

THE ROLE OF ESRS AS A FINANCIAL LITERACY AGENT IN ENHANCING CORPORATE RESTRUCTURING AND REPORTING

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Abstract

This article examines the role of the European Sustainability Reporting Standards (ESRS) as a financial education tool, proposing a different perspective where the sustainability standards act not only as a compliance requirement but as a vehicle for financial education. By using a qualitative methodology which focuses on a content analysis and a comparative case study of sustainability reports published by three large listed companies in an evolutionary approach, the research demonstrates how the transition from a vague and unstandardized framework to a very strict and detailed one has imposed significant corporate structure and decision-making processes changes and also increased the quality of the information published and reduced information asymmetry.

Furthermore, the results could be used as a direct indicator that the implementation of and alignment with the newly set European framework contribute to stakeholders' ability to interpret Environmental, Social and Governance (ESG) risk as financial variables.

The paper aims to contribute to the literature by defining a conceptual framework that links the technical rigours of the ESRS to the development of financial competencies within a company and society.

Keywords

ESRS; sustainability reporting; financial education; corporate social responsibility; transparency; ESG risks; corporate governance.

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Introduction

The transition to a sustainable economy, grounded in the strategic objectives of the European Green Deal, has imposed, among other measures, a radical redefinition of

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corporate transparency in the European Union (EU). From this perspective, the evolution of the European regulatory framework on sustainability marks the transition from a voluntary and fragmented reporting system to an integrated legislative ecosystem designed to support the objectives of the European Green Deal, according to Duðu (2021).

This transformation was driven by the imperative need to channel private capital toward sustainable investments, a process that requires reliable, comparable, and relevant information (European Commission, 2021).

While the European legislative framework is extensively documented from a legal and, more specifically, a compliance perspective, the literature regarding the impact of these newly set requirements leaves a gap in what regards the linkage and impact of the said framework and the financial literacy levels of information producers and users.

Hence, the central theoretical question addressed by this paper is: *To what extent does the technical complexity of ESRS act as a barrier or, conversely, as a catalyst for understanding long term value creation mechanism?*

This article argues that an increased level of regulation and standardization for reporting purposes of sustainability related information, from both transparency and conformity perspectives, provides a learning platform and a common language that transforms qualitative ESG data into quantifiable indicators, thereby facilitating a structured financial learning process for both corporate structures/companies and investors.

1. Review of the scientific literature

Financial education represents a combination of factors such as financial knowledge, behavior, and attitudes, as defined by OECD (2023), through which individuals and societies shape their understanding of the financial system with the aim of achieving financial well-being (Cohen, 2018). It can also serve as an important driver in strengthening sound governance within institutions and companies, including those in the insurance sector, as highlighted by Dracea et al. (2024).

Through the dimension related to financial knowledge, as a component of financial education, company management can better understand and apply EU regulations, directives, and standards related to ESRS and ESG (Elidrisy, 2024). The European Sustainability Reporting Standards (ESRS) represent a regulatory framework with an integrated approach, aimed at enhancing the transparency of sustainability-related information disclosed by companies within the European Union (EU). However, the existing literature points to a lack of sufficient information regarding the detailed content of these standards, as well as the level of preparedness of organizations for their implementation (Leal Filho et al., 2025).

Furthermore, sustainability reporting refers to the disclosure by organizations of information related to their overall performance and impact, typically structured around three main dimensions: environmental, social, and governance (ESG) (Aureli et al., 2020).

In order to facilitate a common language for understanding and applying governance frameworks, the Sustainable Development Goals (SDGs) were developed, having a universal meaning across countries, organizations, and communities, thereby supporting the implementation of coherent and effective actions (Haas and Ivanovskis, 2022).

Giner and Luque-Vílchez (2022) argue that the European sustainability reporting framework, developed through European Financial Reporting Advisory Group (EFRAG) and the ESRS standards, follows a broader perspective than the IFRS Foundation model by incorporating the principle of double materiality and addressing the information needs of a wider range of stakeholders.

According to the European regulatory framework, ESRS aim to ensure the quality of reported information by establishing requirements related to clarity, relevance, verifiability, comparability, and faithful representation (OJEU, 2022). In this context, the standards define the types of information that must be disclosed by companies, including both forward-looking and retrospective data, as well as qualitative and quantitative information.

The literature also emphasizes that, despite its comprehensive nature, this framework seeks to avoid imposing a disproportionate administrative burden on companies, particularly given the challenges associated with data collection along the value chain, especially from entities that are not subject to sustainability reporting requirements (OJEU, 2022).

Thus, value chain reporting requirements are designed in a proportional manner, considering the size, capabilities, and complexity of companies' activities. Nevertheless, in certain cases, reporting obligations may require the collection of data from smaller entities, even if they are not typically subject to such reporting requirements (OJEU, 2022). ESG-related issues have become increasingly important for both corporations and investors; however, the current reporting environment continues to be characterized by fragmentation and the absence of a fully harmonized framework (Elidrisy, 2024). As a result, ESG disclosures vary significantly across companies, making it difficult for investors to obtain consistent and comparable information. While SEC reporting requirements have remained relatively stable, international organizations such as the World Economic Forum advocate for greater consistency and comparability in ESG reporting practices (Davies et al., 2020).

Eccles et al. (2020) argue that ESG evaluation frameworks are not entirely neutral or purely technical, but are influenced by social, institutional and ethical perspectives. By analyzing the approaches of Innovest and KLD, the authors highlight that ESG indicators and assessment methodologies differ depending on the objectives, stakeholder orientation and sustainability priorities considered within the evaluation process.

2. Research methodology

The methodology used combines a documentary analysis of the European regulatory framework on sustainability reporting, relevant guidelines, and studies with a comparative analysis of the reporting practices of entities subject to the new ESRS requirements.

Data were collected from official European and international sources, European and national legislation, guidelines, reports, and studies prepared by relevant international organizations, as well as sustainability reports published by companies, and were processed using qualitative methods of content analysis and critical interpretation.

The research was based on an exploratory qualitative strategy aiming to go beyond the descriptive overview. Data selection followed the instrumental case study method, focusing on three major companies listed on the main market of the Bucharest Stock Exchange (OMV Petrom, Banca Transilvania and Teraplast).

The selection of OMV Petrom, Banca Transilvania and Teraplast as case studies is based on their status as blue-chip companies within the BET index, representing three relevant economic pillars: the energy sector (high environmental impact), the financial-banking sector (governance and sustainable finance leader) and the industrial sector (operational transformation). This diversity allows for a cross-sectoral analysis of how ESRS standardizes sustainability language across different corporate structures.

The data collection process covers reports published between 2020 and 2024, respectively five reporting years, and the analysis is focused on two aspects that are different from the subjects and structure perspective, but integrated from the evolution of the companies in their entirety perspective:

- the sustainability training and preparedness efforts and
- the structural evolution of the corporate governance framework.

Content analysis was applied to better reflect the structural evolution in each company when going from one legal framework to another, with emphasis on how different business models with different corporate structures are addressing this transition and, in the end, how they are using a set of legal requirements not only for compliance purposes but also for developing their business models to remain relevant in a competitive market, where the landscape is changing significantly.

3. Results and discussion

3.1. An Analysis of the Transition from the Non-Financial Reporting Directive (NFRD) to the Corporate Sustainability Reporting Directive (CSRD)

The transition from the NFRD (Non-Financial Reporting Directive 2014/95/EU) to the CSRD (Corporate Sustainability Reporting Directive 2022/2464) represents perhaps the most significant change in corporate compliance and transparency requirements at the European level, effectively bringing about a fundamental paradigm shift designed to better reflect current challenges and provide an appropriate framework for addressing them.

The pillar on which the entire CSRD architecture was built—the core around which this new reporting framework was created—is the placement of sustainability information on an equal footing with financial information.

Without providing an exhaustive analysis of the directions in which the CSRD was developed, the following points are relevant when viewed in summary:

The practical implementation of the NFRD revealed fundamental shortcomings regarding both the requirements imposed and the definition of effective control mechanisms, under which the reliability of the data provided could reasonably be questioned.

It is important to keep in mind, however, that this reporting framework was established at a time when awareness of the importance of environmental issues was still in its developing stages. Viewed from this angle, the period between the early 2010s (when the principles to be regulated by the NFRD were established) and the end of that decade

(when the new sustainability principles were defined) was marked by an unprecedented dynamic of discussions and approaches regarding sustainability at the EU level, yet all of this was anchored to a fixed reference point represented by the NFRD framework, which has thus become outdated.

The new reporting framework established by the CSRD, which transposes and ensures integration into the overall architecture proposed by the European Green Deal, calls for a radical shift in approach by setting much clearer, more detailed, and rigorous requirements, eliminating the voluntary nature of reporting requirements, and imposing mandatory common standards to curb *greenwashing*. It also sought to provide an optimal response to the growing demand for data from investors.

Thus, in pursuit of its stated overall objective—namely, to adopt a pragmatic approach—the CSRD replaces the concept of “non-financial information”—considered inaccurate and insufficient, as it suggests that such data has no financial relevance—with that of “sustainability-related information,” thereby acknowledging that ESG factors have a direct impact on risks, opportunities, and, above all, on a company’s financial position.

The practical manifestation of how sustainability information has been placed on an equal footing with financial information is represented by the definition and implementation of the Double Materiality Principle.

Thus, in accordance with the new European framework, companies must present material information from both perspectives—not just the one that benefits them—using an inside-out and outside-in approach to ensure a complete and integrated view within the community.

While the inside-out approach (impact materiality) involves assessing and reflecting on the impact of the company’s activities on the environment and people, the outside-in approach (financial materiality) involves appropriately assessing and reflecting in the sustainability report how sustainability factors affect the company’s development and performance.

To ensure the concrete integration of sustainability information into the annual report and, by extension, the link between financial and sustainability data, the CSRD requires that this information be integrated into the management report. Previously, the NFRD allowed for the publication of information in a separate report, which did not ensure a link to the company’s financial information.

Furthermore, unlike the NFRD, the CSRD introduces an external assurance (audit) requirement, initially through a limited assurance engagement, and subsequently, over time, with the aim of transitioning to a reasonable assurance, thereby providing the necessary credibility to investors.

Finally, to ensure the technical comparability of data, the CSRD requires companies to prepare the report in the European Single Electronic Format (ESEF) and to digitally “stamp” sustainability information. This measure is essential for feeding the future European Single Access Point (ESAP), allowing investors to process/analyze data automatically using dedicated IT tools.

3.2. Theoretical Analysis of the European Sustainability Reporting Standards (ESRS)

The ESRS architecture was designed as a modular and rigorous system, intended to ensure the provision of relevant, comparable, and reliable information necessary to place sustainability reporting on an equal footing with financial reporting.

From a structural perspective, in which the ESRS standards can be divided into specific categories, the architecture consists of two interconnected main pillars (Topical Standards and Sectoral Standards) resting on a common foundation, which provides a comprehensive overview of a company's performance (Cross-cutting Standards).

Cross-cutting Standards apply to all enterprises, regardless of their sector, and cover fundamental concepts (Figure 1). These are:

a) ESRS 1 ("General Requirements"): Establishes fundamental drafting principles and key concepts, such as materiality, the due diligence process, and time horizons (short, medium, and long term);

b) ESRS 2 ("General Disclosures"): Defines the mandatory disclosures that must be provided regardless of the outcome of the materiality assessment, focusing on governance structure, strategy, and how impacts, risks, and opportunities are identified. Topical Standards cover specific environmental, social, and governance (ESG) aspects. Their structure is as follows:

a) Environmental (E1–E5): Climate change, pollution, water resources, biodiversity, and the circular economy;

b) Social (S1–S4): Own workforce, workers in the value chain, affected communities, consumers, and end users;

c) Governance (G1): Professional conduct.

Sectoral Standards are specific to certain industries and address impacts, risks, and opportunities that are significant for all companies in a given sector and that are not sufficiently covered by the thematic standards.

From the reporting areas' perspective, each thematic and sectoral standard is structured around four pillars, ensuring consistency in the presentation of information:

1. Governance (GOV): The processes and controls used to monitor and oversee sustainability issues;

2. Strategy (SBM): How the business model interacts with significant impacts and risks;

3. Impact, Risk, and Opportunity Management (IRO): The process by which the company identifies and manages these elements through policies and actions;

4. Metrics and Targets (MT): How the company measures its performance and progress against established objectives.

When considering the core concepts underlying the application of the standards—namely, the quality of the information provided—the following elements are of fundamental importance:

- **Double Materiality:** represents the cornerstone of the ESRS architecture. Companies must report both their impact on people and the environment (impact materiality) and how sustainability factors affect their financial position (financial materiality);

- Qualitative Characteristics: For information to be useful, it must meet fundamental characteristics (relevance and accuracy) and enhancing characteristics (comparability, verifiability, and understandability);
- Value Chain: Reporting must include meaningful information not only about the company's own operations but also about the upstream and downstream value chain.

3.3. EU Taxonomy vs. ESRS Standards

Both the elements that distinguish the Taxonomy from the ESRS and those that ensure synergy between the two categories of regulations are fundamental to understanding how companies must report their sustainability performance and to achieving the overall objective of raising reporting standards.

Thus, although both are part of the same legislative ecosystem, they fulfil distinct yet complementary roles.

In short, the main distinction to be made between the two concerns the nature and purpose of each piece of legislation—one functions as a “Dictionary” while the other represents a set of “Reporting Standards.”

Another difference stems from the scope of application. While the Taxonomy focuses predominantly on the environmental dimension, structured around six climate and ecological objectives (climate change mitigation and adaptation, water, the circular economy, pollution, and biodiversity) and including “minimum social safeguards” that must be met, the ESRS covers the entire ESG spectrum.

In terms of assessment methodology, the taxonomy uses technical criteria, while the ESRS is based on the principle of double materiality.

Although there are differences between the two pieces of legislation in terms of function and purpose, there is an integrative relationship between them, as noted earlier, as they are part of a larger legislative framework with different but complementary roles.

Thus, the main points of convergence that ensure the operational integration of the two frameworks concern the following aspects:

1. The taxonomy clearly establishes that companies subject to sustainability reporting requirements must include information on how and to what extent their activities are associated with economic activities that qualify as environmentally sustainable. These reports must be prepared in accordance with the ESRS.
2. This taxonomy data is presented in a clearly identifiable section of the environmental section of the ESRS report.
3. The statutory auditor is required to verify that the company's reporting also complies with the specific requirements of the Taxonomy.

Essentially, while the Taxonomy provides the scientific rigor to define what is sustainable, the ESRS offers a comprehensive picture of how a company manages its overall social and environmental responsibility, transforming this data into a financial education tool for investors.

3.4. ESRS as a Tool for Financial Education

As we have systematically highlighted throughout this study, the implementation of new transparency and compliance requirements regarding sustainability represents a turning

point in terms of EU strategy and approach, and lays the groundwork for transforming the EU into a modern, competitive, and efficient economy.

Viewed more closely, the implementation of the ESRS also represents a major reform in corporate governance, transforming sustainability reporting from an administrative obligation into a strategic tool for transparency and compliance, with clear implications for financial education.

Thus, the practical, applied use of the ESRS is not merely a compliance exercise, but a genuine driver of financial education that contributes to strengthening competencies at both the organizational and societal levels.

In the absence of a robust framework such as the ESRS, there is a significant gap between users' information needs and the data provided by companies, which can create systemic risks to financial stability.

Standardizing information allows investors to better understand the ESG risk profile and direct capital toward sustainable activities, eliminating uncertainties related to greenwashing. This reduces information asymmetry.

By providing relevant, comparable, and reliable data, the ESRS serves to educate users/beneficiaries of information—from asset managers to individual citizens and labor unions—about the interdependence between sustainability aspects and a company's financial performance.

This process facilitates an informed social dialogue, enabling social partners to hold companies accountable for their impact on the environment and people.

Integrating ESRS into current practices promotes a culture of corporate social responsibility, where economic decisions are made through the lens of dual significance (the firm's external impact and the financial risks of sustainability to the firm).

This leads to a better understanding of intangible assets (human, intellectual, social), which, although not always recognized on the balance sheet, have a major influence on a company's market value and resilience.

3.5. Practical Example

To provide a practical example of how the qualitative evolution of sustainability reporting can be reflected, including through an internal development and education process, we focused on a comparative-evolutionary analysis of information provided in the non-financial / sustainability reports published between 2020 and 2024 by OMV Petrom, Banca Transilvania and Teraplast, three major listed companies on the Bucharest Stock Exchange.

The focus of our data collection process and analysis is set on two aspects that are different from the subjects and structure perspective, but integrated from the evolution of the companies in their entirety perspective:

- A. first covers the sustainability training and preparedness efforts, and
- B. the second covers the structural evolution of the corporate governance framework.

- A. When looking at the sustainability training and preparedness efforts of each of the three selected companies, the data collected from the non-financial and sustainability reports published between 2020 and 2024 reflect a major transition from technical and safety trainings to a deep integration of ESG

criteria and preparation for the new European reporting standards (CSRD/ESRS).

➤ OMV Petrom

The data shows that the evolution of training has shifted from a focus on occupational safety to carbon management and human rights.

2020: The focus was on adapting to the virtual environment due to the pandemic, with e-learning modules for security and the first human rights awareness courses. 12.6 average hours of training/employee were reported.

2021: The HSSE (Health, Safety, Security and Environment) Competency Group Standard was revised. The programs included the "Get to Know and Grow" initiative with the participation of the Directorate and a 76% progress in human rights training (2019-2021).

2022: The average number of training hours increased to 27.57. The "Future Work Learning Challenge" project, which focused on inclusion and new ways of working, has been launched.

2023: A record of 255,386 total hours was recorded. A major novelty was the training on carbon management for 1,443 employees and the planning of a Sustainability Academy.

2024: The objective for 2030 is a minimum of 30 hours/year/employee (the level in 2024 being 19 hours). 6 Safety Training Centres have been established, and a new training cycle (2024-2026) on ethics and integrity has been launched. Assessments of the skills needed for low-carbon activities have been carried out.

➤ Banca Transilvania (BT)

The data shows that the efforts have evolved from general management to extreme specialization in green finance and ESG risk analysis.

2020: The average was 16 hours of training/employee. Emphasis was placed on anti-corruption courses and leadership programs such as "GROW".

2021: The training budget increased by more than 43%, and the average number of hours increased to 30. The first webinars dedicated to ESG skills were organized (over 1,000 participants) and specialized environmental trainings from IFC and UNEP FI.

2022: There was a major jump to 72 average hours/employee and a doubling of the training budget. The Board of Directors participated in workshops on sustainable finance. The digital space "Think Green" was created for learning about green credits.

2023: 74 hours/employee (BT) reported. ESG training was defined as a "cornerstone", including seminars on ESG risk analysis for 350 analysts and managers.

2024: The average was 54 hours. Intensive programmes were carried out to familiarise the new CSRD/ESRS requirements. The risk team benefited from the Climalab international course (IFC), and a mandatory internal ESG analysis course was completed by 1,100 employees.

➤ Teraplast

The data shows that the company’s aim was to move from basic technical qualifications to complex circular economy and ethical programs.

2020: An average of 1.41 hours/employee was recorded. Due to the pandemic, distance learning via the cloud was facilitated, and the dual education project for CNC operators was started.

2021: Average increased to 5 hours/employee. The e-learning platform "TeraPlast.IknowLMS" was implemented, and 50 employees were trained on selective collection and ECO-instruction topics.

2022: A spectacular increase (526%) was reported to 31.28 hours/employee. The "ValueUp" program with diversity, inclusion and CSR modules has been launched. The goal of "zero unskilled labor" has been achieved in TeraPlast SA.

2023: The average decreased to 24 hours (after completing the intensive qualifications cycle). The programs have diversified towards international certifications in the field of ESG (International Business Advisor) and waste management.

2024: 16,171 total hours were reported, with a target of 20,000 for 2025. The training focused on aligning with ESRS standards and integrating the newly acquired subsidiaries into the Group's ethics and sustainability mechanisms. Transition assistance programmes (career counselling) have been introduced.

- B. From the evolution of the corporate governance framework for OMV Petrom, Banca Transilvania and Teraplast in the period 2020-2024 perspective, the data collected from the non-financial and sustainability reports published between 2020 and 2024 reflect a progressive integration of sustainability into management structures, decision making processes and remuneration mechanisms.

➤ OMV Petrom

Year	Evolution and Structure of the Administration Body	Specialized Committees	Decision-making and Remuneration
2020	Dualist system (Directorate and Supervisory Board - SC). The sustainability report was a separate document.	The SC had the Audit Committee and the Presidential and Nominating Committee.	The Directorate's variable remuneration included emission reduction targets and incident rate (TRIR).
2021	Launch of the 2030 Strategy with sustainability as a central priority.	Working groups are set up at the level of the Directorate for "New Energy Solutions" and "Environment".	Implementation of a new Remuneration Policy aligned with the ESG performance payment strategy.
2022	SC consisting of 9 non-executive members. Updating the Capital	The Environment Working Group meets quarterly to monitor	The LTIP (Long-Term Incentive Plan) includes 25% weight for emission

	Allocation Framework for Sustainable Projects.	GHG emissions.	reductions and 10% for gender diversity.
2023	Maintaining the dualistic structure. Focus on the implementation of the 2030 Strategy and decarbonization.	The structure of the committees remains stable; Sustainability experts work closely with divisions.	ESG performance criteria are reinforced in the annual bonus and LTIP.
2024	Full integration: The Annual Report combines financial and non-financial data (CSRD/ESRS).	The Audit Committee oversees climate risks and social impacts.	Decisions on major transactions must include the impact on climate objectives. The ESG share in the LTIP remains (25% emissions, 10% gender).

➤ Banca Transilvania

Year	Evolution and Structure of the Administration Body	Specialized Committees	Decision-making and Remuneration
2020	Administered by a Board of Directors (BoD) and the Executives Committee.	Committees: Audit, Risk Management, Compensation and Nomination.	Integration of at least one ESG criterion into the individual objectives of senior management.
2021	Transition to a standardized and assumed ESG practice at Group level.	The Audit Committee takes over the verification of internal ESG regulations.	The BoD Suitability Assessment now includes sustainability-specific key performance indicators (KPIs).
2022	BoD consisting of 7 non-executive members. The ESG & Investor Relations Department is established.	Board committees align their risk and remuneration policies with ESG standards.	Management performance is evaluated through the SMART methodology, including sustainability goals.
2023	Consolidation of sustainability reporting on a consolidated basis for the entire Group.	The executive management (8 members) directly oversees the social and environmental impact.	ESG performance is rated on a scale of 1 to 5, directly influencing variable compensation.
2024	Alignment with CSRD requirements and European ESRS	Establishment of the ESG Committee to coordinate the	The remuneration report includes detailed analyses of gender pay

	standards.	sustainability strategy.	gaps.
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➤ Teraplast

Year	Evolution and Structure of the Administration Body	Specialized Committees	Decision-making and Remuneration
2020	Board of Directors consisting of 5 members. Sustainability is delegated to the executive management under the supervision of the Board of Directors.	An Audit Committee is in place.	Begin the transformation of performance evaluation to a system based on 360 feedback.
2021	The group's structure changes through the exit from the Steel division and the acquisition of Somplast.	The Nomination and Remuneration Committee is established.	The remuneration strategy begins to integrate long-term motivation and retention objectives.
2022	Re-election of the members of the Board of Directors. Focus on the integration of the new business lines (biodegradable).	Audit and Remuneration maintain their structure, with a focus on corporate governance.	The Investor Relations team works with the executive to monitor ESG risks.
2023	New mandates for 4 years on the Board of Directors (3 out of 5 members are independent).	The Board is constantly informed about non-financial performance.	STIP and LTIP officially include ESG indicators (e.g. recycling, carbon emissions).
2024	Expansion of the Board of Directors from 5 to 7 members to diversify expertise in the context of regional expansion.	It is decided to establish the Risk and ESG Committee (active from 2025).	The KPI for the circular economy has a share of 30% in the STIP component. Carbon emissions are a criterion in the LTIP.

The practical analysis conducted on OMV Petrom, Banca Transilvania, and Teraplast reveals a common trajectory of informational maturation, although their sectoral starting points and priorities differ significantly. From an individual perspective, OMV Petrom has successfully transitioned from environmental reporting focused on isolated impacts to a holistic integration of decarbonization into its long-term capital strategy. In contrast, Banca Transilvania has effectively translated qualitative governance indicators into quantifiable financial risk metrics, aligning social responsibility with

credit risk management. For Teraplast, the implementation of ESRS has acted as a transparency engine, requiring a detailed disclosure of circularity and operational sustainability that was less rigorous in the pre-ESRS era.

The results indicate that company size and sector are no longer justifications for lack of development and opacity; instead, ESRS establishes a baseline of corporate financial literacy that fuels the need for corporate and business restructuring and also recalibrates the expectations of all stakeholders.

The data presented above reflects that the practical implementation within a company of the overhauled European legal framework on sustainability has effects not only from a compliance perspective, but it went above and contributes to the development of the business models of each company, reshaping their corporate governance structure to be more competitive and resilient.

Even though the transition from one framework to another brought significant challenges, which could have acted as a barrier due to the technical complexity and associated costs, the data shows that it acted as a catalyst for understanding the long-term value in a wide development plan.

The structural evolution in each company, which is in line with the specific sustainability standards, reflects that the ESRS was used in fact as a guideline for business development, providing a financial education learning platform and a usable language for corporate transformation.

At the same time, our analysis reveals that the adoption of the double materiality principle acts as a structural bridge between non-financial disclosures and financial decision-making.

In the case of Banca Transilvania, for instance, the data provides proof of a clear shift - ESG risks are no longer treated as peripheral 'charity' metrics but are quantified as variables with a direct impact on credit risk and capital cost.

This empirical finding validates once more that ESRS functions as a 'financial literacy agent,' forcing corporate boards to translate sustainability performance into the universal language of risk and value.

Going back to the central research question - to what extent the technical complexity of ESRS acts as a barrier or a catalyst for understanding long-term value creation - the results of the content analysis provide a nuanced answer that strongly favours the role of a catalyst.

While the initial barrier to entry is high due to the massive volume of data points and auditing requirements, this study indicates that such complexity may be precisely what forces organizations to move beyond 'surface-level literacy'.

The technical rigor has compelled a deep collaboration between the administrative bodies, financial and sustainability departments, leading to a more profound understanding of how non-financial factors erode or build corporate value over time.

The analysis shows that the perceived 'technical barrier' can actually function as a cognitive disciplinary mechanism. By mandating the double materiality principle, ESRS transforms abstract concepts such as 'biodiversity' or 'supply chain human rights' into variables with a direct impact on cash flows and risk profiles.

The empirical evidence from the three case studies suggests that once this complexity is internalized within corporate systems, it becomes a universal language that facilitates more precise dialogue with institutional investors. Complexity, therefore, is not an obstacle to understanding but rather a guarantee of informational precision and long-term strategic clarity.

In conclusion, the research confirms that ESRS acts as a 'financial literacy agent' through its very technicality. The transition from voluntary to ESRS-compliant reporting has led to a much clearer mapping of value creation mechanisms. What initially appeared to be a bureaucratic and complex barrier has proven, in practice, to be the necessary infrastructure for a transparent capital market. Under this new framework, sustainability is no longer a peripheral 'image cost' but a fundamental component of financial viability and long-term resilience.

Conclusions

The integration of ESRS standards into organizational practices is more than just a reporting requirement; it represents a structural transformation of corporate governance and market transparency in Europe. The transition from the limited framework of the NFRD to the robust regime of the CSRD and ESRS enables the capture of the value of intangible assets, such as human and intellectual capital, which, although not appearing on the traditional balance sheet, are essential for long-term value creation.

The digitization of information through a single electronic format and its accessibility via the future European Single Access Point (ESAP) will ensure that no investor or citizen is left behind in the process of making sustainable economic decisions. Ultimately, the financial education facilitated by ESRS and the other pieces of legislation connected with the standards, becomes the guarantor of a stable, resilient, and responsible economic system in the face of global challenges.

This analysis offers a different, innovative perspective on the ESRS, proposing an open-minded approach to their role and positioning them not merely as a tool for legal compliance, but as a genuine vehicle for financial education.

The convergence of sustainability reporting and financial education forms the foundation of a new economic culture in the EU.

The implementation of the ESRS requires companies to disclose data that, while reflecting their impact on the environment and society, possesses essential predictive value for institutional and individual investors.

Through the principle of double materiality, the ESRS standards educate users to identify the interdependence between a firm's external impact and the financial risks that may affect cash flows or the cost of capital.

From a societal education perspective, these standards facilitate an informed dialogue between companies and stakeholders, such as trade unions or worker representatives, providing them with the tools needed to accurately assess the resilience of the business model in the face of climate change or social transformations. Furthermore, the regulation of ESG rating providers complements this educational process, ensuring investors have access to transparent methodologies that explain the measured indicators in detail, thereby reducing the risk of greenwashing.

As a result, sustainability data gains a status comparable to that of traditional financial information, enabling a more efficient and informed allocation of capital.

The original contribution of this paper lies in defining ESRS not merely as a compliance burden, but as a cognitive framework that enhances the financial literacy of the investment ecosystem and, in the end, as a foundation for a new economic culture within the EU.

Practical implications include the need for targeted training programs for CFOs to align sustainability data with traditional financial reporting.

From a theoretical implication standpoint, the paper expands the concept of financial literacy by positioning the sustainability dimension as a central pillar for understanding modern financial risks.

When looking at this paper from a practical perspective, the organizations may look at the results as reference points that suggest that investing in specialized sustainability units reduces the cost of capital by enhancing the confidence of educated investors.

While this study is limited to three cases, future research should expand this analysis to SMEs, exploring whether the 'trickle-down' effect of ESRS technicality maintains its educational value in less resource-intensive environments.

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