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VALUE PARADIGM AS A METHODOLOGICAL BASIS FOR BUSINESS VALUATION

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Introduction. As the European integration process intensifies, new prospects are opening up for domestic businesses: there is an opportunity to expand sales markets, attract foreign investors, access international grant programs, etc. At the same time, business entities should focus on improving management efficiency to ensure competitiveness and financial stability in an uncertain and volatile market environment. In this regard, systematic business valuation is the basis for strategic management decisions.

In the modern world, business valuation technologies have become a tool for building a highly efficient management system aimed at increasing the value of an enterprise, maximizing profitability, and increasing investment attractiveness, and the concept of value is rightly defined as the basic paradigm of business development, so the timeliness and relevance of the research is undeniable.

Analysis of recent research and publications. The methodological and applied aspects of business valuation are actualized in the works of many domestic and foreign scholars. Damodaran A., Copeland T., Koller T. and Murrin J. proposed an approach to business valuation based on the application of the discounted cash flow model and the economic profit model [1–3]. Zvi B. and Kane A. research the method of comparing market value of business indicators [4]. Scientists Mercer K., Harms T. in their researches prove the feasibility of using the discounted cash flow model and the Gordon model in business valuation [5]. Theoretical and practical issues of business valuation, methodological support of this process are covered in the works of Blank I.A. [6], Hrytsulenko S.I. [7], Kvach Y.P. [8], Koryagin M.V. [9], Momot T.V. [10]. Given the significant scientific developments in the field, in the context of strengthening European integration processes, the issue of studying foreign methods of determining the value of business and the possibilities of their application in Ukraine remains relevant.

Objectives of the article. The purpose of the research is to substantiate the procedure and expediency of using a number of methods based on the concept of value management when valuing a business in modern realities.

The main material of the study. In today's unstable economic environment, one of the criteria for the efficiency of a business entity, its resilience to external and internal threats, and competitiveness is its value. It is the value that gives a realistic idea of the potential capabilities of the enterprise, and the process of business valuation serves as the basis for substantiating its development strategy. Thus, the concept of value can rightly be considered the basic paradigm of business development.

The methodological regulation of business valuation is enshrined in the Law of Ukraine "On Valuation of Property, Property Rights and Professional Valuation Activity in Ukraine" [11], regulations (national standards) on property valuation; methodologies and other regulatory acts developed and approved by the Cabinet of Ministers of Ukraine or the State Property Fund of Ukraine.

According to the National Standard No. 1 "General Principles of Property and Property Rights", three main approaches are recommended for business valuation: cost, income and comparative [12]. Each methodological approach is based on appropriate valuation techniques and methods.

A comparative description of methodological approaches and methods of business valuation is presented in Table 1.

Table 1

Comparative characterization of methodological approaches and methods of business valuation

Methodological approach	Evaluation method	Application area	Advantages	Disadvantages
1	2	3	4	5
Cost approach	Direct reproduction method	Valuation of net assets. Valuation of a new business. Resolving conflicts between company owners and managers. Valuation of non-profitable businesses.	Based on actual assets. Easy to use.	The result is subject to the availability of reliable financial statements. Does not reflect the potential return on assets.
	Substitution method	Insurance. Valuation of individual assets (fixed assets).	Current market assessment of the cost of restoring the enterprise.	Does not reflect potential profit. Does not provide an estimate of intangible assets.
Income approach	Direct income capitalization method	Evaluation of enterprises with uniform income.	Takes into account future income. The ability to determine the value of the company depending on changes in the capitalization rate.	There may be errors in the weasels. It is impossible to evaluate an enterprise that does not generate income.
	Indirect income capitalization method	It is used to determine the value of a current enterprise.	Allows us to make a realistic assessment of the company's future potential Allows for variant calculations for the development and reconstruction of the enterprise.	There may be errors in the forecasts of future cash flows. Restrictions on the valuation of loss-making entities, entities with assets not used in the course of business, entities in the process of restructuring.
Comparative approach (sales analog)	The public company analog method	Valuation of an existing enterprise.	Allows you to quickly obtain valuation results. The appraiser is guided by the actual purchase/sale prices of analogous companies, which simplifies calculations. The market situation takes into account the supply and demand for similar valuation objects.	The result depends entirely on the ability to find analogous companies and make a specific comparison. The complexity of the process of collecting the necessary information, selecting peers and making the necessary adjustments.
	Transaction method			

Source: compiled by the authors according to [12–16]

In their studies, world-class economists prove that the value of an enterprise depends on its ability to generate profit. Therefore, the concept of economic profit EVA (Economic Value Added) has become widespread. The expediency of using EVA is justified by the fact that investors (shareholders) should be compensated for the risk taken on the invested capital. In this regard, the company's capital should generate at least the same rate of return as similar investment risks in the capital markets. Otherwise, investing in a business is not worthwhile.

EVA is an estimate of the true annual profit of a business, and it differs sharply from accounting profit because the cost of equity is deducted in the calculation of EVA. EVA is the residual profit remaining after deducting the cost of all capital (including equity), while accounting profit is determined without deducting the cost of equity.

EVA is a kind of indicator of the quality of management decisions. A constant positive value of EVA indicates the efficient use of capital and an increase in the company's value, while a negative value is the opposite. Accordingly, the EVA model should be viewed not only as a way to determine the value of an enterprise, but also as a value management tool. Therefore, it is advisable to decompose the EVA indicator by value factors (Table 2).

Table 2

Factors of the value of a joint-stock company according to the EVA indicator

First-level cost factors		
Operational efficiency (NOPLAT)	Efficiency of investment activities (ROI)	Efficiency of financial activities (WACC)
Second-level cost factors		
Sales volume and price	Volume and profitability of investments in production	Liquidity
The amount of costs	Volume and profitability of investments in mergers	% interest rate
Productivity	Volume and profitability of investments in innovative developments	Tax rate
Nominal tax rate	Volume and profitability of investments in branding	Financial leverage

Source: compiled by the authors according to [10]

Economic value added can be calculated in several ways.

The first option is calculated by the formula

$$EVA = NOPAT - (WACC \times CE), \quad (1)$$

where NOPAT – net operating profit after tax;

CE – capital equity;

WACC – weighted average cost of capital.

The weighted average cost of capital is calculated by the formula

$$WACC = Wd \times Cd \times (1 - T) + Wp \times Cp + We \times Ce, \quad (2)$$

where Wd , Wp , We – respectively, shares of debt, preferred shares, equity (ordinary shares and retained earnings);

Cd , Cp , Ce – the value of each of the respective parts of the capital;

T – corporate income tax rate.

The second option is calculated by the formula

$$EVA = (ROCE - WACC) \times CE, \quad (3)$$

where ROCE – return on capital invested.

In turn, the return on invested capital is calculated as follows:

$$ROCE = NOPLAT / CE \times 100 \%, \quad (4)$$

where NOPLAT – net operating profit less tax.

If $EVA > 0$, it means that the company uses its equity capital efficiently, and the company's value is growing. In this case, $ROCE > WACC$, which means that the company has earned additional value, which increases the company's profitability and improves its investment attractiveness.

If $EVA = 0$, it means that there was no growth in the value of the company during the period under study, but the investor's rate of return was met. In this case, $ROCE = WACC$.

If $EVA < 0$, it means that there was no growth in the company's value during the period under study. The company inefficiently used the capital at its disposal. In this case, the enterprise's capital did not even provide the rate of return on invested capital set by the owner of the enterprise and did not generate additional income (added value).

In this case, $ROCE < WACC$, which means that the enterprise failed to earn added value because the return on investor's capital earned by the enterprise during the period under study was less than the barrier rate of return required by them. The company received a return that was less than the return required by investors (negative spread).

Thus, EVA can also be used in the operational management of an enterprise. There are three ways to increase the EVA indicator, namely:

- increase in operating profit at constant costs of raising capital;
- making additional investments in projects whose return exceeds the cost of raising capital;
- release of capital invested in activities or property, the income from which does not cover the cost of raising capital [10].

One of the approaches to business valuation that has become widespread in domestic practice is the DuPont system of integral analysis. This methodology is based on the premise that the main goal of an enterprise is not to maximize the absolute value of profit, but to increase the return on capital as a relative indicator of profitability. In other words, the value of a business directly depends on the level of efficiency of the company's resource use.

The essence of the DuPont methodology is to decompose the formula for calculating the return on equity into factors that affect this return (Figure 1).

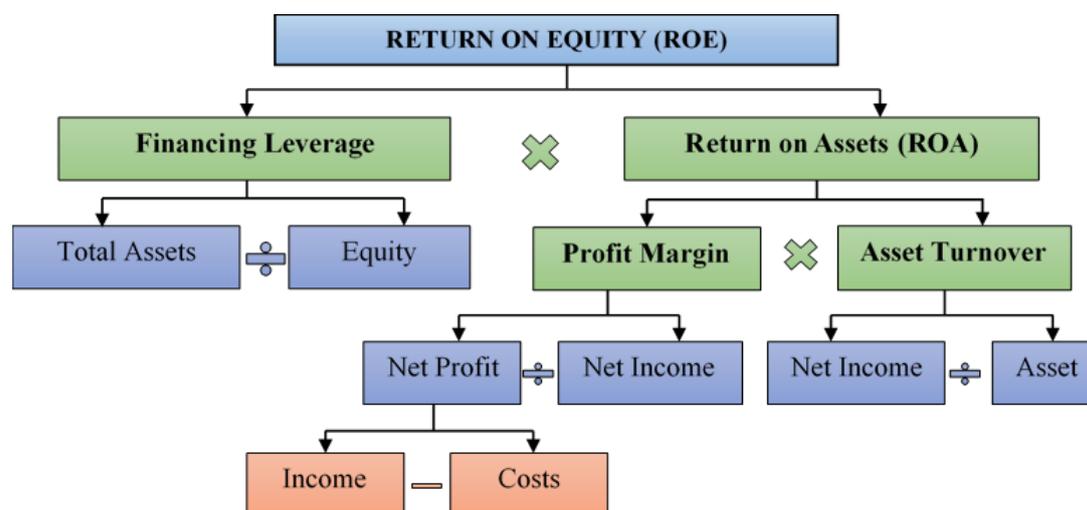


Figure 1. The DuPont methodology

Source: compiled by the authors

There are two modifications of the DuPont model: (first modification) the efficiency of using assets ROA (Return on Assets) and (second modification) the efficiency of using equity ROE (Return on Equity).

The use of a particular model depends on the required level of detail in the analysis of return on equity.

Return on equity in different models is expressed as follows.

1. ROE = Return on Assets * Financial Leverage.
2. ROE = Profit Margin * Asset Turnover * Financial Leverage.
3. ROE = Operating Margin * Interest Burden * Tax Burden * Asset Turnover * Financial Leverage.

The first and second models are the most widely used. The third model allows to take into account three additional factors: operating profitability – the ratio of profit from operating activities to net income; interest burden – shows how much of the profit from operating activities remains after interest payments; tax burden – shows how much of the profit remains after taxes.

The indicators used in the DuPont models are shown in Table 3.

The analysis is based on the calculated ratios. Which of these indicators has the greatest impact on the return on equity will determine the assessment and recommendations for improving the efficiency of the enterprise in order to maximize the return on equity. The algorithm for using the DuPont models is as follows.

I. Analysis of changes in the key financial indicator – return on equity – and the directions of changes in the factors that determined its dynamics.

II. Analysis of the reasons for changes in financial ratios. In the course of the analysis, it is necessary to identify the factors that had the greatest impact on the performance indicator.

III. Formation of recommendations for maximizing financial performance. Assessment of the impact of changes in one or more factors on the dynamics of the return on equity ratio. The assessment is carried out by changing the value of the indicator in the reporting, with other conditions remaining unchanged [10].

Indicators used in DuPont models

No.	Evaluation criterion name		Calculation formula	
	accepted	synonyms	in the form of financial reporting	general
1	Return on Equity (ROE) is a criterion for assessing the efficiency of the use of capital invested by owners	Return on Equity. Capital Efficiency. Return on Net Assets. Return on Equity.	Line 2350 f.2 / line 1495 f.1 *100%	$ROE = NP / EC * 100\%$ NP – Net Profit; EC – Equity Capital (arithmetic mean at the beginning and end of the period under analysis)
2	Return on Assets (ROA) characterizes the efficiency of the company's asset utilization. It shows how many units of profit per unit of assets	Capital Return. Return on Assets. Total Profitability of the Enterprise	Line 2350 f.2 / line 1300 f.1 *100%	$ROA = NP / TA * 100\%$ NP – Net Profit; TA – Total Assets (arithmetic mean at the beginning and end of the period under analysis)
3	Financing Leverage shows the degree of debt utilization, assesses the limit of appropriate use of borrowed funds	Financial Leverage Ratio	Line 1300 f.1 / line 1495 f.1 *100%	$FL = TA / EC * 100\%$ TA – Total Assets; EC – Equity Capital (arithmetic mean at the beginning and end of the period under analysis)
4	Profit Margin how many units of profit remain at the disposal of the company for each hryvnia of income received from the sale of products	Profitability of Sales	Line 2350 f.2 / line 2000 f.2 *100%	$PM = NP / NI * 100\%$ NP – Net Profit; NI – Net Income from sales of products (goods, works, services)
5	Asset Turnover shows how efficiently assets are used	Resource Efficiency	Line 2000 f.2 / line 1300 f.1 * 100%	$AT = NI / A$ NI – Net Income from sales of products (goods, works, services); A – Average Annual Assets

For example, by anticipating lower prices for raw materials and signing new contracts with suppliers on more favorable terms, an analyst can artificially reduce the cost of production. In this case, it is necessary to calculate the changes in all the coefficients in the model achieved in this way.

The considered integrated system for analyzing the return on equity using the DuPont model is an effective tool for analyzing the production and economic activities of an enterprise and can be used at the first stage of business valuation.

Thus, in the context of economic instability, market value is the main indicator that will allow making more informed decisions on maintaining the effective functioning of the business entity by owners, managers and investors [17]. In Ukrainian practice, the development of the concept of enterprise management based on the value criterion is complicated by the insufficiently sound theoretical basis and the specifics of the national economic system, which makes it impossible to automatically transfer foreign experience in this area to domestic realities.

Conclusions. Based on the study, the following conclusions can be drawn.

1. In the context of European integration processes, business valuation is becoming increasingly relevant, as it is a tool for building a highly effective management system aimed at increasing the value of the enterprise, maximizing profitability, and increasing investment attractiveness.

2. The concept of value can rightly be considered the basic paradigm of business development. It is value that gives a realistic view of the potential capabilities of an enterprise, and the process of business valuation serves as the basis for justifying its development strategy.

3. A comparative characterization of methodological approaches to business valuation is presented. In Ukrainian realities, the determination of value is complicated by a number of factors. Difficulties in building long-term macroeconomic and sectoral forecasts, limited instruments of the Ukrainian stock market, a relatively small number of mergers and acquisitions (M&A), and a small amount of publicly available financial information about companies lead to distortion of valuation results.

4. The concept of economic profit EVA (Economic Value Added) and the DuPont model are characterized as the most promising for use, which is confirmed by the research of world-class economists.

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Alina Hlushko, PhD in Economics, Associate Professor. **Bohdan Sapsai**, Applicant for the Second (Master's) Level of Higher Education, National University Yuri Kondratyuk Poltava Polytechnic. **Value paradigm as a methodological basis for business valuation.**

The aim of the study is to substantiate the procedure and expediency of using a number of methods based on the concept of value management when valuing a business in modern realities. It is proved that in the modern world, business valuation technologies have become a tool for building a highly efficient management system aimed at increasing the value of an enterprise, maximizing its profitability, and increasing its investment attractiveness. It is substantiated that the concept of value is rightly defined as the basic paradigm of business development. Based on a comparative characterization of modern approaches to business valuation from the perspective of decision-making on integration processes, the author proves that most of the methods are impossible or rather difficult to use for valuation of business in Ukraine due to the lack of a developed market for the purchase and sale of enterprises, objective information about their activities, and underdevelopment of the stock market. At the same time, it has been established that a number of world-class economists in their studies prove that the value of an enterprise depends on its ability to generate profit. Therefore, the study considers the procedure and features of applying the concept of economic profit EVA (Economic Value Added) in the valuation of business. The article characterizes and presents a schematic model of application of the DuPont methodology in the process of business valuation based on determining the level of efficiency of resource use. The author proves the necessity of business valuation, including the use of the outlined methodological approaches, since in the context of economic instability the market value is the main indicator that will allow making more informed decisions on maintaining the effective functioning of a business entity by owners, managers and investors.

Key words: business valuation, value paradigm, concept of economic profit EVA (Economic Value Added), DuPont model, management.

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Глушко Аліна Дмитрівна, кандидат економічних наук, доцент. **Сапсай Богдан Віталійович**, здобувач другого (магістерського) рівня вищої освіти, Національний університет «Полтавська політехніка імені Юрія Кондратюка». **Парадигма вартості як методологічна основа оцінювання вартості бізнесу.**

Метою дослідження є обґрунтування порядку та доцільності використання ряду методик, що базуються на концепції управління вартістю, при оцінюванні бізнесу в сучасних реаліях. Доведено, що технології оцінювання вартості бізнесу в сучасному світі стали інструментом для побудови вискоєфективної системи управління, спрямованої на підвищення вартості підприємства, максимізацію прибутковості діяльності, підвищення інвестиційної привабливості. Обґрунтовано, що базовою парадигмою розвитку бізнесу правомірно визначена концепція вартості. Адже в сучасних нестабільних економічних умовах саме вартість є одним із критеріїв ефективності діяльності суб'єкта господарювання, стійкості до зовнішніх та внутрішніх загроз, конкурентоспроможності та дає реалістичне уявлення про потенційні можливості підприємства. На основі порівняльної характеристики сучасних підходів до оцінки вартості бізнесу з позицій прийняття рішень щодо інтеграційних процесів доведено, що більшість з методик неможливо або досить складно використовувати для оцінювання вартості бізнесу в Україні через відсутність розвиненого ринку купівлі-продажу підприємств, об'єктивної інформації щодо їх діяльності, нерозвиненість фондового ринку. Водночас встановлено, що ряд економістів світового рівня у своїх дослідженнях доводять, що вартість підприємства залежить від його здатності генерувати прибуток. Тому значного поширення набула концепція економічного прибутку EVA (Economic Value Added). У дослідженні розглянуто порядок та особливості застосування даної методики оцінювання вартості бізнесу. Іншим підходом, який набув поширення у вітчизняній практиці та ґрунтується на положенні, що вартість бізнесу безпосередньо залежить від рівня ефективності використання ресурсів підприємства, є система інтегрального аналізу DuPont. У дослідженні охарактеризовано та представлено схематичну модель застосування методики у процесі оцінювання вартості бізнесу. Доведено необхідність проведення оцінювання вартості бізнесу, в тому числі з використанням окреслених методичних підходів, оскільки в умовах економічної нестабільності ринкова вартість виступає головним індикатором, який дозволить приймати більш обґрунтовані рішення щодо підтримання ефективного функціонування суб'єкта господарювання з боку власників, менеджерів та інвесторів.

Ключові слова: оцінювання вартості бізнесу, парадигма вартості, концепція економічного прибутку, модель DuPont, управління.