

Časopis za poslovnu teoriju i praksu
The paper submitted: 05/05/2025
The paper accepted: 11/06/2025

UDK 347.725.04:334.726
DOI 10.7251/POS2534051D
COBISS.RS-ID 142874625
Original scientific paper

Valentina Duvnjak, University of Business Studies Banja Luka, Bosnia and Herzegovina,
valentinaduvnjak@univerzitetps.com

ANALYSIS AND EVALUATION OF COMPANY VALUE INDICATORS FOR SHAREHOLDERS AND THE MARKET

Summary: *This research aims to expand upon existing theoretical frameworks by examining the reliability of various company value indicators as measures for shareholders and the market. The study focuses on assessing the effectiveness of these indicators in reflecting a company's true value and their utility in investment decision-making.*

The analysis encompasses a range of value indicators, including market-based metrics, accounting-based metrics, hybrid indicators such as Return on Equity (ROE), Tobin's q ratio, and Market-to-Book ratio, as well as newer metrics like Shareholder/Sustainable Value Added, Economic Value Added (EVA), Cash Flow Return on Investment (CFROI), and Environmental, Social, and Governance (ESG) factors. Additionally, the study considers indicators within stakeholder groups, exemplified by the Balanced Scorecard.

The scientific contribution of this research lies in the analysis and confirmation of the superiority of contemporary value indicators -such as Rappaport's Shareholder Value Added (SVA), Economic Value Added (EVA), and the Balanced Scorecard- over traditional market, accounting, and hybrid metrics in identifying and enhancing value. However, their practical application is often hindered by the complexity of implementation.

Key words: *company, value, indicators, shareholders, market*

JEL classification: *G10, G30*

Introduction

This paper aims to clarify the distinction between financial performance analysis and financial position analysis of a company. Subsequently, a detailed examination and evaluation of indicators measuring company value for shareholders and the market will be conducted. Each individual indicator will be analyzed, highlighting its advantages and limitations. The analysis will encompass:

- Market Indicators: Metrics assessing a company's market performance and investor perceptions;
- Accounting Indicators: Traditional financial ratios derived from financial statements;
- Hybrid Indicators: Combined metrics integrating both accounting and market data;
- New Indicators: Emerging metrics such as Economic Value Added (EVA), Cash Flow Return on Investment (CFROI), and Environmental, Social, and Governance (ESG) factors;
- Stakeholder Indicators: Measures considering the interests and impacts on various stakeholders.

This comprehensive approach will provide a nuanced understanding of how different indicators reflect a company's value from multiple perspectives.

1. FINANCIAL PERFORMANCE IN REFLECTING COMPANY ACTIVITIES

A company's financial performance plays a crucial role in representing its activities. There are two primary types of financial analysis: the analysis of financial performance and the analysis of financial position. To accurately determine business trends and the company's sustainability, it is essential to conduct a time-based comparison of financial statements, specifically the balance sheet and income statement, over consecutive years. This approach facilitates the identification of negative trends and their underlying causes.

Financial information is of paramount importance, with periodic financial statements and cash flow reports being particularly significant. In one study, the income statement was considered the primary source of information by 86% of surveyed companies (Collis and Jarvis 2002, 105). The structure of financial performance and the effectiveness of financial statements indicate the sources of a company's results. If a company is financially stable, a positive financial result from regular operations is expected. Conversely, a negative financial result from non-operating and extraordinary income suggests financial difficulties. Companies facing financial challenges often report high non-operating and extraordinary expenses, resulting from write-offs of receivables, inventory, and fixed assets.

The most concerning situation arises when the regular activity result (the sum of operating and financial results) is negative, as these losses are difficult to recover.

A company's financial position can be analyzed using static and dynamic methods.

- Static Method: This approach examines the capital structure from the perspectives of ownership and maturity of liabilities, as well as the financing of assets.
- Dynamic Method: This method assesses the magnitude of cash flows and formulates the company's rational function.

The number of periodic financial statements depends on the volume of transactions within the company. Cash flow is utilized in analyzing a company's financial position to verify liquidity, while in analyzing profitability, it serves as a supplement to earnings and for evaluating investment projects. It is calculated as the sum of depreciation, provisions, and net income.

Essentially, cash flow represents the surplus income that, after tax payments, can be used for dividend distribution, profit sharing, investment in fixed assets, or repayment of long-term loans and significant receivables. Throughout a company's existence, it is expected that profit and net asset value will equal net cash flow. In financial analysis, cash flows are instruments for measuring a company's financial potential for internal financing. For companies experiencing difficulties, operating cash flow decreases, while inflows from financing and investing activities increase. Cash flow is valuable information for assessing a company's solvency, especially in conditions of high uncertainty. The cash flow statement holds an advantage over the balance sheet and income statement in evaluating liquidity and solvency (Duvnjak 2009, 248).

2. MARKET INDICATORS OF COMPANY VALUE

Market indicators of a company's value for shareholders and the market include: stock price, added market value, shareholder return, abnormal return, and cumulative abnormal return. According to market indicators, the movement of stock prices reflects the efficiency and effectiveness of a company. Spatial and temporal comparisons are limited by the market price of the stock. In terms of spatial comparison, a company with a stock price twice as high as another company in the same industry or market does not necessarily indicate superior performance. Regarding temporal comparison, a stock price increase or decrease smaller than the market index suggests favorable changes in shareholder welfare.

The market value of equity is the product of the stock price and the number of shares held by investors. It consists of the initially invested capital by shareholders and the added value created

by management. The added value created by management represents the amount of wealth generated for shareholders and is referred to as added market value (Li et al. 2016, 514). The stock price represents expectations about the company's future effects, such as information about performance and potential changes. Management can influence the stock price by providing new information that the market does not possess.

3. ACCOUNTING INDICATORS OF COMPANY VALUE

Accounting indicators of a company's value primarily focus on profitability, which relates to the level of accounting profit achieved. Recently, profitability is evaluated not only through the balance sheet and income statement but also using the statement of cash flows.

- 1) The main accounting value indicators include:
- 2) Earnings per Share (EPS)
- 3) Return on Investment Assets (e.g., ROA/ROCE)
- 4) Return on Equity (ROE)
- 5) Net Profit Margin
- 6) Operating Profit Margin (Duvnjak 2011, 175).

The advantage of accounting value indicators lies in their ease of access and clarity. However, they have notable drawbacks influenced by the accounting policies applied—in particular, how profits and the statement of assets are calculated. Differences in inventory valuation methods, depreciation policies, and the treatment of intangible assets can significantly distort results. For instance, investments in intangible assets are generally expensed immediately rather than capitalized, which can understate future earnings. Such accounting policy variations may lead to substantial discrepancies in value assessments, undermining comparability and reliability. Moreover, accounting indicators often fail to account properly for investments in long-term current assets, fixed assets, and R&D expenditures—factors crucial for growth, development, and company survival. Like other traditional measures, they ignore risk and the time value of money, and are susceptible to manipulation through financial reporting.

In an equity-based company model, accounting value indicators are particularly ineffective, as they typically show poor correlation with market-based indicators, and do not imply that market value will increase solely because a company reports positive EPS, ROCE, or ROE—all of which are characteristics of a stakeholder-centric model. Research by Alsoboa (2017) indicates that rising accounting metrics do not sufficiently explain increases in a company's market value. It is also important to note that over 50% of corporate managers believe that earnings per share (EPS) is a more important determinant of stock price than cash flow (Toumeh and Yahya and Amran 2023, 1371).

4. HYBRID INDICATORS OF COMPANY VALUE

Hybrid indicators of a company's value for shareholders and the market represent an integrated approach to measuring business performance, combining traditional quantitative metrics with modern qualitative and technological indicators. This approach enables organizations to better monitor and optimize their operations in a dynamic business environment. Traditional efficiency indicators include productivity, economy, and profitability. However, these indicators often fail to reflect all aspects of business activity, especially under modern conditions.

Contemporary approaches integrate additional dimensions such as employee satisfaction, the quality of internal communication, cost savings, and alignment with strategy. Modern technologies-like artificial intelligence -play a key role in this hybrid model for improving efficiency through process automation, data analytics, and enhancing **user experience**. For example, the combination of generative AI and human input in marketing research has demonstrated superior results in both efficiency and effectiveness.

Hybrid indicators of value for shareholders and markets are: the ratio of market price per share to earnings per share (P/E), Tobin's Q ratio, and the ratio of market value to book value of equity (M/B). These indicators link market-based and accounting-based measures.

P/E – Price-to-Earnings ratio measures how profitably a company uses investors' capital. A high P/E suggests efficient use of capital to generate earnings. However, if a company is highly leveraged with a high D/E (Debt-to-Equity ratio), its P/E may appear artificially elevated because a smaller equity base boosts the ratio. For this reason, leverage should also be considered.

Tobin's Q measures how the market values a company relative to the replacement cost of its assets (Xiaoji et al. 2018). Replacement cost refers to how much it would cost today to replace the same or similar assets with equivalent capacity, condition, and use, excluding depreciation. A prime example is real estate, where one evaluates whether market value aligns with current construction costs. A value above 1 indicates the company is overvalued, while a value below 1 indicates undervaluation.

M/B (Market-to-Book ratio), also known as P/B, is the ratio of market capitalization to book value of equity. It shows how much the market is paying relative to the accounted book value of assets. A P/B greater than 1 indicates market overvaluation; a P/B less than 1 indicates market undervaluation. P/B is similar to the equity component of Tobin's Q ratio, but the key difference is that P/B considers only equity, not debt (Beaver and Ryan 2000).

The R/E ratio indicates investors' willingness to pay for each unit of a company's future earnings. A high R/E ratio signals expectations of greater future profit with lower risk. One advantage of this indicator is that its value can be compared across time and among firms—though not across different industries, since R/E ratios tend to be higher in growth sectors than in others.

A downside is that it relies on accounting earnings, which may not be fully reliable and are only meaningful if the stock market is assumed to be efficient. Since this ratio accounts for risk while reflecting expected growth, it can be ambiguous whether a high R/E reflects high expected growth or simply lower perceived risk. A pragmatic interpretation is that a strong R/E reading indicates higher investor confidence in that specific company.

In terms of current performance, good operating results should translate into a rising R/E ratio. However, an increase in R/E does not necessarily reflect improved internal efficiency, higher earnings per share, or reduced risk—it may simply mean investors are expecting higher growth that the company may not actually deliver. Therefore, the R/E ratio does not necessarily reveal strong current performance (Duvnjak 2009, 249–252).

The M/V ratio, instead of calculating the absolute difference between current market capitalization and invested capital, measures the relative relationship between the two. It assumes that the book value of equity is a good approximation of invested capital. This indicator is affected by the accounting policies applied. An increase in M/V can result from market optimism about the economy or a specific company, or from a reduction in the book value of equity—whether due to accounting policy changes or share buybacks.

Compared to the R/E ratio, M/V has the advantage of linking market price directly with book equity value, and tends to exhibit less volatility. On the other hand, it is less effective at reflecting a company's current performance (Duvnjak 2009, 260).

Tobin's q ratio is similar to the M/V indicator, in that it links the market value of equity with its book value. However, this ratio connects a company's total market value with the replacement cost of its total assets. In essence, the q ratio represents the relationship between a firm's total market value and the cost of replacing its physical assets.

A company's market value equals the sum of its equity, preferred equity, and debt. Since the replacement cost of the assets cannot be precisely determined, the book value of those assets is used instead. A low q ratio (below 1) suggests that buying the company outright is cheaper than acquiring its individual assets. A high q ratio indicates the presence of valuable intangible

assets—such as monopoly power, patents, skilled management, and investor confidence (Lindenberg and Ross 1991, 15).

5. NEW COMPANY VALUE INDICATORS

New internal value indicators for a company—pertinent to shareholders and markets—show a stronger correlation with market outcomes and the goal of maximizing shareholder value. These were developed to replace accountants' traditional portrayal of value. The foundation of this theory lies in the assumption of efficient capital markets, which posits that a stock's price already reflects all available information regarding expected future cash flows that investors will realize. Reflecting this efficiency, the publication of earnings is not new to the market—investors don't base decisions solely on reported earnings, but on the underlying information about future cash flows derived from them. In practical application, these modern performance indicators have made varying contributions, as they offer managers and other stakeholders more appropriate guidance on how to generate value. They highlight the crucial variables of value creation and tie performance to executive rewards. The most well-known modern company value metrics are (Gamsakhurdia & Maisuradze 2014, 107–113): Rappaport's Shareholder Value Added (SVA), also called Sustainable Value Added: measures profits above the cost of capital; Economic Value Added (EVA) from Stern & Stewart: based on after-tax profit minus the cost of capital (Berzakova and Bartosova and Kicova 2015); Cash Flow Return on Investment (CFROI): captures a true rate of return based on cash flows, rather than accounting profits. Rappaport's SVA (Shareholder Value Added) approach represents maximizing value for shareholders through factors that influence added value. According to this approach, a company's total value comprises: The present value of future cash flows during the projection period, The value of the company after the projection period and The current value of cash, purchased securities, and other investments that can be converted into cash. The total market value of the company equals the sum of the value of borrowed capital and equity. Value for shareholders is equal to the difference between the company's total value and the market value of its debts. Changes in shareholder value over time, according to Rappaport, are called Shareholder Value Added (SVA). A positive SVA means that the company has created value for shareholders, which in the future is reflected through increased shareholder returns via higher dividends or stock prices. In any time period t , SVA can be calculated as the change in an approximation of operating cash flow during the period minus the company's cost of capital (the required rate of return), reduced by incremental investments made during that period.

According to Rappaport, the factors that affect added value include: sales growth rate, operating profit growth rate, corporate income tax rate, investments in permanent working capital, capital expenditures, the company's cost of capital, and the duration of value growth. The growth-duration period is a key value driver because it highlights the condition for value creation: it represents the most realistic period during which the company is expected to earn returns on invested capital above its cost of capital.

Although Rappaport's model acknowledges the economic reality that stock prices and shareholder value are determined based on expected cash returns to shareholders and the assessed level of investment risk, its drawback lies in the large number of required inputs. Providing inputs for the model is expensive and time-consuming. Determining the input values—especially the duration of the growth period and the required rate of return—can be highly subjective. Critics of this model suggest using Economic Profit (also known as Economic Value Added), which, unlike discounted cash flows, is less prone to excessive subjectivity and can be easily derived from available, adjusted accounting data. Economic Profit measures earnings while accounting for the cost of capital employed to generate profit. The advantage of Economic Profit is that managers find it easier to adopt than discounted cash flow methodology because it is closer to accounting concepts they are accustomed to working with. However, accounting does not provide information on the current economic value of invested capital, and

the process of determining the cost of capital (required rate of return) remains as subjective as in Rappaport's SVA model. Economic value added (EVA) has a strong correlation with added market value-far greater than traditional accounting value metrics, return on invested capital, or return on equity. It is also believed that changes in market-added value anticipate changes in economic value added. Creating and sustaining market value added requires management to focus on generating continuous growth in EVA across all areas and dimensions of the business. EVA reflects a company's impact in the same way the capital markets do-by comparing returns to the company's cost of capital. This metric supports better corporate governance, aligning the interests of owners and employees, and it is an ideal tool for tying executive compensation to performance; and that it can be successfully used for product and service costing, evaluating customer relationships, and analyzing risk and profit across each component of the value chain, among others. However, addressing the shortcomings of economic profit through EVA is very costly, because calculating adjusted profit and invested capital requires 164 accounting adjustments (Gamsakhurdia and Maisuradze, 2014). For example, since expenditures on marketing, research, and development contribute to value creation, they should be reclassified from the income statement to the balance sheet-treated as invested capital. Then, this investment must be amortized over the period during which economic benefits are expected. But the timing and duration for amortizing these expenditures are debatable, as is the period over which such reclassifications should occur. Adjustments required for EVA are very expensive and time-consuming processes, and they introduce even more subjectivity than the processes for generating the original accounting figures.

The most popular modern value metrics include (Shestakovska et al. 2025):

- Adaptability Quotient (AQ) – measures the ability to adapt to market changes; for example:

$$(\text{new product line} / \text{total revenue}) \times \text{adaptation speed} \times \text{workforce reskilling rate}$$
- Innovation Impact Index (III) – contribution of innovations to overall performance
- Digital Transformation Velocity (DTV) – pace of digital transformation
- Sustainable Growth Ratio (SGR) – ratio of sustainable growth
- Customer Experience Ecosystem (CXE) – value of customer experience, shifting focus from finance toward agility, innovation, digitalization, and sustainability
- ESG and sustainability through regulatory standards (EU CSRD, ISSB/ESRS, EFRAG VSME): since 2024/25 reporting is mandatory for large companies, and it's expanding to smaller businesses via the VSME for SMEs

ESG (Environmental, Social, and Governance) is a set of criteria used to evaluate the sustainability and ethical impact of companies and investments. This framework enables investors, regulators, and other stakeholders to better understand how business operations affect the environment and society. ESG has become more than just "goodwill" - it is now a strategic tool for creating value. It increases liquidity, reduces risk, makes investments more efficient, and often leads to long-term market advantage.

Companies that integrate ESG into core business decisions, rather than merely meeting key performance indicators, derive the greatest benefit. Empirical research shows a positive correlation between ESG performance and financial metrics such as Tobin's Q (which reflects future value) and ROA (return on assets). Traditional ESG has widened its scope to include environmental, social, and strategic risks-like geopolitics and technology-under the ESD (Emerging, Strategic, Disruptive) framework (Heinzle et al. 2022).

6. COMPANY VALUE INDICATORS WITHIN THE STAKEHOLDER MODEL

In the stakeholder model, defining a company's ultimate goal is challenging, because this model lacks a single target function, instead, it presents a multidimensional descriptive objective to satisfy the interests of all stakeholder groups. The most acceptable concept for measuring shareholder and market value within the stakeholder model is the Balanced Scorecard, which

aims to balance internal and external value indicators, financial and non-financial metrics, past and future impact measures, and objective and subjective indicators. This concept should be used to improve strategy, communicate strategy internally, align personal goals with corporate strategy, link strategic objectives to annual budgets, and apply periodic performance assessments to discover ways to enhance the strategy. The framework is based on the following perspectives: Financial perspective – profitability metrics; Customer perspective – customer satisfaction indicators; Internal business process perspective – internal efficiency metrics; Innovation and learning perspective – innovation measures.

However, it is impossible to balance these indicators across all stakeholder groups. The concept does not define clear criteria for the importance of different stakeholder groups or responsibility toward each group. Because this concept tries to serve multiple objectives, many authors argue that the overall objective becomes muddled (Marrewijk 2004). Therefore, for the strategy to be effective, employees must clearly understand their responsibilities and be rewarded or penalized based on their performance. Since this approach to measuring company value does not clearly reflect the company's actual achievements, companies that applied it typically used only one of the value indicators: accounting profit.

CONCLUSION

This study has comprehensively analyzed company value metrics from the perspectives of shareholders and the market. It has been determined that modern indicators - such as Rappaport's Shareholder Value Added (SVA), Economic Value Added (EVA), and the Balanced Scorecard- significantly outperform traditional market-based, accounting, and hybrid metrics in identifying value-creation opportunities. However, their practical application is often challenged by implementation complexity.

These advanced tools achieve optimal results only when evenly integrated into the corporate governance structure and incentive systems, ensuring a clear link between strategic objectives and measurable outcomes. Without such integration, their theoretical superiority remains unrealized in practice.

In the future, companies should:

1. Incorporate these metrics into strategic planning and performance evaluation;
2. Strengthen governance frameworks and promote a culture of ownership;
3. Align reward systems to motivate employees at all levels.

By doing so, organizations can transform theoretical promise into real value creation and bridge the gap between advanced value measurement and practical results.

REFERENCES

1. Alsoboa, Sliman. 2017. "The Influence of Economic Value Added and Return on Assets on Created Shareholders Value: A Comparative Study in Jordanian Public Industrial Firms." *International Journal of Economics and Finance* 9(4): 63-78. DOI:10.5539/ijef.v9n4p63. <https://pdfs.semanticscholar.org/c2c7/e90a13a1ae2fe9720047bf6e863b92c3486c.pdf>
2. Berzakova Viera, Viera Bartosova, and Eva Kicova. 2015. "Modification of EVA in value based management." *Procedia Economics and Finance* 26:317-324. [https://doi.org/10.1016/S2212-5671\(15\)00859-X](https://doi.org/10.1016/S2212-5671(15)00859-X)
3. Beaver, William, and Stephen Ryan. 2000. "Biases and Lags in Book Value and Their Effects on the Ability of the Book-to-Market Ratio to Predict Book Return on Equity." *Journal of Accounting Research* 38(1): 127-148.
4. Duvnjak, Valentina, i Nebojša Balaban. 2011. „Efekti otkupa akcija pri finansijskom restrukturiranju kompanija.” *Zbornik radova ekonomskog fakulteta u Istočnom Sarajevu* 3:171-180.

5. Duvnjak, Valentina. 2009. „Ocjene performansi preduzeća sa osvrtom na efekte finansijskog restrukturiranja.“ *Zbornik radova ekonomskog fakulteta u Istočnom Sarajevu* 5: 247-264.
6. Gamsakhurdia, Tamar, and Ketevan Maisuradze. 2014. "The choice of financial performance measures as one of the most critical challenges facing corporation." *European Scientific Journal* 1:107-111.
7. Heinzlef, Charlotte, Bruno Barroca, Mattia Leone, and Damien Serre. 2022. Urban resilience operationalization issues in climate risk management: A review". *International Journal of Disaster Risk Reduction* DOI:10.1016/j.ijdr.2022.102974
<https://www.iris.unina.it/retrieve/handle/11588/883942/488002/1-s2.0-S2212420922001935-main.pdf>
8. Xiaoji, Lin, Wang Chong Wang, Neng, and Yang Jinqiang. 2018. "Investment, Tobin's q, and interest rates." *Journal of Financial Economics* 3:620-640.
<https://doi.org/10.1016/j.jfineco.2017.05.013>
9. Jill, Collis, and Robin Jarvis. 2002. "Financial information and the management of small private companies." *Journal of Small Business and Enterprise Development* 9(2): 100-110.
<https://doi.org/10.1108/14626000210427357>
10. Lindenberg, Eric, and Stephen Ross. 1981. "Tobin's q Ratio and Industrial Organization". *The Journal of Business* 54(1): 1-32. <https://www.jstor.org/stable/2352631>
11. Li, Jie, Ren Da, Feng Xu, and Zhang Yongjie. 2016. "Network of listed companies based on common shareholders and the prediction of market volatility." *Physica A: Statistical Mechanics and its Applications* 462: 508-521. <https://doi.org/10.1016/j.physa.2016.06.105>
12. Shestakovska, Tetiana, Oksana Liashenko, Oleksandr Dluhopolskyi, Anastasiia Duka, Olena Mykhailovska, and Nataliia Filipova. 2025. "The Role of Business Process Innovation in Sustainable Economic Growth: Integrating Technology, Efficiency, and Resilience." *European Journal of Sustainable Development* 14 (2): 823–834.
<https://doi.org/10.14207/ejsd.2025.v14n2p823>
13. Toumeh, Ahmad, Sofri Yahya, and Azlan Amran. 2023. "Surplus Free Cash Flow, Stock Market Segmentations and Earnings Management: The Moderating Role of Independent Audit Committee." *Global Business Review* 24(6):1353-1382.
<https://doi.org/10.1177/0972150920934069>
14. van Marrewijk, Marcel. 2004. "A Value Based Approach to Organization Types: Towards a coherent set of stakeholder-oriented management tools." *Journal of Business Ethics* 55:147-158.