

ЕКОНОМІКА ПІДПРИЄМСТВА

УДК 69.003

JEL Classification: C02, F20

DOI: 10.20535/2307-5651.20.2021.252603

Druhova ElenaSenior Lecturer at the Department of International Business and Finance
ORCID ID: 0000-0002-2404-1910**Klepikova Svitlana**Senior Lecturer at the Department of International Business and Finance
ORCID ID: 0000-0002-3218-943X
National Technical University of Ukraine
"Igor Sikorsky Kyiv Polytechnic Institute"**Другова О. М., Клепікова С. В.**

Національний технічний університет України

"Київський політехнічний інститут імені Ігоря Сікорського"

INDICATORS OF VALUE-ORIENTED MANAGEMENT OF MACHINE-BUILDING ENTERPRISES ON THE BASIS OF CONTROLLING

ПОКАЗНИКИ ЦІННІСНО-ОРІЄНТОВАНОГО УПРАВЛІННЯ ПІДПРИЄМСТВАМИ МАШИНОБУДУВАННЯ НА ОСНОВІ КОНТРОЛІНГУ

The content of controlling systems, focused on the production activities of the enterprise. The efficiency criteria used in the systems of controlling are analyzed. Comparison of informativeness of indicators of financial results and the indicator of economic value added is investigated. The article considers the essence of the concept of cost-oriented management, highlighting its positive and negative sides, identifies the main components of the cost-oriented approach. The mechanism of enterprise value management based on the conceptual approach and its constituent elements are considered. Controlling is just such a system, which integrates the tools of information and analytical and methodological support of modern management, as well as forming a fundamentally new approach to managerial decision-making and progressive management philosophy. The need to study the value-oriented concept of controlling and its application in enterprises of various types of economic activity is associated with the need for transparent and effective management and tools to assess the impact of management decisions on the factors that generate business value by the management.

Keywords: cost-oriented approach, components, mechanism, cost management, machine-building enterprise, controlling, efficiency criteria, financial results, economic added value.

Зміст систем контролінгу, орієнтованих на виробничу діяльність підприємства. Аналіз критеріїв ефективності, що використовуються в системах контролінгу. Досліджено порівняння інформативності показників фінансових результатів та показника економічної доданої вартості. Надано пропозиції щодо організації змісту контролінгу машинобудівного підприємства з використанням показника економічної доданої вартості як показника управління поточною ефективністю та формуванням потенціалу розвитку. У статті розглянуто сутність концепції витратно-орієнтованого управління, висвітлено її позитивні та негативні сторони, визначено основні складові витратно-орієнтованого підходу. Розглянуто механізм управління вартістю підприємства на основі концептуального підходу та його складові елементи. Поглиблення євроінтеграційних процесів та ринкових умов функціонування промислових підприємств в Україні вимагають від вітчизняного виробника побудови новітніх моделей управління бізнесом, які б відповідали потребам сучасної української економіки та конкуренції з боку європейських компаній. Першочерговим завданням фінансово-економічної роботи на підприємстві в такий спосіб є забезпечення фінансової стійкості, ліквідності та ефективності його роботи на всіх рівнях управління в умовах економічної нестабільності та посилення конкуренції. Одним із засобів виконання цього завдання є впровадження вартісної моделі управління. Перехід на новий якісний рівень управління потребує також впровадження інноваційної культури використання сучасних інструментів підтримки процесу прийняття управлінських рішень. Контролінг є саме такою системою, яка інтегрує інструменти інформаційно-аналітичного та методичного забезпечення сучасного менеджменту, а також формує принципово новий підхід до прийняття управлінських рішень та прогресивну філософію управління. Необхідність вивчення витратно-орієнтованої концепції контролінгу та її застосування на підприємствах різних видів економічної діяльності пов'язана з необхідністю прозорого та ефективного управління та інструментів для оцінки впливу управлінських рішень на фактори, що формують вартість бізнесу, а отже врахування враховувати інтереси власників та інвесторів та уникати недобросовісних маніпуляцій з боку керівництва.

Ключові слова: витратно-орієнтований підхід, компоненти, механізм, управління витратами, машинобудівне підприємство, контролінг, критерії ефективності, фінансові результати, економічна додана вартість.

Introduction. In the modern economy, domestic enterprises are forced to use adequate for these conditions as the concepts and methods of management, and tools that can combine operational and strategic objectives. For a number of different reasons, the tools developed for enterprises of developed economies cannot be used in domestic practice. Many domestic developments substantiate the feasibility of using a system of controlling as a type of economic activity, which is believed to be "an important tool for Ukrainian enterprises to overcome the crisis." In particular, the position on the expediency of giving such a system a specific target orientation is substantiated: "there is a need to use controlling financial results, as one of the key points of their work is to obtain the expected profitability."

Analysis of recent research and publications: Analysis of scientific-theoretical and scientific-applied developments on cost and cost-oriented management of enterprises and projects, presented in the works of foreign and domestic scientists, such as: G. Hofstede., M. Minkov, H. Vinken, A.M. Asaul, A.F. Goiko, M.G. Boyko, I.O. Blank, S.D. Bushuyev, P.M. Kulikov, I.P. Otenko, I.V. Popovychenko, O.P. Petrash, V.G. Fedorenko and others, which allowed us to determine the advantages of replacing the "cost-resource approach" in enterprise management with a symbiotic approach "Value – resources – harmonized values – value-based enterprise management".

The purpose of the article. Theoretical justification of the possibilities and practical expediency of using the indicator of economic value added and its dynamics modified from the indicators of current profitability. Development of theoretical and methodological and organizational and practical foundations of cost management of modern market-oriented Ukrainian machine-building enterprises on the basis of the introduction of controlling tools.

Results of the research. Ensuring its sustainable and long-term functioning in a constantly changing environment. Thus, conceptually, we are talking about the formation and tracking in this system of the main criterion, which would signal the current efficiency and at the same time create the potential for development – profit. Analysis of the basic principles of controlling (operational and prognostic) makes it possible to adhere to the position that the presence of a well-founded and formalized criterion (indicator, indicator), suitable for the practical needs of the management of machine building enterprise, will turn controlling activities, implemented in domestic enterprises, into an additional tool for in-depth analysis – the evaluated objects and factors.

In recent decades, the value-based approach to corporate management has attracted considerable attention from scholars and practitioners in the field of finance, management and accounting. The main idea of value-based management is to manage the financial parameters of an enterprise on the basis of evaluation, planning and control of the factors determining its value. The focus of this approach is to maximize the market value of equity capital, the market capitalization of the enterprise. The modern economy is dominated by the cost-oriented concept of management, focused on increasing the market value of the company's equity capital (market capitalization), which, however, cannot be used in domestic practice. The efficiency of the national economy, including

machine-building enterprises, is traditionally evaluated on the basis of financial performance indicators.

There is a value creation process, direct value-oriented management, and value measurement. The first component is the total set of value creation factors, as well as the features of the functioning of the enterprise that affect or can affect the amount of value created. The cost-oriented component implies the creation of such an organization, corporate culture, management's way of thinking, etc., that would ensure the best achievement of the goals set in cost-oriented management. The third component – cost measurement – includes the method of cost estimation, specification of the target indicator, as well as taking into account the likely dynamics of changes in internal and external conditions of activity.

The main elements of the concept of building a mechanism are:

- a substantive definition of the essence of value-based management;
- justification of the purpose, goals, objectives and functions of value management;
- clarification of subjects and objects; development of a system of basic principles of cost-oriented management;
- differentiation of technologies for assessing the value of enterprises (methods and models) using a system of balanced scores;
- assessment of the effectiveness of the enterprise value management system.

In the process of financial management to increase the value of the enterprise and satisfy the interests of owners and shareholders. The basis of value thinking in the top management of the enterprise is a clear vision of the main financial goal in maximizing the value of the enterprise and understanding of what parameters affect its increase.

As a rule, the traditional set of enterprise value management tools, combined with specific tools and priorities that take into account the financial and economic situation and development goals, have a greater effect on the growth of enterprise value [1].

The lack of ratings of enterprises based on their value and the lack of information about the value of the enterprise in financial statements indicate that value thinking is not dominant in our country, unlike in countries with developed economies. The specificity of Ukrainian practice is that the main goal of Ukrainian top management is the issue of production and the rational direction of funds, rather than the market value of the enterprises they lead. The main focus of managers is on the quality of performance of their duties and profit as an indicator that demonstrates the effectiveness of the enterprise. This orientation contradicts the interests of the owners, for which it is more important for the company to constantly create the added value of their capital, the continuous growth of the company's value.

As for the introduction of controlling in the machine-building industry, there is a similar problem, because traditional controlling systems also lack a criterion that could balance operational and long-term efficiency. The theoretical foundations of this system suggest that "controlling is a broad system of enterprise survival in two aspects: short-term (optimization of profits) and long-term – maintaining and preserving harmonious relationships and connections of the company with its surrounding territories." The analytical function of

controlling consists in tracking, systematization and analysis of controlled indicators, which, obviously, are not set a priori, but must be formed in the system of controlling of a particular enterprise. The question arises: which key (limited number) or key indicator should be recognized as the main criterion in the system of controlling of domestic machine-building enterprises. If to take "traditional" indicators of profitability and calculate on their basis various types of derivative coefficients or indicators (profitability, liquidity, stability, etc.), they can be easily determined without implementing a system of controlling. The elaboration of strategic development (both specific goals and criteria) for domestic machine-building enterprises is an extremely difficult task, so the question arises that such indicators should be suitable for the purposes of operational management and accompany the development strategy [1].

Most thematic publications cover two types of controlling: operational and strategic. Theoretically, it is easy enough to describe the content of their functional orientation. However, in practice of the machine-building enterprise it is impossible to implement two parallel services, and even in one it is impossible to form an information base of "double-entry bookkeeping" type. It is obvious that the concept of controlling stated in this article is quite simplified in comparison with other, more extensive concepts of activity controlling. In the proposed for the domestic practice "concepts of controlling of financial results prevails orientation on the overall financial results without taking into account the differentiation of the results of individual units and services of the enterprise."

It is proposed to use the indicator of economic value added (EVA) instead of the basic indicator of profitability, modifying it for each specific enterprise.

For the controlling of financial results (operational target-oriented controlling) is characterized by traditional tools to ensure the technology of forming management information on the basis of analytical slices of data on production volumes, costs, profit structure, etc. The information component of planning, budgeting, modeling, regulation, etc. is used. The use of well-known analytical calculations in this type of controlling, focused on management decisions, is also necessary (the use of "direct-costing" method, the formation, analysis and monitoring of controlled indicators, including deviations, methods of establishing relationships and interdependencies between indicators, etc.). Various models and methods of calculating the break-even activity of an enterprise as a whole or individual activities or products can also be used (for example, calculation of marginal profit, internal rate of return method, methods of comparison of costs and results or levels of profitability, etc.).

In modern practice of analysis and diagnostics of effective (production) activity of machine-building enterprise the total amount of profit (loss) from operational activity, financial result before taxation, net financial result or other modified types of financial results are used most often.

A system of adjusting indicators is used, the purpose of which is to show the influence of factors other than the main activity, including the rules of the state fiscal policy. Most often these include financial income (expenses), other income (costs), the amount of income tax expenses.

As can be seen from the tables, the data presented in them are not sufficiently informative in terms of prospects for the development of the enterprise and because of market factors and dynamic changes in the transformational economy of Ukraine cannot be a reliable basis for making effective and targeted managerial decisions.

Traditional indicators of the financial results of the enterprise, such as the absolute financial result (net profit) and calculated relative to its relative indicators (return on assets, equity, investments, turnover and liquidity) do not take into account the value of real and financial investments.

In many cases, it is believed that the use of internal audit in the system of controlling will allow to perform the main tasks of the internal monitoring (control) system, to obtain reasonable assurance in the reliability of accounting data and reporting indicators, compliance with applicable regulations, providing management with reliable information about objective performance indicators of the enterprise. The purpose of the traditional control system in the controlling of activities is the rapid identification of factors of adverse developments, the validity of conclusions about the advisability of adjusting plans, reorganization, and much more.

Under the conditions of constant changes in the economy monitoring of enterprise functioning is recognized as an important component of controlling, because it takes into account the influence of external environment factors and timely response to changing socio-economic phenomena, forming the basis for the use of its information base for the development of compensatory opportunities in the system of management decisions.

Basic analysis tools are an important component of the controlling of an engineering enterprise, on the basis of which the most important data for making management decisions are determined. It is on their basis that corrective actions are developed to clarify the tactics and strategy of the enterprise; appropriate tools for planning, control and management decision-making are specified. The monitoring system of a machine-building enterprise is a developed plan for the purpose of external observation of the performance indicators of industry enterprises, in order to establish deviations of the enterprise results from the industry average and to identify the causal factors of these deviations. However, the results of monitoring can be used by the management of a machine-building enterprise to adapt to changes in the economic environment of its functioning and successfully survive in competition.

At the same time, such adaptation implies that enterprises acquire the ability to develop, due to changes in many approaches to the organization of economic activity, in particular the direction of the management process primarily to acquire the ability to stay in a particular market segment. The monitoring system should track the processes occurring at the enterprise in real time, formalizing the data into operational reports and evaluating the factors affecting the comparison of the planned results with those actually achieved. By obtaining this kind of information, the controlling service can develop suggestions and recommendations to improve the company's performance.

Thus, the paper considers the controlling activity of a machine-building enterprise as a management concept, which is a systematic and complex economic toolkit that coordinates a set of interrelated financial and economic methods, techniques, tools and levers, which form the

basis of information and analytical framework for the development of rational management decisions, monitoring their implementation, adjusting operational plans and strategic objectives of the enterprise. The controlling methodology proposed in such coordinates at a machine-building enterprise will provide information orientation of management processes to increase operational efficiency, timely concentration of resources for development, as well as to solve assigned tasks, control activities of subdivisions and the enterprise as a whole and by individual activities.

Most often, the analysis of the state and efficiency of controlling is compared with profitability indicators. The profitability of industry enterprises is related not only to the capabilities of their direct development (profit recapitalization), but also to the ability of these enterprises to participate in infrastructure programs (state and regional), as well as to sponsor various regional social programs, to finance socio-cultural and other activities. That is, this criterion affects not only the general reputation of the machine-building enterprise, but also its investment attractiveness, including within the framework of regional or state investment programs. That is why objective and comprehensive information of the controlling system on the factors affecting the results of the enterprise's activity strengthens managerial decisions [2].

Taking into account the importance of systematization of information in the system of controlling in relation to the production activity of machine-building industry enterprises, the assumption of its interdependence on the state of controlling activity, Table 1 presents the data on the financial results of industry enterprises for the period of 2020.

The efficiency of controlling activity is interconnected with various profitability indicators, which determine the general idea of the efficiency of industry enterprises and directly follow from the volume of production and sales of machine-building products. Therefore, it is advisable, to identify the dynamics of sales of certain types of engineering products with a conditional forecast of the inclusion of macroeconomic indicators in the controlling system of a particular machine-building enterprise. Improving the efficiency of the controlling system is

associated with the practical implementation of adequate tools for the economy of Ukraine.

It is also obvious that the efficiency (current efficiency) of domestic machine-building enterprises lies in the coordinates of cost saving, i.e., the focus of management should be aimed at managing the cost of machine-building products. From this point of view, the cost of production, in our opinion, should be considered one of the most important factors of its competitiveness (the ratio of quality, cost, and price). To identify such a relationship requires analytical slices of information about the volume of production and sales and the dynamics of costs of goods sold, assessed the impact of factors on the change in costs per hryvnia sold products [4].

By decision of the Berdychiv City Executive Committee on March 18, 1996 was registered JSC Berdychiv Machine-Building Plant "Progress", which was created on the basis of the Berdychiv Machine-Building Plant of the oil industry "Progress".

The average number of full-time employees was 1,023. The average number of freelancers and part-time employees was 15 persons, and 16 persons working under civil-law contracts. The Salary fund amounted to 104827 thousand UAH. During the reporting period the Salary fund increased by 30 695 000 UAH as compared to the previous year. JSC Berdychiv Machine-Building Plant "Progress" has a personnel program aimed at ensuring a high level of qualification of employees [4].

Construction, food, processing industry, as well as for the treatment of industrial and domestic wastewater, and also provides services: to repair equipment; with the manufacture of letterheads, posters, billboards, stationery, magazines; on road transport; medical services. The main markets are customers, companies from neighboring countries: Russia, Belarus, Estonia, Kazakhstan, Finland, Germany, USA.

JSC Berdychiv Machine-Building Plant "Progress" is financed from its own funds, as well as from borrowed funds in the form of accounts payable. Table 2 shows the main capital and efficiency indicators for 2018–2019.

In modern practice of analysis and diagnostics of effective (production) activity of machine-building enterprise the total

Table 1– Pre-tax financial results of machine-building enterprises in Ukraine for 2020

	Financial result (balance)	Enterprises that made a profit		Enterprises that received damage	
		in % to the total number of enterprises	financial result	in % to the total number of enterprises	financial result
		Industry	155395,9	73,9	221399,3
engineering	15541,5	75,2	18089,8	24,8	2548,3
manufacture of computers, electronic and optical products	976,7	87,5	1023,2	12,5	46,5
production of electrical equipment	2555,5	76,0	2709,5	24,0	154,0
manufacture of machinery and equipment	4976,8	76,7	5457,4	23,3	480,6
manufacture of motor vehicles, trailers and semi-trailers and other vehicles	7032,5	69,5	8899,7	30,5	1867,2
production of furniture, other products; repair and installation of machines and equipment	1073,4	75,0	1493,9	25,0	420,5
supply of electricity, gas, steam and air conditioning	3427,1	48,2	23964,8	51,8	20537,7
water supply; sewerage, waste management	-442,4	52,1	1354,4	47,9	1796,8

Source: [3]

Table 2 – Provision of JSC Berdychiv Machine-Building Plant "Progress" with fixed capital and efficiency of its use for 2018–2019

Indicator			Deviation (+, -)	Growth rate, %
	2018 year	2019 year	2018 to 2019	2018 to 2019
Net income from the sale of products, thousand UAH	210470	272866	62396	129,65
The average annual value of production assets, thousand UAH.	60007	44908,5	-15099	74,84
Initial cost, thousand UAH	142316	122715	-19601	86,23
Residual value of means of production, thousand UAH	42496	47321	4825	111,35
Depreciation of fixed assets, thousand UAH	94995	73343	-21652	77,21
Average number of employees, individuals	992	1023	31	103,13
Value of property, thousand UAH	292818	307403	14585	104,98
Capital adequacy, UAH	60,49	43,9	-16,592	72,57
Depreciation rate	0,67	0,6	-0,0698	89,54
Aptitude index	0,3	0,39	0,08701	129,14
The coefficient of the real value of fixed assets in the property of the enterprise	0,15	0,15	0,00881	106,07

Source: [5]

amount of profit (loss) from operational activity, financial result before taxation, net financial result or other modified types of financial results are used most often.

At machine-building enterprises, a significant share of illiquid assets is accounted for in production inventories, which distorts the EVA of total assets. Therefore, to make EVA more objective, it is necessary to adjust the value of total production assets.

Various provisions (the most frequently used provision for doubtful accounts receivable) are included in the calculation of the cost of capital. The increase in the amount of reserves for the analyzed period is added to the amount of profit when calculating the cost of NOPAT. Deferred taxes – their total amount is added to the amount of equity (unpaid taxes are used as equity). To calculate NOPAT, the increase in the amount of deferred assets is also added to the amount of profit for the analyzed period.

In general, it is possible to justify the expediency of replacing the direct use of profitability indicators, and apply the economic value added EVA (evaluation of the effective functioning of the machine-building enterprise). The indicator of economic value added, calculated by the proposed method, is reasonably adequate not only to establish the operational efficiency of the enterprise, but also suitable for managing the development of the enterprise, primarily based on the dynamics of its changes.

To assess its financial condition, let's analyze the efficiency of JSC Berdychiv Machine-Building Plant "Progress" according to the EVA indicator and compare these results with the main indicator of profit or loss.

In the procedures of modifying the EVA indicator a number of shortcomings are obvious, which are embodied in the "classic" indicators of profitability in terms of transformation of accounting information into economic indicators. In theoretical and applied fields, it is a proven fact that EVA, calculated on the basis of the accounting WACC, is fully equivalent to economic profit. This deviation indicates that EVA is an estimate of the real profit of the business, (residual profit) deducted from the cost of all capital (equity and debt), while accounting profit is determined without deducting the cost of equity [6].

Naturally, the introduction of controlling system in modern practice takes into account the traditions in the use of domestic machine-building enterprises, specific systems and models. Generalized in one or another format,

individual methods of evaluation and analysis form the basic basis of economic tools. To justify the development of management tools used in practice, it is necessary to take into account the previously noted inconsistency of their conceptual and methodological basis. Realistically assessing the financial and economic state and efficiency of activity, the conditions of functioning of domestic machine-building enterprises, it can be argued that they objectively put forward the dominance of efficient operating activities.

Table 3 – Performance indicators of JSC Berdychiv Machine-Building Plant "Progress" for 2018–2019

Indicators, thousand UAH	Years, thousand UAH		Absolute deviation, thousand UAH
	2018	2019	2018/2019
W _{vc} (t)	59491	61447	1956
d _{vc}	0,34	0,21	-0,13
W _{pc} (t)	115383	231533	116150
d _{pc}	0,66	0,79	0,13
WACC (t)	0,23	0,24	0,01
Ic	174874	292980	118106
NFA	50863	68444	17581
Wc	124011	224536	100525
NOPAT	53749	36261	-17488
EVA	13005,1	33911,7	-46916,7

Source: [5]

Therefore, the controlling system in the management system of machine-building enterprise to assess and analyze the overall performance is proposed to build on the basis of the key indicator, expressed as an indicator of economic value added, its changes in the dynamics also because this indicator (similar to other financial indicators) can be "decomposed" into separate components. This feature allows the value indicator to be "tied" to a specific group of employees or departments of the company, and thus obtain certain criteria for incentive programs.

To ensure the conditions for staying on the modern markets of machine building products, the management body needs to reorient to overcome those problems that ensure the survival of the enterprise in any market conflicts. The above stimulates the development of the theory of

controlling in Ukraine, taking into account the peculiarities of the conditions of domestic enterprises, adaptation to the changing needs of practice [7].

Currently, the Ukrainian practice lacks experience in implementing the system of controlling in enterprises, sufficient for statistical generalizations and conclusions, as well as disclosure of the content of controlling as an effective type of economic activity in the enterprise management system in accordance with the conditions and established principles of business in the modern economy. Such events analyze and evaluate the conceptual principles and functional purpose of controlling, promoting a "new" view of these management tools and ways of adapting foreign systems of controlling to domestic practice, revealing the main aspects and opportunities of controlling mechanisms in organizing the work of public authorities and local self-government.

Objective assessment of processes of controlling activity adaptation is the most significant, because mechanical engineering, as well as other Ukrainian enterprises, function only as the first generation of commercial structures. At the enterprises of developed economies the view on controlling, its practical application was formed as a result of many years of use of this tool, which evolved along with the management system.

In an in-depth consideration of the essence of incentive controlling as a system, the emphasis is shifted to the substantiation of its interaction and relationship with the management system used at the enterprise. In practice, the factor of system-dependent nature of the concept of controlling with developed and implemented at the enterprise management technologies is quite obvious – the system of mechanisms and means of management. In this work, such correspondence is the main criterion for stimulation of controlling activity. An important factor in these processes is the availability of a reliable and in-demand information system. From the above follows the content and place of controlling in the management system, motivational aspects of its implementation and stimulation [8].

Conclusions. The evaluation of the efficiency of controlling activities of machine-building enterprises is proposed to be carried out according to the economic, social and managerial components (the first characterizes the efficiency of economic development and is reflected in performance indicators, the second is determined by

the totality of individual, collective and public interests). At the same time, the most important is the managerial component of the evaluation of controlling activities. It is proposed to evaluate the controlling activity by the system of balanced indicators, which combines all the parameters for assessing the activities of the machine-building enterprise into four groups: "finances," "clients," "internal business processes," and "training and growth." Analysis of the state and prospects of development of the machine-building industry of Ukraine allows to identify factors hindering further growth of the industry. These include the recognized obsolete technical and technological base of most enterprises of the industry, the use of which negatively affects the competitiveness and quality of products. An extremely negative factor is the insufficient level of solvency of buyers in the domestic market, untimely payment of which causes the synergistic effect of the low level of innovation activity of domestic enterprises in the capital and investment markets, negatively affecting their technical and technological development. One of the general economic negative factors is the ineffective state policy in relation to the activities of monopolists and intermediaries, which leads to an increase in the cost of materials and energy resources. To manage these factors it is necessary to have objective information, which in modern conditions due to the complexity of obtaining for the implementation of management activities does not acquire additional importance, and therefore its role in the control activities increases.

The value of the EVA indicator is calculated on a basic principle. Its component, such as operating profit, changes due to an increase in inventories, inventories, deferred income, loan servicing costs, and intangible assets, which at machine-building enterprises without a direct effect on profit reduce the added value of the enterprise. This indicator correlates sufficiently with the cost of capital and the capital and investment markets. In theoretical and applied fields, it is generally accepted as a proven fact that EVA, calculated on the basis of the weighted average cost of capital, is fully equivalent to economic profit. However, based on the calculations, this fact is refuted. This deviation indicates that the EVA indicator is an estimate of the real profit of the business, and in calculating this indicator (residual profit) the cost of all capital is deducted, while the accounting profit is determined without deducting the cost of equity.

References:

1. Dobrovolska O.V. (2010) Controlling as a means of creating long-term competitive advantages at the enterprise. *Effective Economy*, vol. 1. Available at: www.economy.nayka.com.ua/?op=181lz=111.
2. Aksenyuk M.M. (2008) Controlling support of enterprise development strategy. *Economy and State*, no. 7, pp. 40–44.
3. Official website: Ukrainian statistics data. Available at: http://www.ukrstat.gov.ua/operativ/menu/menu_u/prom.htm.
4. Damodaran A. (1999) Value Creation and Enhancement: Back to the Future. Los Angeles: Stern School of Business, 468 p.
5. Official website: Statistics data of JSC Berdichev Machine-Building Plant "Progress". Available at: <https://www.progress.ua>.
6. Mayer E. (1993) Controlling as a system of thinking and control / Mayer E. ; lane. with him. Yu.G. Hukova and SN Zaitseva; under. ed. S.A. Nikolaeva. Moscow: Finance and Statistics, 96p.
7. Govorushko T.A., Kronikovskiy D.O. (2011) Problematic aspects of controlling implementation in Ukraine. *Economic Journal-XXI*, no. 1–2, pp. 51–53.
8. Govorushko T.A., Kronikovskiy, D.O. (2014) Research of methods for evaluating the effectiveness of the controlling system. *Scientific Bulletin of Kherson State University. Series: Economic Sciences*, no. 5, pp. 63–65.

Література:

1. Добровольська О.В. (2010) Контролінг як засіб створення довгострокових конкурентних переваг на підприємстві. *Ефективна економіка*. 2010. № 1. URL: www.economy.nayka.com.ua/?op=1&Iz=111.
2. Аксенюк М.М. Контролінговий супровід стратегії розвитку підприємства. *Економіка і держава*. 2008. № 7. С. 40–44;
3. Офіційний сайт: Дані української статистики. URL: http://www.ukrstat.gov.ua/operativ/menu/menu_u/prom.htm.
4. Дамодаран А. (1999) Створення та підвищення цінності: Назад у майбутнє. Лос-Анджелес: Школа бізнесу Стерна, 468 с;
5. Офіційний сайт: Статистичні дані ПАТ «Бердичівський машинобудівний завод «Бердичівський прогрес». URL: <https://www.progress.ua>.
6. Майер Е. Контролінг як система мислення і контролю / Майер Е.; провулок. з ним. Ю.Г. Гукова та С. Н. Зайцева; під. ред. С.А.Ніколаєва. Москва : Фінанси і статистика, 1993. 96 с.
7. Говорушко, Т.А. та Кроніковський Д.О. Проблемні аспекти впровадження контролінгу в Україні. *Економічний журнал – XXI*. 2011. № 1–2. С. 51–53.
8. Говорушко Т.А., Кроніковський Д.О. Дослідження методів оцінки ефективності системи контролінгу. *Науковий вісник Херсонського державного університету. Серія: Економічні науки*. 2014. № 5. С. 63–65.