MODERN TOOLS FOR MANAGEMENT ACCOUNTING AND THEIR ROLE IN ENSURING THE TOTAL VALUE OF THE ENTERPRISE

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Abstract. The purpose of the paper is to determine the role of modern effective tools for management accounting in the context of increasing the total value of the enterprise. The article deals with the basic tools of management accounting and details the essence of their transformation in modern conditions. Current market conditions require modification of individual management accounting tools and methods, which are described in detail and substantiated in the article. In Ukraine, the value of management accounting remains undervalued, because, unlike the major international accounting systems, the use of management accounts in correspondence with financial accounts is in no way intended. Management accounting as such is at the discretion of the enterprise. Therefore, this function – meeting the specific management information needs – is often entrusted with analytical accounting data which, by its very nature, cannot fully accomplish such tasks. The author specifies some atypical modern tools not only the management accounting process, but also its support. Business value estimation is presented as a kind of management accounting tool that allows, at the same time, to create reputation capital, and to become an element of it. As a result, the system of the newest management accounting tools in the system of value-based management was improved by determining the essence of transformation of its components, which allowed to establish their role in identifying and counteracting factors of negative influence in terms of growth of enterprise value. The research substantiates the role of each single up-to-date management accounting tool (application of modern e-document flow in management accounting, cost-oriented controlling, actuarial calculations, international accounts, electronic forms of analysis, forecasting and mathematical modelling, reporting forms and their dissemination by modern means of communication) in identifying and eliminating problematic factors to the implementation of valuebased management.

Key words: value-based, management, accounting, capital, reputation, business image.

JEL Classification: G12, D24

1. Introduction

The globalization of the world economic space is posing more new challenges to management. Market conditions change in both form and content, and the role of information in business processes is constantly increasing. Management's information needs often go beyond the basic indicators of financial reporting or macroeconomic statistics and contain a significant component of management accounting data. In Ukraine, the importance of management accounting remains underestimated because, unlike the main international systems of accounts, the use of management accounts in correspondence with financial accounts is not provided in any way. Management accounting by itself is left to the discretion of the enterprise. Therefore, this function - meeting the specific information needs of management - is often entrusted to the data of analytical accounting, which in essence cannot implement such tasks in full. Accordingly, the task is to formulate the up-to-date or modified management accounting tools that will be able to fit the times. One of the features of the modern market is its financial and investment orientation: the performance of conducting business is assessed not only by indicators of profitability or cost-efficiency but also from the standpoint of the state of the enterprise in a competitive environment, the level of its capitalization. The enterprise management and, consequently, information requests for management accounting should be aimed at increasing the total business value, i.e. to become value-based.

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2. Transformation of management accounting tools

The main tools of management accounting are typical: documentation, control, evaluation, calculation, accounts, analysis, forecasting, budget planning, reporting, information sharing. The up-to-date forms of management accounting tools in the mechanism of value-based financial management of industrial enterprises are essentially modified and modernized familiar forms (Figure 1).

3. Characteristics of the up-to-date management accounting tools

Consider these tools in more detail. Creating an e-document flow system at an industrial enterprise ensures the efficiency of management and decisionmaking, optimizes information flows at the enterprise and promotes the rational redistribution of responsibilities in the field of documenting. The implementation of the document flow schemes in digital technologies will contribute to its digitalization

	Typical management accounting tools	→ Up-to-date forms of management accounting tools	→ Essence of modification
\rightarrow	Documentation	\rightarrow E-document flow	→ Reducing the use of paper media, creating registration gateways for e-document flow, ensuring the security of documents, creating the image of modern digital business.
\rightarrow	Control	$\rightarrow \boxed{\begin{array}{c} \text{Controlling, internal} \\ \text{audit, forensics} \end{array}}$	→ Modification of control in accordance with market conditions, use of electronic methods, public registers, analysis and incentive system, etc.
$ $ \rightarrow	Evaluation	$\rightarrow \begin{bmatrix} \text{Estimation with} \\ \text{elements of actuarial} \\ \text{calculations} \end{bmatrix}$	→ Application of actuarial calculations and financial modelling to estimate current and future business value added
\rightarrow	Calculation	$\rightarrow \boxed{\begin{array}{c} \text{Calculation (including} \\ \text{modern cost structure)} \end{array}}$	$\rightarrow \begin{bmatrix} \text{The International Federation of Accountants and the} \\ \text{Board of Independent Accountants and Auditors are} \\ \text{constantly reviewing the cost structure by the cost} \\ \text{items and the procedure for recognition} \end{bmatrix}$
\rightarrow	Accounts	$\rightarrow \boxed{ \begin{array}{c} \text{Accounts (including} \\ \text{international ones)} \end{array} }$	$\rightarrow \boxed{ \begin{array}{c} \text{In management accounting, it is appropriate to use} \\ \text{your own internal system of accounts} \end{array} } $
	Analysis	$\rightarrow \fbox{ \begin{array}{c} \text{Analysis (including} \\ \text{electronic forms)} \end{array} }$	$\rightarrow \begin{array}{c} \text{Transformation of reporting indicators according to} \\ \text{international standards provokes a change in the} \\ \text{essence of the coefficients of its analysis} \end{array}$
\rightarrow	Forecasting	→ Forecasting (including electronic and mathematical modelling)	$\rightarrow \begin{array}{c} \text{Development of cybernetics and modelling systems} \\ \text{should be implemented in systems of analysis,} \\ \text{application of cross-correlation analysis} \end{array}$
$ $ \rightarrow	Budget planning	\rightarrow Planning and budgeting	$\rightarrow \begin{array}{c} \text{Instability of the external environment and the} \\ \rightarrow \text{ impact of globalization processes require flexible} \\ \text{action plans} \end{array}$
$ $ \rightarrow	Reporting	$\rightarrow \begin{array}{c} \text{Reporting (including} \\ \text{non-financial reporting,} \\ \text{annual reporting)} \end{array}$	→ Modern financial statements should focus on the prospects and risks of activities, rather than on the disclosure of current financial and property status
	Information sharing	$\rightarrow \boxed{ \begin{array}{c} \text{Information and} \\ \text{communication} \end{array} }$	$ \rightarrow \begin{bmatrix} \text{Application of modern fast forms of communication} \\ \text{inside and outside the business} \end{bmatrix} $

Figure 1. Transformation of management accounting tools in the mechanism of value-based financial management of industrial enterprises

Source: compiled by the author

and the formation of a positive image of a digital and technological enterprise (Pylypenko, 2007). It is next to impossible to ensure the growth of business capitalization without creating the image of a technology company in today's reality is almost impossible. This is confirmed by the list of one hundred largest companies in the world by market capitalization according to the Forbes rating. Therefore, manufacturability and digitalization of the processes should be the basis at all levels of management accounting as well, including in the e-document flow system.

The creation of subsystems (structural units or relevant positions) of controlling or internal audit is a set of preventive measures that ensure the completeness and reliability of accounting and management data and prompt response to shortcomings in the organization of current operation. The results of the operation of such subsystems are also aimed at the tactical level of management decision-making, as they allow to identify those shortcomings in the organization of the enterprise, which may interfere with the mechanism of value-based financial management. The forensic process is the most effective tool for conducting internal investigations - the very possibility of its implementation is a demotivating factor in the process of planning speculation or fraud, which has a direct impact on the business value.

The modern information environment makes public information available. Companies regularly disclose financial reporting data on the Internet, a lot of information and analytical resources, which allows to model and forecast market development at least in the medium term. The rapid development of technology makes long-term forecasts unreliable because every know-how can provoke another round of scientific and technological revolution. Even if forecasts for a period of three to five years can be quite realistic, the main thing is that they are based on a properly conducted long-term assessment of their own financial statements, which can be based on methods used by actuaries. It is the tools of financial modelling and data analysis that make it possible to accurately assess the results of economic activity of industrial enterprises, which is the basis for calculating the business value.

In essence, costs calculation is a list of cost items that can be attributed or allocated to individual products. The basis of the calculation process is the correct organization of costs accounting, i.e. collection and registration of relevant information, its grouping and processing, generalization of information on the synthetic and analytical accounts (Trunina, Onyshchenko, 2018). Accordingly, there is a need to develop an internal calculation system, which will be based on those cost items that will be allocated by the management of the enterprise and the rules of NP(S)A. Management personnel have significantly more resources and opportunities to account for costs by all available methods than it is provided by the regulations. In addition, the cost of modern goods contains an information component, such as the cost of development, innovation, distribution and implementation in production; the cost of promoting the product on the Internet and its sale in modern ways, etc.

The use of specialized management accounts is provided in many countries around the world by a system of accounts. Such accounts correspond directly with financial accounts and create an information array for management decisions. These accounts are mainly transit and perform an information function. In Ukraine, it is ensured to create a management accounting system by each enterprise independently according to its own needs (Kundria-Vysotska, Vahner, 2011). Keeping management accounts separately from the financial ones creates duplication of accounting functions and the emergence of relevant differences in the data, so it would be more appropriate to integrate the system of management accounts with the financial accounts, which will provide quality and accurate calculation of value-based financial performance.

In parallel with the development of accounting information systems, the development of new forms and methods of its processing is occurred. Means of electronic cybernetics, economic and mathematical modelling in modern conditions allow to process large data arrays quickly and efficiently, and most importantly, to carry out fairly reliable forecasting (Shevchuk, 2012). The implementation of such tools in the management accounting system will allow to transfer it from retrospective to prospective plane and provide management personnel not only with initial information but also with a relevant assessment of prospects in order to maximize the business value.

An important tool of management accounting is business planning. Comparison of actual indicators with the planned ones allows to identify the reasons for the loss of the enterprise's performance and for reducing the business value to take appropriate management measures. At the same time, it should be borne in mind that the causes of deviations are often due to the influence of the external environment of the enterprise, which is very dynamic in modern conditions. Accordingly, the promising indicators need to be adjusted even in one reporting period, i.e. the plans and budgets of the company should be flexible, and the reaction of management personnel should be as mobile as possible.

With the application of International Financial Reporting Standards, its non-financial components, textual and descriptive parts become a tool for managing the company because they present the financial and property status of the company most beneficially for the owners of the company. Compilation of textual parts of the financial statements of the enterprise should be a function of management accounting because the content of the parts meets the needs of management and is based not only on accounting data but covers components of assessing possible business risks, financial and property status, potential costs, revenues and prospects of the enterprises.

Nowadays, the use of information technology for the needs of management accounting is a requirement of time and a necessary condition for the implementation of the mechanism of valuebased financial management. Neural networks for accounting, analysis and even management are increasingly developed. They can operate with systems and data sets with fuzzy boundaries or components, which allows you to quickly respond to changes in external conditions. In addition, the neural network is able to capture information data from the external environment, identifying those components of the management process that the manager may not notice. Modern information technologies allow to automate the processes of financial and management accounting and internal control, which ensures maximum completeness and objectivity of the received accounting information (Onyshchenko, 2016).

Carrying out a reliable and forward-looking assessment of the company's assets, capital and liabilities is also an integral tool of modern management accounting. This allows you to establish the fair business value compared to the book value, and as a consequence - to assess goodwill. At the same time, it is the management accounting system aimed at establishing the value of the business image - its reputation capital. Thus, the assessment of the business value is, on the one hand, a tool of management accounting, and on the other hand, it is a way to establish its effectiveness. The purpose of a modern enterprise, against the background of the development of the investment market, is not only to make a profit but also to maximize the business value. Thus, management accounting should be considered a component of value-based management.

4. Business value methodology

Business valuation is the basis of value-based management and the main tool of management accounting. However, management accounting is focused on measuring impact and valuation, including the dynamics of the main aspects and factors that affect the value of the company. Today, value-based management uses several basic methods of assessing the business value:

- income approach involves the calculation based on the most efficient and profitable way to use assets, even if it is just disposition of property, i.e. this approach is implemented by discounting cash flow and direct capitalization of income;

– property (cost) approach assumes that the business value is equal to the rate of the cost that must be incurred to create the same business but in modern conditions (taking into account the physical and moral depreciation of assets and technologies);

- market (comparative) approach is based on the use of market valuations of the property of the enterprise and its shares.

Each of these approaches can be used in management accounting and has its advantages and disadvantages. The income approach is simple, logical, clear, easy to apply and does not contain complex mathematical calculations. However, this approach does not take into account the components of the influence of external factors, the prospects of the enterprise, its competitive position (Kasych, 2014).

The property (cost) approach allows you to form a modern view of your own business, to assess it from the standpoint of the state of assets, feasibility, and efficiency of their use. However, with this approach, it is almost impossible to reliably establish the value of intangible assets and the effectiveness of their use with this approach. Software and the rights to trademarks, signs, goodwill etc. are assets the value of which is almost impossible to determine by this method. Their value is determined by an expert method and forms the basis of the reputational capital of an industrial enterprise.

The market approach embodies the business capitalization and looks the most reliable. However, the application of this method requires a basis for comparison and a relevant market. On the one hand, the approach is based on the most realistic data – market valuations, but on the other hand, only retrospective and current data are used regardless of the prospects of business development.

In the system of management accounting, much attention is paid to cost accounting, especially production, and the formation of financial results of the enterprise. In this way, companies face the imperfection of existing management accounting tools: costing methods and revenue estimation. Management accounting is designed to ensure the quality and efficiency of accounting information that will help maximize the business value. However, the lack of standard algorithms, guidelines and reference materials hinders the effective implementation of management accounting and the formation of a mechanism for valuebased financial management.

At the present stage of development of industrial enterprises, not all of them are ready for the introduction of management accounting. Despite the vast majority of owners have their own conditional "accounting notebook", not all of them are ready to bear the additional costs of providing management accounting in a civilized way. That is why the process

of disseminating management accounting should be painless and simple. In our opinion, one of the ways of such implementation may be the formation of guidelines and instructions for the application of integration between IFRS targets for value-based management. The process of transition of accounting systems to the requirements of international standards for many companies is complex, it has certain obstacles. Among them, it is worth noting the lack of information support, insufficient awareness of accounting personnel, insufficient adaptability of the national accounting system. Accordingly, it is quite appropriate to integrate new components into the enterprise at the time of transformation accounting processes (Veretnov, 2019). Currently, management accounting is kept separate from financial accounting but international practice often involves their mutual integration. In addition, it should be borne in mind that IFRS is constantly evolving and, accordingly, will stimulate the development of management accounting. However, the introduction of IFRS alone is not enough to form a mechanism for value-based financial management in an industrial enterprise. It is necessary to integrate IFRS with the use of a valuebased management concept, which provides for the creation of links between basic accounts and the resulting financial indicators of business value. Based on these links, strategic and tactical goals of a whole enterprise and its specific units are formed.

5. Conclusions

It is necessary to perform the following tasks for the effective organization of management accounting as part of the mechanism of value-based financial management:

- to specify the functions of accounting and other personnel in the system of management accounting;

- to introduce integration between IFRS and the resulting financial indicators of value-based management;

- to establish the boundaries and content of information needs of management personnel;

- to identify sources of information and methods of obtaining it by the subsystem of management accounting;

to justify methods and ways of accounting for individual objects and the formation of financial results;
to rationalize the organization, accounting technologies, accounting processes, nomenclatures, documentation, etc. for the purposes of value-based management.

The process of dissemination of management accounting in Ukraine is also faced with a lack of understanding of the basic methods and tools of individual managers of the enterprise. Management accounts are often perceived as a kind of detailing of accounts; the processes of implementing the internal audit system are often reduced to obtaining ISO certificates; writing textual parts of financial statements is perceived as another form of a mandatory document; methods of cost accounting and analysis of their effectiveness are perceived as additional analytical work. Accordingly, educational work aimed at promoting management accounting as such is required in addition

management accounting as such is required in addition to methodical work. On the one hand, the problems of accounting and management in the enterprise are the problems of its owners. On the other hand, the wellbeing and development of each individual business entity is an element of the overall socio-economic development of the country, economic system and society (Barczi, Szentirmai, Zeman, 2019).

Modern management accounting, focusing on the formation of the value of the enterprise, must go beyond the internal information of the enterprise. Such a management accounting will be strategic in nature, cover a longer period of time and will be based on a comparison of the state of the enterprise with the external environment. It is strategic management accounting that will make the most of forecasting and modelling tools (Drury, 2005). Management takes over a significant part of the functions of planning, analytical, financial departments. The main thing in the organization of management accounting is to avoid duplication of functions.

As a result, the basic principles of management accounting as part of the mechanism of value-based financial management in the enterprise should include:

1. Methodological principles are harmonized independence (each company independently organizes management accounting based on elementary scientifically sound methodological recommendations), pluralism scientificity and (management accounting is organized taking into account the peculiarities of the production activities of the enterprise; it is unique and special, based on the achievements of not only accounting science but also all industries).

2. Organizational principles are cost-effectiveness (the usefulness of introducing management accounting should be higher than the cost of its maintenance, it should not overload the personnel), informativeness (information of the management accounting subsystem must meet the requirements of management and not repeat the indicators generated by other subsystems of the enterprise), completeness and operational efficiency (information should be sufficient and timely, periodic and structured).

3. Economic principles are rationality (a management accounting subsystem should seek maximum growth in business value), effectiveness (the efficiency of the management accounting subsystem should be either reasonable or obvious). 4. Strategic principle means that management accounting is not limited to retrospective data registration, but it is forward-looking.

As a result of the research, the role of each single upto-date tool of management accounting (application of modern e-document flow in management accounting, cost-oriented controlling, actuarial calculations, international accounts, electronic forms of analysis, forecasting and mathematical modelling, reporting forms and their dissemination by modern means of communication) in identifying and eliminating problematic factors through the implementation of the mechanism of value-based financial management of industrial enterprises is justified. The combination of these tools can ensure the completeness and reliability of the information array of valuebased management, planning the future activities of the enterprise and become an effective stimulus and element of the growth of not only reputational capital but also the total business value.

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