*O. Lagovska,*
*Doctor of Economic Sciences, Professor,*
*Professor of the Department of Information Systems in Management*
*and Accounting, Zhytomyr Polytechnic State University*
*ORCID ID: https://orcid.org/0000-0001-9517-0499*
*G. Loskorikh,*
*PhD 071 "Accounting and Taxation", Deputy Head of the Department of Accounting*
*and Auditing, Ferenc Rakoczi II Transcarpathian Hungarian College of Higher Education*
*ORCID: https://orcid.org/0000-0002-5402-7220*

# BEHAVIORAL DETERMINANTS OF INFLUENCE ON THE EFFECTIVENESS OF MANAGEMENT ACCOUNTING DURING WAR

О. А. Лаговська,
д. е. н., професор, професор кафедри інформаційних систем
в управлінні та обліку, Державний університет "Житомирська політехніка"
Г. Л. Лоскоріх,
доктор філософії 071 "Облік і оподаткування", заступник завідувача кафедри
обліку і аудиту, Закарпатський угорський інститут імені Ференца Ракоці II

## ПОВЕДІНКОВІ ДЕТЕРМІНАНТИ ВПЛИВУ НА ЕФЕКТИВНІСТЬ УПРАВЛІНСЬКОГО ОБЛІКУ ПІД ЧАС ВІЙНИ

*Doing business in wartime requires a special strategy and timely management decisions from enterprises. War creates a number of challenges for business, such as economic instability, reduced demand, restricted markets, changes in the supply of raw materials and logistics. It is important for enterprises to flexibly use management accounting tools in order to adapt to changes and make the most informed business decisions. The current business environment of Ukrainian companies is dynamic, forcing managers to rethink the management of their company's resources. Therefore, it is necessary to receive objective information from managers at different levels of management in accordance with their roles and responsibilities. In turn, the heads of structural units or responsibility centres should receive timely information that allows them to make situational management decisions, considering the impact of external factors and the company's strategic goals.*

*In today's environment, more and more managers are realising that companies need to implement management accounting and reporting systems. As competition grows and the external operating environment becomes more unstable, management is increasingly focusing on internal resources to improve efficiency. Thus, management accounting helps to find the resources necessary for the sustainable development of the enterprise. The main indicators of the management report satisfy the information needs of the company's management, manage the costs and performance of different levels of management, confirm and evaluate the implementation of management decisions. Therefore, it is very important to prepare a high-quality report for the company's management, taking into account the determinants of economic development, as it is a source of information about the*

*conditions and results of the management subproject. The purpose of the study is to analyze and evaluate the behavioral determinants of influence on the effectiveness of the management accounting system during the war. The creation of a management accounting model is determined by: user orientation and efficiency of information transfer. Decision-making models can be created in different ways. It covers not only the influence of the determinants of the internal environment but also aims to systematically take into account the full cycle of the management decision-making process. The article also defines the set of tasks as a set of alternative sets. The results of the article can be used by managers of different levels at an enterprise to assess and predict the determinants of the external and internal environment when making management decisions.*

*Ведення бізнесу під час війни вимагає від підприємств розроблення особливої стратегії та прийняття своєчасних управлінських рішень. Війна створює низку складнощів для бізнесу, таких як: економічна нестабільність, зниження попиту, обмеження на ринках, а також зміни в умовах постачання сировини та логістиці. Підприємствам важливо гнучко використовувати інструменти управлінського обліку для адаптації до змін та прийняття найбільш обгрунтованих рішень для бізнесу. Сучасне українське бізнес-середовище є динамічним, що змушує керівників переосмислювати управління ресурсами своєї компанії. Тому необхідно отримувати об'єктивну інформацію від менеджерів різних рівнів управління відповідно до їхніх ролей і обов'язків. Відповідно, керівники структурних підрозділів або центрів відповідальності повинні своєчасно отримувати інформацію, яка дозволяє приймати ситуативні управлінські рішення з урахуванням впливу зовнішніх факторів і стратегічних цілей компанії. Наразі все більше і більше управлінського персоналу усвідомлює, що компаніям необхідно впроваджувати системи управлінського обліку та звітності. Оскільки конкуренція зростає, а зовнішнє операційне середовище стає більш нестабільним, керівництво активно зосереджується на внутрішніх ресурсах задля підвищення ефективності. Таким чином, управлінський облік допомагає знайти ресурси, необхідні для сталого розвитку підприємства. У свою чергу основні показники управлінської звітності задовольняють інформаційні потреби керівництва компанії, управляють витратами та результатами діяльності різних рівнів управління, підтверджують і оцінюють виконання управлінських рішень. Тому дуже важливо підготувати якісний звіт для керівництва підприємства з урахуванням детермінант економічного розвитку, оскільки він є джерелом інформації про умови та результати управлінського підпроекту. Метою дослідження є аналіз та оцінка поведінкових детермінант впливу на ефективність системи управлінського обліку під час війни. Створення моделі управлінського обліку визначається: орієнтацією на користувача та ефективністю передачі інформації. Моделі прийняття рішень можна створювати різними способами. Дослідження охоплює не тільки вплив детермінант внутрішнього середовища, але й спрямоване на систематичне врахування повного циклу процесу прийняття управлінських рішень. Результати дослідження можуть бути використані керівниками підприємства різного рівня для оцінки та прогнозування детермінант зовнішнього та внутрішнього середовища для прийняття управлінських бізнес-рішень.*

*Key words: accounting, reporting, management, decision, choice, function, forecasting, efficiency.*
*Ключові слова: облік, звітність, управління, рішення, вибір, функція, прогнозування, ефективність.*

## TARGET SETTING

For a year and eight months now, Ukrainian enterprises have been working in the conditions of a full-scale war. Despite numerous difficulties, the business not only survived, but also began to actively develop in 2023.

During January-November 2023, the economy of Ukraine showed growth of 5.5%. During these 11 months, Ukrainian companies and citizens paid more than UAH 1 trillion in taxes to the state budget. This is 27% more than in the corresponding period last year. In August 2023, the UBI business activity index (Ukrainian Business Index) reached 38.23 out of 100 possible. This is a slight increase from June 2023 (35.34), but still higher than the September 2022 low (33.9) [39]. The growth of this indicator indicates long-term fatigue of business due to uncertainty, but also indicates the desire of enterprises to intensify their activities, and not an instant improvement in the economic situation. The number of orders from customers remains practically unchanged, but production volumes are increasing, the demand for labor force is recovering a little.

The data of a special study by the Gradus Research company for the Kyiv International Economic Forum 2023 show that business in Ukraine considers the key challenges during the war to be: maintaining wages for employees

(44%); preservation of sales markets and customers (41%); functioning in conditions of power outages (41%); team maintenance (39%); search for new sales markets/ customers (32%); ensuring the safety of employees (28%) [38].

Regardless of size, companies have successfully adapted to the new conditions. Evaluating the activities of enterprises in various fields (agriculture, production, services, IT, etc.), it can be noted that they continue to support and develop their work, entering new markets, expanding the range of products and investing in technology. It is important to be flexible and ready for innovation, which allows enterprises to avoid negative consequences and find new opportunities for further development. This response to the challenges of war becomes the foundation upon which business builds its resilience and success in times of challenge and turbulence.

An important condition for improving the efficiency of business process systems is their effective organisation and continuous improvement, considering all the changes and innovations taking place in the national economy. Modelling the economic and financial activities of an organisation is now considered one of the most effective methods of designing and implementing management. One of the most important factors that ensure business turnover is the company's expenses for the performance of its core business. When preparing information on expenses, it is important to consider not only the management accounting function, but also the management function in the core area, since effective cost management involves identifying actual deviations from plans and studying the reasons for the identified expenses. That is why it is an urgent task to take measures to eliminate deviations and the causes of deviations and even to control the activities of the cost centre.

The use of analytical management accounting procedures helps to identify bottlenecks in companies, assess the relevance of information, identify errors and forecast short— and long-term economic and financial performance. Since the relevance of information relates to income and expenses, it includes measures to assess the effectiveness of investment projects over time and risk factors. For other daily activities, the activity report format is recommended. One possible solution to the problem is to establish a clear system of indicators to justify the return on investment of the project.

Rapid changes in the economy require similar changes in management accounting. Accounting and statistics must follow economic development and can sometimes show progress as an indicator of future changes. However, changes in management accounting require their own methods and practical solutions to adapt to economic conditions. One change often leads to another change, which requires the destruction of conceptual structures, the need to find a new balance between intangible and qualitative characteristics of reporting data, specific principles and methods. The widespread use of financial models in the economic environment requires management accounting and reporting using financial models and management accounting and reporting data as support. There is a need to develop a set of management accounting issues within the framework of constant changes in the external environment, where accounting policy issues are inextricably linked to the organisation of management accounting. The formulation of management accounting principles for enterprises should not be declarative in the sense that financial statements are prepared and submitted within the framework of legislative norms, but should be related to planning, control, analysis, regulation and motivation, especially management accounting.

## ANALYSIS OF RESEARCH AND PUBLICATIONS

The process of changes in the economic activity of Ukrainian enterprises caused by the war, in particular the development of social, political and economic crises leads to the need to study decision-making behaviour in management accounting. The quality of production and efficiency of production activities, as well as future risks associated with the spread of abnormal phenomena in society, make this issue relevant.

However, the social reaction to phenomena that affect decision-making in management accounting has already reached a certain historical development, especially in the last few decades. Yazdi M., Khan F., Abbassi R. and Rusli R. in their work [35] thoroughly investigated the probability of risks in management decision-making. The authors noted that most decision-making methods are based on idealistic assumptions, such as the independence of risk factors and the presence of factors in a complex economic system. In fact, there is a strong correlation between risk factors and the sources of information used in the decision-making process. Cao M. M., Nguyen N. T. and Tran T. T. [4] identified the influence of behavioural factors on the decision-making process. Fong S. J., Li G. et.al. [9] used compositional modelling, which extrapolates available data that is split from several random microdata sources into many possible future outcomes by selecting random samples from some probability distributions. Lazaroiu G., Negurita O. et.al. [13] expanded on the existing literature on the role of trust and online perceived risk in shaping managerial decisions. Yuan S. and Lou C. [36] based on the literature on source credibility and communication fairness, this study investigated the determinants of interaction in complex systems. Li M., Wang H. et.al. [15] used traditional methods of assessing the risk of a negative event, which lack quantification, dynamic control, and uncertainty management.

Ozemre M. and Kabadurmus O. [21] proposed a new architecture for strategic decision-making using the Big Data Analytics approach. This method helps in the effective analysis of market strategies. Sofaer H. R., Jarnevich C. S. et.al. [26] also developed the idea that where information and species meet is an important component of conservation and management decisions. Determinant identification and assessment models are a tool for habitat mapping and can provide reliable, valid, and repeatable information to inform decision-making [7]. Similar studies were conducted by Mosedale J. [20] and Perni A., Barreiro-Hurle J. and Martinez-Paz J. M. [22]. At the same time, the authors note that these models are sensitive to input data and methodological choices, so it is important to assess the reliability and usefulness of the model's predictions. Abdel-Tawab M. et.al. [1] developed research that

**Table 1. Number of legal units and of natural entities-entrepreneurs of registered, by region of Ukraine1 as of October, 1 2023**

| Name territories | Total of the number legal units, units | Total of the number natural entities-entrepreneurs, units |
|---|---|---|
| **Ukraine** | **1488098** | **1549858** |
| Vinnytsa | 35718 | 54802 |
| Volyn | 25023 | 35124 |
| Dnipropetrovsk | 110474 | 122432 |
| Donetsk | 92056 | 67429 |
| Zhytomyr | 33767 | 40520 |
| Zakarpattya | 26555 | 38507 |
| Zaporizhzha | 51411 | 49079 |
| Ivano-Frankivsk | 31606 | 47218 |
| Kyiv | 79120 | 97161 |
| Kirovohrad | 26676 | 28703 |
| Luhansk | 41020 | 37199 |
| Lviv | 82390 | 113289 |
| Mykolaiv | 51890 | 38363 |
| Odesa | 93087 | 102257 |
| Poltava | 36093 | 49496 |
| Rivne | 25674 | 37300 |
| Sumy | 25667 | 31880 |
| Ternopil | 24176 | 33373 |
| Kharkiv | 88810 | 122391 |
| Kherson | 29338 | 24937 |
| Khmelnytsk | 32182 | 49827 |
| Cherkasy | 31004 | 43020 |
| Chernivtsi | 17547 | 35605 |
| Chernihiv | 23693 | 31646 |
| Kyiv city | 373121 | 218300 |

[1] Excluding the temporarily occupied territories of the Autonomous Republic of Crimea and the city of Sevastopol.
Source: based on [28].

supports decision-making to improve system resilience and reduce costs. They developed a new method for predicting, in spatially explicit terms, the potential for leisure attractiveness by combining supply and demand factors. Tardieu L. and Tuffery L. [30] developed a new method for predicting, in spatially explicit terms, the potential of attractiveness by combining different factors influencing the overall result. Razavi S., Jakeman A. et.al. [24] analysed the sensitivity of the model to determinants on the way to becoming an integral part of the overall system. Wang F., Xuan Z. et.al. [34], Qi Y., Li Q., Karimian H. and Liu D. [23] dealt with the problems of forecasting changes in the model state.

The study of behavioural determinants depends to a greater extent on the number of alternatives covered by the model. This statement was investigated and substantiated by Cheng Q., Wang S. et.al. [5] in terms of the formation of a nonlinear and multimodal function, Zbrishchak S. G. and Zvyagin L. S. [37] by developing mathematical methods of information processing, which include statistical sequential analysis, based on probabilistic methods, which is one of the most effective means of analysis, Song Y., Li G. et.al. [27] in terms of developing a possible method to minimise the loss of preference information using an optimisation model. Locke S. M., Land, M. S. and Mamassian P. [18] identified three types of confidence measures from the literature. This analysis showed that alternative choices should be more consistent than the best model predicts, indicating that there are still aspects of certainty that are not captured by modelling. Milov O., Korol O. and Khvostenko V. [19] in their work built systems for classifying agents of a system with bounded rationality. The authors [11] highlighted that for

the rational construction of a control system, it is necessary to take into account the capabilities of the system while separating the limitations from the moments associated with negligence, lack of responsibility, and also taking into account personal factors. Tang M. and Liao H. [29] used a graph model to analyse alternatives and build an optimal system. Lee J. L., Denison R. and Ma W. J. [14] proved that perceptual decision-making is often conceptualised as a process of comparing an internal decision variable with a categorical boundary or criterion. Garcia-Zamora D., Labella A. et.al. [10] emphasised and investigated large-scale group decision making. Vahidi M. and Shafahi Y. [33] argue that accurate estimation of time-varying demand matrices using data is an essential step for planning, scheduling, and evaluating advanced control systems.

Despite the fact that numerous scientific studies have been carried out on the nature of behaviour formation, its creation and study of its implementation at a modern enterprise is very important.

## THE WORDING OF THE PURPOSE OF ARTICLE (PROBLEM)

The purpose of the study is to analyze and evaluate the behavioral determinants of influence on the effectiveness of the management accounting system from the point of view of optimizing strategic decisions during war.

## PRESENTATION OF THE MAIN RESEARCH MATERIAL

The beginning of the war dealt a devastating blow to Ukrainian business. According to general estimates, the losses of SMEs (small and medium-sized businesses) amounted to more than 83 billion US dollars. About 10 million Ukrainians moved, while some of them became IDPs (internally displaced persons), and the majority went abroad. The situation has changed dramatically over the past year. A large number of companies have returned to the market, as well as a large part of the workforce. If during 2022 the business worked in survival mode, not having the opportunity to plan work even for places in advance, now companies have adapted to new conditions and are making full-fledged business development plans for 2—3 years [31].

In September 2023, Ukrainians established 35,587 new individual entrepreneurial entities, marking not only the highest numbers during the full-scale invasion but also in the past three years. Most frequently, these new businesses are emerging in the fields of trade, individual services, and the food service industry. One-fifth of all new individual entrepreneurs are registered in the Kyiv region. The previous record, 31,477, was set in June 2023. For context, over 30,000 new entrepreneurs were registered in June and July 2020 [32].

Number of legal units and of natural entities-entrepreneurs of registered, by region of Ukraine1 as of October, 1 2023 is summarised in Table 1.

In which industries are the most businesses closing? 6,482 companies started the process of closing down between March 2022 and November 2023. This year, on average, 479 businesses are shutting down per month. This

is almost three times less than in the same period in 2021: 1290 companies closed per month then. Only 17% of them entered bankruptcy proceedings, while the rest decided to cease operations on their own. For comparison, in 2021, the share of companies that went bankrupt was 5.1% [3].

According to a survey by the American Chamber of Commerce in Ukraine and Citi Ukraine, the most important problems of conducting and developing business in Ukraine at the moment are [31]: missile strikes on business assets and critical infrastructure objects; health and mental state of employees; decrease in economic and consumer activity; access to electricity, water and heat supply, mobile communication; attraction and retention of top personnel; problems with transport and logistics.

From this point of view, business today should make effective management decisions from the point of view of solving specific tasks for the formation of strategic behavior of companies, the implementation of which can be conventionally divided into the following three consecutive stages:

1) first, survive, keep the business "afloat";

2) secondly, to recover, adapt to new realities, accumulating all possible forces and resources for this purpose;

3) thirdly, lay the foundations for renewal and successful development in the future [17].

It is the rational organization of management accounting that acts in today's conditions as a significant factor in the objective assessment of the effectiveness of the functioning of economic entities.

The purpose of management accounting is not only to reflect economic processes, but also to manage them. In accordance with the needs of users, management accounting should meet the following goals: distribution of control in reporting between different centers of responsibility, accounting of costs and formation of the cost price of products (works, services); organization of information indicators in management reporting, necessary for making effective management decisions and developing strategic actions of the enterprise for the future.

The main task of management accounting is to provide data for analysis and making relevant decisions. For the completeness and correctness of the display of trends and changes in the activity of the business entity, such information is highlighted in reports, the frequency of which can be even once a day.

The list of main reports that are most often prepared at Ukrainian enterprises as part of the implementation of management accounting includes:

— three internal reports — profit and loss (P&L) statement, cash flow and balance sheet;

— sales report in different sections: by counterparties, by assortment, by geographic segments (markets), etc.;

— margin data — the difference between income (revenue) and cost price;

— a report on the cost structure by components (cost). An important indicator for management is the percentage of wages;

— a report on the cost structure in terms of: variable/fixed costs;

— report on warehouse stocks;

— internal budgets — as a variant of the financial plan for the future;

— a schedule of calculations, which contains columns for carrying out calculations according to various counterparties, as well as highlighting the obligations to pay taxes and fees [25].

In the context of management accounting, a wide range of tools is used, consisting of targeted elements that can be integrated into the system. The model may include specific management accounting activities that find a position to support such decisions as: strategic position, budgeting, benchmarking, analytical system accounting, time system, systemic quality management, value chain analysis, product life cycle costing, target cost estimates, balanced scorecard. At the same time, personal approaches can be used to create and develop the logic of decision-making by individual employees of the company. The basis of the model of management accounting organisation is the developed process of management accounting organisation, which includes the phased implementation of the necessary measures, taking into account the relevant determinants.

In today's world, every enterprise tries to create the most efficient system of functioning based on development factors. Social reality allows them to freely choose methods and means, make decisions, and feel independent. It is behavioural determinants that are the highest form of social organisation, the ideal form of forming an effective enterprise [16]. The phenomena of behavioural determinants and the results of effective social and legal policies are the main driving forces for the development of society, the state, and the enterprise. Thus, behavioural determinants are understood as a series of actions and inactions that are economically significant, legitimate, and generate consequences. In the broadest sense, behavioural determinants are activities regulated by socio-economic norms, the violation of which entails negative consequences. Behavioural determinants are divided into behavioural and economic determinants according to the content of the activity. The main characteristics of behavioural determinants are: the possibility and method of influence of determinants with a clear normative scope, consequences: the enterprise and society, the responsibility still lies with the enterprise, expressed in the form of actions that are important for society and can be considered as useful, useless or harmful to society. If a legal action is a result, it must also have a determining factor, cause, condition, or basis. Researchers from different countries agree that the reason for this lies primarily in the internal orientation of the decision maker, social and behavioural regulation, and legal mechanisms. They can be divided into two groups: internal and external. Internal causes include an understanding of the significance of the consequences of actions, the quality of social and legal norms, and changes in the form of economic determinants, which are realised through subjective assessment. It is clear that the economic system of the enterprise and the norms of socio-economic policy regulate social relations in all spheres of public life and should be considered as external factors. But normative behaviour does not consist of standards that are acceptable to individuals [8]. The main means of external control over the subject's behaviour are the laws of functioning and related socio-economic determinants, policies, indicators
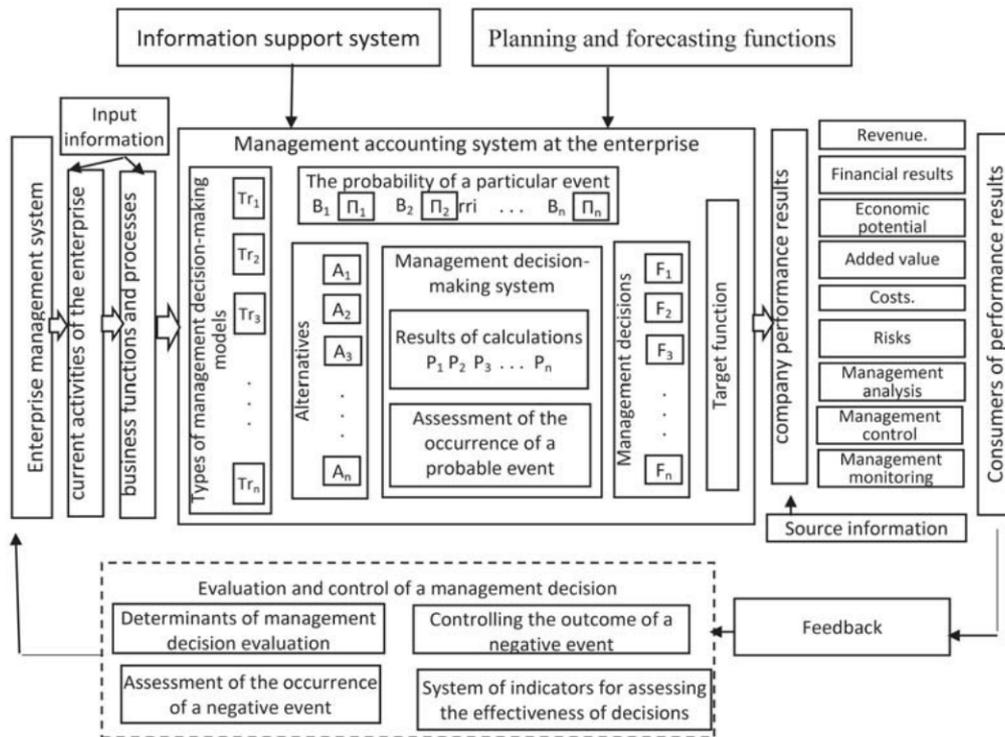
**Figure 1. Scheme of decision-making in the management accounting system at the enterprise**

Source: compiled by the authors.

of financial status, the ability to ensure a high level of efficiency of functioning without legal obligations, and the ability to meet needs. They are linked to external causes and integrated into behavioural patterns.

In the future, an appropriate level of economic and social development will play an important role, the quality and improvement of which will contribute to the development of the enterprise, occupation of a relevant niche in the market, and enrichment of the existing knowledge base. Society and its groups are not the ultimate cause of functioning. The most important result of development is the demonstration of personal independence in decision-making and responsibility for them. However, it is impossible to subjectively form firm opinions, stable moral and legal positions, thinking that is the result of rational and logical analysis of reality and socially acceptable behaviour. Behavioural determinants represent acceptable and desirable behaviour of individuals or collective entities at an enterprise, taking into account social interests, the exercise of subjective rights and obligations, and the fulfilment of economic regulations. Areas of analysis, usually defined for all participants in social relations, are tools for influencing the behaviour of various subjects.

By following these rules, enterprise managers are aware of their current social position and the possibility of changing this position in the form of negative changes. An additional feature that determines the legitimacy of any actions is compliance with the norms of social behaviour and moral principles that are the basis of the enterprise's functioning, as these norms form the basis of the external environment of functioning [2]. Modern economic and legal norms create boundaries that businesses and society cannot but accept and cross. The reason for this pheno-

menon is illegal behaviour caused by insufficient information and the desire to achieve maximum results in a short period of time. An enterprise without an external environment, with a high-quality and efficient system, low staff turnover, developed infrastructure, and respect for the law, should develop and occupy a suitable niche in the market. Social policy and the civil service are not only necessary but also characteristic of efficient functioning. However, in order to adapt to the external environment, it is necessary to create a model that changes its internal nature, which is reflected in the activities of the enterprise [6]. In practice, it is necessary to successfully combine the mechanisms of motivation for active behaviour, which encourages the subject to assess the risk of losing the benefits he or she has received so far due to future actions. A person should be guided by the risk of a certain loss of existing material, legal and social conditions and analyse its consequences. This should be an indicator of the success of the company's information policy. Individuals should have a conscious desire to act in accordance with their needs but take into account the causal criteria and understand the consequences. The state policy in the field of social and economic control is the second and most important determining factor, and its correctness, efficiency, and quality influence the formation of an effective management system. The decision-making system in the management accounting structure is shown in Figure 1.

Modern management accounting is increasingly seen as an integral part of the strategic management process. This is mainly due to the growing role of strategic management in the context of global changes in technological and management systems. It uses external and internal data not only for production needs, but also for marketing, research management, and other business functions, to
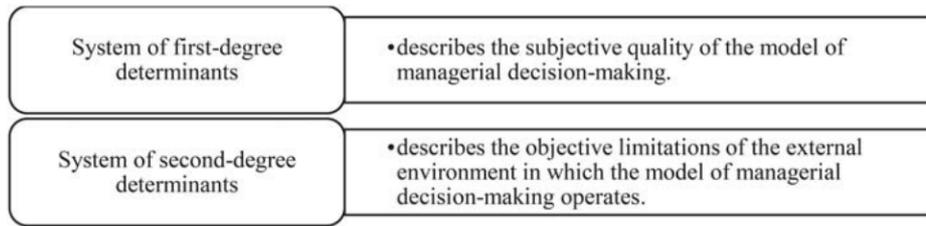
**Figure 2. Determinant systems in management accounting**

Source: authors' own development.

analyse operations against current and long-term goals, and to develop methods for obtaining and collecting information on important success factors such as quality and innovation.

The information prepared in the management accounting system through primary, financial, statistical, and tax accounting for planning control and analysis should be considered in the direction of its ultimate impact on decision-making.

All decision-making options in the management accounting system can be divided into a system of first-degree determinants and a system of second-degree determinants (Figure 2).

First-degree determinants depend on the type of model for building a management system at an enterprise, the number of possible alternatives, setting targets and appropriate assessment of alternatives, and the number of variables in the model based on certain external circumstances. The probability of a negative event occurring is determined by the selected objective function and the forecasting function depending on the data structure.

The management decision function defines a set of probabilities with different data structures depending on the state of the external environment. This function shows how knowledge is transformed into subjective assessments. Decision-making in this system depends on changes in two systems: the management decision-making system and the outcome forecasting system. The options that are considered during the selection process depend on the action required. Decision-making in the information sector often depends on the objective function. Activities aimed at assessing the impact of an information-seeking determinant usually focus on the objective function of choosing options in addition to the amount of information.

The manager's behavioural motivation is result-oriented: the search for alternatives, the creation and implementation of a specific solution model is determined by the structure of the enterprise's needs. The structure of needs is determined by the type of needs of consumers of the company's products: the need for material goods, social interaction, recognition, power, and the intensity of these needs. The structure of consumers does not directly determine activities. Actions should be seen as more conducive to satisfying needs than other behaviours.

The motivation for decision-making in a management accounting system depends on abilities, basic attitudes towards the future, and the state of the external environment. These factors can influence the structure of needs, expectations of results, and corresponding satisfaction. Competence is determined by a system of second-degree determinants, such as knowledge, cognitive skills, social skills, and physical skills. Although knowledge and skills in the decision-making system contribute to motivation, they should be seen as a second-degree system of determinants. Even if two people have the same motivation, they may make different decisions based on their ability to receive and process information. Knowledge is characterised by the presence of specific facts, theories, and models of decision-making. The main characteristics of cognitive skills are creativity, the ability to collect and process information and to process it logically. Social skills relate to the ability to express emotions, motivate employees, lead, collaborate, and develop empathy. Physical dexterity is defined as the ability to handle objects and manpower [12]. Depending on whether the approach is optimistic or pessimistic, the estimates of the management decision-making model and the probability of the outcome of the situation estimated from the available data will differ.

At the same time, the external environment affects the motivation to evaluate the model of managerial decision-making. However, it is a valuable factor in the system of second-degree determinants.

The main task for organisations is to make interrelated institutional, organisational, and communication decisions to achieve the organisation's goals. The object of control is always the manager, regardless of how much the tasks coincide with such decisions, and the results depend on the importance of the determinants of these decisions.

A management action can be based on the behaviour of a management decision-making model if at least one of the following determinants changes when making a decision: the type of decision model, the number of alternatives evaluated, the data structure, the forecasting function, the objective function, the consequences of alternatives. Objective decisions in management systems, management actions should be focused on the determinants of object decisions, when it comes to controlling organisational and communication decisions, management should try to influence the determinants of these decisions.

There is a correlation between the values of the system of second-order determinants: motivation depends on the skills of the managerial decision-making model. Its characteristics depend on general motivations. There is a correlation between knowledge and cognitive abilities: in general, the more knowledge a person has, the better he or she is able to collect and process information.

The motivation of a managerial decision-making model affects not only its objective function but also the value of all important decision-making factors. Increasing productivity-oriented motivation has the following
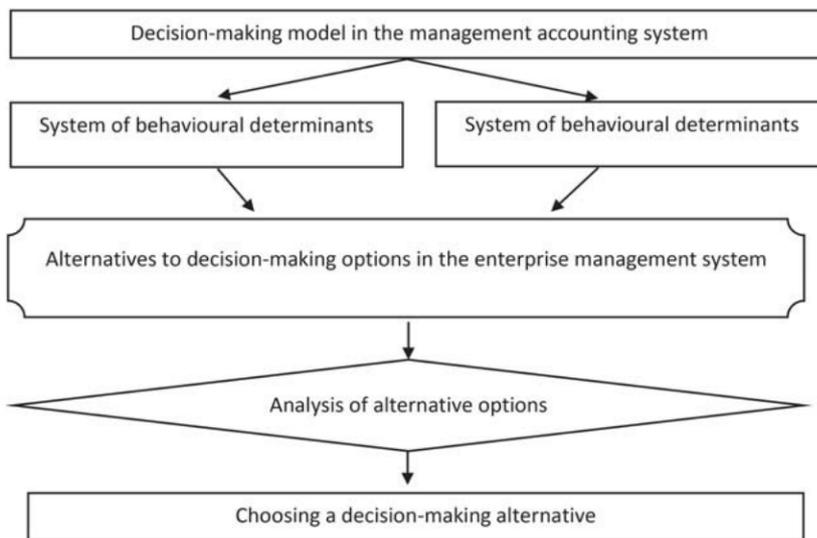
**Figure 3. Interrelationships in the management decision-making system**

Source: compiled by the authors.

consequences. When choosing the complexity of the decision model to be used, preparation and simplification are carried out very carefully, and some parts of the model are removed. For this reason, the level and complexity of decision-making models increases significantly. The manager is more careful and curious in the search for alternative courses of action and in the preliminary selection of the alternatives to be evaluated. An accurate and detailed assessment of the results is the main factor in the selection of alternatives. Additional information is taken into account when making decisions. Awareness of development assistance for the enterprise is growing. Forecasts about the development of the external environment are more cautious. The decision maker is trying to fulfil the target function, his/her desire to achieve the goal is secondary.

Knowledge influences all important determinants, but especially the decision model, multiple alternatives, information structure, and forecasting function because the choice of a decision model depends on the knowledge of decision models. And their knowledge depends on their strengths and weaknesses. General knowledge has an important impact on the way in which information about certain courses of action and their outcomes is obtained. The empirical content of the knowledge theory influences resuscitation forecasting. The relationship between the first— and second-level determinants is shown in Figure 3.

Cognitive abilities mainly influence decision-making models, choice sets, data structures, prediction functions, and choice consequences. low-creativity management decision-making models tend to solve problems in the same way, which explores several options and uses only traditional data collection methods. Creativity discovers or invents new courses of action, proposes new methods of obtaining information, improves knowledge structures, and considers promising options that others overlook.

The ability to collect, store, and process information is greatly influenced by the type of decision-making model used and its complexity. The more efficient these functions

are, the greater the operational capabilities of the decision-making model and the more detailed the analysis of decisions. Social skills are particularly important for gathering information and performing other activities. Physical flexibility is especially important for managers who perform direct operational duties.

The principled approach to the future mainly affects the predictive function of the management decision-making model. The external and internal environment of the organisation affects the number of versions, data structure, and target functionality: the scope of target access rights determines the number of versions to be evaluated.

The proposed list of factors influencing decision-making allows analysing all factors that affect the decision and its quality, even if these factors are not clearly defined in the list. Therefore, this list takes into account a variable determinant that plays an important role in practice. Experience is not an additional value to the identified identifiers but can be determined by these identifiers. Experience is expressed by the degree of knowledge and the ability to absorb and process additional information.

Power, which is a means of influencing the decisions of others, is expressed as follows. The influence on the behaviour of an entity can be seen through at least one major factor in its decision-making. The value of the main determinant is itself the result of an intermediate decision. These decisions can only be influenced by changes in the external environment. Expanding or restricting the business entity's options leads to a narrowing of alternatives and the inability to choose the most optimal option. Usually, there is a desire to change the perception of other measures of the management decision-making model and their consequences, such as redirection, manipulation, or concealment of information. Only decision-makers have influence on the target functions of management. Legal entities play an important role in this. Legal power is associated with certain rights in the environment, for example, associated with a certain position in the hierarchy. The outcomes of alternative actions can be changed by introducing rewards and penalties associated with choosing one of the alternatives. If, on the one hand, the power holder can design a reward of significant positive value for the power holder, then on the other hand, the rewards and punishments associated with the power holder's power are actively used.

The above models of behaviour in the management decision-making system are not mutually exclusive; they can be combined in various ways. At the same time, the purpose of using power is to achieve desired behaviour or prevent undesirable behaviour by others.

## CONCLUSIONS

In summary, the following conclusions can be drawn. Social norms are social mechanisms for regulating

behaviour and social requirements for the behaviour of a business entity that determine the nature and limits of acceptable behaviour. The role of social norms ensures the ordering of social relations to meet the needs of society as a whole or its dominant group. The relationship between normative behaviour and norms is not always direct and immediate, as much of normative behaviour is unconscious, habitual, behavioural, and enforced. Normative behaviour is the most common type of business behaviour, but not the only one. This is in contrast to non-normative behaviour, i.e., behaviour that does not conform to or violates norms. The main characteristics of social deviation are the differences between the requirements of the regulatory system and the needs of the business entity. Thus, from the point of view of objects, deviant behaviour refers to all spheres of socio-economic development depending on the subject, it concerns the behaviour of individual entrepreneurs, civil servants, groups of employees, and informal social groups; from the objective side, deviations are the result of actions and can be one-time or long-term; from the subjective side, deviation is characterised by differences in motives, goals, and the degree of foresight. It should be noted that, despite the importance of external social methods of analysis, their main level in the context of metamorphosis is aimed at internal subjective mechanisms of behavioural determinants.

It is important to note once again that the modelling process is time-consuming. It can be difficult to choose the best solution from many options. To find the best solution, you first need to identify the right model. There are many different decision-making models. According to different object detection methods, they are divided into single-objective models and multi-objective models. In addition, depending on the problem situation, there are trade-off models, optimisation models, and diagnostic models. In this article, the model is considered as a system of socio-economic development. Behavioural determinants can be divided into two groups. The first group includes rotation methods, basic criteria, thresholds, and intervals. Methods in this group reduce the number of criteria by making additional assumptions. The second group focused on limiting the options, but excluding those that were clearly bad. This can be done using the Pareto portfolio method, the guaranteed outcome method, and the breakeven method. There are many decision-making models in the scientific literature. It would take a lot of time to research and explain each one individually. The methods discussed are only a subset of all possible data processing methods. All of these described and unspecified methods are widely used in various spheres of life, from the economic organisation of business activities to the use of probabilistic data processing methods in various areas of monitoring. However, as noted in the article, each of the described methods has advantages and disadvantages, which, for example, led to the emergence of a new area of adaptive econometrics. In addition, probabilistic data processing methods are used in mass production to analyse the market for raw materials and goods, analyse the functions of information systems, check the logic and regularity of their functioning, and compress various software. It should be noted that probabilistic data processing methods can also be used

during testing. The method defined in this environment determines, based on probability, which part of the data set should deviate from the standard, which significantly speeds up the testing time, but at the same time transmits a large amount of data. Once calculated, some probability values are approximate and may not be accurate. However, as information technology advances, these calculations are becoming more accurate, significantly reducing audit costs and improving quality.

Management accounting in wartime requires the ability to make quick and balanced decisions in conditions of instability. The behavior of personnel during this period determines how effectively they can assess the situation and make decisions. Thus, behavioral determinants play a key role in determining the effectiveness of the management accounting system. The behavior and decisions of the people who use the system have a significant impact on the results of its application. Prospects for further research are the analysis of the effectiveness of the influence of behavioral determinants on the effectiveness of decisions in management accounting in the context of the management control system of small and medium-sized enterprises.

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