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FUNCTIONAL APPROACHES TO ACCOUNTING AND ANALYTICAL INFORMATION TO ENSURE THE ECONOMIC SECURITY OF THE ENTERPRISE

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The article examines the essence and mechanism of strategic planning and management of a trade and production enterprise in the management information system to ensure economic security, the development of accounting and analytical systems and their integration, modern methods of financial modeling and controlling for making strategic management decisions by combining owners, financial managers, administrative and management personnel, contractors and

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users with different financial interests. In order to more accurately represent the management information system, accounting and analytical information flows are presented, consisting of business intelligence systems, an analytical system, a strategic planning and controlling system. It is determined that modeling of the process of anti-crisis financial management should be carried out using modern accounting and analytical technologies, which will allow at the system level to form the necessary management decisions taking into account trade and production features of the enterprise and achieve effective implementation. Using methodological and technological approaches to integration, a new direction in the information management system is identified as the effectiveness of business management. This allows you to determine the sequence of relevant actions and clearly represent all participants in the management information system, the stages of modeling the accounting and analytical process, their relationship, methodological basis and intermediate and general results to ensure the economic security of the enterprise. The use of the proposed methodology provides an opportunity to create an improved model to improve the effectiveness of management decisions and will allow the management information system to detail the financial statements to ensure the economic security of the enterprise.

Keywords: management accounting, analytical information system, business process, economic security of business, financial reporting, modeling.

ФУНКЦІОНАЛЬНІ ПІДХОДИ ДО ОБЛІКОВО-АНАЛІТИЧНОЇ ІНФОРМАЦІЇ ДЛЯ ЗАБЕЗПЕЧЕННЯ ЕКОНОМІЧНОЇ БЕЗПЕКИ ПІДПРИЄМСТВА

О.В. Топоркова, О.Ю. Литовченко

Досліджено сутність і механізм стратегічного планування діяльності торгівельно-виробничим підприємством в управлінській інформаційній системі для забезпечення економічної безпеки. Розглянуто сучасні методи фінансового моделювання та контролінгу для формування стратегічного управління та прийняття рішень шляхом об'єднання власників, фінансових менеджерів, адміністративного та управлінського персоналу, підрядників та користувачів із різними фінансовими інтересами.

Із метою більш точного визначення системи управління інформацією представлені потоки обліково-аналітичної інформації, що складаються із систем бізнес-аналітики, аналітичної, стратегічного планування та контролю. Унаслідок використання методологічних та технологічних підходів до інтеграції, визначено новий напрям в інформаційній управлінській системі – ефективність керування бізнесом. Цей підхід дозволяє визначити послідовність відповідних дій та наочно уявити всіх учасників управлінської інформаційної системи, етапи моделювання обліково-аналітичного процесу, їх зв'язок, методичне підґрунтя, проміжні й загальні результати для забезпечення економічної безпеки підприємства. Використання запропонованої методики дає можливість створити покращену модель для

підвищення результативності управлінських рішень та провести деталізацію даних фінансової звітності в управлінській інформаційній системі для забезпечення економічної безпеки підприємства.

Ключові слова: *управлінський облік, аналітична інформаційна система, бізнес-процес, економічна безпека бізнесу, фінансова звітність, моделювання.*

Statement of the problem. The globalization of capital markets at the present stage of development not only requires the provision of objective and reliable accounting and analytical information, but also presupposes the condition of comparability of this information at the international level. The solution to this problem will make it possible to form the management information system of the enterprise on a fundamentally new basis of accounting and analytical information, taking into account the provision of sustainable financial and economic development and the protection of economic interests and property rights.

Review of the latest research and publications. In the research of scientists in the field of accounting and analytical support for the economic security of commercial and industrial enterprises, the need for timely identification of threats and risks, application of modern methods of assessment, forecasting development trends, modeling interests and mechanisms to ensure economic security. Problems of analysis and assessment of internal and external threats economic security, the development of a methodology for determining safety indicators and thresholds in key areas the works of domestic and foreign scientists are devoted to economics. A methodological base has been formed for conducting research of an applied nature, allowing to reach the level of conceptual provisions and methodological recommendations for determining the functions, structure and order of strategic management in the field of ensuring economic security. At the same time, the theoretical and methodological accounting and analytical aspects of the strategic management of the economic security of enterprises, including improvement of methods and methods of analysis and condition assessment economic security, financial and economic activities enterprises that form the basis for the development and adoption of decisions in the management information system to protect the economic interests of commercial and industrial enterprises, timely prevention of economic threats.

The objective of the research is to develop guidelines for the generalization of financial statements and the implementation of the mechanism of use of accounting and analytical information in the management information system to ensure the economic security of business.

Presentation of the research material. One of the important conditions for increasing the efficiency and sustainability of the development of trade and industrial enterprises in the conditions of market relations is the improvement of management, taking into account the factors of ensuring economic security.

In the theory and practice of doing business, special attention in modern management models is paid to the issues of accounting and analytical support for the economic security of an enterprise. To solve the problem of ensuring the economic security of an enterprise, the actual issue is useful information about the state of the business, its various accounting and analytical aspects. Accounting and analytical information is located at the junctions of various divisions of the enterprise and reflects the real picture of the events.

Awareness of stakeholders and persons making strategic management decisions is the most important factor in increasing the economic viability of an enterprise, its efficiency and protection from the effects of external and internal threats and risks. The role of financial reporting and analytical information for the management information system (MIS) increases significantly, since it is a source of reliable and objective information about the financial and economic activities of the enterprise.

The management information system sets itself the task of obtaining reliable information for the formation of complete and reliable information, adapted to specific tasks arising in the process of optimizing profits and making managerial decisions.

Currently, accounting and analytical information systems (AAIS), including analytical systems and business intelligence systems, are being developed more and more intensively. Currently, methodological and technological integration has been carried out, as a result of which a new direction has appeared, business performance management (Business Performance Management (BPM)). It represents a holistic, process-oriented approach to management decision making, aimed at improving the ability of enterprises to assess their condition and manage their performance at all levels, by bringing together owners, financial managers, personnel and external counterparties within a common integrated information system for management objectives. This approach is based on the developed industry standard (Industry Framework Document), which includes the definition of BPM as a characteristic of the main management processes and the architecture of information BPM-systems.

Business performance management (BPM) is a methodology aimed at optimizing the implementation of strategy, and consisting of a set of integrated accounting and analytical information systems (IMIS), supported

by appropriate technologies and related to both financial and operational information. BPM enables enterprises to define, measure and manage the performance of their operations towards strategic goals. Financial and operational BPM processes include planning, consolidation and reporting, analysis and dissemination throughout the enterprise. BPM is also an important part of corporate governance and reflects the need for a holistic approach that integrates compliance, performance management and risk management.

BPM system can be used in two meanings: as a management concept (a specific approach to making management decisions and their practical implementation) and as an information system (a set of software and hardware tools that support BPM and ensure its practical implementation). Various literary sources contain various abbreviations: business performance management (BPM); enterprise performance management (EPM); corporate performance management (CPM); strategic enterprise management (SEM).

The functionality of BPM systems distinguishes a number of basic processes covered by BPM systems: strategy formalization, planning (plan); monitoring and analysis; corrective actions (takecorrectiveactions).

The strategic direction of business performance management allows financial analysts to develop various kinds of strategic management decisions, identify opportunities for value formation and measurement systems that allow assessing business performance and development dynamics.

Relevant components include:

- a number of management reports based on accounting registers and financial and statistical reporting data (consolidated control calculation, balanced management report) [1], on the basis of which the collegiality of strategic management is ensured;

- organization of the management information model of the system in the corporate management environment (conceptual provisions of the management information system);

- mathematical modeling of applications for computerization (functional features of the software calculation of the mathematical model in the field of "Mathcad" by blocks) and providing links with the corresponding key performance indicators;

- development trends and prospects, analysis of the break-even point.

In the context of strategic planning, business performance management allows:

- develop tax planning programs and form target values of certain indicators for different time periods for the tax information system (TIS);

- consider the issues of enterprise budgeting and plans supporting the business strategy for the management information system (MIS);
- develop for MIS: applications for the formation, collection, generalization of planning data and their presentation in the form of reports, tools for managing planning processes. Plans can include budgets (financial plans), capacity utilization plans, personnel plans, production and supply plans; applications that allow you to make changes to plans, as the actual data is received (forecasting and planning projects and processes); applications supporting prerequisites, business rules, and input processing.

Business performance management (BPM) analysis allows you to assess individual and group performance using appropriate key indicators at all organizational levels, and also provides users with additional information to help them take certain actions.

The components of the accounting and analytical management information system to ensure economic security are:

- components of the consolidated reports of various accounting systems, which provide multi-currency financial information, make journal entries and generate financial and tax statements;
- components of multivariate analysis with the possibility of plan-fact analysis;
- components of the design and distribution of reports related to the performance of the enterprise; components for the formation of requests and reporting at different levels of management information.

In terms of corrective actions, BPM systems help managers respond in a timely manner to emerging situations and deviations.

For a detailed reflection of the structure of the management information system, the stages of strategic management can be divided into four groups: the first and second are associated with the formation and implementation of the strategy (goal-setting and transformation of strategies into plans), the third and fourth groups – with the provision of feedback (control, adjustment of goals and plans). However, software products, as a rule, implement not one, but several key functions at once, related to different functional areas and used at different stages of the strategic management cycle.

Management information systems that support the Balanced Scorecard (BSC systems) methodology developed by R. Kaplan and D. Norton make it possible to structure development goals (taking into account both financial and non-financial indicators), bring target indicators to lower levels, and also form a corporate system motivation that stimulates the achievement of these goals and ensures the coordination of efforts of individual departments and business units. Thus, BSC systems include all the components of the strategy formalization section. At the same time, the

set of indicators gives financial managers the opportunity to assess how successfully the company is moving in a given direction and how well its current activities correspond to the approved strategy. The management information system allows you to support the goal adjustment processes for making timely management decisions by providing appropriate notifications.

In turn, the management information system (MIS) contains a corporate planning and budgeting module, which includes the maintenance of analytical directions and classifiers, a description of the financial structure and principles of interaction, accounting, analysis of deviations, modeling and forecasting. Such a management information system takes into account the needs of the enterprise, making it possible to draw up budgets for each business unit and for each of the structural divisions, while the consolidation of information can be carried out at any level of the organizational structure. In addition, planning and budgeting systems allow carrying out a plan-fact analysis based on detailed information from various systems, as well as adjusting plans and budgets.

The modern model of the management information system provides an opportunity to involve a large number of specialists in the budget process, contains developed organizational functions, thereby ensuring the collegiality of strategic management. Accounting and analytical functions embedded in business intelligence systems are able to collect information from various sources, structure it in accordance with subject categories and provide a unified view of management decisions in the MIS.

The functionality of the business intelligence system belongs at once to three sections of the classification – “strategy formalization”, “monitoring and analysis” and “corrective actions”. At the same time, there are other components, the capabilities of which relate to only one of the functional components. An example would be financial reporting consolidation systems, the functionality of which belongs to one of the components of the “monitoring and analysis” section. Such systems allow organizing the collection of financial statements of branches, subsidiaries and affiliates, making corrective accounting records, ensuring the consolidation of financial information in accordance with the requirements of national or international standards and generating a complete set of financial and management reports. In turn, to solve the problems of financial and economic security of trade and manufacturing enterprises (FEB TME) plays useful business information about various aspects of business, formed on the basis of accounting and analytical data, as a source of reliable and objective information about financial and economic activities and the need to model the mechanisms for providing FEB TME taking into account the analysis of the structural relationships of external and internal threats.

In the system of accounting and analytical support of economic security, awareness of stakeholders and decision makers is the most important factor in improving the economic viability of business, its efficiency and protection from external and internal threats. Thus there is a need for economic and mathematical modeling of the business process. Business process description provides the accounting and analytical service with ample opportunities to describe the business of enterprises at the administrative level with an emphasis on process management.

The process of modeling the system must begin with the construction of a description of the system as a whole. Therefore in the course of the analysis it is necessary to form model for which define the following information blocks:

- 1) block of input information: financial statements of the enterprise, statistical statements of the enterprise, information about counterparties;
- 2) block of initial information: the financial budget of the enterprise, drawing up of the report on management of financial and economic safety;
- 3) information-management unit: constituent documents, methods of calculating the level of financial and economic security of the enterprise;
- 4) information-resource block: owners, financial director.

The implementation of the model is to highlight the following works: analysis of the financial condition of the enterprise, planning of financial indicators, budgeting, which is necessary for the formation of charts at different levels. The process of managing the financial and economic security of trade and manufacturing enterprises must be carried out using economic and mathematical modeling. At the first stage of modeling the construction of the block “Management of FEB TME” is carried out. In the second stage of modeling there is a detailing of the received information on the management of FEB TME by stages of management, namely: “strategic analysis”, “strategic planning”, “controlling”, “budgeting” and “audit”. Each stage of management is interconnected by sequential actions, which allows you to clearly track the movement of information flows. The results of each of the previous steps are the input data for the next step. The basis of input information remains financial statements.

Using methods of economic and mathematical modeling (methods of strategic analysis: SWOT-analysis, PEST-analysis, SNW-analysis, analysis of event scenarios) it is possible to develop an algorithm for each stage of the structural-functional model, which will more thoroughly investigate changes in indicators each structural element. For each stage it is necessary to form a system of indicators to describe the trends that characterize the changes in each direction of modeling. Assessment of the degree of effectiveness of the developed program of management strategy FEB TME is carried out by comparing the forecast indicator, the effect of its

implementation with the forecast costs of economic measures, taking into account the intensity of their implementation and the degree of risk. In case of detection of shortcomings the developed program is directed on completion, in case of receiving positive forecasts – implementation of the received program in the report “Strategy of management of FEB TME” is carried out.

The result of strategic planning should be consistent with both the financial strategy and the overall strategy of the enterprise and meet the goals and objectives of financial security. In turn, the results of the analysis of internal and external financial environment, qualitative and quantitative parameters of the use of financial resources that meet the requirements of adequate financial security, should be responsible for implementing the planned measures, volume and sources of financial resources needed to ensure financial security.

The concept of controlling is a systematic combination of control, planning, feedback and information support, provides integration and coordination of all phases of financial and economic security management.

The appropriate level of financial and economic security provides the budgeting process (development of budgets for the enterprise and individual structural units), which defines the necessary plan for the implementation of planned management measures, the amount of financial resources and sources of their income [2].

In turn, the audit of financial and economic security is a comprehensive, systematic, independent and periodic inspection of the external and internal financial environment, the accuracy of definition and implementation of financial interests, goals, strategies for financial and economic security of the enterprise as a whole and its individual functional components. The purpose of the audit of financial and economic security is the accuracy and timeliness of identifying threats, existing risks of financial activities, factors that led to a certain state of financial and economic security, the company's ability to maintain financial and economic security at the appropriate level, and develop measures to ensure financial – economic security of trade and manufacturing enterprises.

Given that the object of risk management is to achieve an optimal balance between risk reduction and cost, a benchmark against which to judge actual performance is a necessary ingredient in any performance appraisal system, Benchmarks need to be specified in advance of any protection program and should be based on the concept of opportunity cost [3].

Financial risk reporting systems must be able to reconcile both internal reporting and external reporting systems. Risk management activities (typically managed by corporate treasury) have a future

orientation [4]. However, they must eventually reconcile with exposure measurements and financial accounts for external reporting purposes, which come under the corporate controller's department [5]. A team approach is most effective in formulating risk objectives, performance standards, and monitoring and reporting systems. Financial risk management is a prime example of where corporate finance and accounting are closely connected.

The manner in which foreign operations are financed can also be shaped by tax considerations. Other things equal, the tax deductibility of debt, which increases the after-tax returns on equity, increases the attractiveness of debt financing in high tax countries. Pooling income from many sources allows excess credits generated from countries with high tax rates to offset taxes on income received from low tax jurisdictions.

Whereas competitive considerations abroad might warrant charging low transfer prices to foreign subsidiaries, the risks of severe price inflation might call for the opposite. Inflation erodes the purchasing power of a firm's cash. High transfer prices on goods or services provided to a subsidiary facing high inflation can remove as much cash from the subsidiary as possible.

Balance of payment problems (often related to inflation) may prompt foreign governments to devalue their currencies, impose foreign exchange controls, and/or impose restrictions on the repatriation of profits from foreign-owned companies. Potential losses from exposures to currency devaluations may be avoided by shifting funds to the parent company (or related affiliates) through inflated transfer prices.

Balance of payment problems (often related to inflation) may prompt foreign governments to devalue their currencies, impose foreign exchange controls, and/or impose restrictions on the repatriation of profits from foreign-owned companies. Potential losses from exposures to currency devaluations may be avoided by shifting funds to the parent company (or related affiliates) through inflated transfer prices. With the help of currency control it is possible to reduce transfer prices for imported goods [6]. Transfer pricing policies also are affected by their impact on managerial behavior, and are often a major determinant of corporate performance.

In the system of economic security of the enterprise the main role of strategic management is to create internal mechanisms to neutralize threats to financial security. Internal mechanisms of neutralization should establish a system of methods to minimize the negative consequences of threats and risks to the financial security of the enterprise, which are selected and implemented within the enterprise itself.

Conclusions. The problem of ensuring effective strategic management in the system of economic security of the enterprise depends on the chronic nature of the crisis in the economy of Ukraine, and the lack

of formation of individual markets and the lack of real competition. At the same time, there is an objective need to look for new opportunities to confront real and potential threats from external influences and to adapt to its dynamic conditions, which are characterized by significant uncertainty and contradictory trends.

To determine the current level of management of the economic security of the enterprise use many methods, which are divided into groups, and the mechanism itself should include a number of elements: organizational structure, management functions, management methods, financial instruments, criteria for assessing the level of financial security and management efficiency.

To balance and further the effective functioning of the economic security service requires a general restructuring of the enterprise and the creation of management accounting and analytical information system. This direction of development consists in complex reformulation of the purposes of the enterprise, updating of material base, human resources, studying of new technologies.

Strategic management in the economic security of the enterprise should be a set of interdependent balanced decisions both in the field of protection of financial interests of the business entity and in the management of its financial activities, should take into account alternative ways of ensuring the security of the enterprise and the specific financial policy of the enterprise.

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