The Journal of Accounting and Management

Traditional vs. ESG Signals in Value Creation: A Study of Market Value Added

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Abstract: This paper examines the determinants of MVA for firms listed on the Bucharest Stock Exchange. It focuses on the signaling role of net profit, solvency, and liquidity, as well as the growing importance of ESG practices from 2020 to 2025. The objective is to understand how firms can credibly signal value in a volatile, sustainability-driven context. Previous research (2006–2013) revealed a positive correlation between profit and MVA, a negative correlation between solvency and MVA, and an insignificant correlation between liquidity and MVA. However, this framework predates recent structural economic shocks and the growing importance of ESG. Building on signaling theory, this study questions whether traditional financial indicators still dominate or if new nonfinancial signals are reshaping market expectations. Due to incomplete datasets, the research employs a comparative, scenario-based methodology rather than quantitative regression. Scenarios are constructed to test the interactions between financial and ESG indicators. Profit remains the strongest driver of MVA; solvency continues to transmit negative signals; liquidity shows marginal influence; and ESG emerges as a critical differentiator that can amplify or offset financial signals. These findings challenge firms and policymakers to move beyond the traditional financial paradigm and integrate ESG into their value creation strategies.

Keywords: market value added; MVA; ESG; corporate governance; financial indicators

JEL Classification: The Journal of Economic Literature

1. Introduction

Romanian firms are currently facing a challenging business environment, characterised by rising resource prices and falling demand. However, some entrepreneurs do not view the current economic situation as a catastrophe, but rather as an opportunity for the future. From a classical economic perspective, Adam Smith argued that periods characterised by slowing economic growth and cost pressures test organisational resilience and create the conditions for strategic repositioning. When resources become more expensive and less accessible and profit margins come under pressure, companies often have to explore alternative sources of growth, adopt more efficient operational models and diversify their portfolios (Smith, 2011).

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In the contemporary context, constraints are not only economic, but also include social and environmental pressures, such as carbon emission regulations and supply chain transparency requirements. In accordance with the principles of Smithian logic, these constraints encourage firms to allocate capital towards Environmental, Social and Governance (ESG) initiatives. This paper considers these initiatives not only as compliance obligations, but also as potential sources of competitive advantage and growth in market value added (MVA).

As suggested by numerous scholars within the academic literature, the value of a company is increasingly contingent on intangible assets, such as innovation, expertise, and reputation. These assets, which do not appear on the balance sheet, are instrumental in driving growth and competitive differentiation (Starovic, 2024). This standpoint is consistent with the notion that knowledge has evolved into the primary resource and wellspring of power, prestige, and prosperity. The concept of smart growth is predicated on the integration of innovation and knowledge transfer within the European Union framework (Niculescu & Nicolae, 2011; Butoi & Sălcudean, 2025).

The business entity is the essential component of economic dynamics, and value is its fundamental dimension. The prevailing Romanian and global economic landscape reflect an accentuated emphasis on the identification of" "valuable" firms. The concepts of value and value creation have become pivotal issues of interest for shareholders, managers, employees and investors.

In the context of corporate valuation, shareholder value is widely regarded as a pivotal indicator of long-term performance and financial soundness. Consequently, companies find themselves under pressure to demonstrate that they create value for shareholders, particularly in the context of globalisation, where investors can allocate resources across borders, and in light of the growing importance of corporate governance, as owners demand that managerial compensation be justified by value creation (Koller, 1994; Radici, 2010). In the domain of corporate finance, the primary objective of decision-making is the identification and enhancement of value, a process that influences critical investment decisions, shaping investment choices, capital structure, and dividend policies.

Within this framework, identifying "value-creating" entities, those capable of consistenly generating shareholder value while aligning financial objectives with social responsibility and environmental performance, becomes imperative. Consequently, value creation is not solely a metric of financial health; it is also a barometer of strategic sustainability. It has been demonstrated that successful entities exhibit higher productivity and greater long-term shareholder value growth in comparison to their competitors. In other words, even in competitive markets, those firms that are able to create value for all stakeholders emerge as long-term winners (Copeland, 1994).

The motivation for this article rooted in the concern to provide potential investors and stakeholders with a structured framework for identifying the "most valuable" firms in a straightforward and efficient manner, while also pinpointing the essential factors that determine this value.

In this study, the analysis does not rely on a direct statistical modelling of data from 2020–2025 but instead adopts a comparative and qualitative approach. The present research is an extension of the findings of Șandru (2015) for the 2006–2013 period, with subsequent reinterpretation in the context of post-2020 economic and investment transformations. The methodology combines documentary analysis of the literature, review of financial and ESG reports of selected Bucharest Stock Exchange (BVB) companies, and construction of applied scenarios. The objective of this study is to evaluate, within a theoretical framework grounded in signalling theory (Spence, 1973), the extent to which net profit, solvency, liquidity, and ESG indicators operate as credible and relevant signals for investors in

shaping market value added (MVA). This will be achieved without resorting to complex quantitative models, but through contextual and strategic interpretation.

In an era of mounting global economic turbulence, the capacity of firms to generate value for shareholders remains a pivotal concern for researchers and investors alike. This article is a development of the author's doctoral dissertation, entitled "Researche on economic entities' evaluation". That study was conducted on a sample of companies listed on the BVB and included in the BET-C index for 2006–2013, investigated the relationship between MVA and three financial indicators: net profit, solvency, and liquidity. The results indicated a positive correlation between net profit and MVA, while solvency exhibited a negative correlation with MVA. Furthermore, liquidity demonstrated an absence of significant correlation with MVA. These findings serve the robustness of theoretical assumptions but simultaneously give rise to questions surrounding the consistency of liquidity as an investment signal and the relevance of solvency in contexts characterised by unexploited growth opportunities.

Choosing this study as a starting point is justified by the economic parallels that are observable between the 2006–2013 and 2020–2025 periods. The first period was characterised by Romania's accession to the European Union, preceding the global economic downturn, and the subsequent recovery period. Furthermore, the 2020–2025 period has been characterised by successive shocks, including the emergence of the novel Coronavirus (SARS-CoV-2), the energy crisis, accelerating inflation, geopolitical instability, and the transition towards digitalisation and sustainability. In both intervals, investors were confronted with systemic pressures that served to heighten uncertainty and reshape evaluation criteria.

The novelty of the 2020–2025 context lies in the emergence of ESG as an additional signalling mechanism. Recent studies (Kurniawan & Nugroho, 2025) indicate that investors interpret ESG policies as signals of long-term sustainability and risk management capacity. In contrast to the period 2006–2013, during which ESG was not a component of Romanian investment evaluations, the present moment marks its potential to influence MVA through its impact on risk perception and cost of capital (Danci, Lazar, & Muresan, 2025).

The utilisation of a comparative perspective across the two periods provides a solid foundation for reinterpreting how financial and non-financial indicators shape MVA in today's economic environment. The objective of this article is not to replicate an empirical analysis, but rather to propose a reinterpretive theoretical reading, utilising signalling theory (Spence, 1973) as an explanatory lens.

The purpose of this paper is threefold: firstly, to re-examine the role of net profit, solvency and liquidity in explaining MVA; secondly, to extend the framework by integrating ESG as an investment signal; and thirdly, to provide scenario-based applications for representative BVB companies in light of structural and behavioural changes after 2020.

The contribution is twofold: firstly, it repositioned ESG as a credible strategic signal within signalling theory; and secondly, it employed scenario analysis as an innovative approach to capture investor perception in conditions of uncertainty. It is evident that when considered collectively, these elements offer a refined problem statement and a foundation for future empirical research on value creation in the Romanian capital market. The following essay will also provide a comprehensive overview of the relevant literature on the subject.

2. Literature Review

2.1. Factors that Influence Market Value Added as Outlined in Financial Literature

In the field-specific literature, Market Value Added (MVA) is recognised as a synthetic indicator of firm performance, expressing the difference between the market value of total invested capital (equity and debt) and the initial value of invested capital. In relative form, MVA can be rendered through the ratio between market value and invested capital. n financial practice, this is known as the market-value-to-capital ratio (Koller, Goedhart, & Wessels, 2005). his discrepancy, which is measured as the value created for shareholders, is not merely an accounting figure; rather, it reflects how the market anticipates future performance and the efficiency of resource utilisation (Rappaport, 1998). Consequently, MVA is both retrospective and prospective in nature, influenced by investor perceptions of risk, the sustainability of corporate strategy, and adaptability to structural change.

From the investor's perspective, MVA functions as an external benchmark of a firm's capacity to create value in excess of invested resources, integrating both market expectations and reported outcomes (Dumitru & Dumitru, 2014; Ramana, 2005). Although MVA is calculated as the difference between market value and the book value of employed capital, the gap between the market and book value of debt is generally marginal. As a result, analysis typically focuses on the spread between market capitalisation and the book value of equity. In this approach, MVA becomes a direct indicator of value created for shareholders, applicable primarily to listed companies for which market data provide a robust comparative basis.

In the study conducted by Șandru (2015) on companies listed on the Bucharest Stock Exchange over 2006–2013, the relationship between MVA and three financial indicators, net profit, equity solvency, and general liquidity, revealed a complex pattern of financial signalling. The net profit exhibited a positive and significant correlation with MVA, thereby confirming the classical hypothesis that profit and operating performance are perceived by the market as credible signals of sustainability and growth potential (Ohlson, 1995; Damodaran, 2002). In contrast, equity solvency demonstrated a negative correlation, indicating that, within this, an excessively conservative equity structure could be interpreted as underutilisation of debt capacity and, consequently, missed growth opportunities (Myers & Majluf, 1984; Ross, 1977). The relationship between general liquidity and MVA was not found to be statistically significant, despite its theoretical importance as outlined in the relevant literature (Dumitrescu, Dragotă & Ciobanu, 2002; Bodie & Marcus, 2014).

It is evident that the 2020–2025 period led to a natural broadening of the interpretive frame for financial indicators. The confluence of overlapping shocks, namely the ongoing pandemic of the novel Coronavirus (SARS-CoV-2), the energy crisis, persistent inflationary pressures, and geopolitical instability, has heightened investor sensitivity to clear financial signals and reduced tolerance for ambiguity. In particular, in markets such as the Bucharest Stock Exchange, where informational transparency remains variable, standardized accounting indicators continue to anchor investor perception. This tendency is in accordance with the findings of Graham, Harvey and Rajgopal (2005), who posit that transparency and the quality of financial information serve to reduce information asymmetry and thereby strengthen market confidence (Graham, Harvey, & Rajgopal, 2005).

A notable shift in the period 2020–2025 is the integration of ESG (Environmental, Social, Governance) criteria into investment decisions (Kurniawan & Nugroho, 2025). Recent empirical analyses demonstrate direct implications for risk and cost of capital: for instance, Putri (2025) finds that ESG scores improve market value (Tobin's Q), while Dwomor and Mensah (2024) demonstrate

that robust ESG reporting is associated with a lower cost of capital, signalling a lower perceived risk profile. In contrast to the 2006–2013 period, during which ESG was not incorporated into formal reporting structures, from 2020 to 2025, it emerged as a tool of competitive differentiation and a potential offset for modest short-term financial results.

The utilisation of signalling theory (Spence, 1973) to interpret Șandru's 2015 results provides a theoretical framework for understanding the communication of financial information with the market in the context of information asymmetry. The primary function of financial reports is not merely to ensure compliance with regulatory requirements; rather, they are also strategically designed to convey a sense of stability and to articulate the organisation's strategic direction. Net profit (difficult to be "managed" over time without affecting cash flows) functions as a strong, direct signal. Solvency can be regarded as ambivalent, with positive outcomes observed during periods of stress, and negative outcomes evident in growth-oriented markets where optimal leverage is perceived as a catalyst for expansion. While acknowledging the relevance of general liquidity to operational risk, it is posited that this is not a robust market-value signal, due to its susceptibility to manipulation by short-term tactical choices, which possess limited structural significance.

In the period 2020–2025, the observed changes serve to confirm the continued relevance of signalling theory in the context of contemporary MVA analysis. Investors no longer consider traditional financial indicators in isolation, but rather assess them in conjunction with non-financial factors that reflect sustainability and resilience. Net profit remains the central benchmark, yet it is complemented, and sometimes counterbalanced, by ESG scores; solvency retains its ambivalence, and liquidity continues to play a secondary role. Consequently, in order to analyse MVA in 2020–2025, an integrative approach is required that captures both classical accounting and emergent signals in order to accurately reflect capital-market perceptions.

Regarding the literature that relates MVA (as dependent variable) to "classical" signals, the following patterns emerge. As demonstrated in the extant literature, specifically in the works of some authors net profit is linked to firm value/MVA (Ramana, 2005; Hall, 2013; Sharma & Kumar, 2012). The interpretation of equity solvency is equivocal, yielding mixed or critical assessments. Authors emphasise that its role is significant (Shanti & Ottemoesoe, 2009). However, the concept of high solvency as an indication of inefficient capital use is subject to contex, some authors suggest that high solvency may also be read as inefficient capital use (Prihatiningsih, Subagya & Winidyaningsih, 2022; Kurniawan, 2024; Stewart, 1991; Fadhilsyah, Putri & Ratu, 2025). Evidence of liquidity is similarly heterogeneous, there is a certain degree of relevance in certain settings (Shanti & Ottemoesoe, 2009; Prihatiningsih, Subagya & Winidyaningsih, 2022), the role of signalling is limited or context-dependent (Kurniawan, 2024, Stewart, 1991, Fadhilsyah, Putri & Ratu, 2025).

As for net profit in particular, in this paper we consider it to be a pivotal factor in determining firm value during the 2020–2025 period. This assertion is corroborated by the conclusions of Barth (2022) who researched the evolving value relevance of accounting information relative to stock prices, and found that relevance has not diminished over decades, but has become more nuanced.

2.2. Signaling Theory as an Interpretive Framework

Signaling theory (Spence, 1973) provides a robust interpretive framework for understanding the relationships between accounting indicators and market value. In the context of information

asymmetry, markets interpret financial data as signals about managerial quality, risk appetite, and growth prospects. It is important to note that not all signals are perceived in equal measure. In Șandru's paper (2015), net profit is a clear, direct signal; liquidity can be ambiguous; and high solvency may transmit contradictory messages depending on context. This approach highlights the necessity to reinterpret past empirical findings in the context of current market conditions, where investor reactions are influenced not only by raw accounting figures but also by perceived risk, transparency, and the macroeconomic environment (Graham, Harvey, & Rajgopal, 2005).

A significant contribution to the existing literature on this subject is Setiawati, Orbaningsih and Muawanah (2024), who examined the relationship between financial performance and firm value while considering corporate governance as a moderating factor. The findings indicate that enhancements in accounting performance do not inherently translate into proportional market-value gains; the correlation is contingent on governance quality. This supports an integrative perspective on MVA in 2020–2025, where perceived value is influenced by a range of factors beyond traditional indicators (e.g., net profit). Instead, it is shaped by institutional and non-financial signals, including governance transparency and ESG performance. The article thus reinforces the argument that MVA should be analysed within an extended frame in which classical and emergent signals are assessed jointly to reflect value dynamics in less mature markets.

A recent study in the Journal of Risk and Financial Management (2024) further extends signalling theory by showing that traditional financial indicators (especially liquidity and solvency) affect not only MVA but also the synchronicity of stock returns with market-wide movements. Using a sample of non-financial firms from DJIA30 (Dow Jones Industrial Average 30) and NASDAQ100 indexes (1992–2022), the authors ascertained that cash holdings (as a percentage of current assets) positively influence synchronicity, thereby indicating investor preference for immediate liquidity. By contrast, receivables and historical profit increases have been shown to generate adverse effects, which can be attributed to an elevated degree of uncertainty. Indicators such as net working capital to assets, the efficiency of fixed-asset utilisation, and sales dynamics are pertinent to the optimisation of synchronicity. Conversely, leverage levels or dividend payments do not provide clear market signals. These findings serve to complement extant evidence for Romania's capital market, thereby confirming that not all accounting indicators function as effective signals and that the structure of liquidity and the quality of asset use play a stronger role in shaping investor perceptions.

These results are also pertinent for analysing of MVA in 2020–2025, as they confirm that investors attach particular importance to the structure of liquidity and to the quality of financial signals, not just to headline profit levels. Cash thus becomes central to synchronicity and to conveying stability, whereas receivables and less liquid assets may weaken market confidence. This standpoint lends support to the argument that, within the prevailing context, MVA ought to be appraised in an integrated manner, encompassing solvency and liquidity, whilst concomitantly considering the manner in which these components inform collective perceptions of firm value.

As is evidenced by the extant literature, there is a consistent emphasis on the correlation between financial performance and market value. This emphasis is on how profitability, liquidity, and solvency are reflected in investor perception. In 1995, Ohlson developed a foundational valuation framework. This is based on the connection between earnings, book values, and dividends as primary sources of value. Șandru (2015) emphasises that, in 2006–2013, financial stability exerted a direct impact on market value, reflecting investor demand for robust firms in a volatile, post-crisis environment.

In the more recent period (2020–2025), the literature indicates a paradigm shift in explaining market value. In contrast to the prevailing focus on classical accounting indicators in previous studies, contemporary research has expanded to encompass ESG criteria as pivotal factors influencing investment perception. Profitability remains a fundamental component of value, yet it is analysed in conjunction with sustainability and the quality of corporate governance recent findings have demonstrated an inconsistency in the correlation between liquidity and solvency indicators and firm value, suggesting that these indicators may no longer provide a reliable signal of financial soundness. Conversely, the incorporation of ESG has been shown to serve as a competitive differentiator. Empirical analyses have demonstrated that sustainable performance and reporting can lead to a reduction in the cost of capital and an enhancement in investment appeal, thereby reinforcing market confidence confidence (Naeem, Farid, Ferrer & Shahzad, 2022; OECD, 2020; IFRS, 2023). Consequently, during the 2020–2025 period, market value could not be attributed purely to conventional financial indicators; an integrative framework combining accounting performance with sustainability and governance metrics is necessary(Zhou, Sharpe, Halabi, Song, & Colombage, 2025).

The signalling model, originally formulated by Michael Spence (1973) in the field of labour economics, posits that observable characteristics, such as education, can serve as a medium for transmitting information regarding less visible attributes, including productivity. Despite their initial conception within the domain of labour markets, the principles have been successfully extended to corporate finance and investment analysis (Ross, 1977, p. 23–40), where financial and non-financial firm indicators function as "signals" to investors (Dănescu & Stejerean, 2024). The logic is straightforward: The existence of information asymmetry is the first point to consider. This is characterised by the fact that managers possess a greater understanding of true prospects than the market. The second point to consider is that sending a credible signal incurs different costs for strong versus weak firms. The third point is that investors interpret signals (e.g. net profit, capital structure, ESG) and update expectations about future value.

This phenomenon elucidates the rationale behind the capacity of MVA to be influenced by both conventional financial and non-financial (ESG) signals during the 2020–2025 period. These signals function as sorting mechanisms, effectively differentiating "valuable" firms from their less valuable counterparts. This conceptual lens facilitates a reinterpretation of the 2006–2013 evidence in context of post-2020 structural and behavioural shifts, thereby elucidating the manner in which markets reward or penalise different financial structures and corporate strategies.

Signaling theory (Spence, 1973) was later adapted in finance to illuminate investors' communication under asymmetric information. Firms send signals to influence perceived value; investors, lacking direct access to internals, interpret these to form views on risk, performance, and prospects (Ross, 1977; Connelly, Certo, Ireland & Reutzel, 2011). This lens deepens understanding beyond accounting compliance, towards a strategic process anchored in perception, trust, and expectations. In periods characterised by uncertainty, such as the post-2020 era, the provision of clear, consistent, and sustainable signals is imperative for the preservation or enhancement of market value.

The confluence of crises experienced from 2020 to 2025 (a global pandemic, supply-chain disruptions, an energy crisis, accelerated inflation, and geopolitical instability) exerted significant pressure on financial markets, thereby amplifying systemic uncertainty. In this climate, investors have become far more sensitive to signals transmitted through financial information. This development signifies a growth in the explanatory capacity of signalling, a phenomenon that is particularly pronounced in emerging and near-emerging markets, a salient example of which is the Bucharest Stock Exchange

(BVB). In volatile settings with characterised by constrained transparency, investors are increasingly reliant on standardised financial indicators as signalling sources regarding performance and risk. In summary, during the 2020–2025 period, signalling theory not only maintains its relevance but also assumes the pivotal role in the interpretation of accounting data. The significance lies not in the absolute levels of indicators per se, but in the nature, context, and consistency of the signal.

The existing literature indicates that the factors influencing MVA extend beyond conventional financial performance indicators, encompassing structural elements such as liquidity, solvency, and governance quality (Ross, 1977; Graham, Harvey & Rajgopal, 2005; Connelly, Certo, Ireland & Reutzel, 2011). Furthermore, recent studies have highlighted the pivotal function of ESG in enhancing investor confidence and mitigating perceived risk. In order to integrate these perspectives, hypothetical scenarios were constructed to illustrate how different combinations of financial and non-financial factors can influence the trajectory of MVA. In addition to conventional financial indicators, the incorporation of ESG constitutes a pivotal augmentation to the post-2020 analytical framework. Recent literature offers robust evidence on ESG as an investment signalling mechanism. In a 2022 study, authors utilised a sample of 1,042 firms across 26 emerging markets to demonstrate that overall and dimension-specific ESG scores are positively and significantly correlated with market value and stock-performance indicators, thereby confirming their relevance as sustainability signals.

3. Methodology

The methodology employed in this study is founded upon a comparative and reinterpretative approach. The analysis rests on two pillars: firstly, a re-examination of an earlier empirical study (Șandru, 2015) covering the period 2006–2013; secondly, an extension of the interpretive framework to 2020–2025, a period characterised by structural shocks and the emergence of ESG (Environmental, Social, Governance) indicators as strategic signalling tools. Rather than replicating exhaustive statistical testing, this research constructs a narrative and scenario-based evaluation grounded in signalling theory (Spence, 1973). This theory conceptualises financial and non-financial indicators as messages transmitted to investors under conditions of information asymmetry.

The initial benchmark consists of the results obtained by Șandru's (2015): net profit was positively and significantly correlated with MVA, solvency negatively correlated, while liquidity showed no significant relationship. These findings reflected prevailing market perceptions: profitability was regarded as a credible signal of sustainable performance, high solvency suggested under-leverage, and liquidity did not provide robust informational value.

The research considered a sample of 32 economic entities whose securities were admitted to trading on the Bucharest Stock Exchange (BSE), Categories I and II, included in the BET-C index, over a period of 8 years (2006–2013). In order to achieve the research objective, only entities with positive net assets and consistent profitability during the period were considered, while credit institutions were excluded.

The capacity of financial position to explain shareholder value creation was exemplified by several determinants of Market Value Added (MVA), selected on the basis of a literature review and regarded as independent variables in the applied panel model. In the interest of ensuring comparability and averting issues of heterogeneity, the absolute values of the variables were expressed in relative form by scaling them to the book value of equity.

The Hausman test, when applied with 7 degrees of freedom, indicated acceptance of the null hypothesis at a 95% confidence level. Consequently, a random-effects panel model was employed to examine the capacity of intellectual capital to explain market value added. The structure of the penal data model was as follows(Șandru, 2015):

Equation 1. The structure of the penal data model

$$MVA_{it} = A + b_1 Prnet_{it} + b_2 Sp_{it} + b_3 Lg_{it} + \mu + \varepsilon_{it}$$

In the model, i = 1, 2, …, 32 represents the entity; t = 1, 2, …, 8 represents the year; μ = unobservable individual effect specific to each entity; Ɛit = residual variable. The dependent variable is MVAit defined as market value added of entity i in year t; the independent variables are as follows: Prnetit is net profit of entity i in year t; Spit denotes the equity solvency of entity i in year t.; Lgit represents general liquidity of entity i in year t.

For the 2020–2025 period, the analysis integrates ESG as an emergent signal capable of reshaping investor perception of risk and firm attractiveness. Net profit is regarded as a direct signal, solvency as ambivalent (positive in times of stress, negative in growth contexts), liquidity as weak, and ESG as a differentiating factor that can offset or reinforce financial outcomes (Naeem, Farid, Ferrer & Shahzad, 2022; Putri & Tjun Tjun, 2025).

In this article, scenario analysis is employed to explore how these indicators interact in varying contexts of volatility and sustainability pressures (Amer, Daim & Jetter, 2013; Varum & Melo, 2010; Schoemaker, 1995). This methodology is particularly relevant in instances where datasets are incomplete, as it facilitates the testing of hypotheses through the use of plausible trajectories. ESG data were interpreted using available scores and sustainability reports, complemented by proxies such as renewable energy adoption or board diversity.

The comparative before-and-after logic highlights the shift in signalling dynamics: from profit-centered interpretations in 2006–2013 towards multidimensional frameworks in 2020–2025, where ESG is increasingly central. In this respect, the research does not apply econometric models such as the general momentum method, due to limitations in the available dat. However, the research employs them as a methodological reference while privileging qualitative scenarios.

The research extrapolates three hypotheses from the 2006-2013 empirical evidence to the 2020-2025 context, justified by the economic similarities between the two periods: (1) net profit remains positively correlated with MVA; (2) solvency continues to display a negative or ambivalent correlation; and (3) liquidity retains limited explanatory power. In addition, informed by recent literature and the growing emphasis on sustainability, the study puts forward a novel hypothesis: (4) ESG performance is positively correlated with MVA, which can be considered a strategic signal of long-term value creation in the post-2020 environment.

4. Results and Discussions

The practical analysis developed in this section aims to transpose into an applied framework the theoretical and methodological conclusions previously discussed, evaluating how traditional financial indicators, net profit, solvency, and liquidity, operate as signals for market value added (MVA) in the Romanian post-2020 market context. To these factors, we add the non-financial ESG (Environmental,

Social, Governance) dimension. Absent between 2006 and 2013, this is now central to strategic signalling.

In Șandru's (2015) study, the estimation of parameters was conducted using the generalized method of moments (GMM), a hybrid between panel data with fixed effects and instrumental variables techniques. The proposed estimators address the issue of endogeneity in autoregressive variables, ensuring efficient parameters in the presence of endogenous explanatory variables. The results obtained are summaris in Table 1 (Șandru, 2015).

Table 1. The results of the model estimation process: the dependent variable is MVA, and the direction of analysis is the financial situation of the economic entities

Independent variables	Estimated coefficients
Prnet	1,400(0,017)**
Sp	-1,166(0,000)***
Lg	0,007(0,541)
Wald(8)(i)	23,08
Number of economic entities	32
Number of observations	256

Source: Șandru, 2015

The probabilities associated with the t-test are reported in parentheses, as follows: * means significant at the 90% level; ** means significant at the 95% level and *** means significant at the 99% level. The Wald test follows a chi-square distribution and assesses the joint significance of the model's parameters under the null hypothesis of no correlation among coefficients.

The findings of the study indicated a positive correlation between net profit and MVA, which was statistically significant at the 90% level of confidence. Furthermore, a negative correlation was observed between solvency and MVA, which attained a 99% confidence level. However, no significant correlation was detected between liquidity and MVA.

The evolution of net profit, as illustrated in Figure 1, demonstrates that the lowest value of this variable was recorded during in 2009. Tracking the dynamics of MVA, it is evident that 2009 was also the year in which the greatest destruction of shareholder value occurred, in comparison with the other years under review. The findings can be attributed to the confluence of two major factors: the global economic and financial crisis, and legislative changes concerning corporate income tax that were implemented during that period.

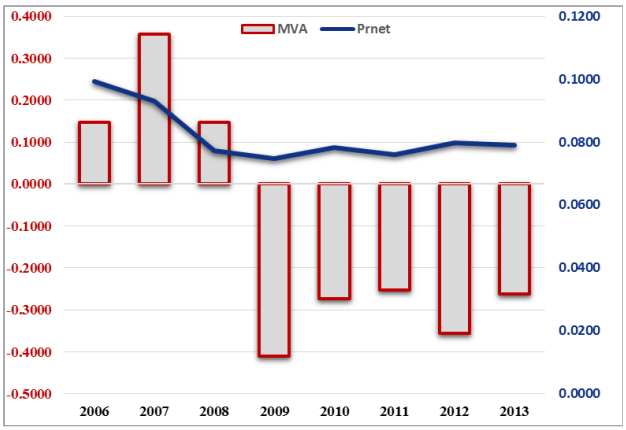

Figure 1. The evolution of MVA's and Prnet's means between 2006-2013

Although GMM is cited for methodological consistency, its applicability is limited in the absence of robust data series for 2020–2025. Hence, the current analysis relies on hypothetical scenarios, providing a more flexible framework to evaluate financial and non-financial signals for MVA. Our assumption, derived from recent literature, is validated: ESG performance is strongly and positively correlated with MVA and moderates the relationship between financial indicators and MVA.

Consequently, we maintain our position in accordance with Șandru's (2015) conclusions, namely that: (1) net profit continues to be a strong signal; (2) solvency tends to transmit negative or ambivalent signals, reflecting inefficient capital utilisation; (3) liquidity is a weak indicator. The present analysis evaluates these signals within the context of 2020–2025 period, characterised by volatility, energy transition, accelerated digitalisation, and and an escalating sensitivity to ESG among investors.

Table 2. Table synthesizes the evolution of financial and non-financial signals from 2006–2013 to 2020–2025

Indicator	Period 2006–2013	References	Period 2020–2025	References 2020–2024
Net Profit	Net profit was the principal determinant of market value; a strong signal for investors.	Șandru (2015)	Net result remains the core of valuation, through its direct link with cash flows and earnings expectations.	(Barth, Li, & McClure, 2022)
Solvency	Negative correlation with MVA; interpreted as possible inefficiency in capital use.	Șandru (2015) (Shanti & Ottemoesoe, 2009) (Stewart, 1991)	Negative correlation with MVA; interpreted as possible inefficiency in capital use.	(Prihatiningsih, Subagya, & Winidyaningsih, 2022) (Kurniawan Y. A., 2024) (Fadhilsyah, Putri, & Ratu, 2025)
Liquidity	Not significantly correlated with MVA; a weak signal indicator.	Șandru (2015) (Shanti & Ottemoesoe, 2009) (Stewart, 1991)	Recent evidence is inconsistent: in certain sectors, current liquidity does not significantly explain market value.	(Prihatiningsih, Subagya, & Winidyaningsih, 2022) (Kurniawan Y. A., 2024) (Fadhilsyah, Putri, & Ratu, 2025)
ESG	Not a significant factor in investors' perception; rarely included in analyses.	–	ESG becomes a major determinant of value, through reducing the cost of capital, improving reporting comparability, and strengthening investor confidence.	(IFRS, 2023) (OECD, 2020) (Naeem, Farid, Ferrer, & Shahzad, 2022) (Zhou, Sharpe, Halabi, Song, & Colombage, 2025)

This signifies a fundamental change in the way that MVA is understood. Prior to 2020, its explanation was predominantly attributed to accounting signals. However, subsequent analysis necessitates the incorporation of ESG as an equally significant factor in determining the relationship between MVA and financial indicators.

4.1. Hypothetical Scenarios

To illustrate these dynamics, four scenarios were developed combining net profit, solvency, liquidity, and ESG:

Table 3. Hypothetical Integrated Scenarios on the Relationship between Financial Performance, ESG and MVA

Scenario	Net Profit	Liquidity	Solvency	ESG	Impact on MVA	Critical Interpretation
S1. High profit, low ESG	Positive and stable	Moderate	High (strong equity base, low debt risk)	Low (limited reporting, no targets, no assurance)	MVA below potential; profit supports valuation but weak ESG reduces multiples	Profit remains a strong signal, but excessive solvency suggests inefficiency, while lack of ESG credibility reinforces a perception of strategic stagnation.
S2. High liquidity, low solvency	Relatively stable, but no significant growth	High (short-term obligations covered)	Low (high debt dependence)	Medium (formal reporting, limited impact)	Ambiguous MVA – leverage may help, but high debt risk discounts value	Low solvency may appear efficient, yet leverage raises risk. Liquidity offers only temporary stability, while moderate ESG fails to mitigate investor concerns.
S3. High solvency, declining profit	Declining (eroding margins)	Moderate	High (rigid capital structure)	Medium (partial reporting, weak integration)	Reduced MVA – stability cannot offset weak returns	Strong solvency becomes inefficiency when profit falls; investors penalize underutilized capital, while weak ESG fails to counterbalance negative signals.
S4. Balance between financial and ESG performance	Increasing (robust margins)	Adequate (no major imbalances)	High, but flexibly managed	High (aligned with international standards, measurable targets, assurance)	Positive and sustainable MVA – credibility and reduced risk	Profit growth combined with credible ESG turns solvency into a strategic advantage, signaling resilience and long-term sustainability to investors.

In the context of the ESG-driven post-2020 market, profit remains the primary positive factor, yet it is inadequate in isolation. Solvency is a double-edged signal, functioning as both a safeguard during periods of crisis and a disadvantage in growth-oriented markets. The liquidity situation remains subdued, thereby validating its restricted signalling function. ESG has emerged as a significant differentiator, with the capacity to amplify or mitigate the effects of financial indicators.

The results obtained in this study corroborate Sandru's (2015) findings while simultaneously extending them. The MVA in the 2020–2025 period is no longer solely explained by financial indicators, but rather by a multidimensional framework integrating profitability with sustainability and governance.

5. Conclusions

The present study has examined the determinants of Market Value Added (MVA) for firms listed on the Bucharest Stock Exchange, comparing earlier evidence (2006–2013) with the post-2020 context. Net profit continues to act as a robust and credible signal, solvency remains ambivalent, and liquidity proves weak. The central novelty manifests itself in two distinct ways. Firstly, from a conceptual standpoint, the integration of Environmental, Social, and Governance (ESG) factors is theorised as a moderating or amplifying mechanism within signalling theory. Secondly, from a methodological perspective, the integration of scenario-based analysis within financial research provides a novel instrument capable of compensating for incomplete datasets and capturing complex interactions under conditions of uncertainty.

The implications are threefold. For managers, ESG integration should be pursued as a substantive value driver rather than symbolic compliance. For investors, the findings of the present study lend support to a multidimensional interpretation of signals, in which profitability and sustainability jointly shape long-term credibility. The results of the study emphasise the importance of coherent public policies and standardised sustainability reporting in reducing informational asymmetry and reinforcing investor trust.

The study also acknowledges limitations. Scenario analysis, while innovative, restricts empirical the possibility of empirical generalisation, and ESG is treated as a single composite indicator, without disaggregating its environmental, social, and governance dimensions.

It is recommended that future research extend the present work by developing longitudinal and sector-specific scenarios, combining these with quantitative panel techniques with a view to strengthening causal testing. A disaggregated treatment of ESG dimensions could also refine the explanatory power of the model. In this manner, scenarios may evolve into a recognised methodological bridge between traditional financial analysis and strategic foresight, enhancing the application of signalling theory in transitional markets.

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