objectives of modern enterprises, and sustainable development of the national economy as a whole.

Analysis and control of business processes within the enterprise management system have been and remain key functions and primary tools for top management in studying and evaluating business performance. The main characteristics of this process include: first, the effectiveness, efficiency, and controllability of business processes; second, the time and cost of their execution; third, key performance indicators of business processes; fourth, risks, errors, and related organizational and informational gaps; fifth, the completeness, quality, and timeliness of information on business processes; sixth, the efficiency of managing information flows; and seventh, the standardization and automation of business processes, the main purpose of which is to ensure stable outcomes in terms of cost reduction, improved efficiency, competitiveness, and overall business performance.

It is advisable to note that all areas of employee responsibility in the execution of each business process must be carefully analyzed and controlled. In addition, all functions and processes should be examined in relation to the resources consumed and the results obtained.

In the process of analyzing and controlling business processes under modern enterprise development conditions, it is appropriate to use both classical and specific methods and tools for research and evaluation. Therefore, if an enterprise needs to optimize process costs and reduce expenses, it is advisable to apply, first of all, the Activity-Based Costing (ABC) method, which makes it possible to determine the cost of processes based on the cost of functions performed within specific business processes and the resources utilized [9].

If enterprise management considers it necessary to study and analyze business processes dynamically, it is recommended to use simulation modeling tools. This methodology allows, within a dynamic computer model, to design business processes, model personnel activities, information technology systems, as well as assess resource availability and identify bottlenecks within the business processes.

In addition to the above, for the effective analysis and control of business processes, enterprise management should take into account the following aspects: first, the completeness of business process descriptions directly depends on the purpose and objectives of their analytical study and evaluation, and the analytical methodology itself must be consistent with the methodology used to describe business processes; second, the business processes under analysis should be described using a unified standard.

It should be emphasized that analysis and control make it possible to consider business processes through the lens of creating a value chain for customers and to distinguish between core and supporting business processes of the enterprise. This is because they primarily involve a thorough examination of all current processes from the perspective of operational activities in order to identify specific causes and effects.

The description of business processes serves as a kind of blueprint of the business and involves the careful preparation of documentation and detailed flowcharts of all processes taking place within the enterprise.

Thus, based on the results of business process analysis, enterprise management determines the need for their optimization by selecting appropriate directions, steps, and methodologies with a view to improvement, as well as opportunities for scaling and growth. Optimization enables a clear distribution of responsibilities, enhances the level of control over business processes, and helps identify the customer value chain within services. Depending on the specifics and industry characteristics of the enterprise, various approaches and methods may be applied to optimize business processes.

Thus, business process optimization refers to the improvement of workflows, reduction of costs, and enhancement of business efficiency. It includes the analysis and control of existing business processes, identification of inefficient steps, and the prompt implementation of changes that lead to increased productivity, reduced costs, and higher customer satisfaction. The main aspects of enterprise business process optimization include the following:

- identification of so-called “bottlenecks” that hinder workflows;
- reduction or elimination of unnecessary stages in operational processes;
- automation of repetitive tasks to improve efficiency and performance;
- improvement of quality control to prevent errors;
- optimization of resources to ensure maximum productivity.

As is well known, business process management is a complex process of developing and implementing well-grounded managerial decisions by the management entity in order to optimize and thereby improve the efficiency of business processes. This is ultimately reflected in the enterprise’s performance results and customer satisfaction. Therefore, it is necessary to identify the key components of business process optimization (Table 1).

Table 1. Key Components of Business Process Optimization in the Enterprise Management System

Components	Characteristics and Mission	Tasks of the Management Entity for Optimization
1. Employees	The key element of the business optimization strategy, whose skills, performance capacity, and efficiency directly influence the optimization of enterprise business processes.	1. Ensuring continuous training and professional development to enhance employees’ capabilities; 2. Encouraging collaboration to simplify workflows; 3. Improving communication to avoid errors and inefficient actions; 4. Using modern personnel management tools to ensure optimal task allocation.
2. Business Process	A standard sequence of actions in the form of a specific algorithm that helps deliver value to the customer and generate profit. Optimization of business processes ensures consistency, speed, and quality across all structural units of the enterprise.	1. Mapping current business processes to identify inefficient and redundant ones; 2. Standardizing procedures to ensure repeatability of success; 3. Eliminating duplicated steps and actions to improve business productivity; 4. Automating repetitive tasks to increase productivity.
3. Technology	A set of knowledge about the methods of implementing enterprise business processes, aimed at their transformation and accelerating business optimization.	1. Using modern automation tools to reduce manual labor; 2. Implementing effective software to optimize business processes; 3. Applying AI-based business analytics for continuous performance monitoring, identifying business issues, and enabling changes through the implementation of selected decisions; 4. Ensuring the integration of selected technologies across all departments to achieve coordinated operations.
4. Location	The place of business operation, which affects supply chain management, logistics, operational efficiency, and the overall performance of the enterprise.	1. Identifying strategic locations to minimize costs and maximize market coverage; 2. Analyzing and controlling the supply network to improve distribution efficiency, which includes not only the physical movement of goods but also the management of distribution channels, pricing, interaction with partners and customers, and is aimed at ensuring that products are always available to consumers at the right place and at the right time; 3. Optimizing space planning to enhance the efficiency of business processes.

Source: compiled by the authors based on [8, 9, 10]

Thus, identifying and understanding the nature and essence of the components presented in the table will help an enterprise optimize its business processes, improve efficiency and performance, and maintain a competitive advantage.

As is well known, the majority of scholars and practitioners give priority to the process-oriented approach to enterprise management, which today serves as a key management concept focused on processes that ensure the achievement of strategic goals, rather than on individual functional units.

An important tool for describing business processes and an effective technology for organizing business in a broad sense—based on the use of the process approach and information systems—is, in our view, the Workflow method. It is considered as the automation of enterprise business processes and forms part of the business process management concept, offering specific steps for the rapid adaptation of business processes to changes in the external environment.

Workflow ensures a clear sequence of actions, tasks, rules, and responsible persons, aimed at the efficient and effective execution of a business process from start to finish. This method structures work, automates repetitive actions, and minimizes errors, thereby ensuring predictable outcomes.

The Workflow technology is currently regarded as an effective model of business organization and can be used by domestic enterprises to ensure efficient operation in a turbulent external environment.

An analysis of scientific publications on the development and implementation of Workflow technology in the management system of domestic enterprises has made it possible to identify the following directions and actions in order of priority:

- substantiation of the need to optimize the existing enterprise structure and its business processes;
- identification and analytical study of internal reserves of the enterprise;
- determination of which processes are core and which are supporting, as well as evaluation of their contribution to enterprise profit in order to identify the group of business processes that increase profitability;
- identification of business processes that divert capital and lead to losses.

In other words, the business management process should include an in-depth analysis and audit of existing business processes within the enterprise in order to group them according to their impact on performance results and to substantiate the necessity and feasibility of their improvement.

Based on the above, the optimization of enterprise business processes involves the development and implementation of specific measures aimed at their improvement (reorganization). Therefore, when defining the nature and mission of business process optimization, many scholars and practitioners use such terms as “improvement” and “enhancement” to achieve positive changes in the qualitative performance indicators of the enterprise.

As scientific studies show, the methodology of optimizing (improving, enhancing) enterprise business processes can be presented and classified according to various criteria. In our opinion, the most appropriate and transparent approach is to divide business process improvement methods into two groups based on the implementation period and the degree of changes introduced into the business process, namely short-term and long-term methods (Table 2).

Table 2. Methods of Business Process Optimization Depending on the Implementation Period and Degree of Change

Short-term	Long-term:
Rapid analysis method (express analysis)	Business process redesign
Idealization	Business process simplification
Statistical control	Benchmarking
Analytical study of workplaces	Reengineering
Quality Function Deployment (QFD) methodology	Effective team-building methods (teamwork technologies)

Source: compiled by the authors based on [7, 8, 9, 10, 11]

Let us consider each of the business process optimization methods in more detail.

The rapid analysis method (express analysis) aims to identify problems that arise within individual business processes. This typically requires the involvement of a group of experts to analyze possible solutions and promptly implement measures for their improvement.

Idealization is a method focused on designing so-called "ideal" business processes by identifying those elements that cannot be implemented in practice. In other words, this method is based on the assumption that any business problem can have an ideal solution, which may stimulate the development of new ideas.

Statistical control of enterprise business processes is a methodology for identifying a system of factors that influence their efficiency, distinguishing between those that cause chronic process variation and those that lead to episodic (irregular) variation.

The analytical study of workplaces aims to clearly define the technical requirements for a product (or service) needed by internal or external customers.

The Quality Function Deployment method makes it possible to identify relationships between requirements and the means of satisfying them, as well as to conduct a thorough analysis of these relationships. This method involves compiling a special matrix in which the results of research on business process implementation are accumulated, leading to a systematic and structured transformation of customer needs into quality requirements for products, services, or processes.

Business process redesign is a methodology based on a thorough analysis of existing business processes and aims not at creating an entirely new process, but at improving it and aligning it with the enterprise's strategic objectives.

Business process simplification involves optimizing specific procedures to ensure smooth operation by eliminating unnecessary steps, repetitive tasks, and minimizing delays in the execution of business processes.

Benchmarking is a method of identifying a more economically efficient competitor enterprise in order to compare it with one's own and adopt more effective practices. However, it should be noted that while this method is characterized by low risk and relatively low costs, it is advisable to use it only when the enterprise has access to information about the operations of other companies. In practice, such access is not always available.

Reengineering is a radical rethinking and redesign of core business processes aimed at achieving significant improvements in key performance indicators. It involves the creation of new business processes rather than merely improving existing ones.

Today, business success does not depend solely on the dedication of individual employees. Under conditions of remote and hybrid work, competitive advantage is largely ensured by effectively functioning teams. Cohesive and high-performing teamwork is a key driver of improved business performance. Therefore, in our opinion, it is advisable to include in the system of long-term business process optimization methods the approaches to effective team building (such as Scrum, Kanban, XP, Lean, Six Sigma, etc.), which have proven effective in environments characterized by high uncertainty and risk. These approaches are distinguished by features such as short sprints during which teams work on a defined set of tasks, minimal formalization of team roles and reporting documentation, clear and prompt interaction with the customer, simplicity and reduction of workload, and rapid responsiveness to change. This allows for a significant and timely increase in productivity, reduction in task completion time, cost minimization, and profit growth [12].

Based on the results of the conducted research, as well as the systematization and generalization of scholarly contributions in the field of business management [13–15], it is considered appropriate to identify the following important rules that should be followed in determining the need for optimizing enterprise business processes, namely:

- continuous monitoring and documentation of the execution of existing business processes (if such a procedure is impossible due to a high level of variability, it is advisable to consider the development of new business processes);

- comprehensive study and evaluation of the optimality of business processes from partial to general, analyzing and controlling each of their components, grouping them, coordinating, and promptly correcting deficiencies;
- formulation of conclusions regarding the level of optimality of business process management and, if necessary, development of proposals for their optimization in accordance with the enterprise's strategic objectives.

Summarizing the above, business process optimization serves as a key tool for ensuring the efficiency and effectiveness of modern enterprises under current conditions. It contributes to cost reduction, improvement of product (service) quality, and increased profitability in order to meet the needs of customers and consumers.

As noted above, among the key components of business process optimization within the enterprise management system, priority is given to employees, who are the main element of the business optimization strategy, as their skills, performance, and efficiency directly affect the results of any enterprise's functioning.

Thus, in today's realities, an important educational, scientific, and practical direction remains and continues to develop: the identification of key areas of analysis and control for optimizing business process management, as well as the closely related formation of relevant competencies of specialists in accounting, analytical, and auditing fields. Such specialists should be capable of promptly identifying and solving business problems through qualitative changes in the structure of the enterprise (company) by developing and implementing well-grounded decisions aimed at eliminating identified business issues, including optimization of the organizational structure, development of new or modification of existing business processes or business plans, and formation of new strategic plans, etc.

As is well known, business analytics is a set of technologies and practices aimed at achieving specific business objectives through identifying needs and substantiating decisions by means of the optimal use of available data. Thus, a business analyst is a specialist responsible for collecting, verifying, grouping, analyzing, and interpreting complex datasets (information) in order to evaluate key performance indicators of a company and further develop and make well-grounded decisions to improve business performance.

A business analyst is focused on identifying positive changes for the company in its strategy, policy, structure, business processes, and information systems, and therefore must know and be able to timely and effectively perform the following tasks:

- conducting analytical research of collected information and evaluating the business structure;
- identifying and describing the root causes of business problems;
- addressing issues related to management, planning, organizational structure design, and determining the optimal staffing level;
- reducing company costs;
- developing organizational solutions related to the company's structure in the form of models that explain relationships between employees or departments;
- proposing the replacement of ineffective decisions with innovative and перспективними solutions, as well as assessing the feasibility of proposed solutions and evaluating potential drawbacks and risks of their implementation;
- summarizing the results of analysis and substantiating the need to optimize business process management in order to improve business efficiency.

Thus, accounting and analytical disciplines ensure the integration of theoretical knowledge and practical skills necessary for the effective management of modern enterprise activities, as well as contribute to the development of critical thinking and analytical abilities of students. Therefore, developing the ability to think analytically is a requirement of today [2,3,15].

In accordance with the educational and professional program "Accounting, Auditing and Business Analytics" and the requirements of the Higher Education Standard in the specialty "Accounting and Taxation" at the second (master's) level of education, it is considered necessary to highlight the special competencies of future specialists that confirm and substantiate the role of analysis and control in optimizing business process management of a modern enterprise, as well as determine the relevance and перспективність of training specialists in this field [3,16]:

- ability to generate and use accounting information for making effective managerial decisions at all levels of enterprise management in order to improve efficiency, performance, and social responsibility of business;
- ability to apply theoretical, methodological, and practical approaches to the organization of accounting, control, planning, and optimization of tax calculations;
- ability to apply methods and techniques of analytical support for modern management systems, taking into account the enterprise development strategy under conditions of uncertainty, risk, and/or information asymmetry;
- ability to use international standards of quality control, auditing, review, other assurance and related services in compliance with professional ethics in practical activities;
- ability to formulate tasks, improve methodologies, and implement modern methods of financial and managerial accounting, analysis, auditing, and taxation in accordance with the strategic goals of the enterprise;
- ability to provide consulting services to business owners, enterprise management, and other users of information in the fields of accounting, analysis, control, auditing, and taxation;
- ability to conduct scientific research aimed at solving current issues in the theory, methodology, organization, and practice of accounting, auditing, analysis, control, and taxation;
- ability to integrate analytical approaches to assess the effectiveness of business models and develop recommendations for their strategic improvement based on accounting, tax, and auditing information.

Discussion. In order to ensure effective functioning and competitive development, Ukrainian enterprises must continuously modify and improve their business processes in accordance with unstable market conditions and consumer needs. Therefore, determining the essence, place, and role of business processes, as well as the features of their optimization within the management system of domestic enterprises—based on the prompt use of modern methods and technologies of analysis and control as effective management tools, relying on a process-oriented approach and taking into account industry-specific characteristics—are indeed important and priority issues. These issues have been the focus of our research and should be continuously discussed by scholars and practitioners in today's realities.

The conducted study emphasizes that a modern enterprise represents a complex business system characterized by the interaction of numerous business processes, the mission and ultimate goal of which are the production and delivery of a planned volume of goods (services) and the achievement of a certain level of profitability [1, 6–9]. Therefore, a key factor in adapting enterprises to current business realities is the process-oriented approach, aimed at optimizing business process management and aligning processes with the challenges of the external environment.

The analysis of business processes and control over their step-by-step execution and implementation represent the systematic collection of data for the purpose of identifying, defining, evaluating, and presenting enterprise activities as a basis for their organization and improvement. The need for such analysis is typically driven by the company's competitive position in the market. Comparing prices, costs, and volumes of goods (services) offered to consumers should help establish the necessary requirements for their improvement and enhancement.

Thus, business process optimization is a vitally necessary process of developing and implementing measures aimed at improving enterprise business processes. When discussing the nature and issues of business process optimization, scholars often use the more understandable term "improvement" to achieve a positive effect in changing qualitative indicators and the overall productivity of enterprise performance.

Taking the above into account, optimization aims to enhance the effectiveness, efficiency, and adaptability of business processes to the conditions in which the enterprise operates. Therefore, the term "business process optimization" can be considered in the context of business improvement and enhancement.

In addition, business process optimization is an important aspect of an organization's development, whereby a set of actions is undertaken by the process owner to identify, analyze, and improve existing business processes in accordance with defined goals and objectives, such as increasing profit and productivity, reducing costs, etc. Thus, optimization serves as an effective means of transforming existing business processes, leading to improvements in the organizational structure of the enterprise. Its ultimate goal is to enhance the quality of products (services), align them with the needs of customers and consumers, and consequently increase profit and profitability.

"Personnel decide everything" is a well-known managerial principle that remains relevant for any enterprise (company). For changes necessary for further development to become reality and deliver the desired results, in addition to implemented guidelines, modern methods, and technologies, effective teamwork is essential. All participants in the process must clearly understand what is happening, why it is happening, how specific tasks should be performed, the direction of development, and the expected outcomes. Effective teamwork requires a certain set of knowledge and skills, which are ensured through both theoretical and practical training of specialists.

Today, no enterprise, regardless of its form of ownership, can operate without highly qualified specialists in accounting, analysis, control, and taxation, as these management functions are essential for successful and effective operation and for optimizing business processes under conditions of uncertainty and risk. Therefore, the modern labor market demands well-trained specialists in this field who are capable of continuous development and improvement in response to changes in the economy and legislation.

A specialist in accounting and taxation today must not only perform traditional functions related to accounting, analysis, and control, focusing on local enterprise issues, but also implement strategic measures to enhance the long-term development of the organization. Such specialists should conduct research aimed at solving current theoretical, methodological, organizational, and practical problems in accounting, auditing, analysis, control, and taxation, in order to evaluate the effectiveness of existing business models and develop recommendations for their strategic improvement.

Conclusions. The results of the study have shown that under conditions of martial law and the associated deepening of uncertainty and risk in socio-economic processes, it is necessary and advisable to apply such approaches, methods, and technologies of business optimization that ensure an optimal balance between customer satisfaction and competitive market forces, on the one hand, and the efficiency and performance indicators of business processes, on the other.

Unfortunately, pressing issues of both theoretical and practical significance remain, including the identification of priority areas for analysis and control in optimizing enterprise business process management, as well as the training of specialists in accounting, analytical, and control fields who are needed by the national economy and capable of integrating analytical approaches to evaluate business process efficiency and develop meaningful recommendations for their strategic improvement.

The theoretical significance of the study lies in the generalization and systematization of existing views of scholars and practitioners regarding the role of analysis and control in optimizing enterprise business process management to enhance efficiency and performance.

The practical significance of the study is reflected in the further development of methodological and organizational approaches to strategic management and the formation of optimal business processes in modern enterprises (companies), as well as in outlining the necessary competencies of future specialists in accounting, analysis, and control who are capable of implementing directions for optimizing business process management of domestic enterprises in current realities.

The study also shows that most domestic enterprises currently use an insufficient range of indicators to analyze and evaluate their performance, which is обусловлено the unstable development of management under martial law conditions and related subjective and objective factors. The development of financial management in domestic enterprises requires the broader use of diverse performance indicators, which would enable a comprehensive and objective assessment of their functioning and support effective management based on an integrated approach.

Therefore, further research will focus on generalizing and further developing the theoretical and methodological foundations for the formation and use of a balanced system of key performance indicators to enhance the effectiveness of strategic management of domestic enterprises under modern conditions of uncertainty and risk.

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Аналіз і контроль як інструменти оптимізації управління бізнес-процесами в умовах невизначеності

Анотація. Об'єктом дослідження є система управління бізнес-процесами підприємства, яка в умовах воєнного стану функціонує під впливом підвищеної невизначеності, ризиків та динамічних змін зовнішнього середовища. Ключовими інструментами забезпечення її ефективності виступають аналіз і контроль як базові функції управління.

Постановка проблеми. Поглиблення факторів невизначеності зумовлює необхідність удосконалення управління бізнес-процесами підприємств, зокрема через підвищення ролі аналізу та контролю як інструментів забезпечення їх результативності та ефективності.

Нерозв'язані аспекти. Незважаючи на наявність значної кількості наукових досліджень, недостатньо розкритими залишаються питання інтеграції аналізу та контролю в систему оптимізації бізнес-процесів з урахуванням галузевої специфіки підприємств, а також формування відповідних компетентностей фахівців в умовах невизначеності.

Мета статті. Метою дослідження є узагальнення та подальший розвиток теоретико-методичних і практичних положень щодо ролі аналізу та контролю в оптимізації управління бізнес-процесами підприємства.

Основний матеріал. Методологічну основу дослідження становлять загальнонаукові та спеціальні методи, зокрема порівняння, систематизація, узагальнення, аналіз і синтез, індукція та дедукція, системний і комплексний підходи. У роботі узагальнено підходи до визначення сутності бізнес-процесів, обґрунтовано роль аналізу та контролю як ключових інструментів їх оптимізації, визначено фактори впливу на систему управління бізнес-процесами та окреслено необхідні компетентності фахівців обліково-аналітичного спрямування. Розширено перелік компонентів і методів оптимізації бізнес-процесів залежно від періоду реалізації та глибини змін.

Висновки. У результаті дослідження доведено, що ефективне управління бізнес-процесами підприємства в умовах невизначеності потребує інтеграції аналізу та контролю на всіх етапах управління. Практичне значення полягає у розробленні рекомендацій щодо вдосконалення методичних і організаційних підходів до оптимізації бізнес-процесів, а також у конкретизації професійних компетентностей фахівців, здатних забезпечувати підвищення результативності діяльності підприємств у турбулентному середовищі.

Ключові слова: *бізнес-процес, аналіз, контроль, оптимізація, стратегічне управління, результативність, компетентності фахівців.*
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