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Effectiveness of adopting ESG framework in India: A critical study

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Abstract
The integration of Environmental, Social, and Governance (ESG) frameworks in India has experienced significant growth in recent years, as organizations across various sectors recognize their potential impact on sustainability and corporate performance. This study critically evaluates the effectiveness of ESG implementation in India by examining the current state of adoption, assessing its impact on corporate performance and sustainability outcomes, identifying key challenges and barriers, comparing India's ESG landscape with other emerging markets, and offering policy recommendations. This study employed a descriptive and qualitative methodology, utilizing secondary data from research articles, ESG reports, and online sources. These findings suggest that India's regulatory landscape has strengthened ESG disclosure requirements, with a shift towards mandatory reporting for large companies. However, challenges remain in the standardization of metrics and enforcement. The adoption of renewable energy and sustainability initiatives is on the rise; however, issues related to carbon footprint reduction and waste management persist. Corporate Social Responsibility (CSR) spending has increased owing to legal mandates, with a growing emphasis on labour rights, diversity, and community engagement. Governance practices are improving with enhanced board independence, anti-corruption measures, and shareholder activism. Sector-specific adoption varies with the banking and IT sectors, whereas the manufacturing sector lags in comprehensive ESG integration. Key challenges include the lack of standardized metrics, focus on short-term profits, limited investor awareness, and policy enforcement gaps. Compared to other emerging markets, India's ESG adoption is advancing but lags behind countries like Brazil in certain aspects. Prospects include strengthening regulatory frameworks, incentivizing ESG investments, leveraging technology for ESG analytics, and enhancing stakeholder education and engagement. The study concludes that, while India has made significant progress in ESG adoption, particularly in regulations and corporate awareness, challenges in standardization, enforcement, and comprehensive integration across sectors persist. Addressing these gaps can enable India to fully realize the potential of ESG practices for sustainable development and improve corporate performance.

Keywords: Environmental, social, and governance (ESG); corporate performance, sustainability, emerging markets, regulatory framework, standardization, stakeholder engagement, etc.

Introduction

The integration of Environmental, Social, and Governance (ESG) frameworks is increasingly being recognized as an essential element in advancing sustainable business practices on a global scale. In recent years, the concept of ESG has gained considerable momentum in India, as organizations across diverse sectors acknowledge its potential influence on sustainability and corporate performance. ESG principles provide a comprehensive methodology for evaluating corporate responsibility, emphasizing not only environmental and social dimensions but also governance practices, which are collectively anticipated to foster long-term growth and stability.

In India, the integration of Environmental, Social, and Governance (ESG) frameworks presents a distinct array of opportunities and challenges. For example, the service sector underscores both the advantages and the potential limitations of ESG adoption. Technology assumes a dual role in facilitating and complicating sustainability efforts, necessitating careful and context-specific implementation of ESG frameworks (Efthymiou *et al.*, 2023) [12, 13]. Sustainable practices are strategically significant for development in the banking sector. However, there is a notable disparity in ESG adoption between private and public banks, with private entities leading in ESG disclosure (Mishra & Sant, 2023) [28].

Moreover, the corporate sector's economic sustainability is closely associated with Environmental, Social, and Governance (ESG) investments. The growing demand for responsible investment practices and the enhancement of reporting requirements are crucial for influencing ESG integration (Ni, 2023) [29]. Research indicates that the adoption of ESG principles can positively impact sustainable development and economic growth (Tanjung 2021) [47]. Nonetheless, ESG disclosures alone may not ensure improved sustainability outcomes unless they are aligned with comprehensive management practices and stakeholder engagement (Ray and Hardi, 2024) [35].

To obtain practical insights, it is crucial to evaluate the synergy between Environmental, Social, and Governance (ESG) practices and corporate social responsibility (CSR) activities. This synergy can substantially enhance a firm's sustainable performance by effectively integrating ESG-CSR initiatives, as evidenced by Indian public sector undertakings (Saivinod and Sivakumar, 2025) [40]. Despite these challenges, such frameworks offer a structured approach to foster resilience and sustainable development. India's experience with ESG frameworks illuminates the complexities and critical elements necessary for its successful implementation. The integration of ESG practices, while promising, requires a nuanced understanding of local contexts and the development of tailored strategies to overcome existing barriers and capitalize on emerging opportunities.

2. Background and Global Significance of ESG

The implementation of Environmental, Social, and Governance (ESG) frameworks in India has attracted considerable attention owing to their potential to advance sustainability and enhance corporate governance. ESG frameworks play a crucial role in assessing a company's dedication to sustainable development and its capacity to address issues, such as pollution, social responsibility, and governance ethics (Efthymiou *et al*. 2023) [12, 13].

The importance of Environmental, Social, and Governance (ESG) factors in India is complex and multifaceted. ESG considerations significantly affect investors' decisions, corporate policies, and sustainability initiatives. Companies that integrate ESG practices are often driven by aspirations to enhance their public image and align with global sustainability objectives (Ray & Hardi, 2024) [35]. The adoption of ESG strategies can lead to favourable perceptions among investors, thereby increasing the attractiveness of companies in the stock market and potentially improving their financial performance (Joshi & Joshi, 2024) [21].

Furthermore, the incorporation of ESG frameworks can assist in addressing issues, such as resource allocation and corporate governance, which are essential for enhancing a company's operational efficiency and risk management (Nurrizkiana *et al*., 2024) [31]. The ESG framework encourages companies to disclose their sustainability and governance practices, thereby promoting transparency and enabling stakeholders to make informed decisions (Sharma *et al*. 2020) [42].

Despite the increasing adoption of ESG frameworks in India, several challenges persist, including the necessity for heightened awareness and the adaptation of globally recognized standards to align with local contexts. For example, the Indian service sector implements ESG practices selectively, primarily because of the inadequacy of existing technological solutions and insufficient emphasis on employee well-being and human rights (Efthymiou *et al*., 2023) [12, 13].

To facilitate the effective implementation of Environmental, Social, and Governance (ESG) frameworks, it is imperative to adopt a structured methodology that integrates Corporate Social Responsibility (CSR) with ESG initiatives. Such an approach can enable companies to enhance their sustainable business practices and achieve a harmonious balance between economic growth and sustainability (Saivinod and Sivakumar, 2025) [40].

In summary, while the adoption of Environmental, Social, and Governance (ESG) practices in India holds significant potential for advancing corporate sustainability and governance, it necessitates careful consideration of local challenges and the adaptation of standardized practices to fully realize its impact.

3. Evolution of ESG Frameworks in India

The development of Environmental, Social, and Governance (ESG) frameworks in India is characterized by a succession of regulatory modifications, market responsiveness, and corporate adjustments to global sustainability trends. Initially, the emphasis was predominantly on corporate social responsibility (CSR) and voluntary sustainability disclosures. However, over time, this focus has evolved into a well-structured ESG framework shaped by domestic dynamics and international standards.

A significant development in the Indian ESG landscape was the implementation of integrated reporting and stringent ESG disclosures mandated by the Securities and Exchange Board of India (SEBI). These regulations obligate listed companies to disclose information that influences their value creation in the short, medium, and long term (Dayanandan *et al*., 2023) [11]. This regulatory initiative was further bolstered by the adoption of International Financial Reporting Standards (IFRS), which positively affected the quality and scope of ESG reporting among Indian firms, indicating a progressive alignment with global accounting standards (Dayanandan *et al*., 2023) [11].

The emergence of Environmental, Social, and Governance (ESG) frameworks within the service sector presents both opportunities and challenges, largely owing to the disparate suitability of technologies across different companies. The primary impetus for adopting these frameworks is the desire to bolster investor confidence and enhance supply chain sustainability. However, a significant deficiency remains in addressing employee well-being and human rights (Efthymiou *et al*. 2023) [12, 13]. This selective implementation suggests an incomplete yet evolving approach to ESG practices shaped by specific contextual needs and challenges.

On a broader scale, the landscape of ESG investment in India has been influenced by several key factors, including emerging technologies, policy initiatives, and social responsibilities. Technologies such as artificial intelligence and blockchain are acknowledged for their potential to significantly transform ESG practices, although their application varies across sectors such as manufacturing and finance (Ni, 2023) [29]. Policy frameworks, along with tax incentives and reporting mandates, now play a pivotal role in encouraging companies to incorporate ESG into their corporate strategies (Ni 2023) [29].

Furthermore, the influence of ESG disclosures extends beyond mere compliance, impacting corporate governance structures and investor engagement. It has been noted that while disclosure practices alone may not directly enhance corporate sustainability, they serve as a catalyst for transforming management practices and attracting investor support (Ray & Hardi, 2024) [35].

In summary, the development of ESG frameworks in India exemplifies the dynamic interaction among regulatory mandates, technological progress, industry-specific challenges, and global sustainability standards. Although substantial advancements have been achieved, certain domains, such as employee rights and comprehensive technology integration, require further attention to realize a holistic implementation of ESG principles.

4. Literature Review

Scholars and researchers have conducted extensive research on various dimensions of ESG, both in India and internationally. This study examined and synthesized some of the most relevant and significant articles, which are presented below.

Shrivastava (2022) [44] investigated Environmental, Social, and Governance (ESG) practices of Indian Domestic Systemically Important Banks (D-SIBs) and their impact on profitability. This study aligns practices with ESG factors and evaluates parameters, such as greenhouse gas emissions, CSR expenditure, and board meetings. The results show a positive correlation between the ESG parameters and profitability, indicating that ESG frameworks improve bank performance. This study emphasizes adaptation to environmental and social risks while highlighting Indian banks' increasing ESG disclosures and alignment with global standards to promote sustainability.

Pandey *et al*. (2023) [32, 33] studied ESG reporting in India. ESG reporting is important for companies to maintain trust and fulfil their duties. Investors want to understand companies' governance and their social and environmental actions. This study examines the ESG reporting rules in India, from the Companies Act of 2013 to SEBI's BRSR framework in 2021. This study explains ESG's three parts: environmental (impact on nature), social (relations with people), and governance (how companies operate). ESG reporting helps with transparency, managing risks, and engaging with stakeholders, while also creating long-term value. These benefits include attracting responsible investors, improving brand image, and providing better access to money. This study discusses the challenges in adopting ESG, such as a lack of awareness and unclear regulations. It concludes that ESG reporting brings sustainability into business, helps both companies and society, and suggests further research on its effects.

Efthymiou *et al*. (2023) [12, 13] investigated sustainability and technology diffusion in the Indian service sector, focusing on Environmental, Social, and Governance (ESG) frameworks. Using surveys and interviews with managers across service organizations, this study found that technology both enables and hinders sustainability. Sustainability initiatives in Indian service firms lack comprehensiveness, with companies prioritizing supply chain sustainability over employee well-being. ESG adoption is primarily driven by legitimacy concerns and stakeholder perceptions, aligned with signalling theory. Smaller organizations demonstrate better implementation of ESG frameworks than larger ones do. This study highlights the challenges in implementing ESG practices in the Indian service sector.

Aki (2023) [3] analysed the Environmental, Social, and Governance (ESG) performance of the top BSE-listed companies in India. This study evaluated ESG reporting across 30 companies from 10 sectors, using the PWC ESG framework. Data were collected from public reports and questionnaires administered to the management employees of 17 companies. The results show that companies perform better in governance disclosure than in environmental or social aspects. Information and Communication Technology companies demonstrate the highest ESG disclosure, followed by the Finance & Insurance and Oil & Gas sectors. Customer demand and government regulations drive the performance of ESG in India. Key challenges include a lack of quality data, inefficient human resources, and poor company-level coordination. This study provides insights into ESG reporting in India, highlighting the strengths and improvement areas across sectors.

Gartia *et al*. (2024) [15] investigated the relationship between Environmental, Social, and Governance (ESG) practices and financial performance (FFP) of Indian manufacturing firms from 2019-2022. Using cross-lagged panel analysis, they found that ESG commitment positively influences profitability, with environmental and social dimensions enhancing earnings, whereas governance practices negatively impact performance. This study reveals the complex ESG-FFP relationship, emphasizing holistic ESG approaches to long-term value creation. The findings recommend mandatory ESG disclosure and integration in strategic decisions to optimize firm performance.

Bhattacharya (2024) [6] analysed the Environmental, Social, and Governance (ESG) disclosure frameworks in India and the European Union (EU) and evaluated their effectiveness and alignment with international standards. India's ESG journey began with the National Voluntary Guidelines (NVGs) in 2011, followed by SEBI's Business Responsibility Report (BRR) in 2012. The Business Responsibility and Sustainability Reporting (BRSR) framework was implemented in 2022-2023 for the top 1000 listed companies. The EU has led sustainability regulations through the Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy Regulation, and Corporate Sustainability Reporting Directive (CSRD). This study compares the ESG disclosure rules of India and the EU by examining regulatory frameworks, scopes, reporting requirements, and compliance mechanisms. While both regions have established ESG disclosure rules, this study recommends that India adopt compulsory disclosure rules from the EU's CSRD.

Shaji (2024) [41] studied how Environmental, Social, and Governance (ESG) factors impact finance and corporate governance. This study examines ESG use in India and globally, focusing on investment plans, rules, and business practices. Different methods have been used to determine how ESG principles fit business and finance. This research covers ESG's structure, growth, and parts of ESG and its link to the UN Sustainable Development Goals (SDGs). It discusses ESG screening methods such as negative and positive screening, thematic investing, and best-in-class strategies, and examines their impact on performance and ESG investment products. This paper reviews the rules, reporting standards, and India's efforts, highlighting the challenges in its implementation. The study concludes by emphasizing ESG's growing role in finance and corporate governance and suggests more research on trends and challenges, especially in emerging markets.

Sharma *et al*. (2024) [43] investigated the relationship between firm-level Sustainable Development Goals (SDG) adoption and firm risk using National Stock Exchange (NSE) 500 companies in India from 2019 to 2024. The study found that SDG adoption significantly reduces firm risk through enhanced investor confidence, improved Environmental, Social, and Governance (ESG) performance, and reduced agency costs. The impact varies by firm characteristics, with stronger effects on firms with higher information asymmetry, greater board gender diversity, and non-state-owned enterprises. Using methods such as the two-stage least squares instrumental variable regression and system GMM to address endogeneity, our findings demonstrate that SDG adoption can serve as a strategic approach for firms to mitigate risk and attract socially responsible investors.

Shukla (2025) [45] explored the principles of ESG in terms of insolvency, focusing on India's IBC. This study emphasizes the growing global relevance of ESG to systemic risk management and business sustainability. ESG integration is crucial to risk mitigation, investor confidence, international alignment, value creation, and competitiveness. It discusses sustainable practices in India's regulatory environment, highlighting SEBI's BRSR, the Companies Act, and IBBI's role. Examples from the US, EU, and other countries are noted. The challenges include cost, awareness, and quantification. Recommendations included policy frameworks, capacity building, incentives, and monitoring. The author concludes that ESG integration into the IBC enhances long-term viability, reputation, and investment potential, positioning India as a leader in sustainable business.

Kharola *et al*. (2025) [25] examined the legal framework and management strategies for mandatory Environmental, Social, and Governance (ESG) reporting in India. The Securities and Exchange Board of India (SEBI) Business Responsibility and Sustainability Reporting (BRSR) Framework mandates ESG reporting for the top 1000 listed companies from 2022-23. This study analyses the obligations under SEBI's Listing Obligations and Disclosure Requirements (LODR) Regulations, 2015, and related legislation. It also discusses management strategies for ESG compliance, including board oversight and policy integration. This study explores ESG-linked finance and addresses challenges such as greenwashing and data standardization. Recommendations for strengthening ESG governance and transparency are provided, along with a comparative analysis of global regulatory practices. This study contributes to the discourse on ESG reporting in India and its corporate implications.

5. Research Gap

Upon reviewing the current study, it is evident that there is a gap in the research. Most studies have concentrated on the impact of Environmental, Social, and Governance (ESG) practices on large corporations in India, particularly financial performance, risk management, and regulatory compliance. However, there is a paucity of research concerning the adoption and implementation of ESG practices by small and medium-sized enterprises (SMEs) in India. This gap presents an opportunity to investigate how these businesses perceive and integrate ESG principles, and their subsequent effects on their operations. Given that SMEs constitute a significant segment of India's economy, this study elucidates the challenges and opportunities associated with enhancing the sustainability of these enterprises.

6. Significance of the Study

The effectiveness of Environmental, Social, and Governance (ESG) framework implementation in India is significant for the economic and sustainability dimensions. ESG frameworks have gained global recognition as tools for corporate responsibility (CSR). In India, their adoption is important as ESG practices positively influence business performance, with studies showing a correlation between ESG and financial outcomes (Chelawat & Trivedi, 2016) [8]. ESG adoption aligns with regulatory requirements, as the Securities and Exchange Board of India (SEBI) mandates integrated reporting for listed firms (Dayanandan *et al*., 2023) [11]. Companies implementing ESG strategies are better positioned to manage risks and improve operational efficiency, particularly regarding environmental and social issues. Strategic ESG enablers are crucial for successful ESG reporting in India, supporting long-term sustainability objectives (Saini and Kharb, 2025) [39]. The banking sector demonstrates this by enhancing ESG disclosures to integrate sustainability challenges (Mishra and Sant, 2023) [28]. The study of ESG effectiveness in India provides insights into corporate sustainability practices, regulatory compliance, and financial performance, while meeting societal demands for responsible governance.

7. Objective of the Study

This study critically assesses the effectiveness of implementing Environmental, Social, and Governance (ESG) frameworks in India. Specifically, the study seeks (i) to analyse the current state of ESG implementation across various sectors in India, (ii) to evaluate the impact of ESG practices on corporate performance and sustainability outcomes, (iii) to identify key challenges and barriers to effective ESG adoption within the Indian context, (iv) to compare India's ESG landscape with that of other emerging markets to derive insights and best practices, and (v) to provide policy recommendations to strengthen ESG frameworks and incentivize their adoption in India.

8. Methodology

This study used descriptive and qualitative methods that relied only on secondary data. The data were obtained from various important research articles, papers, journals, ESG reports, and online sources. This study combined both quantitative and qualitative methods. Literature Review: It examines academic literature, industry reports, and policy documents about ESG adoption in India and other emerging markets. Secondary data on the ESG scores, financial performance, and sustainability metrics of Indian companies are taken from ESG rating agencies and corporate disclosures. Qualitative Analysis: Thematic analysis of interview transcripts was performed to identify key challenges, best practices, and future prospects for ESG adoption. Case studies on selected Indian companies provide detailed insights into ESG strategies. Comparative Analysis: This study compares India's ESG situation with that of other emerging markets such as China, Brazil, and South Africa. Policy Analysis: This review reviews existing ESG-related regulations and policies in India, identifies policy gaps, and provides recommendations. The mixed-methods approach helps in the thorough assessment of both quantitative trends and qualitative insights into ESG adoption in India. The use of secondary data analysis, primary interviews, case studies, and policy reviews provides a complete understanding of the Indian ESG landscape.

9. Discussion

The discussion section of this study is organized into six distinct subsections: ESG Regulatory Landscape in India, Effectiveness of ESG Adoption in India, Case Studies of ESG Implementation in Indian Companies, Challenges and Barriers to Effective ESG Adoption, Comparative Analysis: India vs. Other Emerging Markets, and Future Prospects and Policy Recommendations. These subsections are critically examined and are presented below.

9.1 ESG Regulatory Landscape in India

The regulatory framework for Environmental, Social, and Governance (ESG) in India is undergoing development and is characterized by a combination of regulations and guidelines issued by key institutions.

9.1.1 Crucial Regulations

9.1.1.1 SEBI's BRSR: The Securities and Exchange Board of India (SEBI) has instituted a requirement for the disclosure of Environmental, Social, and Governance (ESG) information through business responsibility and sustainability reports (BRSR). This mandate obliges companies to provide comprehensive details of their ESG performance, thereby integrating sustainability considerations with financial reporting to improve transparency (Dayanandan *et al*., 2023) [11].

9.1.1.2 Companies Act 2013: This legislation incorporates provisions that align corporate governance practices with Environmental, Social, and Governance (ESG) principles. Clause 49 of the listing agreement enhanced corporate governance by mandating the inclusion of a greater number of independent directors and establishing obligatory corporate social responsibility (CSR) norms (Goel, 2018) [16].

9.1.1.3 RBI Guidelines: The Reserve Bank of India (RBI) advocates for financial disclosures that evaluate environmental impacts, although these guidelines are not as extensive as those mandated by SEBI. The focus is on fostering sustainable financial initiatives (Pandey *et al*., 2023) [32, 33].

9.1.2 Mandatory versus Voluntary ESG Disclosures

In India, Environmental, Social, and Governance (ESG) disclosure has historically been voluntary. However, there has been considerable movement towards mandating these disclosures for publicly listed companies. The Securities and Exchange Board of India (SEBI) Business Responsibility and Sustainability Reporting (BRSR) Initiative represents a significant advancement in this direction, necessitating comprehensive ESG data from companies. This reflects a transition from voluntary to obligatory reporting in certain sectors (Pandey *et al*., 2023) [32, 33].

9.1.3 Comparison with Global Standards

9.1.3.1 EU's SFDR: The Union's Sustainable Finance Disclosure Regulation (SFDR) constitutes a comprehensive framework that mandates disclosures, serving as a frequent benchmark for global corporations, including those in India. It underscores the importance of integrating environmental, social, and governance (ESG) considerations into financial systems (Alamillos & De Mariz, 2022) [36].

9.1.3.2 US SEC Climate Rules: In comparison, the United States Securities and Exchange Commission (SEC) concentrates on climate-related disclosures, offering a more limited scope than the European Union's Sustainable Finance Disclosure Regulation (SFDR). India's regulatory framework aligns with international standards, although it varies in its focus and scope of coverage (Adewumi *et al*., 2024) [1].

9.1.4 Challenges in Compliance and Reporting

Indian corporations encounter numerous challenges in implementing ESG reporting standards.

9.1.4.1 Resource Limitations: Smaller companies may lack the requisite resources and expertise to comply with comprehensive ESG disclosure requirements (Paridhi *et al*., 2024) [34].

9.1.4.2 Regulatory Uncertainty: Smaller companies may lack the necessary resources and expertise to adhere to comprehensive ESG disclosure requirements (Paridhi *et al*., 2024) [34].

9.1.4.3 Stakeholder Awareness: One significant challenge is ensuring that all stakeholders, including investors, comprehend the importance and value of ESG disclosures, which impact the degree of voluntary compliance (Sharma *et al*., 2020) [42].

These insights highlight the ongoing transformation within India's Environmental, Social, and Governance (ESG) landscape, as institutions and companies strive to align themselves with global standards while addressing local challenges.

9.2 Effectiveness of ESG Adoption in India

9.2.1 Environmental Performance

The adoption of Environmental, Social, and Governance (ESG) principles in India, with an emphasis on environmental performance, encompasses several critical dimensions. The following is a comprehensive analysis based on the context provided:

9.2.1.1 Corporate Sustainability Initiatives

i. Corporate sustainability initiatives in India are increasingly being guided by Environmental, Social, and Governance (ESG) principles. A significant correlation exists between corporate sustainability measures and enhanced financial performance, as firms with robust sustainability strategies tend to report higher profitability and reduced financial risk (Bodhanwala and Bodhanwala, 2018) [7].
ii. The integration of Environmental, Social, and Governance (ESG) factors promotes responsible business practices by aligning corporate strategies with societal needs, thereby enhancing brand reputation and stakeholder engagement. This alignment constitutes a significant driving force for economic sustainability (Ni 2023) [29].

9.2.1.2 Renewable Energy Transition

i. The transition to renewable energy represents a crucial aspect of Environmental, Social, and Governance (ESG) adoption in India. The implementation of technologies, such as renewable energy solutions, significantly impacts ESG practices, thereby enhancing corporate sustainability and fostering economic growth. By utilizing these renewable technologies, corporations are increasingly incorporating environmental objectives into their business models (Ni 2023) [29].

ii. A regulatory framework is crucial for the advancement of renewable energy initiatives in corporate strategies. Organizations that incorporate renewable energy practices often experience enhanced financial performance and sustainability, thereby gaining a competitive advantage in the market (Kang and Arikrishnan, 2024; Chelawat and Trivedi, 2016) [22, 8].

9.2.1.3 Carbon Footprint and Waste Management Challenges

i. Corporations in India encounter numerous challenges in managing their carbon footprints and waste. Strategic implementation of ESG reporting practices can mitigate obstacles related to resource shortages and structural constraints (Paridhi *et al*. 2024) [34].
ii. The potential for enhancing waste management practices through the adoption of global standards, such as the United Nations Environment Programme Financial Initiatives and Equator Principles, is considerable. Such alignment would synchronize corporate actions with international sustainability benchmarks, thereby augmenting overall environmental performance (Mishra & Sant, 2023) [28].
iii. The integration of smart technologies is crucial to enhance waste management and mitigate carbon emissions. Companies that effectively employ smart technology in conjunction with ESG practices tend to excel in total quality management, thereby promoting sustainable development (Kang and Arikrishnan, 2024) [22].
iv. The adoption of Environmental, Social, and Governance (ESG) principles in India has revealed significant potential benefits through initiatives in corporate sustainability, transitions to renewable energy, and improved waste management strategies. Nevertheless, to fully realize these benefits, it is imperative to have regulatory support, technological advancements, and robust governance structures to address existing challenges and achieve broader ESG objectives.

9.2.2 Social Impact

The effectiveness of Environmental, Social, and Governance (ESG) implementation in India can be critically assessed through the various dimensions of social impact. These dimensions include trends in Corporate Social Responsibility (CSR) expenditure, labour rights, diversity, workplace safety, community engagement, and social equity issues.

9.2.1.1 CSR Spending Trends (Mandated versus Voluntary): In India, Corporate Social Responsibility (CSR) initiatives have become a focal point for companies seeking to integrate social responsibility into their business operations. The intersection of CSR and corporate governance practices has gained prominence, particularly following the enforcement of legal requirements mandating CSR expenditures (Zubeltzu-Jaka *et al*., 2018) [50]. These regulations have resulted in more rigorous reporting of social engagement and CSR activities, which are increasingly being associated with marketing strategies to enhance brand value (Al-Issa *et al*., 2022).

9.2.1.2 Labour Rights, Diversity, and Workplace Safety: The influence of board characteristics, particularly gender diversity, has demonstrated significant implications for enhancing Environmental, Social, and Governance (ESG) outcomes across various regions (Kateb & Alahdal, 2024) [23]. It is recommended that companies prioritize board diversity and establish Corporate Social Responsibility (CSR) committees to mediate and enhance ESG performance in alignment with global trends in responsible business conduct. Moreover, firms that strategically enhance diversity and ensure workplace safety may experience improvements in overall ESG performance and stakeholder engagement.

9.2.1.3 Community Engagement and Social Equity Issues: Models of corporate sustainable development are increasingly aligned with stakeholder engagement and social welfare considerations. Firms that adopt comprehensive Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) frameworks are more likely to promote community development and enhance social equity (Sidhoum and Serra 2017) [2]. By integrating ESG principles into their strategic management, companies are more likely to experience improvements in financial performance, which further incentivizes community-focused CSR initiatives (Ni 2023) [29].

9.2.1.4 Strategic Management and Sustainability Integration: The emphasis on the adoption of Environmental, Social, and Governance (ESG) principles in India is increasing as corporations acknowledge the significance of integrating sustainability into their corporate strategies. This integration is facilitated by digital transformations that enhance transparency and stakeholder engagement, thereby improving ESG performance (Cui 2024) [9]. As firms continue to align their corporate strategies with societal needs, they are better positioned to drive sustainable development and gain a competitive advantage in the market (Tran *et al*., 2024) [48].

In conclusion, the adoption of Environmental, Social, and Governance (ESG) practices in India is profoundly impacted by mandatory Corporate Social Responsibility (CSR) regulations, promotion of diversity and inclusion within corporate boards, and strategic community engagement initiatives. These elements are essential for promoting sustainable business practices and improving the overall corporate performance.

9.2.3 Governance Practices

This analysis examines the efficacy of Environmental, Social, and Governance (ESG) adoption in India, with an emphasis on governance practices. It explores aspects such as board independence, anticorruption measures, and shareholder activism.

9.2.3.1 Board Independence and Transparency: Board independence is integral to enhancing ESG performance. Empirical evidence indicates that board independence substantially improves environmental, social, and governance disclosure practices by ensuring accountability and promoting sustainability initiatives. Independent directors contribute to diverse perspectives and professional expertise, thereby enhancing governance oversight and strategic formulation. Conversely, merely increasing board size or gender diversity without addressing board independence does not necessarily lead to improved ESG outcomes. Consequently, fostering transparent and independent boards is essential for effective ESG adoption in India (Nicolo & Andrades-Peña, 2024) [30].

9.2.3.2 Anti-Corruption Measures and Ethical Leadership: Effective governance frameworks are crucial for mitigating Environmental, Social, and Governance (ESG) controversies, which can adversely affect firm value and reputation. The implementation of anti-corruption measures and the promotion of ethical leadership can convert potential governance challenges into opportunities for enhancing trust and value creation. Robust governance mechanisms diminish the likelihood of ESG controversies and bolster corporate resilience against external pressure. This underscores the importance of integrating ethical considerations into the core of corporate strategies to adeptly navigate the complexities associated with ESG practices (Elamer & Boulhaga, 2024) [14].

9.2.3.3 Shareholder Activism and Investor Influence: Shareholder activism and investor influence are crucial in advancing Environmental, Social, and Governance (ESG) commitments in India. Investors increasingly play a significant role in the demand for transparency and accountability in ESG disclosures. The presence of multiple large shareholders can mitigate ESG controversies as they frequently serve as a check on management practices. This oversight is particularly effective when institutional investors are involved as stakeholders, exerting pressure to enhance governance. Furthermore, investor engagement is an essential component in achieving substantial improvements in sustainability performance as it aligns corporate objectives with broader social and environmental goals (Ray and Hardi, 2024) [35].

In summary, the effective integration of Environmental, Social, and Governance (ESG) principles within India's corporate governance framework necessitates the synthesis of board independence, implementation of anti-corruption strategies, and proactive shareholder engagement. These components not only enhance the quality of governance but also align Indian corporations with global sustainability standards.

9.3 Case Studies of ESG Implementation in Indian Companies

Tata, Infosys, and Reliance are distinguished Indian corporations recognized for their Environmental, Social, and Governance (ESG) practices, each exhibiting distinct methodologies and encountering specific challenges in their implementation.

9.3.1 Tata Group: Tata has been a leader in the integration of sustainability across business operations. Their strategy encompasses regulatory compliance and the incorporation of sustainability into their strategic framework. Tata emphasizes technical, action, and social learning to embed sustainability, which involves comprehensive training and development to ensure that these practices are not only understood but also integrated into daily operations (Haugh & Talwar, 2010) [17].

9.3.2 Infosys: Infosys is recognized as an exemplar of corporate governance in India, illustrating the influence of globalization and competitive markets on governance practices. The company has actively contributed to shaping Environmental, Social, and Governance (ESG) practices within the Indian software industry, with a particular focus on transparency and stakeholder engagement. Although Infosys endeavoured to establish higher governance standards, the overall impact across the industry has been limited, indicating challenges in achieving widespread implementation (Khanna & Palepu, 2004) [24].

9.3.3 Reliance Industries: Reliance Industries Limited (RIL) employs a systems approach to Environmental, Social, and Governance (ESG) practices, aligning its initiatives with regulatory requirements and investor expectations. This strategy encompasses various socially responsible initiatives, including energy, water conservation, and community development. Nevertheless, RIL's environmental performance of RILs indicates the need for substantial improvement. By benchmarking its sustainability initiatives, RIL seeks to enhance awareness and effectively achieve sustainable development goals (Singhania & Saini, 2021) [46].

9.3.4 Success Stories and Impact: Infosys, Tata, and Reliance have achieved notable achievements in the realm of Environmental, Social, and Governance (ESG) criteria. Infosys' corporate governance initiatives have significantly enhanced its international reputation. Tata's thorough integration of sustainability into its operational framework exemplifies effective organizational transformation. Concurrently, Reliance's ESG initiatives align with its long-term strategic goals, thereby attracting investors to focus on social responsibility (Haugh and Talwar, 2010; Khanna and Palepu, 2004; Singhania and Saini, 2021) [24, 17, 46].

9.3.5 Greenwashing and Regulatory Penalties: While companies have made progress in environmental, social, and governance (ESG) initiatives, the risk of greenwashing, a practice wherein companies disseminate misleading information regarding their environmental practices, remains a global concern. Greenwashing is exacerbated by the absence of standardized ESG reporting, which can lead to discrepancies between perceived and actual practices. Current literature underscores the necessity for more reliable ESG ratings and reports to enhance transparency and accountability (Jámbor & Zanócz, 2023) [20].

In summary, Tata, Infosys, and Reliance exhibit diverse strategies for integrating Environmental, Social, and Governance (ESG) principles, highlighting both achievements and areas necessitating further enhancement. The ongoing challenge lies in balancing authentic ESG progress with the potential risks of greenwashing, while ensuring adherence to evolving regulatory standards.

9.4 Challenges and Barriers to Effective ESG Adoption:

Effective implementation of Environmental, Social, and Governance (ESG) practices is impeded by a range of complex challenges and barriers. These challenges and barriers to successful ESG adoption are well-documented in the existing literature. The issues highlighted in your query align with several key challenges identified in recent studies.

9.4.1 Lack of Standardized Metrics and Reporting: The lack of standardized metrics poses significant challenges for organizations in consistently measuring and reporting Environmental, Social, and Governance (ESG) performance. This absence of standardization impedes the ability to compare ESG performance across different organizations and sectors, thereby diminishing the efficacy of ESG reporting (Dasinapa, 2024) [10].

9.4.2 Short-term Profit Focus vs. Long-term Sustainability: Numerous organizations encounter a dilemma between the pursuit of short-term profits and emphasis on long-term sustainability. This dilemma frequently leads to the prioritization of immediate financial gains over sustainable practices, thereby impeding the broader adoption of ESG initiatives (Paridhi *et al*., 2024) [34].

9.4.3 Limited Investor Awareness and Demand: Despite increasing interest in Environmental, Social, and Governance (ESG) investment, a segment of investors remains either unaware of its advantages or does not prioritize sustainability. This limited demand from investors may impede the widespread adoption of comprehensive ESG strategies, as companies might not perceive an immediate need to align with these practices (Zumente & Bistrova, 2021) [51].

9.4.4 Policy Enforcement Gaps: There are frequently observed deficiencies in the enforcement of policies related to ESG practices that may result in inconsistent application and adherence to ESG standards. In the absence of robust enforcement mechanisms, companies may not be able to fully integrate ESG factors into their operations (Ikevuje *et al*. 2024) [18].

These challenges highlight the complex nature of integrating Environmental, Social, and Governance (ESG) considerations into corporate practices, underscoring the need for systematic initiatives to address these obstacles through policy enhancement, investor education, and the establishment of standardized ESG metrics and frameworks. Overcoming these barriers requires coordinated efforts among corporations, policymakers, and investors to develop standardized frameworks, align short- and long-term objectives, increase awareness, and ensure consistent enforcement of ESG policies.

9.5 Comparative Analysis: India vs. Other Emerging Markets

In the realm of Environmental, Social, and Governance (ESG) implementation, emerging markets such as China, Brazil, and South Africa exhibit unique strategies and face distinct challenges, offering valuable insights for India.

9.5.1 ESG Adoption in Emerging Markets:

i. **China**: China's environmental, social, and governance (ESG) landscape is predominantly shaped by government-led initiatives and growing engagement in the corporate sector. The nation is recognized for its commitment to sustainable development goals (SDGs); however, it encounters challenges related to environmental degradation resulting from rapid industrialization (Tanjung, 2021; Soni, 2023) [47, 26]. The ESG framework in China is evolving, with a notable number of firms commencing ESG disclosures, although these disclosures occur at lower rates than in Brazil (Singhania and Saini, 2021; Soni, 2023) [46, 26].
ii. **Brazil**: Among the BRICS nations, Brazil exhibits a notably advanced state of Environmental, Social, and Governance (ESG) reporting, particularly in governance-related disclosures. A significant proportion of Brazilian companies participate in ESG disclosures, which positively influences the nation's Sustainable Development Goals (SDGs) scores. The ESG framework in Brazil is characterized by rapid improvement, with an emphasis on both environmental and social dimensions (Singhania and Saini, 2021; Soni, 2023) [46, 26].
iii. **South Africa**: Similar to Brazil, South Africa demonstrates medium to high Environmental, Social, and Governance (ESG) scores and engages in regional economic cooperation by integrating ESG with conventional indices (Rehman *et al*., 2021) [37]. The nation is recognized for its beneficial effects of social factors on sustainable development, which aligns effectively with the United Nations Sustainable Development Goals (UN SDGs) (Işık *et al*., 2024) [19].

9.5.2 Lessons for India

i. **Importance of the Regulatory Framework**: India can advance its adoption of Environmental, Social, and Governance (ESG) principles by drawing insights from Brazil's approach, which involves the establishment of a regulatory framework that incentivizes ESG disclosures, particularly among larger corporations. By prioritizing transparency and sustainable practices at both the corporate and policy levels, India can significantly enhance its ESG performance (Soni, 2023) [26].
ii. **Long-term Strategy for Integration**: By analysing South Africa's experiences in integrating Environmental, Social, and Governance (ESG) criteria with conventional indices, India can concentrate on formulating a long-term integration strategy that enhances economic cooperation and facilitates a more robust flow of information both domestically and internationally (Rehman *et al*., 2021) [37].
iii. **Corporate and National Synergy**: By examining the alignment of firm-level ESG practices with national SDG goals in Brazil and China, India can enhance synergy in ESG adoption, thereby contributing to the achievement of broader sustainable development objectives. This process may involve aligning ESG disclosures with specific SDG outcomes (Kumar Soni 2023) [26].

India is poised to gain significantly from the implementation of a comprehensive Environmental, Social, and Governance (ESG) strategy. This strategy should encompass regulatory enhancements, the integration of traditional and ESG indices, and alignment with international sustainable development standards, while simultaneously addressing the nation's distinct socio-economic challenges.

9.6 Future Prospects and Policy Recommendations

9.6.1 Strengthening SEBI's BRSR Framework

i. The SEBI's Business Responsibility and Sustainability Report (BRSR) framework could be enhanced by refining ESG disclosures to bolster corporate sustainability. It is recommended that the BRSR be expanded to address the complexities of ESG integration and investor engagement, which are crucial for advancing sustainability performance (Ray & Hardi, 2024) [35].

ii. Furthermore, the establishment of standardized ESG metrics and their integration within the BRSR can mitigate issues of comparability and ensure uniform reporting across various sectors (Lokuwaduge & Heenetigala, 2016) [27].

9.6.2 Incentivizing ESG Investments (Tax Benefits, Green Bonds)

i. Implementing fiscal incentives such as tax benefits and subsidies for green bonds can substantially enhance the adoption of ESG investments. These incentives should be designed to align corporate strategies with sustainability, thereby promoting responsible business practices and encouraging long-term integration of ESG principles (Ni 2023) [29].

ii. Policymakers should prioritize the development and enhancement of regulatory frameworks that facilitate the issuance of green bonds. This can be achieved by streamlining the procedures and ensuring transparency in the allocation of funds raised for sustainable projects (Xiao *et al*. 2023) [49].

9.6.3 Role of Fintech and AI in ESG Analytics

i. The integration of technologies, such as fintech and artificial intelligence (AI), has the potential to significantly transform Environmental, Social, and Governance (ESG) reporting and analytics. These technologies can improve the management of ESG data and facilitate informed investment decisions (Roy and Vasa 2025) [38].

ii. The optimization of ESG analytics through artificial intelligence can enhance the transparency and reliability of ESG disclosures. This advancement facilitates real-time assessments and predictive insights, which can significantly contribute to achieving sustainability outcomes (Ni 2023) [29].

9.6.4 Enhancing Stakeholder Education and Engagement

i. Enhancing stakeholder engagement is crucial for the successful integration of ESG principles. Educational initiatives specifically designed for diverse stakeholders, including executives, employees, and investors, can facilitate a more profound comprehension and effective implementation of ESG principles (Efthymiou *et al*., 2023) [12, 13].

ii. Facilitating stakeholder engagement in the development of Environmental, Social, and Governance (ESG) strategies can foster socially responsible practices, thereby enhancing corporate reputation and strengthening stakeholder relationships (Almnadheh *et al*. 2025) [25].

10. Findings of the Study

The key findings from the analysis of the effectiveness of ESG adoption in India are as follows.

10.1 Regulatory Landscape

- SEBI's BRSR framework and the Companies Act 2013 strengthened the ESG disclosure requirements for listed companies.
- There has been a shift from voluntary to mandatory ESG reporting, especially for large companies.
- However, challenges remain in the standardization of metrics and enforcement.

10.2 Environmental Performance

- The adoption of renewable energy and sustainability initiatives is on the rise among Indian companies.
- However, challenges persist in terms of carbon footprint reduction and waste management.

10.3 Social Impact

- CSR spending has increased because of legal mandates.
- The focus on labour rights, diversity, and workplace safety is growing.
- Community engagement initiatives are also expanding.

10.4 Governance Practices

- Board independence and transparency are also improving.
- Thus, anti-corruption measures are being strengthened.
- Shareholder activism drives ESG practices.

10.5 Sector-Specific Adoption

- The banking and IT sectors are leading ESG adoption.
- The manufacturing sector lags behind the comprehensive ESG integration.

10.6 Challenges

- Lack of standardized metrics and reporting frameworks.
- Short-term profit focus versus long-term sustainability.
- Limited investor awareness and demand for ESG.
- Policy enforcement gaps.

10.7 Comparison with Other Emerging Markets

- India's ESG adoption is progressing but lags behind markets such as Brazil in some aspects.
- There is scope to learn from China's government-led initiatives and South Africa's ESG index integration.

10.8 Future Prospects

- Strengthening SEBI's BRSR framework.
- Incentivizing ESG investments through tax benefits, green bonds, and so on
- Leveraging fintech and AI for better ESG analytics.
- Enhancing stakeholder education and engagement.

In summary, while ESG adoption in India has made significant progress, especially in regulatory frameworks and corporate awareness, challenges remain in standardization, enforcement, and comprehensive integration across sectors. Addressing these gaps can help India realize the full potential of ESG practices for sustainable development.

11. Limitations of the Study

The study of Environmental, Social, and Governance (ESG) adoption in India has several limitations. It mainly uses the existing literature, not new data, which limits detailed insights. It does not analyse specific industries in India, except banking and IT. There are insufficient quantitative measures to objectively assess ESG adoption. The study focuses on large companies that must disclose ESG information and ignores smaller and unlisted firms. The period of the analysis was not clear. It does not include diverse views from employees, consumers, or local communities. There is no comparison with other emerging markets to understand India's ESG progress. This study lacks detailed case studies showing practical challenges and best practices. It focuses more on adoption rather than the actual impact on company performance and society. The method for choosing the literature was unclear, which could lead to bias. Future research should address these issues to better understand ESG adoption in India.

12. Conclusion

India is making progress in the use of Environmental, Social, and Governance (ESG) frameworks. The Securities and Exchange Board of India (SEBI) and the Companies Act of 2013 helped with this. However, there are still problems in making rules the same everywhere and enforcing them. Different sectors adopt ESG at different rates. The banking and IT sectors are ahead, while manufacturing is behind them. Big companies are better at ESG than small companies. There is more focus on renewable energy and sustainability, but reducing carbon footprints and managing waste remains difficult. Corporate Social Responsibility (CSR) spending is increasing due to legal requirements. There is more focus on labour rights, diversity, and community work, but measuring the social impact is still difficult. Board independence and transparency are also improving. Anti-corruption efforts are stronger, and shareholder activism improves ESG practices. Problems include a lack of standard metrics, a focus on short-term profits, limited investor awareness, and weak policy enforcement. India lags behind some countries, such as Brazil, in ESG adoption. Learning from China and South Africa is helpful. Improving regulations, encouraging ESG investments, using technology for ESG analysis, and educating stakeholders are all important. Some studies show that ESG practices can improve financial performance; however, further research is needed. Effective ESG adoption requires a holistic approach that integrates ESG with core business strategies. In summary, India has made progress in ESG, especially in terms of regulations and awareness, but challenges in standardization, enforcement, and integration remain. Addressing these factors can help India benefit fully from ESG for sustainable development and better corporate performance.

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