

SUSTAINABILITY AND INSOLVENCY: OPPOSING FORCES OR STRATEGIC ALLIES? A SYSTEMATIC LITERATURE REVIEW

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Abstract

Insolvency represents one of the most significant contemporary economic challenges, with major implications for both society as a whole and the business environment. It affects not only the financially distressed company but also employees, creditors, suppliers, and other stakeholders involved in the enterprise's operations. In the context of a global economic climate marked by instability and rapid change, sustainability has become a priority for the business sector, offering long-term development perspectives and the potential to mitigate risks to which a company may be exposed. Sustainable practices, when integrated into corporate strategies, no longer constitute merely ethical choices, but may serve as mechanisms for preventing insolvency risk and ensuring business continuity. Based on these premises, the present study aims to answer the following research question: "What are the main trends identified in the academic literature regarding the relationship between the adoption of sustainability initiatives and the insolvency of companies?". From a methodological standpoint, a systematic literature review (SLR) will be conducted, integrating both quantitative and qualitative approaches. Relevant publications from the fields of accounting, taxation, and management will be examined, using the Scopus, Web of Science and Google Scholar databases for the period 2014–2024. Based on well-defined keywords and selection criteria, significant studies related to the research topic will be identified. Preliminary findings suggest that the relationship between the two concepts can be analysed from two perspectives: the first highlights that integrating sustainability objectives into a company's strategy may reduce the risk of insolvency; the second considers the possibility of adopting such objectives within insolvency proceedings to avoid bankruptcy. The limitations of this study are related to the databases used and the subjectivity of the selection process (criteria, keywords, interpretation of article relevance). The originality of this research lies in its systematic approach to the literature concerning the relationship between sustainability and insolvency, as well as in the methods employed to highlight this connection.

Keywords: *sustainability; insolvency; ESG; CSR; insolvency risk.*

JEL Classification: M41; M14; Q01; Q56.

1. INTRODUCTION

In an economy characterized by intense competition, the stability and viability of an entity depend on how it manages risks, as both current and future performance can be influenced by various unforeseen factors (Holt, 2009). This reality explains the growing interest among financial specialists in developing methods for assessing and forecasting the uncertainties that frequently arise in business operations. Moreover, in the current context of economic transformation, there is increasing pressure to transition toward long-term sustainable business models (Khalil *et al.*, 2024). Over the past decades, the concept of sustainability has evolved significantly. While it was initially focused on profit maximization, it now encompasses social, environmental, and governance dimensions as well (Thiele, 2024). Insolvency, on the other hand, plays a crucial role in the modern economy by providing a legal and structured framework for companies facing financial distress. It allows them to restructure their debts or be liquidated in an orderly manner. The primary objectives of insolvency law are to protect creditors and to offer companies the opportunity either to recover or to exit the market without causing economic instability (Nagy and Ghica, 2020).

The Triple Bottom Line represents an accounting approach that defines sustainability by integrating three essential dimensions: economic viability, social responsibility, and environmental stewardship (Goel, 2010). This framework considers both the management of natural resources and the economic and social context in order to create long-term value (Goel, 2010). Building on this idea, two opposing theories explain the impact of sustainability on corporate financial performance: the Value-Creation Theory and the Value-Destruction Theory (Yu and Zhao, 2015). While the former argues that assuming social and environmental responsibility reduces the risk of jeopardizing a company's financial performance or viability, the latter claims that engaging in sustainability-related activities may shift attention away from profitability, prioritizing stakeholder satisfaction at the expense of shareholder interests (Alshehhi *et al.*, 2018). Alongside Agency Theory, Legitimacy Theory, and Stakeholder Theory, these frameworks help conceptually explain the link between business sustainability and insolvency risk. Poor investment decisions related to sustainable development – such as investing in underperforming sustainability instruments or allocating insufficient financial resources – can adversely affect a company's financial performance, thereby increasing its risk of insolvency. Conversely, companies that fail to invest in sustainability may damage relationships with stakeholders and lose legitimacy in the eyes of investors, creditors, or the broader society.

The objective of this article is to analyze the relationship between corporate sustainability and insolvency, providing an in-depth understanding of how sustainable development goals (economic, social, and environmental) may influence the occurrence of insolvency.

2. METHODOLOGY

To characterize the current state of knowledge regarding the relationship between sustainability and a company’s insolvency, this paper adopts the Structured Literature Review (SLR) approach proposed by (Massaro *et al.* 2016), with the aim of thoroughly evaluating and analysing the literature. This research method has been widely employed over time in various fields (accounting, auditing, management), facilitating the identification of new perspectives, the formulation of critical views, and the establishment of future research directions as well as the underlying research questions (Massaro *et al.*, 2016). Scopus, Web of Science and Google Scholar were selected and used as the primary databases for extracting relevant articles published during the period 2014–2024. The sample analysed includes both articles and papers published in conference proceedings. According to Massaro *et al.* (2016), the SLR process is based on ten stages, illustrated in Table 1:

Table 1. The SLR process

1. Establishing the protocol	6. Evaluating reliability
2. Formulating research questions	7. Ensuring validity
3. Search process	8. Coding and analysis
4. Assessing the impact of articles	9. Perspectives and critical reflections
5. Developing the analytical framework	10. Future research directions

Source: Massaro *et al.* (2016, p. 5)

2.1. Developing the SLR protocol and formulating research questions

The protocol for the literature review serves to rigorously document the research process, thereby enhancing the reliability of studies and ensuring transparency (Yin, 2009). A comprehensive protocol should include the justification of the research question, the proposed methods, and the approach for identifying, assessing, and synthesizing studies, thus providing a standardized framework for conducting the research (Petticrew and Roberts, 2008). With regard to the relationship between sustainability and a company’s insolvency, the literature review protocol includes (Table 2):

Table 2. Literature review protocol

Research Questions	How has literature on the relationship between sustainability and insolvency evolved?
	What are the main themes and findings identified in the literature on the relationship between sustainability and insolvency?

	What are the future research directions proposed in studies examining the link between sustainability and insolvency?
Method Used	Structured Literature Review (SLR)
Types of Studies Included	Articles and papers published in conference proceedings
Study Selection Criteria	<ul style="list-style-type: none"> ➤ Written in English ➤ Publicly available (Open Access) ➤ Having more than 30 citations (according to Google Scholar)
Sources for Search	<ul style="list-style-type: none"> ➤ Scopus ➤ Web of Science ➤ Google Scholar
Approach to Evaluation and Synthesis	Specific SLR stages

Source: Issam and Abdellatif (2017, p. 540)

2.2. The literature search process

In the first stage of this analysis, relevant databases were selected for extracting pertinent publications: Scopus and Web of Science. The choice of these two databases was based on criteria such as international recognition, extensive coverage of the finance and accounting fields, and indexing in prestigious databases. The focus was on articles that directly or indirectly address the link between sustainability and insolvency. Additionally, the search for publications relevant to this analysis was extended to Google Scholar in order to develop a more comprehensive understanding of the relationship between sustainability and insolvency. In the second stage, the scope and publication period were defined. The research concentrated on articles and papers published between 2014 and 2024. The targeted research areas were those classified under “Business, Management and Accounting” and “Economics, Econometrics and Finance”. The final stage involved establishing the keywords used in the search process. To identify the most relevant publications for the subject under investigation, a search strategy was designed with the following structure: *TITLE-ABS-KEY (“sustainability” OR “ESG” OR “ESG AND performance” AND “insolvency” OR “insolvency AND risk” OR “bankruptcy”)*. This ensured that all key terms important to the chosen topic were comprehensively covered.

Initially, a total of 3,551 publications were retrieved from the Scopus database, 5,426 publications from the Web of Science database, and 12,400 from Google Scholar. Given the impossibility of analyzing such a vast number of articles, the inclusion criteria were applied alongside a manual analysis to assess relevance and avoid duplicates, resulting in a final total of 117 publications that comprise the sample subjected to analysis.

2.3. Impact of the analyzed articles

At this stage, the impact of the analyzed articles was assessed through their citations on Google Scholar, which represents an important criterion for identifying relevant works within a field. To facilitate this process, the software Publish or Perish 8 was used to extract citation data and metrics. The frequent citation of publications reflects major directions in the development of the field and contributes to understanding its evolution. In the literature, researchers often seek to identify the most influential works within a domain, commonly referred to as “citation classics” (Garfield, 1964). The top ten most cited publications from the Scopus and Web of Science databases are presented in the Table 3:

Table 3. Top 10 most cited articles (Citations recorded on May 1, 2025)

Title	Author	Year	No. of citations
Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis	K.V. Lins, H. Servaes, A. Tamayo	2017	2159
The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China	D. C. Broadstock, K. Chan, L.T.W. Cheng, X. Wang	2021	866
The long-term benefits of organizational resilience through sustainable business practices	N. Ortiz-de-Mandojana, P. Bansal	2016	743
Do environmental, social, and governance activities improve corporate financial performance?	J. Xie, W. Nozawa, M. Yagi, H. Fuji, S. Managi	2019	660
Corporate social responsibility and financial performance: A non-linear and disaggregated approach	J. Nollet, G. Filis, E. Mitrokostas	2016	455
Sustainable development, ESG performance and company market value: Mediating effect of financial performance	G. Zhou, L. Liu, S. Luo	2022	404
Does corporate social responsibility reduce financial distress risk?	S. Boubaker, A. Cellier, R. Manita, A. Saeed	2020	313
On the relation between corporate social responsibility and financial performance	A.Awaysheh, R.A. Heron, T. Perry, J.I. Wilson	2020	291
ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms	K. Albitar, K. Hussainey, N. Kolade, A.M. Gerged	2020	288

Title	Author	Year	No. of citations
Corporate social responsibility and financial performance relationship: A review of measurement approaches	A.Galant, S. Cadez	2017	283

Source: own elaboration

This stage provides an overview of the scientific influence and impact of the top ten most cited articles in the established sample. The data presented allow for the assessment of scientific impact from the perspective of total volume of citations that indicates long-term recognition and cumulative influence over time.

2.4. Defining the analytical framework

A systematic literature review (SLR) is an empirical endeavour that seeks to investigate the evolution of knowledge within a specific field, aiming to formulate well-substantiated answers to clearly defined research questions (Massaro *et al.*, 2016). As in any empirical study, it is important for the researcher to establish in advance which elements will be examined and how the relevant data will be collected and interpreted (Massaro *et al.*, 2016) (Table 4).

Table 4. Defining the analytical framework

No.	Analysis criterion	Examples of studies applying this criterion
1.	Year of publication	Guthrie <i>et al.</i> (2012); Serenko and Dumay (2015)
2.	Geographic context	Broadbent and Guthrie (2008); Guthrie <i>et al.</i> (2012); Massaro <i>et al.</i> (2016)
3.	Topics addressed in the literature	Broadbent and Guthrie (2008); Guthrie <i>et al.</i> (2012)
4.	Research methodology	Parker (2005); Broadbent and Guthrie (2008); Guthrie <i>et al.</i> (2012)
5.	Sector of activity	Rimmel <i>et al.</i> (2009); Bruggen <i>et al.</i> (2009)

Source: Massaro *et al.* (2016, p. 13)

2.5. Reliability and validity

Within the systematic literature review process on the relationship between sustainability and insolvency, a key aspect is the quality control of the data included in the analysis. Given that the literature investigated originates from diverse sources, it is necessary to apply rigorous methods for the selection and coding of publications to ensure the reliability and validity of the analysed works. In this respect, the recommendations of Perry and Krippendorff (2013) were applied, and specific search criteria for articles in the Scopus, Web of Science and Google Scholar databases were established. By reproducing the steps of the

literature search, the results should be consistent and accurate according to the established criteria. Regarding validity, according to White and McBurney (2012), there are three types of validity: internal, external, and construct validity. Internal validity was ensured by defining the analytical framework. External validity was confirmed through the literature search process, where the criteria for identifying publications relevant to the study were detailed. The third type, construct validity, refers to the quality of the data used in the analysis, which was supported by examining the impact of the articles (as evidenced by the ranking of the top ten most cited articles).

2.6. Coding of the analysed publications

Data analysis represents one of the most complex stages of qualitative research, with coding serving as a central element that enables the coherent and meaningful structuring and interpretation of textual content (Basit, 2003). After selecting only the relevant studies that include empirical estimates, tests, or significant results, the next step involved identifying their essential features and applying a coding process (Massaro *et al.*, 2016). To accomplish this, the NVivo (15) software was employed to code the sample established in the previous stages, to quantify the criteria defined within the analytical framework.

3. QUANTITATIVE ANALYSIS RESULTS

The quantitative analysis conducted in this systematic literature review aimed to answer the question “*How has the literature on the relationship between sustainability and insolvency evolved?*”, using a scientific approach to extract the essential features from a complex situation and formulate a new generalizable theory (Franklin, 2008). The study involved rigorous coding of the sample to observe the progress of the literature through the selected attributes, identifying temporal, conceptual, geographic, and methodological trends (Table 5).

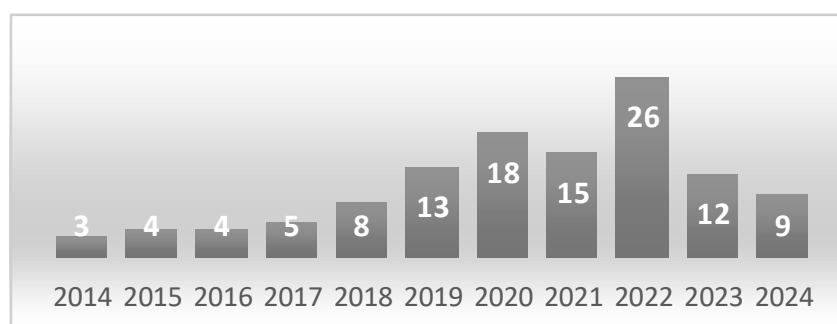
Table 5. Results of sample coding

Attribute	Coding and results	
<i>Year of Publication (A)</i>	<ul style="list-style-type: none"> ➤ A01 – 2014 → 3 ➤ A02 – 2015 → 4 ➤ A03 – 2016 → 4 ➤ A04 – 2017 → 5 ➤ A05 – 2018 → 8 	<ul style="list-style-type: none"> ➤ A06 – 2019 → 13 ➤ A07 – 2020 → 18 ➤ A08 – 2021 → 15 ➤ A09 – 2022 → 26 ➤ A010 – 2023 → 12 ➤ A011 – 2024 → 9
<i>Geographic context (B)</i>	<ul style="list-style-type: none"> ➤ B01 – Europe → 44 ➤ B02 – America → 11 ➤ B03 – Africa → 5 ➤ B04 – Asia → 22 	<ul style="list-style-type: none"> ➤ B05 – Middle East → 5 ➤ B06 – Oceania → 1 ➤ B07 – Global → 29

Attribute	Coding and results	
Topics addressed in the literature (C)	<ul style="list-style-type: none"> ➤ C01 – Impact of CSR on financial performance → 49 ➤ C02 – Impact of ESG/Sustainability on financial performance → 46 	<ul style="list-style-type: none"> ➤ C03 – Relationship between ESG and insolvency → 16 ➤ C04 – Relationship between ESG and financial performance during crises → 6
Research Methodology (D)	<ul style="list-style-type: none"> ➤ D01 – Empirical study → 88 ➤ D02 – Case study/interview → 4 ➤ D03 – Theoretical study → 11 	<ul style="list-style-type: none"> ➤ D04 – Mixed methods → 11 ➤ D05 – Content analysis → 1 ➤ D06 – Commentary → 2
Sector of activity (E)	<ul style="list-style-type: none"> ➤ E01 – Banking/Finance → 12 ➤ E02 – Manufacturing → 9 ➤ E03 – Tourism → 2 ➤ E04 – Construction → 1 	<ul style="list-style-type: none"> ➤ E05 – Automotive/Aviation → 3 ➤ E06 – Corporate/IT → 2 ➤ E07 – Oil and Gas → 2 ➤ E08 – Food → 2 ➤ E09 – Other → 84

Source: own elaboration

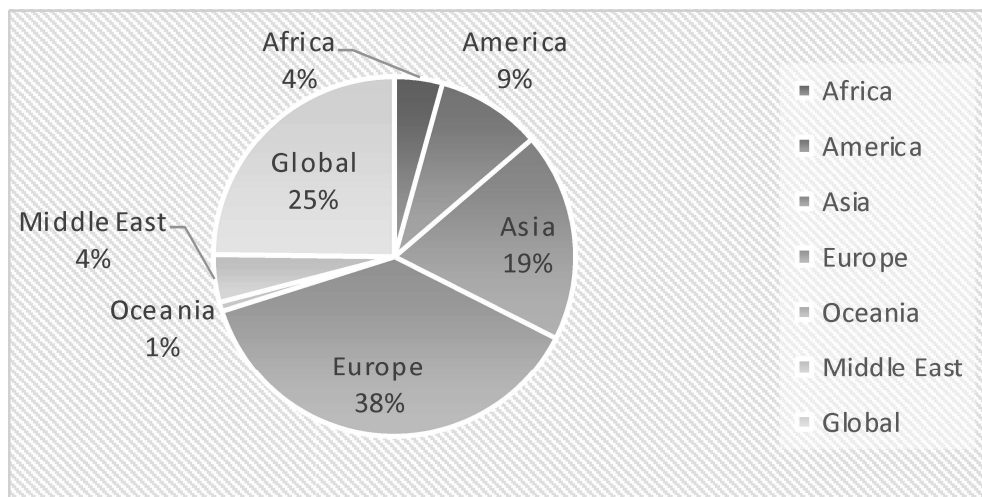
The temporal analysis of the literature (Figure 1) from the period 2014-2024 indicates a marked increase in interest regarding the link between sustainability and insolvency, especially between 2020 and 2022, when research focused on the interaction between ESG/CSR practices and financial risks such as insolvency. Conversely, the fewest publications come from 2014. This evolution has been influenced by the intensification of discussions on climate change, the adoption of the Sustainable Development Goals (UN, 2015), and recent global regulations, all of which have fueled this growth trend.



Source: own processing based on Table 5

Figure 1. Temporal analysis of literature

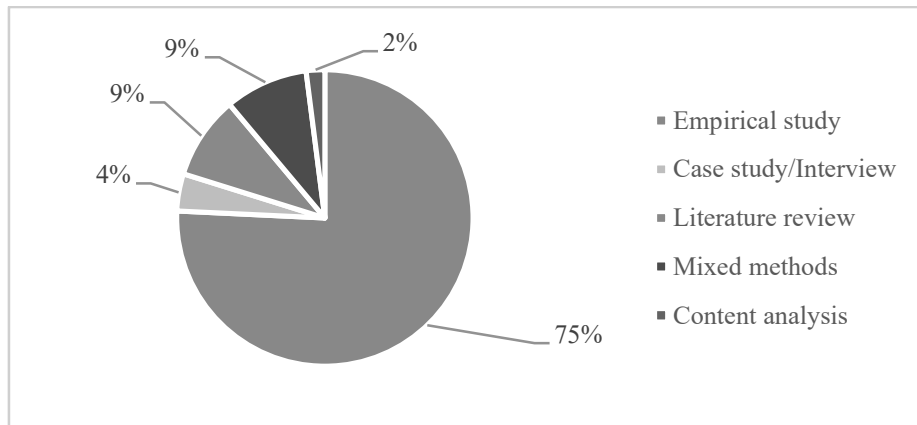
The analysis of the geographical context within this SLR reveals that, although the publications are globally distributed, there is a pronounced concentration in the European area, accounting for 38% of the total sample (Figure 2). Studies of a global nature, encompassing countries from multiple geographical regions (typically analyzing firms at an international rather than merely national level), constitute 25% of the examined literature. Meanwhile, publications originating from Asia and the Americas combined represent approximately 28% of the sample. In contrast, Africa and the Middle East are markedly underrepresented, each contributing only 5 studies (8% collectively), while Oceania is reflected by a single relevant publication. This distribution underscores a predominant scholarly focus on developed economies, particularly within Europe.



Source: own processing based on Table 5

Figure 2. Geographic context analysis

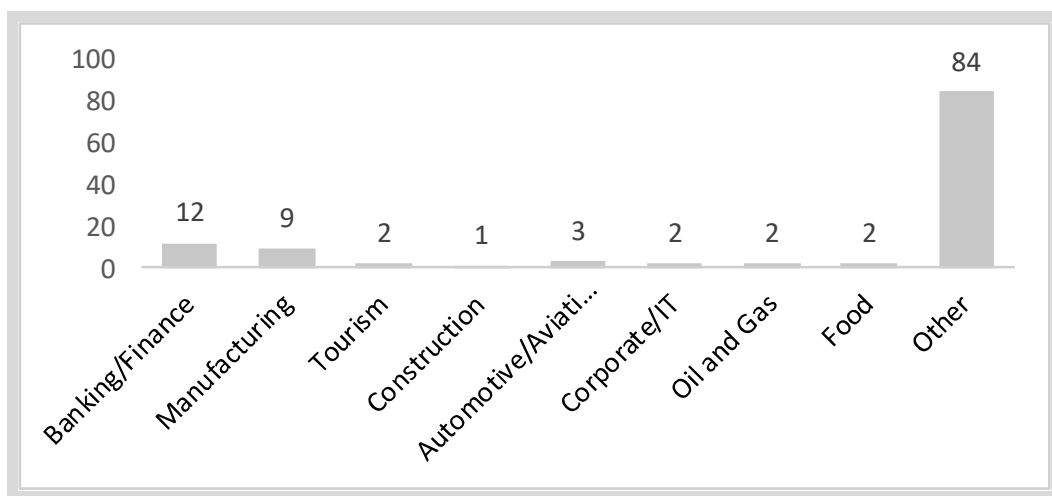
From a methodological standpoint (Figure 3), the analysis reveals that the publications constituting the sample are predominantly characterized by quantitative empirical approaches. The majority of the studies (approximately 80% of the total) employ empirical methods such as statistical analyses based on financial and non-financial datasets (including financial indicators, stock performance, Z-scores, ESG scores, etc.) (Mirzaei, 2024). This strong reliance on quantifiable evidence underscores a scholarly orientation toward establishing a solid empirical foundation for the relationship between ESG/CSR practices and insolvency or financial performance. By contrast, the remaining 20% of the analyzed publications comprise theoretical studies or employ mixed methods, thereby contributing to the conceptual development and deeper understanding of these intertwined phenomena.



Source: own processing based on Table 5

Figure 3. Research methodology analysis

Regarding the sectoral profile of the analysed literature (Figure 4), it is evident that most studies (84 publications) do not focus on a specific sector. Instead, they examine the relationship between sustainability and insolvency or financial performance within a general, multi-sectoral context, often relying on large samples of firms listed on various renowned stock exchanges and included in global market indices. While this transversal approach enhances the broad applicability of the findings, it may also overlook important sector-specific nuances. The results further indicate a notable scholarly interest in the banking and financial sector, with 12 dedicated studies, suggesting the significance of exploring sustainability within financial institutions, particularly in relation to how sustainability objectives can impact credit risk, capital costs, and regulatory compliance. Additionally, analyses have also been conducted within the manufacturing sector.



Source: own processing based on Table 5

Figure 4. Sectorial profile analysis

In conclusion, the results of the quantitative analysis highlight a research field that is currently undergoing a process of rapid expansion. According to the findings, recent years have witnessed a growing interest in the topic under investigation, while the geographical context reveals that the studies have been conducted primarily in developed economies.

4. QUALITATIVE ANALYSIS RESULTS

From the perspective of the themes addressed in the literature (Attribute C), four major directions have been identified that explore, either directly or indirectly, the relationship between sustainability and insolvency. This analysis contributes to answering the research question: *“What insights and perspectives does the published literature offer regarding the relationship between sustainability and insolvency?”*

4.1. The impact of Corporate Social Responsibility on financial performance

Corporate Social Responsibility (CSR) encompasses a set of voluntary actions through which companies engage with stakeholders in an ethical and responsible manner, exceeding legal requirements to generate a positive social impact (Chetty, Naidoo and Seetharam, 2015). Over time, the concept of business sustainability has evolved, with CSR now representing an essential component of a broader, long-term strategic approach (Jan and Marimuthu, 2015).

Within this framework, Yury Karaleu argues that CSR yields significant advantages for both companies and society at large. At the corporate level, CSR enhances a firm’s reputation, mitigates risks, lowers costs, and facilitates access to potential financing, while globally it promotes sustainability and innovation (Karaleu, 2018). A key aspect highlighted is how CSR serves as a means of managing the social risks associated with insolvency, given that job losses and unpaid wages resulting from bankruptcy can produce substantial adverse social consequences (Karaleu, 2018).

The relationship between corporate social responsibility (CSR) and firms’ financial performance has been extensively explored in the literature, yielding both positive and negative outcomes. Studies focusing on companies in the food and beverage industry have shown that robust CSR governance enhances social and environmental performance, while social components (such as employee focus and community engagement) translate into superior financial results and lower insolvency risk (Nirino *et al.*, 2020). Similarly, research on Taiwanese companies found that investments in employee-related CSR (including diversity, labor rights, and workplace safety) significantly contribute to value creation for the firm and higher financial returns (Lin *et al.*, 2019).

Moreover, investigations conducted in diverse contexts, from small and medium-sized enterprises in Ghana (Ansong, 2017) to publicly listed firms on prestigious global stock exchanges, have reported a positive correlation between

CSR engagement and financial performance. Companies adopting responsible practices tend to be rewarded by the market and stakeholders through higher valuations, while firms with elevated ESG scores demonstrate greater operational efficiency and corporate reputation (Awaysheh *et al.*, 2020).

Nonetheless, the literature also highlights neutral findings, suggesting a relationship more complex than a simple linear one. A study analyzing South African companies concluded that there were no significant long-term effects on financial performance despite CSR engagement, although it did observe positive short-term market reactions following the publication of sustainability reports (Chetty *et al.*, 2015). Thus, CSR effects may vary depending on the timeframe and the manner in which CSR principles are implemented, precluding a straightforward depiction of this relationship.

Some studies have highlighted a nonlinear relationship between CSR and financial performance. For instance, research conducted on companies listed on the Indian Stock Exchange revealed a “U-shaped” link between ESG scores and firm market value (Tobin’s Q), indicating that at low levels of CSR engagement, increased social responsibility is initially associated with a decline in performance due to immediate costs. However, once a certain threshold is surpassed, additional CSR efforts lead to significant increases in firm value (Sung Kim and Oh, 2019). This notion is further supported by the study of Nollet, Filis, and Mitrokostas on S&P 500 firms, which identified a similar “U-shaped” relationship, demonstrating that CSR investments may negatively impact profitability in the short term but become beneficial after crossing a critical level of involvement (Nollet *et al.*, 2016). Moreover, the economic context and firm-specific characteristics can significantly influence the relationship between CSR and financial performance.

4.2. Impact of ESG/Sustainability on financial performance

The implementation of sustainability standards can have a positive impact on a company’s financial performance. Although such measures often entail high short-term costs, such as investing in environmentally friendly equipment or adopting higher safety standards, they yield benefits that help consolidate and sustain business operations over the long term (Abdi *et al.*, 2022).

The analysis conducted by Sandberg and Abrahamson in the European food industry concluded that there is a positive relationship between ESG scores and financial performance, suggesting that effective governance alongside well-developed social and environmental policies contribute to enhancing firm value (Sandberg *et al.*, 2023). However, findings from the aviation sector indicate that the impact of ESG on financial outcomes is moderated by factors such as firm size and age, with larger and more mature companies deriving greater value from sustainability investments (Abdi *et al.*, 2022). Research by Tan and Zhu highlights that managerial awareness and financial constraints significantly shape how ESG scores translate into ecological innovation, thereby directly affecting financial

performance (Tan and Zhu, 2022). A similar perspective is offered by Yang and collaborators, who identified a U-shaped positive relationship between ESG scores and environmental practices, implying the existence of an optimal ESG performance threshold beyond which financial impacts turn favorable (Yang *et al.*, 2024).

From a theoretical standpoint, Lee and Suh emphasize the necessity of an integrated approach to better understand how sustainability objectives influence financial performance, particularly by focusing on ESG reporting transparency and its link to economic outcomes (Lee and Suh, 2022). Meanwhile, the study by Albitair and Hussainey indicates that although there is evidence supporting a positive relationship between ESG and firm performance, the effects vary depending on the period and context analyzed (Albitair *et al.*, 2020). In an equivalent way, certain studies underscore the value relevance of non-financial disclosures, showing that companies listed on the Dow Jones Sustainability World Index, which exhibit a high degree of transparency regarding ESG performance, receive significantly better financial evaluations (Aureli *et al.*, 2020). Another topic pertinent to this research concerns the long-term performance of resilient and sustainability-oriented firms. The integration of sustainable practices into business strategies fosters organizational resilience and leads to superior long-term financial performance, particularly in economic contexts marked by volatility and crisis (Ortiz-de-Mandojana and Bansal, 2016). This view is also supported by other authors, who further point out that the effect of ESG on firm performance may vary depending on the industry as well as on the level of ESG policy integration (Nguyen *et al.*, 2022).

4.3. Relationship between ESG and insolvency

Environmental, social, and governance (ESG) practices have come to play an increasingly significant role in preventing, anticipating, and managing insolvency situations, particularly given the rising number of insolvent companies worldwide. In this context, Tuula Linna investigates how sustainability principles can be integrated into insolvency and restructuring proceedings, considering the diversity of resources involved (natural, human, social, etc.) (Linna, 2019). However, a conflict exists between creditor interests and sustainability, as in bankruptcy the administrator is required to maximize asset value to satisfy creditors, thereby limiting opportunities to promote sustainability objectives (Linna, 2020). In cases of insolvency or imminent financial distress, decisions regarding liquidation or restructuring must be grounded in a thorough viability assessment of the company and the interests of its creditors (Karaleu, 2018). The viability test determines whether the company can improve its financial situation through restructuring, while from the creditors' perspective, the evaluation focuses on the proposed restructuring plan's capacity to maximize debt recovery. Within this framework, financial performance (ESP) naturally constitutes a key component of the viability

assessment (Karaleu, 2018). Nevertheless, it is equally important to examine whether the company can achieve sustainable economic performance. ESG sustainability becomes particularly relevant when such standards are mandated by law or are necessary for the continued operation of the debtor company (Karaleu, 2018). Although implementing ESG elements often involves short-term costs, they may promote long-term economic sustainability. For creditors, this issue remains sensitive, as they typically seek prompt recovery of their investments. However, from a broader perspective, sustainability considerations can support restructuring as an alternative to liquidation.

From a legal perspective, G. Ballerini highlights the complexity of integrating sustainability principles into insolvency law, emphasizing both the structural and interpretative challenges of the current legal framework, as well as the opportunities related to incorporating public interest and environmental protection into judicial decisions (Ballerini, 2023). Similarly, Reckenzaun argues that, in the current context of the green transition, insolvency regulations should be adapted to foster long-term resilience and to provide a structured framework that enables financially distressed firms to reorganize in an orderly and responsible manner (Reckenzaun, 2014). Another important aspect found in the literature is the role of transparent communication of ESG practices when a company emerges from a crisis; credible and proactive communication of ESG commitments can serve as a strategic tool for restoring trust during periods of financial difficulty (Neumann and Forthmann, 2024). From a practical standpoint, the relationship between sustainability principles and insolvency risk is supported by empirical research. Landi and collaborators have shown that integrating ESG criteria into risk management strategies significantly reduces the financial risk faced by companies, including the risk of insolvency (Landi *et al.*, 2022). Additionally, Timur demonstrates that ESG scores can have predictive power in estimating the probability of insolvency, concluding that such scores – when well-balanced – may serve as early warning indicators (Timur, 2024).

4.4. Relationship between ESG and financial performance during crises

Global economic events have demonstrated that during periods of crisis, most companies – regardless of the sector in which they operate or their organizational structure – face challenges such as liquidity shortages or financial losses (Žiković, 2016). These difficulties may lead to insufficient funds to cover outstanding liabilities, which in certain cases can trigger insolvency. Ran Sarabany identified key factors including economic recessions, currency fluctuations, and financial market volatility, highlighting a correlation between corporate failure rates in Israel (1990-2002) and major economic events (Sharabany, 2004). Similarly, Bhattacharjee *et al.* observed in their study that macroeconomic instability significantly contributes to corporate failure (Bhattacharjee *et al.*, 2009).

The 2008 financial crisis, the Covid-19 pandemic, and the Russo-Ukrainian war have functioned as catalysts for severe economic shocks, leading to an increased corporate insolvency rate. This analysis underscores the causal relationship between external events and firms' vulnerability. Although the Covid-19 pandemic triggered a global health and financial crisis, the initial number of insolvent companies actually declined (Coutinho *et al.*, 2023). This was due to support measures implemented by most states to mitigate the impact and prevent widespread bankruptcies (Creditreform International, 2022). However, these interventions merely delayed the crisis's consequences, with the post-pandemic years witnessing a significant rise in insolvencies both nationally and across the European Union (Savickis, 2024). Hopes for a swift economic recovery following the pandemic were dashed by the outbreak of the war in Ukraine in 2022. The energy crisis triggered by the conflict fueled soaring inflation throughout Europe, surpassing 10%. In response to these adverse effects, central banks raised interest rates, but this decision added a new burden on already strained economies. These developments contributed to an increased number of insolvent firms, highlighting the fragility of global economies during times of crisis. Understanding the factors that can precipitate insolvency is crucial for conducting in-depth analyses of the relationship between sustainability and insolvency.

The study conducted by Broadstock and colleagues provides evidence from China during the COVID-19 pandemic, showing that firms with high ESG performance demonstrated greater resilience to economic shocks, achieving more stable financial returns and reduced volatility (Broadstock *et al.*, 2021). In Europe, research conducted by Chiaramonte and collaborators in the banking sector indicated that ESG strategies contribute to enhancing financial stability, lowering financial risk, and improving profitability (Chiaramonte *et al.*, 2022). Likewise, in the same sector, Citterio and King (2023) found that ESG scores can be effectively used to anticipate financial distress, particularly due to the governance and social responsibility dimensions (Citterio and King, 2023).

El Khoury and colleagues analyzed the performance of G20 companies during the COVID-19 pandemic and concluded that there is a positive relationship between sustainability practices and financial performance (El Khoury *et al.*, 2022). By contrast, Petitjean adopted a different initial stance, observing that overall ESG performance is not consistently associated with improved financial outcomes. However, a more detailed examination of environmental and governance policies revealed distinct positive effects (Petitjean, 2019).

5. FUTURE RESEARCH DIRECTIONS

To address the question concerning future research directions proposed in studies exploring the link between sustainability and insolvency, we examined the publications in our sample to identify avenues suggested by other researchers.

Given the varied conclusions of existing studies, a promising research direction would involve deepening the understanding of the causal relationship between ESG performance and insolvency risk by employing advanced quantitative methods capable of addressing issues of endogeneity and sample selection (Landi *et al.*, 2022). Additionally, there is a need for longitudinal analyses of the impact of ESG on financial performance, considering the temporal effects of profitability indicators and country-level variables (El Khoury *et al.*, 2022). Another important research avenue is the examination of small and medium-sized enterprises across various sectors and legal systems, especially since most empirical work has focused on large publicly listed firms (Petitjean, 2019). Relevant topics also include identifying types of CSR initiatives that can enhance firm financial performance (Xie *et al.*, 2019), exploring additional factors that influence the relationship between CSR practices and financial outcomes (Rossi *et al.*, 2021), and investigating the quantitative measurement possibilities of ESG dimensions (Sandberg *et al.*, 2023). Moreover, studies on how firms adapt their investment strategies during periods of crisis represent another valuable line of inquiry (Chiaromonte, 2022).

6. CONCLUSIONS

Overall, the literature review on the relationship between sustainability and insolvency highlights a growing field of research, fueled by concerns about corporate responsibility and the resilience of firms to major economic shocks. The studies reviewed indicate that integrating ESG principles and CSR practices can have significant effects on financial performance and insolvency risk reduction, although the results are not always convergent, varying depending on the economic context, industry, firm size, and time period analyzed.

Recent economic crises – including the 2008 financial crisis, the COVID-19 pandemic, and the Russo-Ukrainian war – have highlighted the vulnerability of companies and the importance of adopting sustainable strategies to ensure business continuity and restore investor and creditor confidence. The analysis also highlights that governance and transparency factors play a key role, and ESG reporting can serve as both financial assessment tools and early warning mechanisms against bankruptcy risk.

In conclusion, deepening this topic through rigorous causal studies, on diverse samples and in different economic contexts, represents a necessary direction for a complete understanding of how sustainability can contribute to reducing insolvency risk and creating sustainable long-term value for all stakeholders

References

- 1) Abdi, Y. Li, X. and Camara-Turull, X. (2022). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance (FP) in airline industry: the moderating role of size and age. *Environment, Development and Sustainability*, 24(4), pp. 5052-5079.
- 2) Albitar, K. Hussainey, K. Kolade, N. and Gerged, A. (2020). ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms. *International Journal of Accounting & Information Management*, 28(3), pp. 429-444
- 3) Alshehhi, A. Nobanee, H. and Khare, N. (2018), The impact of sustainability practices on corporate financial performance: Literature trends and future research potential, *Sustainability*, 10(2), 494.
- 4) Ansong, A. (2017). Corporate social responsibility and firm performance of Ghanaian SMEs: The role of stakeholder engagement. *Cogent Business & Management*, 4(1), 1333704.
- 5) Aureli, S., Gigli, S., Medei, R. and Supino, E. (2020). The value relevance of environmental, social, and governance disclosure: Evidence from Dow Jones Sustainability World Index listed companies. *Corporate Social Responsibility and Environmental Management*, 27(1), pp. 43-52.
- 6) Awaysheh, A., Heron, R. A., Perry, T. and Wilson, J. I. (2020). On the relation between corporate social responsibility and financial performance. *Strategic Management Journal*, 41(6), pp. 965-987.
- 7) Ballerini, G. (2023). Sustainability in Insolvency Law: Problems and Perspectives. *Orizzonti del Diritto Commerciale*, 486.
- 8) Basit, T. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational research*, 45(2), pp. 143-154.
- 9) Bhattacharjee, A., Higson, C., Holly, S. and Kattuman, P. (2009). Macroeconomic instability and corporate failure: the role of the legal system. *Review of Law & Economics*, 5(1), pp. 1-32
- 10) Boubaker, S., Cellier, A., Manita, R., and Saeed, A. (2020). Does corporate social responsibility reduce financial distress risk?. *Economic Modelling*, 91, pp. 835-851
- 11) Broadbent, J. and Guthrie, J. (2008). Public sector to public services: 20 years of “contextual” accounting research. *Accounting, Auditing and Accountability Journal*, 21(2), pp. 129–169.
- 12) Broadstock, D., Chan, K., Cheng, L. and Wang , X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters*, 38, 101716
- 13) Brügggen, A., Vergauwen, P. and Dao, M. (2009). Determinants of intellectual capital disclosure: evidence from Australia. *Management Decision*, 47(2), pp. 233-245.
- 14) Chetty, S., Naidoo, R. and Seetharam, Y. (2015). The impact of corporate social responsibility on firm's financial performance in South Africa. *Contemporary Economics*, 9(2), pp. 193-213
- 15) Chiaramonte, L., Dreassi, A., Girardone, C., and Pisera, S. (2022). Do ESG strategies enhance bank stability during financial turmoil? Evidence from Europe. *The European Journal of Finance*, 28(12), pp. 1173-1211.

- 16) Citterio, A. and King, T. (2023). The role of Environmental, Social, and Governance (ESG) in predicting bank financial distress. *Finance Research Letters*, 51, 103411.
- 17) Coutinho, L., Kappeler, A. and Turrini, A. (2023). Insolvency Frameworks across the EU: Challenges after COVID-19. (No. 182). *Directorate General Economic and Financial Affairs (DG ECFIN)*, European Commission.
- 18) Creditreform International (2022). *Corporate insolvencies in Europe*. [online] Available at: <https://www.creditreform.com/en> [Accessed 04.05.2025].
- 19) Dumay, J., Bernardi, C., Guthrie, J. and Demartini, P. (2016). Integrated reporting: A structured literature review. *Accounting Forum*, 40(3), pp. 166-185
- 20) El Houry, R., Nasrallah, N., Harb, E. and Hussainey, K. (2022). Exploring the performance of responsible companies in G20 during the COVID-19 outbreak. *Journal of Cleaner Production*, 354, 131693
- 21) Franklin, M. (2008). Quantitative analysis. *Approaches and methodologies in the social sciences: A Pluralist Perspective*, pp. 240-262.
- 22) Galant, A. and Cadez, S. (2017). Corporate social responsibility and financial performance relationship: A review of measurement approaches. *Economic Research-Ekonomska Istraživanja*, 30(1), pp. 676-693.
- 23) Garfield, E. (1964). Science Citation Index - A new Dimension in Indexing: This unique approach underlies versatile bibliographic systems for communicating and evaluating information. *Science*, 144(3619), pp. 649-654
- 24) Goel, P. (2010). Triple Bottom Line Reporting: An Analytical Approach for Corporate Sustainability. *Journal of Finance, Accounting & Management*, 1(1).
- 25) Holt, G. (2009). Bankruptcy risk - a central point in financial-accounting diagnosis in *Annals of "Constantin Brâncuși" University of Târgu Jiu, Economy Series*, 3. Târgu Jiu: Editura Universitaria „Constantin Brâncuși”, 3, pp. 321-332.
- 26) Issam, B. and Abdellatif, M.M. (2017). IFRS for SMEs: a structured literature review. *International Journal of Accounting and Financial Reporting*, 7(2).
- 27) Jan, A. and Marimuthu, M. (2015). Bankruptcy and sustainability: A conceptual review on islamic banking industry. *Global Bussiness Management Research: An International Journal*, 7(1).
- 28) Karaleu, Y. (2018). Social responsibility aspects of companies' insolvency. *Journal of Corporate Responsibility and Leadership*, 5(4), pp. 7-26.
- 29) Khalil, M.A., Khalil, S. and Sinliamthong, P. (2024). From ratings to resilience: The role and implications of environmental, social, and governance (ESG) performance in corporate solvency. *Sustainable Futures*, 8, 100304.
- 30) Parker, L.D. (2005). Social and environmental accountability research: A view from the commentary box. *Accounting, Auditing and Accountability Journal*, 18(6), pp. 842–860.
- 31) Perry, G.T. and Krippendorff, K. (2013). On the reliability of identifying design moves in protocol analysis. *Design Studies*, 34(5), pp. 612-635.
- 32) Landi, G., Iandolo, F., Renzi, A. and Rey, A. (2022). Embedding sustainability in risk management: The impact of environmental, social, and governance ratings on corporate financial risk. *Corporate Social Responsibility and Environmental Management*, 29(4), pp. 1096-1107

- 33) Lee, M. and Suh, I. (2022). Understanding the effects of Environment, Social and Governance conduct on financial performance: Arguments for a process and integrated modelling approach. *Sustainable Technology and Entrepreneurship*, 1(1).
- 34) Lin, L., Hung, P., Chou, D. and Lai, C. (2019). Financial performance and corporate social responsibility: Empirical evidence from Taiwan. *Asia Pacific Management Review*, 24(1), pp. 61-71.
- 35) Linna, T. (2019). Insolvency proceedings from a sustainability perspective. *International Insolvency Review*, 28(2), pp. 210-232
- 36) Linna, T. (2020). Business Sustainability and Insolvency Proceedings - The EU Perspective. *Journal of Sustainability Research*, 2(2), e200019.
- 37) Lins, K., Servaes, H. and Tamayo, A. (2017). Social capital, trust and firm performance: The value of corporate social responsibility during the financial crisis. *The Journal of Finance*, 72(4), pp.1785-1824.
- 38) Massaro, M., Dumay, J. and Guthrie, J. (2016). On the shoulders of giants: undertaking a structured literature review in accounting. *Accounting, Auditing & Accountability Journal*, 29(5), pp. 767-801.
- 39) Mirzaei, A. (2024). *The impact of ESG Scores on Financial Performance, Capital Structure, and Bankruptcy Risk in the Finnish Corporate Sector*. [online] Available at: <https://www.theseus.fi/handle/10024/861605> [Accessed 10.05.2025].
- 40) Nagy, C. and Ghica, E. (2020). Specific procedures in the dissolution and liquidation of commercial companies. *University Legal Studies*, 51(3-4), pp. 92-97.
- 41) Neumann, M. and Forthmann, J. (2024). ESG Communication on the Way out of Crisis and Insolvency. *ESG Reporting in Corporate Communication: What the EU Regulation Means for Corporate Reporting*, pp. 97-98
- 42) Nguyen, D., Hoang, T. and Tran, H. (2022). Help or Hurt? The impact of ESG on firm performance in S&P 500 non-financial firms. *Australasian Accounting, Business and Finance Journal*, 16(2).
- 43) Nirino, N., Miglietta, N. and Salvi, A. (2020). The impact of corporate social responsibility on firm' financial performance, evidence from the food and beverage industry. *British Food Journal*, 122(1), pp. 1-13.
- 44) Nollet, J., Filis, G. and Mitrokostas, E. (2016). Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling*, 52, pp. 400-407.
- 45) Ortiz-de-Mandojana, N. and Bansal, P. (2016). The long-term benefits of organizational resilience through sustainable business practices. *Strategic management journal*, 37(8), pp. 1615-1631.
- 46) Petitjean, M. (2019). Eco-friendly policies and financial performance: Was the financial crisis a game changer for large US companies?. *Energy Economics*, 80, pp. 502-511.
- 47) Petticrew, M. and Roberts, H. (2008). *Systematic reviews in the social sciences: A practical guide*. John Wiley & Sons.
- 48) Reckenzaun, A. (2014). Sustainability in Insolvency Procedural Law. *ALJ*, 156.
- 49) Rimmel, G., Nielsen, C. and Yosano, T. (2009). Intellectual capital disclosures in Japanese IPO prospectuses. *Journal of Human Resource Costing & Accounting*, 13(4), pp. 316-337.

- 50) Rossi, M., Chouaibi, J., Jilani, W. and Chouaibi, Y. (2021). Does a board characteristic moderate the relationship between CSR practices and financial performance? Evidence from European ESG firms. *Journal of Risk and Financial Management*, 14(8), 354
- 51) Sandberg, H., Alnoor, A. and Tiberius, V. (2023). Environmental, social, and governance ratings and financial performance: Evidence from the European food industry. *Business Strategy and the Environment*, 32(4), pp. 2471-2489.
- 52) Savickis, V. (2024). Insolvency Proceedings in Post-Pandemic Period, Through the Governance Sustainability Prism. *European Journal of Sustainable Development*.
- 53) Sharabany, R. (2004). *Business failures and macroeconomic risk factors*. Jerusalem: Bank of Israel Research Department.
- 54) Sung Kim, W. and Oh, S. (2019). Corporate social responsibility, business groups and financial performance: a study of listed Indian firm. *Economic Research-Ekonomska Istrazivanja*, 32(1), pp. 1777-1793.
- 55) Tan, Y. and Zhu, Z. (2022). The effect of ESG rating events on corporate green innovation in China: the mediating role of financial constraints and manager's environmental awareness. *Technology in Society*, 68, 101906.
- 56) Thiele, L.P. (2024). *Sustainability*. John Wiley & Sons.
- 57) Timur, G. (2024). Assessing the Predictive Power of ESG Scores on Company Default Probability.
- 58) Tomas Žiković, I. (2016). Modelling the impact of macroeconomic variables on aggregate corporate insolvency: Case of Croatia. *Economic Research-Ekonomska Istraživanja*, 29(1), pp. 515-528.
- 59) White, T.L. and McBurney, D.H. (2012). *Research methods*. Cengage Learning.
- 60) Xie, J., Nozawa, W., Yagi, M., Fujii, H. and Managi, S. (2019). Do environmental, social, and governance activities improve corporate financial performance?. *Business Strategy and the Environment*, 28(2), pp. 286-300.
- 61) Yang, C., Zhu, C. and Albitar, K. (2024). ESG rating and green innovation: A U-shaped journey towards sustainable development. *Business Strategy and the Environment*, 33(5), pp. 4108-4129.
- 62) Yin, R.K. (2009). *Case study research: Design and methods* (Vol. 5). Sage.
- 63) Yu, M. and Zhao, R. (2015). Sustainability and firm valuation: an international investigation. *International Journal of Accounting & Information Management*, 23(3).
- 64) Zhou, G., Liu, L. and Luo, S. (2022). Sustainable development, ESG performance and company market value: Mediating effect of financial performance. *Business Strategy and the Environment*, 31(7), pp. 3371-3387.