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ACCOUNTING AND ANALYTICAL SUPPORT OF BUSINESS PROCESSES IN CONDITIONS OF ECONOMIC INSTABILITY: KEY ASPECTS

ОБЛІКОВЕ-АНАЛІТИЧНЕ ЗАБЕЗПЕЧЕННЯ БІЗНЕС-ПРОЦЕСІВ В УМОВАХ ЕКОНОМІЧНОЇ НЕСТАБІЛЬНОСТІ: КЛЮЧОВІ АСПЕКТИ

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The instability of the business environment at the current stage causes significant challenges for all groups of stakeholders, in particular, business. In this context, a special problem arises in the field of ensuring the adequate functioning of companies in conditions of significant exogenous and endogenous challenges. The purpose of the article is to identify the features of the accounting and analytical base of the management of the company's operational processes in the conditions of growing economic instability at the micro- and macro-level from the point of view of the functioning of the corporate sector. The article examines the essence of accounting and analytical support of the company's business processes in the light of growing changes in the business environment. The key role of an informed and transparent methodical approach to business management in terms of business processes is defined. The main trends in the development of accounting and analytical support for business processes in the conditions of growing volatility in the working environment of companies focused on increasing operational efficiency and business profitability are considered. The rapid forecast development of the market of solutions for accounting and analytical support of business processes in the world was noted. In the framework of strengthening the information and analytical support of business processes, a toolkit in the format of a system of key performance indicators (KPI) is proposed. A KPI system was formed from 7 indicators of operational and strategic direction, designed to strengthen the effectiveness of business process changes from the point of view of their analytical basis. A promising direction of research in this field is the analysis of the context of digitalization (blockchain technologies and artificial intelligence) from the point of view of the development of accounting and analytical support for business processes.

Keywords: business process; accounting and analytical support; business environment; economic instability; key performance indicators; stakeholder.

Нестабільність бізнес-середовища на сучасному етапі зумовлює значні виклики для всіх груп стейкхолдерів, зокрема, бізнесу. В даному контексті особлива проблематика постає в сфері забезпечення адекватного функціонування компаній в умовах значних екзогенних і ендогенних викликів. Це актуалізує проблематику розвитку обліково-аналітичного забезпечення бізнес-процесів в умовах росту волатильності середовища діяльності компаній. Метою статті є ідентифікація особливостей облікової та аналітичної бази управління операційними процесами компанії в умовах зростання економічної нестабільності на мікро- та макро-рівні з точки зору функціонування корпоративного сектору. В статті розглянуто сутність обліково-аналітичного забезпечення бізнес-процесів компанії в світлі зростаючих змін бізнесового середовища. Визначено ключову роль поінформованого та транспарентного методичного підходу до управління бізнесом в розрізі бізнес-процесів. Розглянуто основні тенденції розвитку обліково-аналітичного забезпечення бізнес процесів в умовах росту волатильності середовища роботи компаній, що сфокусовані на підвищення операційної ефективності та прибутковості бізнесу. Відзначено стрімкий прогностичний розвиток ринку рішень з обліково-аналітичного забезпечення бізнес-процесів у світі. Окреслено основні напрямки посилення інформаційно-аналітичного забезпечення бізнес-процесів в умовах економічної нестабільності, зокрема: використання сучасних технологій; впровадження системи ERP для планування ресурсів підприємства; налаштування системи обліково-аналітичного забезпечення бюджетування компанії; створення системи ключових показників ефективності (KPI) в рамках обліково-аналітичного забезпечення бізнес-процесів, що посилить результати цифровізації управління бізнесом, дозволить приймати більш обґрунтовані управлінські рішення. В контексті цього запропоновано систему KPI з 7 показників операційного та стратегічного спрямування, які покликані забезпечити результативність змін бізнес-процесів з точки зору їх аналітичного підґрунтя. Перспективним напрямком дослідження в даній царині є аналіз контексту цифровізації (технологій блокчейн і штучного інтелекту) з точки зору розвитку обліково-аналітичного забезпечення бізнес-процесів.

Ключові слова: бізнес-процес; обліково-аналітичне забезпечення; бізнес-середовище; економічна нестабільність; ключові показники ефективності; стейкхолдер.

Statement of the problem. Accounting and analytical support as a methodical approach and toolkit is necessary for effective management at the micro-level in a period of significant economic instability due to a number of reasons of exogenous and endogenous origin, which is critically important for solving management problems for various groups of stakeholders. In particular, accounting and analytical support provides up-to-date, timely and accurate information that helps managers quickly form and implement sound management decisions, stakeholders identify opportunities for growth and potential threats to the company in the short- and long-term time horizons. This information base includes, among other things, the forecast budget of the company, an estimate of the payback period and profitability of the project, an analysis of the structure and dynamics of costs. The key role of accounting and analytical support is also manifested in enabling the functioning of control and monitoring tools in the context of the formation and implementation of the company's development goals in the context of their potential achievement and actual implementation, which strengthens the effectiveness of the management function at the micro-level. The critical importance of this security system is enhanced by the growth of transparency for various groups of stakeholders. Thus, the accounting and analytical support of business processes plays a decisive role in the management of the company in conditions of economic instability.

Analysis of recent research and publications. A number of studies have been devoted to the issues of the essence of accounting and analytical support for business processes of companies in the context of the modern exogenous and endogenous environment, challenges for micro-level management, tasks of various stakeholder groups at the company level.

Yes, Ghandur D. [1, p. 45–46] considers control systems based on the analytical support of management accounting in the context of ensuring the development of the enterprise on short- and long-term time horizons. Research by R. Shurpenkova, O. Sarakhman [2, p. 55–56] are devoted to the problems of enterprise management with the help of analytical tools of management accounting in the conditions of digitalization. Gokturk I., Yubildiren M. [3, p. 37–38] investigate the impact of accounting and analytical tools on modern enterprise management practices in the area of corporate business processes. Almaterneh Z., Jarrah B., Jarrah M. [4, p. 14–15] analyze the role of accounting and analytical support in supporting the functioning of supply chain systems in the context of production and logistics business processes of enterprises, and scientists Doctoralina S., Apollo A. [5, p. 147–148] – in achieving the target level of profitability of business activity in terms of these processes. Jarrah B.A.F., Almaterneh Z. [6, p. 5–6] also investigate the role of accounting and analytical support automation systems,

in particular, in terms of corporate business processes in the strategic management of an enterprise from the point of view of its organizational culture. The work of Dhamit G. S., Diaz L. [7, p. 30–31] is devoted to the problems of applying accounting and analytical support in the context of strategic enterprise management in terms of the tools of the system of balanced indicators. Wu H. T., Ha N. M. [8, p. 89–90] determine the role of accounting and analytical support in the functioning of the enterprise's business processes in the tasks of diversifying its business activities. Alexina G. [9, p. 80–81] substantiates the need for a systematic approach to strategic management of the company, which is manifested in the institutionalization of business strategy, in particular, in the component of accounting and analytical support systems for business processes. In the work of Soys I. B., Jamayakha N. P., Grigg N. [10, p. 1009–1010] considered the application of accounting and analytical support tools in order to support the functioning of business processes in the sector of non-profit organizations.

However, the modern specificity of accounting and analytical support of business processes in the conditions of economic instability in Ukraine is insufficiently investigated in the existing body of works.

The purpose of the article is to determine the features of the accounting and analytical support of business processes of companies in the context of the growth of volatility of the exogenous and endogenous business environment. Within the framework of this study, a number **of tasks were formed**: 1. To identify the essence of accounting and analytical support of the company's business processes in conditions of growing economic instability; 2. To review the key trends in the development of accounting and analytical support for the company's business processes in conditions of increased instability of the exogenous and endogenous business environment; 3. To form a toolkit for improving the accounting and analytical support of the company's business processes in conditions of economic instability.

Presentation of the main material. Accounting and analytical support for business processes is a system of collecting, processing, analyzing, and applying data related to the company's business activities to support and optimize its work. The implementation of this task involves a systematic analysis of the company's performance and risk assessment of its business activities in various system-structural

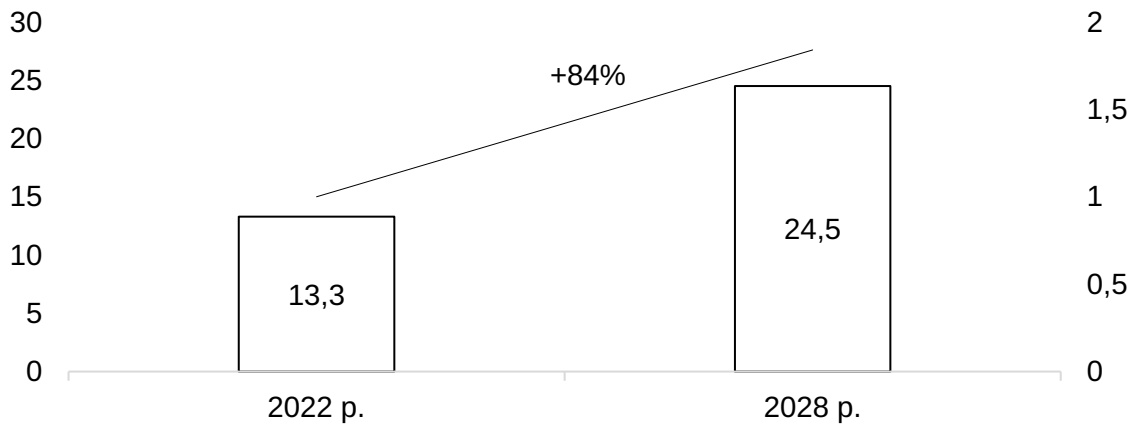
and functional aspects of the company's organizational structure. This business support system takes on special importance in the light of growing economic instability and, accordingly, the need to establish a sustainable enterprise management system in all components of the company's management with a focus on its long-term growth [9].

In its essence, the accounting and analytical support of business processes is a methodical approach to the study of the company's operational processes. On a practical level, this is a systematic, thorough, multi-phase analysis of each stage of the business process, which is designed to determine the current state of operation of the company's operational processes, identify improvement areas in the context of operational efficiency, form the most effective and appropriate ways to improve and adjust the company's operational processes to achieve competitiveness on short- and long-term time horizons. Thus, the accounting and analytical support of business processes provides a number of practical advantages in terms of, firstly, transparency of business costs and responsibility in terms of the organizational structure of the company; secondly, setting up and systematically maintaining effective interdepartmental interaction; thirdly, increasing transparency, stimulating more effective knowledge transfer between company divisions, improving the quality of information flows between employees.

Note that the importance of this scientific and practical problem is confirmed by the dynamics of the market of solutions for managing the accounting and analytical support of business processes. According to the consulting and analytical platform Research and Markets [11] the volume of this industry will grow 1.84 times by 2028 with an average annual growth rate of 10.7% (Fig. 1).

Experts of consulting and analytical platform Research and Markets note that the current trend in the development of accounting and analytical support for business processes is provided by a number of key technological drivers [11]. In particular, the development of technological solutions that expand the functionality of business process management, the growing trend of using cloud technologies to automate time-consuming tasks, the need to increase labor productivity at the company level in the modern business environment are highlighted.

It should be taken into account that according to the results of the professional research



□ Market volume of solutions for management of accounting and analytical support of business processes in the world, billion US dollars

Fig. 1. Market volume of solutions for management of accounting and analytical support of business processes in the world, billion US dollars

Source: data from the consulting and analytical platform Research and Markets [11]

Bitkom Research [12] the main functional divisions of the company for strengthening business process management at the current stage are a department for work with personnel (48% of respondents), a department of finance and accounting (45% of respondents), a department of operational work – in the part of processing client orders (37% of respondents). The results of this study are presented in Fig. 2.

At the current stage, characterized by an increased level of economic instability, companies strive for a systematic approach in the tasks of improving the accounting and analytical support of business processes. Note that in the past companies tended to use reengineering and automation tools – but only at the level of individual business processes without considering their entire complex. In the conditions of increased economic instability,

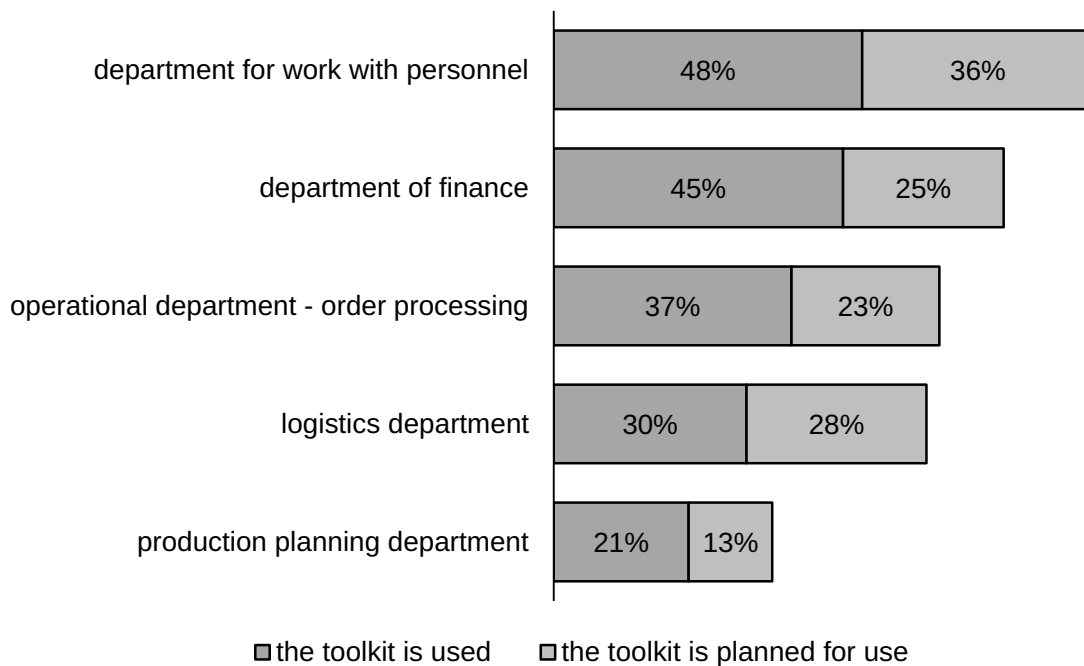


Fig. 2. Application of accounting and analytical tools for managing business processes by functional areas in the company, % of respondents

Source: data from the research company Bitkom Research [12]

the improvement of accounting and analytical support of business processes should take place at the general corporate level, which is designed to gain specific competitive advantages in terms of the efficiency and quality of the company's activities. It is important to note that these competitive advantages in the field of accounting and analytical support of business processes are aimed at optimizing costs, reducing losses of funds, optimal growth of business income.

The systematic approach used to improve the accounting and analytical support of business processes in conditions of economic instability is based on the paradigm of corporate strategic management, which in its essence is designed to achieve the company's development goals by combining relevant tools into a set of solutions that supports the company's strategic movement in the context of the goals of the main groups of stakeholders.

At the same time, it is important to note that the departure of companies from the framework of systems that focus on individual discrete parts of business processes, when applying a system approach, enables the involvement of wider groups of stakeholders, including internal users. As a result, this contributes to the widest possible involvement of the entire complex of management systems and the achievement of the most optimal results in terms of improving business processes, including overcoming system limitations and maintaining the

appropriate level of quality under the influence of exogenous and endogenous factors.

The consulting company HYPERION.GP [13], based on the results of the conducted research, singles out the following key areas of strengthening the accounting-analytical-support of business processes from the point of view of stakeholders: the growth of labor productivity of key employees (45% of respondents), the growth of labor productivity of support staff (36% of respondents), a higher level of consistency and standardization of business processes (36% of respondents). The key areas for improving business processes are shown in Fig. 3 [13].

Taking into account the above, in order to improve the accounting and analytical support of business process management in a period of economic instability, it is necessary to apply systems of key performance indexes (KPI). This KPI system is designed to provide effective monitoring and control of business process improvements from the point of view of efficiency and quality of changes.

The proposed list of key performance indexes is presented in the Table 1.

The application of the above KPI system (Table 1) in conditions of growing economic instability will enable more informed management decisions in terms of the company's business processes, will provide more of an argumentative basis for changes within the company in the context of changing business processes, and will strengthen the digitalization of business

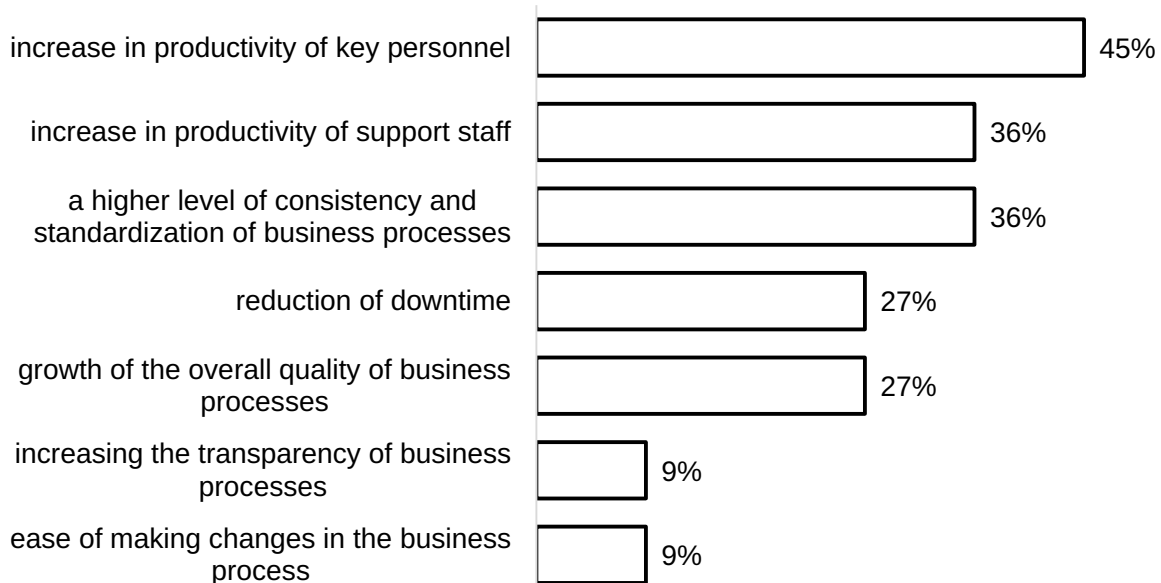


Fig. 3. Key areas of strengthening the accounting-analytical support of business processes from the point of view of stakeholders

Source: data from the HYPERION.GP consulting company [13]

Table 1

The KPI system in the context of improving the accounting and analytical support of business processes in conditions of economic instability

CREE	Comments
ROI (rate of return on investment) of business process changes	The difference between the monetized benefits or advantages resulting from a business process improvement and the costs associated with implementing the change. A higher level of ROI indicates higher results (in monetary terms) of using the resources involved in improving the business process.
Business process efficiency	The indicator is calculated by dividing the final results by the initial inputs. A higher level of business process efficiency indicates better conditions for using the company's resources.
Business process cycle time	The amount of time required to fully complete a business process from start to finish. A decrease in cycle time indicates an increase in labor productivity at the enterprise.
Error rate	The number of errors in the business process. A better business process has a lower error rate.
Customer satisfaction with the state of business processes	The level of satisfaction of customer requirements and expectations, which is measured using feedback and survey tools. A higher level of customer satisfaction is interpreted as a higher quality of the business process.
Staff satisfaction with the state of business processes	Share of satisfied company employees with changed business processes; this indicator is calculated due to qualitative and quantitative research of a sample of employees. A higher level of staff satisfaction can be interpreted as a higher level of staff productivity and their intentions to continue cooperation with the company.
The level of compliance with legal and regulatory requirements in terms of the business process	The share of business processes that meet current legal and regulatory requirements; a higher level of compliance of business processes contributes to the reduction of company risks. Accordingly, a higher level of compliance indicates a lower risk for the company in terms of compliance with regulatory and legal requirements.

Source: own analysis

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management. To other events regarding the strengthening of accounting and analytical support for business process management in conditions of growing economic instability, the following can be attributed:

1. *The use of modern technologies (in particular, artificial intelligence) within the framework of strengthening the accounting and analytical support of business processes*, which can cover a range of technological solutions from basic accounting software to more complex data analysis tools (Artificial Intelligence; Big data; Blockchain; Machine learning);

2. *Implementation of the ERP system for enterprise resource planning*, which ensures the coordination of numerous business processes and provides a more complete picture of the current and prospective situation;

3. *Application of scenario analysis and modeling methods*, which allow to identify the most likely scenarios of the development of the

situation and react accordingly in terms of the company's business processes;

4. *Setting up the system of accounting and analytical support for the company's budgeting*, which helps to organize its activities in the area of business processes and foresee difficulties that may arise as a result of unstable economic conditions.

In general, these decisions in the practical plane will create important competitive advantages in light of the growth of economic instability at the micro- and macro-level in terms of increasing transparency and increasing the efficiency of the use of company resources, as well as the speed and effectiveness of business processes in the context of making managerial decisions at various levels in terms of the organizational structure of the company.

Conclusions. Accounting and analytical support of business processes plays a key role in strengthening the company's performance

and business competitiveness in the short- and long-term time horizons, which is especially important in the period of growing economic instability at the micro- and macro-levels. This system provides a systematic analysis of the company's performance and an assessment of the risks of its economic activity in various system-structural and functional aspects of the company's organizational structure, provides practical advantages, such as transparency of costs and business responsibility, effective internal interaction, increased transparency, stimulation of more effective knowledge transfer between the company's divisions and improving the quality of information flows between employees.

The company's main functional directions for strengthening accounting and analytical support for business process management are human resources, financial accounting and operational areas. Companies strive for a systematic approach to improving the accounting and analytical support of business processes to obtain competitive advantages in terms of efficiency and quality. Accordingly, at the current stage of the increased level of economic instability, companies must analyze and optimize the entire complex of business processes, which allows to involve wider groups of stakeholders, including internal users.

Among the key solutions designed to improve the accounting and analytical support of business processes in conditions of economic instability, the following complex of solutions is highlighted: the use of modern technologies (in particular, artificial intelligence) within the framework of strengthening the accounting and analytical support of business processes; implementation of the ERP system; setting up the company's accounting and analytical budgeting support system; creation of a system of key performance indicators (KPI) within the framework of accounting and analytical support of business processes. which will strengthen the results of digitalization of business management, will allow making more informed management decisions.

The implementation of this complex of solutions should contribute to the systematic improvement of the accounting and analytical support of the company's business processes in conditions of economic instability, relying on leading modern technologies and best management practices

A promising direction of research in this field is an in-depth analysis of the context of digitalization, in particular, blockchain technologies and artificial intelligence in order to strengthen the accounting and analytical support of business processes in conditions of economic instability.

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