

A critical review of environmental, social and governance (ESG) disclosure practices and their environmental implications

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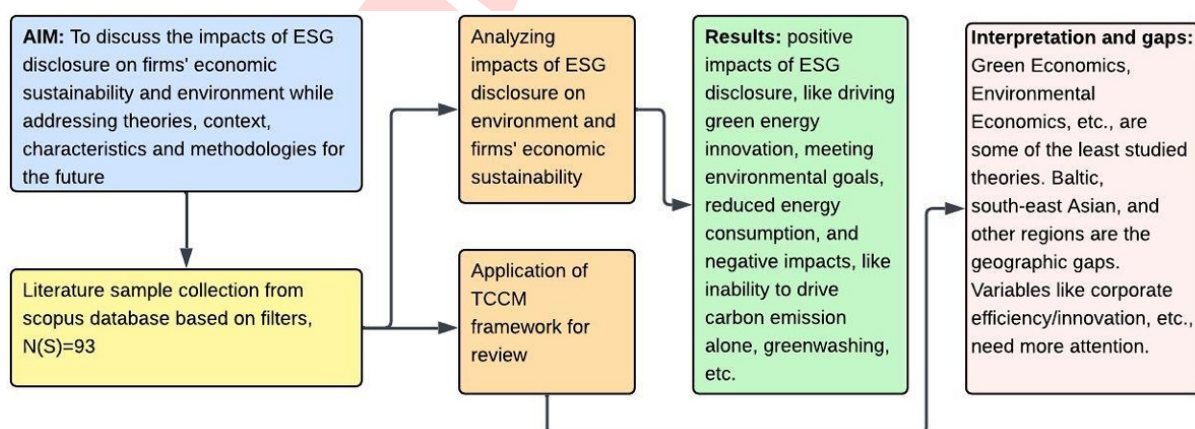
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Abstract

Environmental issues significantly impact any firm's performance. ESG (Environment, Social and Governance) disclosure assesses a firm on various environmental parameters. Despite previous studies addressing issues, studies addressing the relationship between ESG disclosure, economic sustainability, and the environment are scant. This study aimed to examine the impacts of ESG disclosure as a tool of environmental governance on financial performance (a subset of economic sustainability) and the environment, along with addressing gaps, theories, context, characteristics, and methodologies for the future. We used the TCCM (Theories, Context, Characteristics, and Methodology) literature review framework to conduct our study on the collected literature samples. The Scopus database is used to collect the literature samples based on adequate filters.

We found positive impacts of ESG disclosure, like driving green energy innovation, meeting environmental goals, reduced energy consumption, and negative impacts, like inability to drive carbon emission alone, greenwashing, etc. Green Economics, Environmental Economics, etc., are some of the least studied theories. Baltic, south-east Asian, and other regions are the geographic gaps. Variables like corporate efficiency/innovation, etc., need more attention. This study has a profound usage for corporate and sustainability managers, investors, academicians, researchers, regulatory authorities, and policymakers.

Key words: Environment, Economic Sustainability, ESG, Greenwashing, Green Economics



Introduction

Environment, Social, and Governance (ESG) factors influence investment in businesses and sustainability because they highlight the importance of ESG policies in developing business performance while considering some sub-factors such as economic performance, environmental sustainability, corporate social responsibility (Fahad and Nidheesh, 2021), and governance structure (Ahmad *et al.*, 2024). The Centre for Sustainability and Corporate Governance Research in IIMA studied the "ESG impact on Organisations: Materiality, Enterprise Value, and Risk" and published their findings in the 2023-24 annual report. Their findings mentioned that ESG factors are crucial for effectively prioritising efforts and resources. ESG disclosure is a modern concept beginning with Corporate Social Responsibility (CSR) and ethical investment in the early 2000s (Maji and Lohia, 2024). What started as a societal initiative measure, with the passage of time, began to make some impact on the firm's economic sustainability. ESG disclosure is prioritised here because it plays a vital role in accurately representing a company's culture, risk exposure, financial stability, and long-term economic viability (Samarakoon *et al.*, 2025).

Another reason is that to meet stakeholders' expectations, ESG disclosure is necessary to integrate sustainability practices into the firm's culture (Helfaya *et al.*, 2023). Apart from this, when discussing regulatory requirements, ESG disclosure has become a voluntary criterion for most firms and is crucial for attracting stakeholder trust (Duara *et al.*, 2024). The reason for considering financial performance (a subset of economic sustainability) as the second parameter is that it is crucial for understanding an organisation's health. It involves sub-parameters like return on asset, profitability, etc., that evaluate firm performance (Chadha and Sharma, 2015). Apart from this, maintaining exceptional financial performance is the primary purpose of any organisation, as it is crucial for establishing a solid structure for the firm and facilitating growth (Baby *et al.*, 2024). Thus, ESG disclosure and financial performance can be considered one of the best combinations to study.

While previous reviews have addressed several issues, they suffer from certain limitations, which has resulted in an unresolved gap between ESG disclosure and its impact, for example, much of the existing literature have focused on a single pillar of ESG to study its impact without considering the holistic view of all three pillars of ESG, which has resulted in limited research (Halid *et al.*, 2023). In the context of the theoretical framework, most studies have reported governance theories, ignoring environmental theories that may have an additional impact (Ellili, 2022). Further, previous reviews are often incomplete as they have not studied ESG disclosure's consequences on all relevant areas, such as operations, financial risk, investment, and innovation (Li *et al.*, 2024). These issues may be resolved if a proper review framework is used. This prompted us to raise our first questions concerning this study, *i.e.*, what will be the outcome if an established framework, such as

TCCM, is employed for the literature review? Secondly, despite a significant focus on a firm's financial performance, there is still no clarity on the relationship between ESG reporting and the environment (Khandelwal *et al.*, 2023). This issue can be resolved to some extent if the problems and benefits associated with ESG disclosure as an environmental governance tool are observed regarding the environment and financial performance (a subset of economic sustainability). This prompted us to raise our second question, *i.e.*, what are the impacts of ESG disclosure as an environmental governance tool on the environment and firms' financial performance? Lastly, a literature review is incomplete without future research opportunities and gaps. This prompted us to raise our last question, *i.e.*, what will be the future research gaps and opportunities for studies concerning ESG disclosure, environment and firms' financial performance?

Based on the above discussion and the questions raised, we developed three objectives to guide our literature review. Our first objective was to review the existing literature using the TCCM framework. The same existing literature was then used to study the impacts of ESG disclosure as a tool of environmental governance on the environment and the firms' financial performance, which formed our second objective. Lastly, the TCCM framework employed to answer the first objective was also used to identify research gaps in the collected literature and to suggest possible future research opportunities in the domain of ESG, which formed our third and final objective.

Theoretical underpinnings: The *EKC (Environmental Kuznets Curve) hypothesis* (Kuznets, 1955) suggests a non-linear relationship between economic development and environmental degradation. According to this theory, as a country's per capita income grows, environmental quality initially deteriorates. But after reaching a certain income threshold, environmental conditions begin to improve (Mia *et al.*, 2023). *Green economics theory* integrates environmental sustainability with economic principles and focuses on creating economic value while minimising ecological impact. In the context of the ESG framework, green economics represents a transformative strategy that aligns business performance with sustainable development goals (Laine, 2011). The *Environmental economics theory* studies the interactions between economic systems and the natural environment. It focuses on how economic activities impact ecological systems and explore methods to balance economic development with environmental sustainability (Stern, 2008). The *Stakeholder theory* suggests that companies must consider the interests of their stakeholders, such as local communities affected by pollution, environmental advocacy groups and nature itself (Freeman, 1984). According to the *Legitimacy theory*, organisations strive to gain and uphold legitimacy by aligning themselves with societal expectations and values. In a way, ESG disclosure helps an organisation demonstrate its responsibility to social and environmental concerns, thus enhancing its legitimacy and improving financial performance (Dowling and Pfeffer, 1975). The *Institutional theory* posits that organisations achieve legitimacy and stability by

adhering to the established norms and regulations within their institutional environment. In line with this, the firms often adopt similar environmental management systems simultaneously because of institutional pressures for conformity (DiMaggio and Powell, 1983). The *Agency theory* suggests that agency managers with a conflict of interest with the principals (owners) can leverage ESG disclosure to reduce agency costs by increasing environmental transparency and accountability. Thus leading to better financial performance (Meckling and Jensen, 1976). *Signalling theory* proposes that companies utilise ESG disclosure to communicate their sustainability and environmental contribution to investors and other stakeholders. Effective environmental signalling can attract investment and improve financial performance (Spence, 1974).

Resource-based theory suggests that ESG disclosure often reveals a company's valuable pollution prevention technologies, rarer waste prevention control mechanisms, and inimitable sustainable operations. This can enhance its financial performance (Barney, 1991). *Rawls's theory of justice* (Rawls, 1971) is founded on two key principles: the principles of equal liberty and the difference principle. The former guarantees that all individuals enjoy fundamental rights such as clean air, water, environmental safety, and the freedom to approach regulatory authorities in the event of environmental violations by a firm. The latter permits social and economic disparities only when they uplift the least advantaged and provide equal opportunities for everyone by a firm, while considering the environmental impacts. *Stewardship theory* suggests that when managers act as environmental stewards of their organisation, they are motivated to act in the best interest of their principals, such as citizens requiring a clean environment, sustainable investors, shareholders and nature itself (Davis et al., 1997). According to the *Shared value theory*, addressing social issues through core business strategies enables businesses to achieve environmental sustainability, economic success and societal value (Porter and Kramer, 2011).

Slack resource theory suggests that organisations with excess resources, or "slack" in terms of finance, human resources, etc., are better equipped to counter rapid changes in the environment and mitigate adverse environmental impacts (Cyert and March, 1963). *Risk management theory* suggests that if an organisation has coordinated the application of natural environmental resources, it can identify, assess, and prioritise risks beforehand (Knight, 1921). *Voluntary disclosure theory* suggests that a firm voluntarily discloses environmental information to reduce information asymmetry, build trust, and enhance its reputation with sustainable-oriented stakeholders (Verrecchia, 1983). *Socio-political theory* examines how social structure components, such as class, race, gender, and culture, influence political behaviour, policies, and power dynamics, thereby impacting the natural environment (Marx and Engels, 1848). *ESG Investment Theory* integrates non-financial considerations into investment strategies, emphasising that companies with robust ESG practices are more likely to

demonstrate long-term sustainability and responsible management. This factor led to better financial performance and lower risk (Eccles and Klimenko, 2019).

Review Method

Our research draws from Junior and Filho (2010)'s TCCM framework (Jabbour, 2013; Talan and Sharma, 2019). We examined literature from 2022 to 2025 (Fig. 1), and identified literature using Scopus and keywords 'ESG,' 'DISCLOSURE,' 'FINANCIAL,' and 'PERFORMANCE' separated by the 'AND' operator. The initial sample was $N(T)=525$. We removed 432 articles that did not fit our study criteria. $N(S)=93$ was our ultimate sample size. TCCM was used to review the literature after filtering. Theoretical (T) literature addresses theories. The study will examine context (C) and characteristics (C). Finally, under M, describes research paper methodology. Finally, using the analyzed literature, we examined how ESG disclosure affects the environment and firms' financial performance.

TCCM review framework

T (Theoretical Element): A dataset of 298 theories emerged. This data had repeated theories. A more refined value was sought

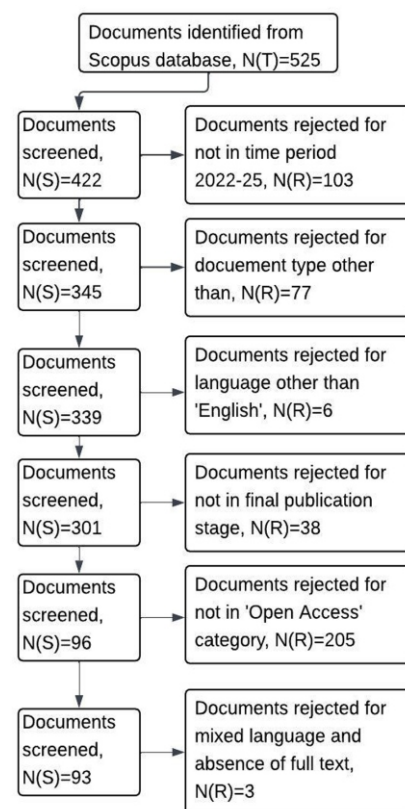


Fig. 1: Inclusion and exclusion criteria process for literature selection. (Source: Authors own work).

after deleting duplicates. Based on their frequencies in our dataset, we divided the theories into the most and least occurring. Theories with frequencies equal to one were the least popular or focused, while theories with frequencies greater than one were the most popular or diverse. The most common theories used to explain ESG studies in the environmental domain are Neoclassical theory, Rawls Justice, Green Economics, Environmental Economics, and the Environmental Kuznets Curve (EKC) Hypothesis. In the corporate finance, ESG is explained through, Stakeholder Theory, Legitimacy Theory, Agency Theory, Signalling Theory, Resource Based View (RBV), Institutional Theory, Information Asymmetry Theory, Risk-related Theories. Among all theories, the stakeholder theory is widely used in the ESG research, indicating that diverse stakeholder interests are crucial for long-term economic sustainability and value while addressing environmental concerns.

C-C (Contextual and Characteristics Element): Context and the characteristics explain the region wise studies and the key variables and the constructs. ESG disclosure studies in developed countries such as, USA, and Europe are compliance-oriented and focus on ESG disclosure quality. Emerging economies emphasize pollution, climatic vulnerability, and biodiversity loss. Underdeveloped countries show high ecological stress and low governance. This indicates country-level ecological relevance. The Chinese region has the highest study concentration frequency, indicating that researchers are more interested in Chinese enterprises' economic and environmental performance. The variable context possess two characteristics: dependent and independent. The dependent variable indicates that the effect of ESG disclosure is most accurately assessed through variables such as environmental decoupling, environmental disclosure, firms' economic sustainability, capital market returns related to environmental performance, and market-based growth expectations. Likewise, the independent variable character indicates that, in addition to the effects of ESG disclosure alone, the influence of its governance component has been more extensively examined.

M (Methodological Element): This section focus on the methods and techniques used to conduct the research discussed in the collected literature. The methodological element of the TCCM model revealed that panel data analysis was used more, which showed that while studying ESG disclosure impact on a firm's financial performance, the combination of cross-sectional and time series data was crucially important. Artificial Neural Networks, Computational Learning Theory, Hybrid Method Research Form were still underused.

Impacts of ESG disclosure

Impacts of ESG disclosure on the environment: The direct environmental benefits of ESG disclosure lie in its ability to drive energy efficiency improvements within organisations. When companies engage in carbon disclosure practices, they often discover opportunities to enhance the efficiency of their carbon

operations, leading to measurable reductions in energy consumption (Ma *et al.*, 2025). This process creates a virtuous cycle where measuring and reporting environmental metrics naturally leads to operational improvements. The disclosure process also enables companies to leverage financial mechanisms more effectively to pursue environmental goals. Green finance initiatives, supported by comprehensive ESG disclosure, help firms engage more meaningfully with environmental protection objectives, including the strategic issuance of green bonds that fund sustainable projects (Habib *et al.*, 2025). This financial alignment ensures that environmental commitments are backed by concrete resource allocation.

Natural resource management and ESG disclosure: ESG disclosure serves as a robust accountability mechanism for natural resource management. By requiring companies to report on their sustainability practices, disclosure frameworks advance accountability for how organisations exploit natural resources in their production processes and service delivery. This transparency helps prevent the over-exploitation of natural resources, ensuring more sustainable consumption patterns across industries (Pasko *et al.*, 2022). This accountability aspect extends beyond immediate operational changes to influence broader corporate behaviour. Active ESG disclosure enhances company reputation and improves financial performance, creating indirect but consequential incentives for environmental action. When companies report greenhouse gas emission information transparently, it encourages them to actively reduce emissions to maintain their competitive position and stakeholder trust (Zhao *et al.*, 2025).

Environmental technological integration and ESG disclosure: Another significant environmental benefit of ESG disclosure is its impact on reducing carbon emissions. Modern ESG disclosure increasingly incorporates advanced technologies that enhance environmental monitoring and management capabilities. Companies that disclose their use of financial technology (fintech) in ESG reporting demonstrate their ability to accurately monitor energy consumption patterns, adjust usage in real-time, reduce carbon intensity, and achieve significant cost savings (Huang *et al.*, 2024). This technological integration represents a sophisticated evolution in how companies approach environmental management. Technological advancements facilitated by ESG disclosure also drive innovation in green technologies. Research indicates a strong correlation between higher ESG ratings and more efficient green technology innovation, suggesting that robust ESG performance, as reflected in disclosure practices, actively drives technological advancements that benefit the environment (Wu *et al.*, 2024). ESG disclosure creates ripple effects extending beyond individual companies to influence entire industries and markets.

Environmental ratings and ESG disclosure: Through ESG-type ratings and eco-sustainable activities, disclosure practices motivate firms to pursue concrete environmental objectives, including climate change mitigation and adaptation, water management, circular economy initiatives, pollution reduction,

and ecosystem protection. This systemic influence makes environmental action increasingly widespread and concrete across different sectors (D'Apollito et al., 2023). The transformative potential of ESG disclosure is particularly evident in its ability to influence heavily polluting industries. Improved environmental disclosure conditions create powerful incentives for heavily polluting firms to address stakeholder concerns and enhance their environmental performance, highlighting the direct positive impact of environmental transparency on corporate behaviour (Wu et al., 2024). Furthermore, ESG-oriented management practices, as disclosed through ESG reporting, serve as deciding factors for growth and environmental conservation. This management approach can lead to the decoupling of economic growth from environmental impact, contributing meaningfully to global environmental conservation efforts (Tsujimoto, 2022).

Negative impacts of ESG disclosure on the environment: The most prominent concern is the proliferation of greenwashing practices, where companies exaggerate or misrepresent their environmental credentials (Kim and Lyon, 2015). Some studies found that the mandatory ESG reporting can encourage a compliance-focused culture rather than integrating sustainability into business strategy (Cepeda, 2024). Semi-mandatory ESG disclosure leads to a lower average financial performance improvement in highly polluting firms (Wu et al., 2024), while promoting degradation of environment. These weaknesses create opportunities for companies to present misleading information about their environmental performance, potentially deceiving stakeholders and undermining genuine environmental progress (de Silva Lokuwaduge and De Silva, 2022). Studies indicate limited evidence that mandatory carbon disclosure leads to substantial emission reduction, suggesting that ESG disclosure alone may not drive significant environmental improvements in carbon emission (Cepeda, 2024). This finding raises important questions about the effectiveness of disclosure-

focused approaches versus more direct regulatory interventions. The effectiveness limitations extend to specific financial instruments associated with ESG disclosure. Analysis of green bond issuance within ESG disclosure frameworks shows no significant impact on CO₂ emission, indicating that even targeted financial mechanisms may not automatically translate into environmental benefits (Wu et al., 2024). Fig. 2 shows the above-discussed impacts diagrammatically; on close observation, we can see that the negative impacts of ESG disclosure on the environment are less than the positive ones. This reveals that ESG disclosure helps maintain the environment.

Impacts of ESG disclosure on firms' financial performance:

Companies with good environmental performance can increase their reputation, promote trust, and improve their credibility with stakeholders (Castello et al., 2013; Hussainey and Salama, 2010). A positive environmental reputation can also lead to economic performance benefits. Further, efficient environmental practices can optimise resources and save costs (Achim and Borlea, 2014). Some studies found that ESG-related activities or disclosure can put firms at a competitive disadvantage and increase operational costs, thus leading to lower financial performance (Gholami et al., 2022). Habib et al. (2025) found that ESG disclosure of green finance can heighten non-financial attributes like market reputation, brand value, consumer satisfaction, etc., thereby improving a firm's long-term sustainable policy, investment decisions, and reducing cash flow volatility.

Implications of the study and future research directions:

As an answer to the last and third objective, the elements of the TCCM model having the highest frequencies show us that these elements lie at the centrality of ESG studies; conversely, the elements with the least frequencies show us that these elements are either less studied or need to be explored more. Among the theories, we found that Rawls' Justice, Green Economics, Environmental Economics, Environmental Kuznets Curve (EKC)

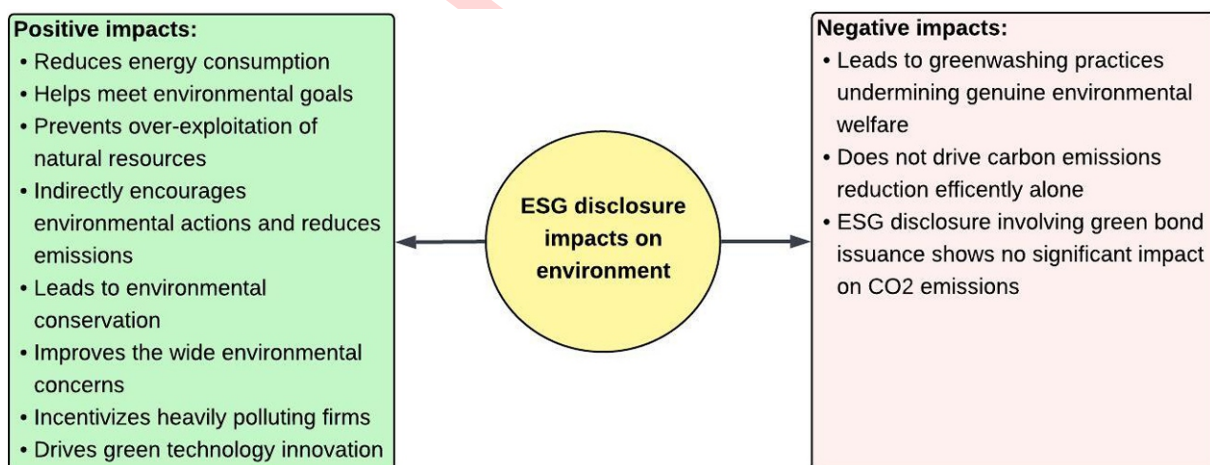


Fig. 2: Impact of ESG disclosure on the environment. (Source: Authors own work).

hypothesis, Computational learning, Limited attention, Statistical learning, Investors' heterogeneous belief, financial innovation perspective, and bonus plan hypothesis are the theories that need more attention. Similarly, geographical context has gaps or regions that are least studied; it includes areas such as the Baltic region, ASEAN countries, South Korea, and emerging markets in Europe (the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, and Slovenia). For the variable's context, we found that dependent variables like Corporate Efficiency/Innovation, Leverage, cash holdings, market capitalisation, ROE (Return on Equity), NPM (Net profit margin), environmental disclosure, environmental performance, brand value, and ESG decoupling need more attention.

The independent variables that need more attention include board Characteristics (Board Size, Board Independence, CEO Duality), market-to-book Value, RandD Expenditure, Ownership Structure, COVID-19, Capital expenditure, Internationalization, Global Financial Crisis, Institutional Investors, Managerial Ownership, Ethical Behavior, Financial constraints, Ethical Behavior, Prosperity Disclosure, Legal System, Carbon Emissions, Analyst attention, Media attention, CEO characteristics (Age, tenure, education), Audit Committee (size, independence, meetings, expertise). Further, methodologies like Artificial Neural Networks, Computational Learning Theory, Hybrid Method Research Form, Threshold Regression Analysis, Linear Regression using Panel Data, one-way ANOVA, Quadratic Regression, Cubic Regression, Entropy Weight Method, LSD-Least Significant Difference are used less and can be explored more.

This study has several positive implications, providing valuable insights for diverse stakeholders. For example, corporate managers and sustainability officers can leverage this paper's findings to enhance ESG disclosures and address gaps using stakeholder and legitimacy theories. Investors and ESG analysts focusing on ESG-based investments can benefit from the identified future research areas, such as ESG investment theories. Academicians and researchers can explore gaps related to the Baltic region, ASEAN countries, South Korea, Emerging markets in Europe (Czech Republic, Hungary, Poland, Romania, Slovak Republic, Slovenia), and methodologies like Artificial Neural Networks, Computational Learning Theory, Hybrid Method Research Form, Threshold Regression Analysis, Linear Regression using Panel Data, One way ANOVA, Quadratic Regression, Cubic Regression, Entropy Weight Method, LSD-Least Significant Difference.

Our first objective was addressed in section 'The four elements of the TCCM review framework', which elaborated on the use of the TCCM model for our review analysis. Sections titled 'Impacts of ESG disclosure on environment' and 'Impacts of ESG disclosure on firm performance' answered our second objective, while the section titled 'Implications of the study and future research directions' answered our last and third objective. Our study revealed the impacts of ESG disclosure on the environment

and the firm. We identified critical theoretical, geographical, variable and methodological gaps that provide opportunities for future research. This research provides actionable insights for corporate managers, investors, and researchers.

Limitations of the study: As our analysis covered 93 articles out of 525 Scopus articles, the excluded literature and other databases, if added, would increase the impact of our results.

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References

- Achim, M.V. and S.N. Borlea: Environmental performances-way to boost up financial performances of companies. *Environ. Enginee. Manage. J.*, **13**, 991-1004 (2014).
- Ahmad, H., M. Yaqub and S.H. Lee: Environmental-, social-, and governance-related factors for business investment and sustainability: A scientometric review of global trends. *Environ. Develop. Sustain.*, **26**, 2965-2987 (2024).
- Baby, A., M.A. Mia and A.A. Pitchay: A systematic review of financial performance in the manufacturing industry. *Fut. Busin. J.*, **10**, 70 (2024).
- Barney, J.: Firm resources and sustained competitive advantage. *J. Manage.*, **17**, 99-120 (1991).
- Castelló, I., M. Morsing and F. Schultz: Communicative dynamics and the polyphony of corporate social responsibility in the network society. *J. Busin. Eth.*, **118**, 683-694 (2013).
- Cepeda. C.: Can crisis periods affect the ESG reporting scope? The

- Portuguese Euronext entities case. *J. Risk Finan. Manage.*, **17**, 191 (2024).
- Chadha, S. and A.K. Sharma: Determinants of capital structure: an empirical evaluation from India. *J. Advan. Manage. Res.*, **12**, 3-14 (2015).
- Cyert, R. M. and J.G. March: A Behavioural Theory of the Firm. 1st Edn., Blackwell, Oxford, 332 pages (1963).
- D'Apolito, E., P.D. Biase and S.S. Labini: How much impact do banks and insurance companies have on the environment? Evidence from Italy. *J. Finan. Manage. Mark. Instituti.*, **11**, 2350009 (2023).
- Davis, J. H., F. D. Schoorman and L. Donaldson: Toward a stewardship theory of management. *Acad. Manage. Revi.*, **22**, 20-47 (1997).
- De Silva Lokuwaduge, C.S. and K.M. De Silva: ESG risk disclosure and the risk of green washing. *Australasian Account. Busin. Finan. J.*, **16**, 146-159 (2022).
- DiMaggio, P.J. and W.W. Powell: The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *Ameri. Sociol. Rev.*, **48**, 147-160 (1983).
- Dowling, J. and J. Pfeffer: Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, **18**, 122-136 (1975).
- Duara, M., V. Khandelwal, C.S. Kumar, V. Chotia and P. Sharma: Understanding the underlying knowledge structure in business ethics, governance and sustainability research. *Int. Rev. Manage. Marke.*, **15**, 311-319 (2024).
- Eccles, R.G. and S. Klimenko: The investor revolution. *Harv. Busin. Rev.*, **97**, 106-116 (2019).
- Ellili, N.O.D.: Bibliometric analysis and systematic review of environmental, social, and governance disclosure papers: current topics and recommendations for future research. *Environ. Res. Communica.*, **4**, 092001 (2022).
- Fahad, P. and K.B. Nidheesh: Determinants of CSR disclosure: an evidence from India. *J. Indian Busin. Res.*, **13**, 110-133 (2021).
- Freeman, R.B.: Longitudinal analyses of the effects of trade unions. *J. Labor Econo.*, **2**, 1-26 (1984).
- Gholami, A., P.A. Murray and J. Sands: Environmental, social, governance & financial performance disclosure for large firms: is this different for SME firms? *Sustainability*, **14**, 6019 (2022).
- Halid, S., R.A. Rahman. R. Mahmud. N. Mansor and R.A. Wahab: A literature review on ESG score and its impact on firm performance. *Int. J. Acade. Res. Accoun. Fina. Manage. Sci.*, **13**, 272-282 (2023).
- Habib, A., J. Oláh, M.H. Khan and S. Luboš: Does Integration of ESG disclosure and green financing improve firm performance: practical applications of stakeholders theory. *Heliyon*, **11**, e41996 (2025).
- Helfaya, A., R. Morris and A. Aboud: Investigating the factors that determine the ESG disclosure practices in Europe. *Sustainability*, **15**, 5508 (2023).
- Huang, H., J. Huang, J. Jiang, E. Lee and Y. Zhao: Effective or symbolic? The influence of board ESG committee on corporate ESG performance. *J. Sustain. Fina. Accoun.*, **2**, 100008 (2024).
- Hussainey, K. and A. Salama: The importance of corporate environmental reputation to investors. *J. Appl. Accoun. Res.*, **11**, 229-241 (2010).
- Jabbour, C.J.C.: Environmental training in organisations: From a literature review to a framework for future research. *Resour. Conserva. Recycl.*, **74**, 144-155 (2013).
- Junior, M.L. and M. Godinho Filho: Variations of the kanban system: Literature review and classification. *Int. J. Produc. Econo.*, **125**, 13-21 (2010).
- Khandelwal, V., P. Sharma and V. Chotia: ESG disclosure and firm performance: An asset-pricing approach. *Risks*, **11**, 112 (2023).
- Kim, E.H. and T.P. Lyon: Greenwash vs. brownwash: Exaggeration and undue modesty in corporate sustainability disclosure. *Organiza. Sci.*, **26**, 705-723 (2015).
- Knight, F. H.: Cost of production and price over long and short periods. *J. Politi. Econ.*, **29**, 304-335 (1921).
- Kuznets, S.: International differences in capital formation and financing. In: Capital Formation and Economic Growth (Ed.: M. Abramovitz). 1st Edn., Princeton University Press, Princeton, NJ, USA, pp. 19-111 (1955).
- Laine, M.: Managing without growth: Slower by design, not disaster. *Soc. Environ. Accounta. J.*, **31**, 105-106 (2011).
- Li, L., M.M. Saat, S.F. Khatib, P. Chu and H.G.H. Sulimany: Navigating the impact: A comprehensive analysis of ESG disclosure consequences through systematic review. *Busin. Strat. Develop.*, **7**, e382 (2024).
- Ma, X., A. Zhou and C. Chi: ESG performance and green total factor productivity. *Fina. Res. Lett.*, **73**, 106630 (2025).
- Maji, S.G. and P. Lohia: Assessing the effect of core and expanded ESG on corporate financial performance: COVID-19's moderating role. *J. Indian Busin. Res.*, **16**, 244-264 (2024).
- Marx, K. and F. Engels: The Communist Manifesto. 1st Edn., Communist League, London, UK, 68 pages (1848).
- Meckling, W.H. and M.C. Jensen: Theory of the Firm. Managerial behavior, agency costs and ownership structure, **3**, 305-360 (1976).
- Mia, M.A., A. Jibir, A. Sharma and M. Abdu: Can Kuznets curve hypothesis explain the mission drift of microfinance institutions? Evidence from developing countries. *Asia Glob. Econ.*, **3**, 100062 (2023).
- Porter, M.E. and M.R. Kramer: Creating Shared Value. Harvard Business Review, Harvard Business School Publishing, Boston, MA, USA, **89**, 62-77 (2011).
- Pasko, O., F. Chen, T. Kuts, I. Sharko and N. Ryzhikova: Sustainability reporting nexus to corporate governance in scholarly literature. *Environ. Econo.*, **13**, 61 (2022).
- Rawls, J.: An Egalitarian Theory of Justice. In: Philosophical Ethics: An Introduction to Moral Philosophy (Ed.: T.L. Beauchamp). 1st Edn., Prentice Hall, Englewood Cliffs, NJ, USA, pp. 365-370 (1971).
- Samarakoon, S.M.R.K., R.K., Mishra, R.P. Pradhan, M. Jayakumar and T.P. Bagchi: Annual report readability, ESG disclosure, and risk perspectives of Indian firms: the mediating role of corporate governance and earnings management. *Int. J. Disclos. Govern.*, **22**, 678-705 (2025).
- Spence, M.: Competitive and optimal responses to signals: An analysis of efficiency and distribution. *J. Econo. The.*, **7**, 296-332 (1974).
- Stern, N.: The economics of climate change. *Ameri. Econo. Rev.*, **98**, 1-37 (2008).
- Talan, G. and G.D. Sharma: Doing well by doing good: A systematic review and research agenda for sustainable investment. *Sustainability*, **11**, 353 (2019).
- Tsujimoto, M.: Achievement of both growth and environmental conservation by digital platform providers. *Int. J. Ener. Econo. Poli.*, **12**, 78-86 (2022).
- Verrecchia, R.E.: Discretionary disclosure. *J. Accoun. Econo.*, **5**, 179-194 (1983).
- Wu, L., J.F.I. Lam and Y. Liu: Can semi-mandatory non-financial disclosure requirements drive firms to improve ESG performance - evidence from Chinese listed companies. *Heliyon*, **10**, 2405-8440, (2024).
- Zhao, Y., Y. Gao and D. Hong: Sustainable innovation and economic resilience: Deciphering ESG ratings' role in lowering debt financing costs. *J. Knowle. Econ.*, **15**, 1-35 (2025).