

ASSESSMENT OF CORPORATE SUSTAINABLE DEVELOPMENT: THE INTEGRAL ESG INDEX AS A TOOL FOR COMPETITIVENESS ANALYSIS

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Abstract. The article examines the relationship between implementing sustainable development strategies and enhancing competitiveness among Ukrainian enterprises amid global economic turbulence and rising ESG requirements. The purpose of the study is to assess the impact of ESG instruments on financial performance, non-financial outcomes, and the long-term resilience of enterprises across different sectors of the economy.

The research methodology is based on the construction of an integrated ESG index that combines financial performance, non-financial outcomes, and sustainability levels. Each component is assessed on a five-point scale, enabling calculation of a standardised ESG maturity index ranging from 0 to 100%. The empirical analysis is based on a sample of six Ukrainian companies.

The results show that enterprises with high ESG index values demonstrate stronger financial stability, increased reputational capital, active stakeholder engagement, and greater investment attractiveness. A high level of ESG maturity was observed in companies that systematically implement sustainability initiatives and ensure transparent non-financial reporting. In contrast, enterprises with lower ESG scores apply ESG principles inconsistently.

The findings confirm that ESG strategies function not only as instruments of social responsibility but also as effective drivers of enterprise competitiveness. The practical value of the study lies in the application of the proposed ESG index as a tool for strategic analysis and comparative assessment of enterprises in the context of European integration and post-war economic recovery.

Keywords: ESG strategies, sustainable development, competitiveness, ESG index, corporate sustainability, Ukrainian enterprises.

JEL Classification: M14, Q56, G32, L25

1. INTRODUCTION

In the contemporary context of globalization, digital transformation, and increasing environmental challenges, the issue of sustainable development has become particularly relevant at both the macro and micro levels. The business environment is under increasing pressure from international standards, investors, consumers, and regulators, necessitating the integration of sustainable development principles into corporate strategy. One of the key instruments for implementing this approach is ESG factors (environmental, social, and governance aspects), which contribute to the formation of long-term corporate competitiveness, risk mitigation, and the strengthening of reputational capital (Hermundsdóttir & Aspelund, 2021; Gerged et al., 2023; Khan et al., 2016).

In particular, ESG-oriented approaches demonstrate a positive impact on firm value (Aydogmus,

2022), enhance transparency and investor trust (Chau, 2025; Aboud, 2021), and facilitate the transition to a low-carbon economy (Tiba & van Rijnsoever, 2019; Cucchiella et al., 2022). However, a significant portion of prior research has focused on the descriptive aspects of ESG strategies, leaving the quantitative assessment of their effectiveness in the context of sustainable development underexplored.

The purpose of this article is to assess the effectiveness of implementing corporate sustainable development strategies based on ESG indicators, taking into account the specific characteristics of the Ukrainian business environment. The originality of the study lies in the development of a unified model for evaluating ESG strategies, which integrates economic, social, and environmental indicators, incorporates international sustainability reporting standards (GRI, SASB, IFRS S1/S2), and is adapted to the operating conditions of Ukrainian enterprises. The article is structured as follows. Section 1 presents the research problem, substantiates its relevance, and defines the research objective. Section 2 reviews contemporary academic literature on sustainable development and ESG strategies. Section 3 describes the research methodology and justifies the selection of key indicators. Section 4 presents the results of the empirical study. Section 5 discusses the findings, while Section 6 summarizes the main conclusions and outlines directions for future research.

2. THEORETICAL BACKGROUND

In today's conditions, the concept of sustainable development is increasingly being integrated into corporate strategic planning, particularly in the context of implementing environmental, social, and governance (ESG) approaches. Scholars increasingly emphasise that a sustainable development strategy has become an integral component of modern corporate strategy (Dyllick & Muff, 2016; Kolk, 2016). Further development of this concept can be found in Lozano (2018), which examines how integrating sustainability principles into business models influences stakeholder value creation. In particular, researchers note that under conditions of globalization and environmental challenges—such as climate change and resource scarcity—companies must adopt the ESG paradigm as an integral part of their management systems (Eccles et al., 2020). The rethinking of the role of business from mere profit generation to “long-term resilience” is reflected in the works of Hahn et al. (2015), which demonstrate that economic efficiency and environmental responsibility are not mutually exclusive. Thus, sustainable development emerges as a strategic business response to contemporary challenges, laying the foundation for further research into implementation practices across industries and contexts.

The analysis of the academic literature indicates that most authors place significant emphasis on the role of human capital in implementing sustainable development strategies. As noted in the works of Van der Ploeg (2011) and Mehlum et al. (2006), without adequate levels of education and skills, the implementation of sustainable practices—particularly in resource-dependent economies—is problematic. Further development of this theme can be found in Huang (2023), which examines how investments in education and managerial skills enhance firms' ability to adapt to change and avoid environmental or social crises. Auty (2001) emphasizes that human capital contributes to institutional development, which in turn helps reduce dependence on raw materials. This provides a basis for understanding that enterprise resilience is impossible without the development of human potential, a reality that should be incorporated into sustainable development strategies.

Some authors identify digital transformation as one of the most powerful instruments for achieving sustainable development. For instance, Korcsmaros et al. (2024) and Malodia et al. (2023) demonstrate that digital technologies enable more efficient use of resources, enhance transparency in business processes, and increase public engagement in governance. Further development of this topic is presented in Zhao et al. (2022), which analyses the impact of information and communication technologies (ICT) on the so-called “resource curse.” Verhoef et al. (2021) emphasize that the transition to a circular economy and digitalization are closely interconnected within the sustainable development model. Accordingly, digital initiatives should become an integral part of corporate ESG strategies. The

role of foreign direct investment (FDI) in supporting sustainable development strategies is also actively discussed in the academic literature. Researchers such as Nyiwul and Koirala (2022) and Pedersen et al. (2019) point out that FDI can bring capital, technologies, and expertise that facilitate economic diversification and the adoption of sustainable practices. Further elaboration of this issue is found in the work of Elheddad et al. (2016), which cautions that in countries with weak regulatory frameworks, FDI may reinforce dependence on resource-based sectors and create “resource enclaves.” Enns and Bersaglio (2015) emphasize that without an adequate institutional environment, investment inflows may lead to environmental degradation. Thus, FDI should be strategically integrated into both corporate and national sustainable development strategies.

Research indicates that the successful implementation of sustainable development strategies requires a strong regulatory environment. Lozano (2018), George and Schillebeeckx (2022), and Wang et al. (2023) emphasize the importance of public policy, incentives, reporting systems, and regulatory standards that create the necessary conditions for the effective adoption of ESG initiatives. Further elaboration of this issue can be found in the study by Sachs et al. (2022), which examines the interaction between policy, sustainable development, and corporations. In the Ukrainian context, the document “Sustainable Development Strategy ‘Ukraine–2020’” plays a significant role, serving as a regulatory and strategic framework for business initiatives.

Scholars note that measuring the effectiveness of ESG strategies remains a challenging task due to the diversity of metrics and standards. Frameworks such as the SDGs Index, GRI, SASB, and IFRS/ISSB are commonly used for evaluation purposes (Mio et al., 2020; Ioannou & Serafeim, 2017). Further development of these approaches is presented by Berg et al. (2023), who propose a combined model incorporating financial, environmental, and social indicators.

Thus, the academic literature demonstrates the growing importance of sustainable development strategies in corporate governance. Comprehensive studies indicate that ESG strategies, digitalization, human capital development, foreign direct investment, and institutional factors are all interrelated and jointly influence corporate competitiveness and resilience. Despite the extensive theoretical foundation, universal methodologies for assessing the effectiveness of ESG approaches remain underdeveloped, highlighting the need for further research. At the same time, approaches that integrate economic, social, and environmental outcomes into evaluation models are gaining increasing scholarly attention and practical relevance.

Thus, the analysis of the above-mentioned academic sources made it possible to identify the key directions through which sustainable development strategies are implemented. The synthesis of these approaches enables the structuring of a comprehensive view of the integration of sustainability principles within the domestic business environment, as presented in Figure 1.

Directions for Implementing a Sustainable Development Strategy
Innovation in Production
Digitalization
Investments in Environmentally Friendly Technologies
Implementation of ESG Principles
Modernization of Logistics Processes
Active Social Policy

Fig. 1. *The systematization of key practices for implementing an ESG strategy is presented in the form of a synthesized framework*

Source: *Own elaboration*

The analysis of selected case studies identified common elements of sustainable development strategies that demonstrate effectiveness across industries. The systematization of these elements

enabled the synthesis of the main directions for the implementation of sustainable practices by Ukrainian companies, as illustrated in Figure 1.

These directions include the modernization of production through the introduction of innovations, the digital transformation of business processes, environmental investments, the implementation of ESG approaches, improvements in energy efficiency, the modernization of logistics, as well as a strong emphasis on social responsibility. Collectively, these components have contributed to increased operational efficiency, strengthened market positions, and enhanced trust among stakeholders.

Thus, a sustainable development strategy, as an integrated management approach, serves as a catalyst for financial growth and competitive advantage. This creates a foundation for the transition toward a broader ESG-oriented regulatory approach, which enables the standardization of corporate performance assessment by incorporating environmental, social, and governance factors.

Thus, given the relevance and importance of standardizing sustainable approaches in corporate activities, the ESG (Environmental, Social, Governance) concept plays a particularly significant role. It enables the measurement and evaluation of the outcomes of sustainable development strategy implementation based on internationally recognized criteria.

The synthesis of analytical reports from international consulting agencies and the experience of leading companies implementing ESG strategies makes it possible to identify key benefits for companies, where the ESG approach represents not merely a trend but a strategic necessity, as illustrated in Figure 2.

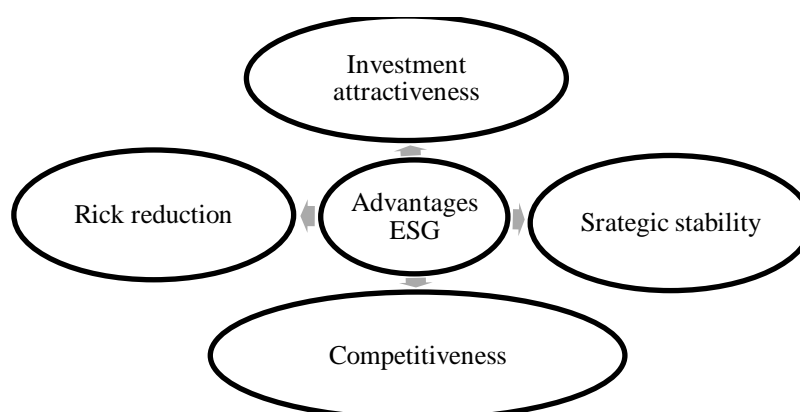


Fig. 2. Benefits of ESG Implementation

Source: Own elaboration

Thus, the main benefits of implementing an ESG strategy include investment attractiveness—the analysis of reports from leading companies shows that investors increasingly prefer enterprises that demonstrate transparency, environmental responsibility, and social engagement; risk reduction—ESG indicators make it possible to identify non-financial risks that may significantly affect reputation, supply chains, or business relationships; enhanced competitiveness—companies that adhere to ESG principles become more attractive to partners, customers, and employees; and long-term strategic stability—ESG metrics signal a company’s ability to adapt to changes in the external environment and ensure the sustainability of its business model. As a result, ESG becomes a key instrument for the institutionalization of sustainable development, enabling not only the documentation of achievements but also the comparison of progress across companies, countries, and sectors.

Considering the importance of standardizing sustainable approaches in corporate activities, the ESG (Environmental, Social, Governance) concept plays a particularly significant role, as it enables the measurement and evaluation of the outcomes of sustainable development strategy implementation based on internationally recognized standards and criteria.

In the current context, several leading regulatory frameworks form the basis for non-financial

reporting and for assessing the effectiveness of businesses' environmental, social, and governance activities. Table 1 presents the main international standards within the ESG approach, indicating their objectives and the typical quantitative indicators used to evaluate the performance of relevant practices.

Tab 1

International Regulatory Frameworks within the ESG Concept (Criteria)

Regulatory approach	Explanation	Key quantitative metrics
GRI Standards (Global Reporting Initiative)	The most widely used non-financial reporting standard worldwide, which is oriented toward a broad group of stakeholders and предусматривает disclosure of environmental, social, and governance indicators.	<p>Number of indicators: more than 100 indicators.</p> <p>Main areas: economic, environmental, and social (including labor practices, human rights, society, and product responsibility).</p> <p>Quantitative indicators:</p> <ul style="list-style-type: none"> - CO₂ emissions volume (tons/year); - Share of women in management (%); - Number of labor rights violations.
SASB Standards (Sustainability Accounting Standards Board)	Industry-specific reporting standards focused on indicators that are material from the perspective of investors and the financial assessment of companies.	<p>Number of standards: more than 77 industry-specific standards.</p> <p>Main focus areas: industry-specific, financially material indicators.</p> <p>Quantitative indicators:</p> <ul style="list-style-type: none"> - Water consumption (m³ per unit of output); - Expenditure on innovation (USD million per year); - Emissions per unit of revenue (tons per USD million).
IFRS Sustainability Reporting / ISSB Standards	An integrated reporting approach developed by the IFRS Foundation that ensures harmonization and a mandatory approach to climate-related and non-financial disclosures.	<p>Number of standards: the first two standards were approved in 2023 (IFRS S1 and IFRS S2).</p> <p>Main focus areas: harmonization of approaches to the disclosure of climate-related risks and resilience.</p> <p>Quantitative indicators:</p> <ul style="list-style-type: none"> - Number and types of climate-related risks affecting profitability; - Potential losses from climate change (USD million).
United Nations Sustainable Development Goals (UN SDGs)	A global framework consisting of 17 goals that sets strategic guidelines for governments, businesses, and society in the areas of environmental protection, well-being, education, innovation, and climate action.	<p>Number of goals: 17 goals; number of targets: 169.</p> <p>Main focus areas: more than 230 indicators across various domains.</p> <p>Quantitative indicators:</p> <ul style="list-style-type: none"> - Poverty reduction rate (% of population below the poverty line); - Education coverage rate (% of school-age children); - Access to clean water (% of population).

Source: Own elaboration

In the context of the ongoing transformation of the global market and the growing importance of non-financial reporting, implementing ESG strategies has become a key instrument for enhancing companies' investment attractiveness and achieving sustainable development goals. Given the wide range of indicators used across international standards, there is a need for a generalised approach to assessing the effectiveness of ESG practices that would enable comparison of corporate performance

based on unified criteria.

3. RESEARCH OBJECTIVE, METHODOLOGY AND DATA

To conduct a comprehensive assessment of the effectiveness of ESG strategy implementation, three aggregated indicators were selected in accordance with the principles of the most widely recognized standards (GRI, SASB, IFRS/ISSB, UN SDGs), as presented in Table 1. These indicators include financial performance (SASB, IFRS S1, GRI), which reflects business performance from short- and medium-term perspectives. This indicator is directly correlated with profitability, revenue, and sales volumes, as evidenced in corporate reports before and after ESG implementation (Table 2).

The selection of enterprises for the study is based on their affiliation with three key sectors of the Ukrainian economy—energy, agri-food, and logistics—in which there is currently a trend toward implementing ESG strategies. This approach enables a cross-sectoral comparative analysis of the level of integration of sustainable development principles. The purpose of selecting these companies is to identify the most competitive enterprises in each sector using an integrated ESG index, enabling a comprehensive assessment of the effectiveness of sustainable practices by taking into account financial, non-financial, and long-term development indicators. The data used for the analysis were obtained from financial statements, sustainability reports, and official public disclosures of the selected companies.

The next indicator selected for evaluation was non-financial performance (GRI – environmental/social dimensions, SDGs, SASB – non-financial), which encompasses social and environmental initiatives, innovation, and modernization. This indicator corresponds to the GRI Standards criteria (impact on society, the environment, and human rights) and the UN SDGs, and incorporates non-financial KPIs such as reductions in CO₂ emissions and the level of digitalization. The third indicator is long-term sustainability (IFRS S2 – risk and climate-related disclosures, SDGs, GRI – governance), which characterizes a company's ability to maintain stable operations under conditions of risk and crisis. It aligns with the “double materiality” approach under IFRS S2 and is associated with investment attractiveness, climate-related risks, supply chain management, and other governance-related factors.

Thus, the selected indicators enable the integration of economic and governance approaches for assessing the impact of ESG strategies. Each component is evaluated on a 5-point scale (0–5) based on actual data, taking into account qualitative characteristics and quantitative dynamics presented in the previous tables. The final ESG score is calculated as the sum of the three components (a maximum of 15 points) and can be used to construct rankings or compare companies by their level of ESG maturity. The methodology for calculating ESG scores is presented in Table 2.

Tab. 2

Methodology for Calculating ESG Scores

Financial performance	Non-financial performance	Long-term sustainability
Score: 5		
Increase in profit/revenue after ESG strategy implementation $\geq 50\%$	Implementation of digital technologies, production modernization, and ESG innovations at the level of an industry leader	The company has implemented a long-term sustainability program, developed an ESG strategy, and achieved energy independence
Score: 3–4		
Growth within the range of 30–49%	Significant improvements across 2–3 areas (technology, logistics, energy)	Partially implemented sustainability initiatives (resource efficiency, partnership projects)
Increase of 15–29%		
Score: 1–2		

Minor growth / unstable dynamics	Minor growth / unstable dynamics	Isolated projects or declarations
Score: 0		
No change or decline	Absence of innovative changes	Absence of innovative changes

Source: Own elaboration

Thus, the proposed methodology enables not only the assessment of individual outcomes but also the tracing of the relationship between sustainable approaches and financial performance, which is critically important for developing well-founded managerial decisions in economics and enterprise management aimed at enhancing competitiveness.

To enhance the objectivity of comparisons among companies by level of implementation of sustainable development principles, an integrated ESG performance indicator was calculated. This indicator integrates the three assessment components—financial performance, non-financial achievements, and long-term sustainability—into a single composite ESG maturity index. The integral index is calculated based on the normalization of the obtained scores using the following formula:

$$\text{ESG – index} = \frac{(\Phi_b + H_b + C_b)}{15} \times 100\% (1)$$

where

$\Phi(b)$ – number of points for financial performance

$H(b)$ – number of points for non-financial performance

$C(b)$ – number of points for long-term sustainability,

15– Maximum possible total score (5 points for each component).

Thus, the integral ESG index reflects a generalized assessment of the effectiveness of a company's ESG strategy implementation expressed as a percentage (from 0 to 100%). This makes it possible to standardize the evaluation across companies regardless of industry-specific characteristics, compare levels of ESG maturity among companies, and identify leaders of sustainable transformation within each sector of activity. Accordingly, the obtained percentage values are converted into ESG maturity levels as presented in Table 3.

Tab. 3

Interpretation of ESG Maturity Levels

ESGindex (%)	ESG Maturity Category
85-100%	High ESG maturity
70-84%	Moderately high ESG maturity
50-69%	Medium ESG maturity
30-49%	Low ESG maturity
Below 30%	Very low ESG maturity

Source: Own elaboration

To identify leaders and monitor the level of implementation of sustainable development principles among Ukrainian companies, the obtained scores were recalculated into an integrated ESG index expressed as a percentage (%).

This index enables conversion of the assessment across the three components—financial performance, non-financial achievements, and long-term sustainability—into a single scale from 0 to 100%. This significantly facilitates cross-industry comparisons of companies, even when they operate in different sectors of the economy. Such an approach provides a clear classification of companies' ESG maturity levels and enables generalizations regarding their effectiveness in the context of sustainable transformations.

4. RESULTS AND DISCUSSION

According to Table 4, implementing sustainable development strategies positively impacts the financial performance of Ukrainian companies. All enterprises included in the study demonstrate an increase in profit or revenue following the implementation of sustainable development strategies.

Tab.4

Financial Performance of Ukrainian Companies Before and After the Implementation of Sustainable Development Strategies

Company	Year	Before implementation (UAH million)			Year	After implementation			Absolute growth	Growth (%)
		Profit	Loss	Revenue		Profit	Loss	Revenue		
NJSC Naftogaz of Ukraine	2019	2 600	-	178 000	2021	12 000	-	217000	52 400	29.44
	2020	-	-19 000	121 060	2022	-	79139	230 400		
DTEK Energy	2011	3 500	-	39 600	2013	870	-	48 300	7 600	19.19
	2012	2 447	-	38 315	2014	-	18 000	47 200		
MHP (Nasha Ryaba)	2015	-	2 468	25 771	2017	3217	-	34 800	14 001	48.28
	2016	1 763	-	28 999	2018	4935	-	43 000		
Kernel Holding	2013	888	-	22 374	2015	2 282	-	33000	38 946	174.07
	2014	-	1 169	28 463	2016	5 757	-	61 320		
Ukrposhta	2018	-	6 812	4 744	2020	165	-	9 200	3 945	57.84
	2019	607	-	6 820	2021	183,6	-	10 765		
Nova Poshta	2019	782,95	-	13 453	2021	2 600	-	20 843	10 243	76.07

Source: Own elaboration

The highest absolute profit growth was recorded by Kernel Holding, increasing from UAH 888 million in 2013 to UAH 4,120 million in 2014 (an increase of UAH 3,232 million, or +174.07%). Significant growth was also achieved by Nova Poshta (+76.07%) and Ukrposhta (+57.84%), indicating the effectiveness of transformation processes in the logistics and services sectors. MHP (Nasha Ryaba) reports a 48.28% increase in profit, from UAH 1,763 million to UAH 3,284 million, reflecting the positive impact of implementing energy-efficiency practices and innovations in the food industry. DTEK Energy and NJSC Naftogaz of Ukraine also show stable profit growth—by 19.19% and 29.44%, respectively—confirming the relevance of strategy implementation in the energy and oil and gas sectors. It is worth noting that even when companies reported losses prior to implementing sustainable strategies, these strategies led to significant improvements. For example, NJSC Naftogaz of Ukraine recorded losses of UAH 19,000 million in 2019, but achieved a profit of UAH 2,600 million in 2020.

Thus, all companies demonstrate positive dynamics following the implementation of sustainable development strategies, confirming the effectiveness of such approaches across different sectors of the economy.

Accordingly, the general trends identified in case studies of Ukrainian companies enabled the outline of the key directions in which sustainable development strategies are implemented.

Based on the results presented in Table 2, an assessment was conducted in accordance with the ESG scoring methodology, and the evaluation results are presented in Table 5.

Tab. 5

ESG Assessment of Ukrainian Companies Based on Three Components

Company	Financial performance (score: 0–5)	Non-financial performance (score: 0–5)	Long-term sustainability (score: 0–5)	Overall score (maximum: 15)
NJSC Naftogaz of Ukraine	2	2	3	7
DTEK Energy	3	4	5	12
MHP (Nasha Ryaba)	4	3	3	10
Kernel Holding	5	3	4	12
Ukrposhta	3	4	3	10
Nova Poshta	5	5	4	14

Source: Own elaboration

The consolidated assessment of the effectiveness of ESG strategy implementation by Ukrainian companies enabled a generalised ranking based on three key components: financial performance, non-financial achievements, and long-term sustainability. The evaluation methodology, based on a five-point scale, relied on publicly available statistical and corporate reporting data from companies that have implemented sustainable initiatives across various sectors of the economy.

The calculation of the integral ESG performance indicator using the above-described methodology enabled the compilation of a consolidated ranking of enterprises and the identification of ESG maturity leaders and laggards. The resulting values are presented in Table 6.

Tab. 6

ESG Maturity Assessment of Ukrainian Companies Based on the Integral ESG Index

Company	Total score	ESG Index (%)	ESG maturity category
NJSC Naftogaz of Ukraine	7	46,7	Low ESG maturity
DTEK Energy	9	60,0	Medium ESG maturity
MHP (Nasha Ryaba)	12	80,0	Moderately high ESG maturity
Kernel Holding	14	93,3	High ESG maturity
Ukrposhta	10	66,7	Medium ESG maturity
Nova Poshta	14	93,3	High ESG maturity

Source: Own elaboration

Thus, calculating the integral ESG index enabled comparison of the level of sustainable development across Ukrainian companies. This index reflects the extent to which a company actively integrates environmental, social, and governance practices into its operations. Based on the calculations, a conditional ranking was formed from the highest to the lowest level of ESG maturity. This approach makes it possible to more clearly distinguish companies that genuinely implement sustainable development strategies from those that adopt such practices only partially or only in a formal sense. High scores indicate that a company not only demonstrates environmental and social responsibility but also has stronger prospects for market competitiveness by gaining the trust of investors, partners, and consumers.

An analysis of the calculations indicates that, despite its key role in the national energy sector, NJSC

Naftogaz of Ukraine remains at an early stage in developing its ESG strategy. While environmental initiatives are formally declared, their implementation is selective. Social responsibility efforts are primarily focused on internal employees. The scope of ESG reporting remains limited, and the risk management system does not yet fully comply with international standards.

As a leading energy company, DTEK Energy focuses on a “green transformation” strategy by investing in renewable energy sources, decarbonization, and digitalization. The ESG approach is integrated into strategic management, ranging from public reporting to active stakeholder engagement. The company’s high ESG assessment is driven by a balanced combination of environmental initiatives, social responsibility (including regional development and employee support), and a mature corporate governance system.

MHP (Nasha Ryaba) implements a range of environmental initiatives, including biogas projects, waste processing, and energy efficiency measures. In the social sphere, the company supports local communities and carries out educational projects. Despite reporting in accordance with GRI standards, ESG has not yet been fully embedded as an integrated management system. The lower score is attributable to uneven development across individual ESG components.

Kernel Holding demonstrates strong performance in environmental management, including emissions reduction, production modernization, and environmental impact control. The company reports on sustainable development in accordance with GRI standards. In the social dimension, employee development programs are implemented; however, participation in broader social initiatives remains moderate. The governance component generally aligns with ESG requirements but requires greater transparency regarding strategic objectives and risk management.

Ukrposhta is undertaking the modernization of its operational processes, implementing digital solutions and energy-saving technologies. Its strong social impact is associated with the provision of essential services under wartime conditions and support for local communities. ESG governance is currently in the process of formalization: while certain reporting elements are in place, a comprehensive system for assessing non-financial risks has yet to be fully developed.

Nova Poshta demonstrates a systematic and comprehensive approach across all ESG components. At the environmental level, the company has implemented fleet electromobilization programs and introduced energy-efficient technologies in its branches. The social dimension includes employee support, transparent human resources policies, and active participation in humanitarian initiatives during wartime. In terms of governance, the company maintains transparent reporting practices and has implemented responsible risk management policies. This integrated approach has secured Nova Poshta’s leadership position among transport and logistics companies. Based on the obtained calculation results, a ranking of Ukrainian companies by ESG maturity level was developed and is presented in Figure 3.

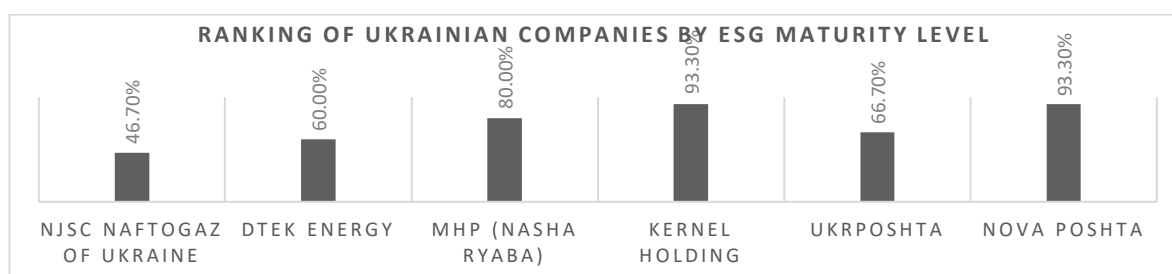


Fig 2. Ranking of Ukrainian Companies by ESG Maturity Level

Thus, the analysis enabled the compilation of a ranking of Ukrainian companies by ESG maturity level and the identification of industry leaders demonstrating high competitiveness through the systematic implementation of sustainable development principles.

5. CONCLUSIONS

An industry-based analysis of companies made it possible to objectively compare market participants while taking into account the specific characteristics of their operations:

- Energy sector. According to the analysis, DTEK Energy demonstrates the strongest ESG performance, consistently implementing a “green transformation” strategy, investing in renewable energy, and reporting in line with international standards. Compared with NJSC Naftogaz of Ukraine, where the ESG strategy remains in its early stages of development, DTEK appears significantly more competitive, both in terms of corporate image and in its ability to adapt to the requirements of investors and business partners.

- Agri-food sector. Among agri-industrial companies, Kernel Holding emerges as the leader, having achieved the highest level of ESG maturity. The company actively implements environmental initiatives, transparently reports on its environmental and social impacts, and consequently enjoys a high level of trust from international investors. MHP also demonstrates a moderately high level of ESG performance; however, it still has potential to further strengthen its social and governance components.

- Logistics sector. The analysis indicates that Nova Poshta demonstrates the highest level of ESG maturity, ranking at the top of the ESG index alongside Kernel Holding. The company actively implements “green logistics” practices, modernizes its vehicle fleet, carries out corporate social responsibility initiatives, and adheres to high standards of transparency. Although Ukrposhta shows progress, it still lags behind the leader in the systematic implementation of sustainable practices.

Thus, the presence of a clearly defined ESG strategy and its effective implementation are key drivers of competitiveness in today’s market. Companies that achieve high ESG index values gain enhanced opportunities to attract investment, form partnerships, and develop human capital, while also building strong reputational capital that strengthens their positions in a transforming economy. Further analysis of these companies’ participation in partnership initiatives, investment attraction, and human capital development will be the subject of future academic research.

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Funding acquisition, I.Trunina.

Acknowledgement: This research did not receive any outside support, including financial support.

Conflict of interest: The authors declare no conflict of interest.

REFERENCES

- [1] Aydogmus, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22, 119–S127. <https://doi.org/10.1016/j.bir.2022.11.006>
- [2] Chau, L., Le, A., & Vo, D. (2025). Valuing ESG: How financial markets respond to corporate sustainability. *International Business Review*, 34(3), 102418. <https://doi.org/10.1016/j.ibusrev.2025.102418>

- [3] Cucchiella, F., D'Adamo, I., & Gastaldi, M. (2022). Transitioning to a low-carbon economy: A comprehensive corporate strategy framework.
- [4] Dyllick, T., & Muff, K. (2016). Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true business sustainability. *Organization & Environment*, 29(2), 156–174. <https://doi.org/10.1177/10860266155751>
- [5] Eliwa, Y., Aboud, A., & Saleh, A. (2021). ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting*, 79, 102097. <https://doi.org/10.1016/j.cpa.2019.102097>
- [6] Enns, C., & Bersaglio, B. (2015). Enclave oil development and the re-articulation of citizenship in Turkana, Kenya: Exploring “crude citizenship.” *Geoforum*, 67, 78–90. URL: <https://surl.li/yjffvq>
- [7] Gerged, A. M., Beddewela, E., & Cowton, C. J. (2021). Is corporate environmental disclosure associated with firm value? A multicountry study of Gulf Cooperation Council firms. *Business Strategy and the Environment*, 30(1), 185–203. <https://doi.org/10.1002/bse.2616>
- [8] Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in corporate sustainability: Towards an integrative framework. *Business & Society*, 54(2), 236–269. <https://doi.org/10.1177/0007650315575106>
- [9] Hermundsdóttir, F., & Aspelund, A. (2021). Sustainability innovations and firm competitiveness: A review. *Journal of Cleaner Production*, 280, 124715. <https://doi.org/10.1016/j.jclepro.2020.124715>
- [10] Hermundsdóttir, F., & Aspelund, A. (2022). Competitive sustainable manufacturing: Sustainability strategies, environmental and social innovations, and their effects on firm performance. *Journal of Cleaner Production*, 370, 133474. <https://doi.org/10.1016/j.jclepro.2022.133474>
- [11] Kolk, A. (2016). The social responsibility of international business: From ethics and the environment to CSR and sustainable development. *Journal of World Business*, 51(1), 23–34. <https://doi.org/10.1016/j.jwb.2015.08.010>
- [12] Machova, R., Korcsmaros, E., Csereova, A., & Varga, J. (2023). Innovation activity of Slovak ICT SMEs. *Journal of Business Sectors*, 1(1), 32–41. <https://doi.org/10.62222/HTPI2054>
- [13] Lozano, R. (2018). Sustainable business models: Providing a more holistic perspective. *Business Strategy and the Environment*, 27(8), 1159–1166. <https://doi.org/10.1002/bse.2059>
- [14] Malodia, S., Mishra, M., Fait, M., & Papa, A. (2023). To digit or to head? Designing the digital transformation journey of SMEs among digital self-efficacy and professional leadership. *Journal of Business Research*, 157, 113547. <https://doi.org/10.1016/j.jbusres.2022.113547>
- [15] Li, Y., Zhang, W., Zhao, B., Sharp, B. M. H. (2022). Natural Resources and Human Development: Role of ICT in Testing the Resource-Curse Hypothesis in N11 and BRICS Countries. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4291608>
- [16] Agrawal, R., Wankhede, V. A., Kumar, A., & Upadhyay, A. (2021). Nexus of circular economy and sustainable business performance in the era of digitalization. *International Journal of Productivity and Performance Management*. <https://doi.org/10.1108/IJPPM-12-2020-0676>
- [17] Nyivul, L., & Koirala, N. P. (2022). Role of foreign direct investments in agriculture, forestry and fishing in developing countries. *Future Business Journal*, 8(1). <https://doi.org/10.1186/s43093-022-00164-2>
- [18] Elheddad, M. (2016). Natural Resources and FDI in GCC Countries. *International Journal of Business and Social Research*, 6(7), 12–22. <https://doi.org/10.18533/ijbsr.v6i7.977>
- [19] Chen, F., Liu, Y., & Chen, X. (2024). ESG performance and business risk—Empirical evidence from China's listed companies. *Innovation and Green Development*, 3(3), 100142. <https://doi.org/10.1016/j.igd.2024.100142>
- [20] President of Ukraine. (2015). *Sustainable Development Strategy “Ukraine–2020” (Presidential Decree No. 5/2015)*. URL: https://www.president.gov.ua/storage/j-files-storage/00/55/10/243c2afa3bd5843585d93b3c8a7ba22d_1512988807.pdf
- [21] Mio, C., Panfilo, S., & Blundo, B. (2020). Sustainable development goals and the strategic role of business: A systematic literature review. *Business Strategy and the Environment*, 29(8), 3220–3245. <https://doi.org/10.1002/bse.2568>
- [22] Ioannou, I., & Serafeim, G. (2011). The Consequences of Mandatory Corporate Sustainability Reporting. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1799589>
- [23] Berg, F., Kölbel, J. F., & Rigobon, R. (2022). Aggregate Confusion: The Divergence of ESG Ratings. *European Finance Review*, 26(6). <https://doi.org/10.1093/rof/rfac033>
- [24] Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4), 210–233. <https://doi.org/10.1080/20430795.2015.1118917>

- [25] Khan, M., Serafeim, G., & Yoon, A. (2016). Corporate sustainability: First evidence on materiality. *The Accounting Review*, 91(6), 1697–1724. <https://doi.org/10.2308/accr-51383>
- [26] Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42–56. <https://doi.org/10.1016/j.jclepro.2013.11.039>
- [27] Global Reporting Initiative (GRI). (2018). *GRI 303: Water and Effluents*. URL: <https://www.globalreporting.org/standards/standards-development/topic-standard-for-water-and-effluents-gri-303/>
- [28] Global Reporting Initiative (GRI). (2016). URL: <https://www.globalreporting.org/publications/documents/english/gri-302-energy-2016/>
- [29] Kabinet Ministriv Ukrainy, (2024). Pro skhvalennia Stratehii zaprovadzhennia pidprijemstvamy zvitnosti iz staloho rozvytku Rozporiadzhennia Kabinetu Ministriv Ukrainy № 1015-r, URL: <https://zakon.rada.gov.ua/laws/show/1015-2024-p#Text>
- [30] IFRS Foundation. (2024). *IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information*. URL: <https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s1-general-requirements/>
- [31] Holovchak, H. (2024). Otsinka efektyvnosti ESG-zvitnosti yak instrumentu prozorosti biznesu v umovakh hlobalizatsii. *Ekonomika ta suspilstvo*. <https://doi.org/10.32782/2524-0072/2024-67-28>
- [32] Kabinet Ministriv Ukrainy, (2024). Pro skhvalennia Stratehii zaprovadzhennia pidprijemstvamy zvitnosti iz staloho rozvytku Rozporiadzhennia Kabinetu Ministriv Ukrainy, URL: <https://zakon.rada.gov.ua/laws/show/1015-2024-%D1%80#Text>
- [33] Verkhovna Rada of Ukraine. (2017). Law of Ukraine “On Environmental Impact Assessment” No. 2059-VIII. URL: <https://zakon.rada.gov.ua/laws/show/2059-19#Text>
- [34] Verkhovna Rada of Ukraine. (2018). *Law of Ukraine “On Strategic Environmental Assessment” No. 2354-VIII*. URL: <https://zakon.rada.gov.ua/laws/show/2354-19#Text>
- [35] President of Ukraine. (2015). Decree No. 5/2015 “On the Strategy for Sustainable Development ‘Ukraine – 2020’”. URL: <https://zakon.rada.gov.ua/laws/show/5/2015#Text>
- [36] Cabinet of Ministers of Ukraine. (2021). *National Economic Strategy 2030*. URL: <https://nes2030.org.ua/>
- [37] United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. URL: <https://sdgs.un.org/goals>
- [38] UNFCCC. (2015). *The Paris Agreement*. United Nations Framework Convention on Climate Change. URL: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- [39] Khaled, S. B., Azevedo, G., & Oliveira, J. (2025). Environmental, social, and governance (ESG) factors and firm value: A systematic literature review of theories and empirical evidence. *Academy of Marketing Science Review*, 15(1–2), 1–33. <https://doi.org/10.1007/s13162-025-00303-2>
- [40] Brighi, P., Della Bina, A. C. F., & Venturelli, V. (2025). Firm value and risk: how relevant are ESG factors and ESG controversies? *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/JFRA-12-2024-0953>
- [41] Dorothy, P., & Endri, E. (2024). Environmental, social and governance disclosure and firm value in the energy sector: The moderating role of profitability. *Problems and Perspectives in Management*, 22(4), 588–599. [https://doi.org/10.21511/ppm.22\(4\).2024.44](https://doi.org/10.21511/ppm.22(4).2024.44)
- [42] Naeem, M. H., Subhan, M., Alam, M. S., & Al-Faryan, M. A. S. (2023). Examining the role of financial innovation on economic growth: Fresh empirical evidence from developing and developed countries. *Cogent Economics & Finance*, 11(1). <https://doi.org/10.1080/23322039.2023.2170000>
- [43] Professional Association of Corporate Governance (PACG). (2020). *ESG Transparency Index Ukraine 2020*. URL: <https://index.cgpa.com.ua/eng2/>
- [44] Sandhu, M. A., Al Ameri, T., Shahzad, A., & Naseem, A. (2024). The role of project management office in the implementation of strategic plans in project-based organisations. *PLOS ONE*, 19(7), e0306702. <https://doi.org/10.1371/journal.pone.0306702>
- [45] Aditya, M., & Hasnawati, S. (2025). The Effect of ESG Disclosure on Firm Value (Empirical Study on Companies Listed in the IDX ESG Leader Index for the Period 2021–2023). *International Journal of Education, Social Studies, and Management*, 5(2). URL: <http://jppipublishing.com/index.php/ijessm>
- [46] Tarasova, T. O. (2020). Informatsiino-analitychne zabezpechennia upravlinnia stalym rozvytkom instytutsionalnykh odyntys. *Scientific Bulletin of Ivano-Frankivsk National Technical University of Oil and Gas (Series: Economics and Management in the Oil and Gas Industry)*, 2(22), 99–108. URL: <https://nung.edu.ua>

- [47] Naeem, M. H., Subhan, M., Alam, M. S., & Al-Faryan, M. A. S. (2023). Examining the role of financial innovation on economic growth: Fresh empirical evidence from developing and developed countries. *Cogent Economics & Finance*, 11(1). <https://doi.org/10.1080/23322039.2023.2170000>
- [48] Lopushanska, M., Tsyganok, L., Ivanov, E., & Bashynska, Y. (2024). Mizhnarodnyi dosvid vprovadzhennia ESG pidkhodiv v enerhetychnomu sektori (na prykladi kompanii «Astronergy») = International Experience in Implementing ESG Approaches in the Energy Sector (Case Study of Astronergy). <https://doi.org/10.13140/RG.2.2.18486.72000>
- [49] Sushchenko, O., Tireuov, K., Stoyanova-Asenova, S., Tymkovan, V., & Kozubova, N. (2025). Socio-Economic Drivers of Sustainable Agrobusiness Development: Implications for Responsible SME Practices. In M. Petrova (Ed.), *Reshaping Socially Responsible Business Practices in Small and Medium Enterprises*. URL: <https://surl.li/avszps>
- [50] Mitkov, M., Stryzhak, O., Sushchenko, O., & Tymoshenko, K. (2025). Assessing the impact of institutional quality on the implementation of sustainable development goal no. 8 (comparative analysis for Poland and Ukraine). *Financial and Credit Activity Problems of Theory and Practice*, 1(60), 288–298. <https://doi.org/10.55643/fcaptop.1.60.2025.4597>
- [51] Kyryliuk, I., Krasnomovets, V., Sushchenko, O., Lytvyn, O., Chvertko, L., & Neshchadym, L. (2026). Strategies for the development of responsible tourism to support a sustainable tourism ecosystem. In A. Semenov, I. Yepifanova, & J. Kajanová (Eds.), *Data-Centric Business and Applications. Lecture Notes on Data Engineering and Communications Technologies*. Vol. 275. URL: https://link.springer.com/chapter/10.1007/978-3-032-10153-2_8
- [52] Naftogaz of Ukraine. (2025). Financial statements. URL: <https://gas.ua/uk/financial-statements>
- [53] DTEK. (2020). Annual report 2020: Financial and non-financial results. URL: <https://dtek.com/investors-and-partners/reporting-center/>
- [54] MHP. (2025). Sustainable development. URL: <https://mhp.com.ua/uk/stalyi-rozvytok>
- [55] Kernel Holding, S.A. (2025). Operations update for the three months ended 30 June 2025. URL: <https://kernel.ua/wp-content/uploads/2025/07/Kernel-Operations-Update-Q4-FY2025.pdf>
- [56] JSC Ukrposhta. (2024). IFRS financial statements as of 31 December 2024. URL: <https://ukrposhta.ua/ua/richni-zvity>
- [57] Nova Poshta. (2024). Sustainability report 2024. URL: <https://novaposhta.ua/csr/>

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Received: February 09, 2026; **revised:** April 20, 2026; **accepted:** May 10, 2026; **published:** June 30, 2026.

Скрєбкова Ксенія, Пряхіна Катерина, Труніна Ірина. Оцінка сталого розвитку підприємств: інтегральний ESG-індекс як інструмент аналізу конкурентоспроможності. *Журнал Прикарпатського університету імені Василя Стефаника*, 13 (2) (2026), 198-212.

У статті досліджується взаємозв'язок між упровадженням стратегій сталого розвитку та підвищенням конкурентоспроможності українських підприємств. В умовах глобальної економічної турбулентності та зростання вимог до екологічної, соціальної та управлінської (ESG) відповідальності бізнесу впровадження ESG-стратегій стає ключовим чинником довгострокового розвитку. Метою дослідження є оцінка впливу ESG-інструментів на фінансові результати, нефінансові показники та довгострокову стійкість підприємств у різних секторах економіки. Методологія дослідження ґрунтується на побудові інтегрованого ESG-індексу, що поєднує три складові: фінансову результативність, нефінансові результати та рівень сталості. Кожен показник оцінюється за п'ятибальною шкалою, що дає змогу отримати стандартизований індекс зрілості ESG у діапазоні від 0 до 100 %. У межах вибірки було проаналізовано шість українських компаній, зокрема ДТЕК Енерго, МХП, Kernel Holding, Нова пошта, Укрпошта та НАК «Нафтогаз України».

Результати показали, що підприємства з високими значеннями ESG-індексу характеризуються більшою фінансовою стійкістю, зростанням репутаційного капіталу, активною взаємодією зі стейкхолдерами та більшою привабливістю для інвесторів. Високий рівень зрілості ESG виявлено у компаніях «Нова пошта» та Kernel Holding, які демонструють системне впровадження сталих ініціатив і прозору нефінансову звітність. Натомість компанії з нижчими значеннями ESG-індексу застосовують принципи ESG лише епізодично або декларативно, а не через послідовні й відчутні дії. Отримані результати підтверджують, що ESG-стратегії функціонують не лише як інструменти соціальної відповідальності, а й як ефективні драйвери конкурентоспроможності підприємств. Подальші дослідження планується зосередити на аналізі впливу ESG-показників на інвестиційну привабливість, стабільність персоналу та розвиток партнерських мереж у межах національного бізнес-середовища. Практична цінність дослідження полягає в можливості застосування запропонованого інтегрованого ESG-індексу як інструменту стратегічного аналізу та порівняльної оцінки для українських підприємств, які орієнтуються на підвищення власної конкурентоспроможності в умовах європейської інтеграції та післявоєнного економічного відновлення.

Ключові слова: ESG стратегії, сталий розвиток, конкурентоспроможність, ESG індекс, корпоративна стійкість, українські підприємства.