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Article

Sector-Wise ESG Risk Scores and Material ESG Issues in Indian Blue-Chip Companies: An Analytical Perspective

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Abstract: The growing integration of Environmental, Social, and Governance (ESG) considerations into corporate decision-making has transformed sustainability from a voluntary practice into a strategic imperative. In emerging markets such as India, sectoral differences significantly influence ESG risk exposure, yet systematic sector-wise evidence for large-capitalisation firms remains limited. This study addresses this gap by analysing sector-wise ESG risk scores and material ESG issues among companies listed in the NIFTY50 index, representing India's most influential blue-chip firms. The study employs a descriptive and exploratory research design based on secondary ESG data for the year 2024. Sectoral averages of ESG risk scores were computed, and firms were classified into high, moderate, and low-risk categories using established global benchmarks. In addition, a frequency analysis of disclosed material ESG issues was conducted to identify dominant sustainability concerns across sectors. The findings reveal pronounced sectoral variation in ESG risk exposure. Energy, Basic Materials, and Utilities emerge as the highest-risk sectors, primarily due to carbon intensity, environmental compliance challenges, and operational controversies. In contrast, Technology and Communication Services demonstrate comparatively lower ESG risk, with greater emphasis on governance practices and human capital development. Financial Services and Healthcare occupy a moderate-risk position, driven by data privacy, cybersecurity, and product governance concerns. The study underscores that ESG risks are sector-specific rather than uniform, highlighting the need for differentiated sustainability strategies. The findings offer practical implications for policymakers, investors, and corporate leaders by supporting sector-tailored ESG frameworks, enhanced disclosure standards, and informed capital allocation decisions. Overall, the study contributes to a more nuanced understanding of ESG materiality within India's capital markets and advances evidence-based sustainable governance practices.

Keywords: Environmental, Social and Governance (ESG), ESG Risk Scores, Material ESG Issues, Sectoral Analysis, Corporate Sustainability, NIFTY50 Companies.

INTRODUCTION

"You can't manage what you don't measure." This timeless adage finds new relevance in today's corporate sustainability landscape, where Environmental, Social, and Governance (ESG) metrics are no longer optional—they are essential. With growing investor scrutiny and stakeholder expectations, ESG has evolved from a peripheral concern into a central performance indicator that shapes business reputation, resilience, and long-term value creation.

Globally, ESG frameworks have gained traction as institutional investors and regulators push for greater accountability and ethical governance. ESG risk scores serve as powerful tools to quantify a company's exposure to sector-specific sustainability risks and evaluate its capacity to manage them effectively. As this global momentum grows, it is vital to understand how ESG concerns manifest within

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diverse industrial ecosystems, especially in fast-developing economies like India.

India's NIFTY50 index represents a cross-section of the country's most influential companies—market leaders that also carry the weight of setting national sustainability standards. Yet, despite their size and influence, there is a glaring gap in sector-specific ESG risk analysis for these blue-chip firms. Existing research often adopts a generic lens, overlooking the nuances that distinguish one sector's ESG exposure from another.

This paper aims to fill that gap by conducting a sector-wise analysis of ESG risk scores and material ESG issues for NIFTY50 companies using 2024 data. By identifying industry-specific risks and challenges, this study offer an actionable insights to investors, policymakers, and corporate leaders striving to build more resilient, transparent, and sustainable business models in India's rapidly evolving capital markets.

LITERATURE REVIEW

Environmental, Social, and Governance (ESG) considerations have increasingly become a critical aspect of corporate performance and sustainability evaluations. As companies globally and in India move towards integrating sustainability into core business practices, understanding sector-wise ESG risk scores and material ESG issues becomes crucial for effective regulatory action, investment decisions, and long-term value creation. Figure 1 presents a literature mapping of the key themes explored in recent ESG research, highlighting the intersections between ESG disclosure, cost of capital, firm performance, and sectoral analysis. This review synthesizes scholarly insights into ESG disclosure practices, risk evaluations, and the role of ESG in shaping financial and operational performance.

O'Hara and Easley (2001) established that quality and transparency of information significantly influence the cost of capital. Firms with better ESG disclosures attract more favorable investor responses due to reduced information asymmetry.Durnev et al. (2001) demonstrated that firm-specific risk, often visible in ESG-driven industries, is linked to value-enhancing capital budgeting decisions. Their work implies that ESG variance across sectors can guide more effective capital allocation. Botosan (2006) conducted a meta-analysis and concluded that comprehensive ESG disclosure reduces a firm's cost of capital, while identifying gaps in the literature regarding standardization and effectiveness of ESG frameworks.

Gregory, Tharyan, and Whittaker (2014) disaggregated the effects of CSR into impacts on profitability, risk, and growth, confirming that ESG performance, especially in governance and social dimensions, correlates with higher firm valuation. Hayat and Orsagh (2015) underscored that incorporating ESG issues into investment analyses yields more informed decision-making. They refuted the misconception that ESG negatively impacts financial performance, instead emphasizing its role in enriching investment insights. Miyai and Sugiura (2018) highlighted that ESG disclosure significantly impacts the weighted average cost of capital (WACC), with companies demonstrating strong ESG performance benefiting from improved valuation metrics. They advocate integrating ESG scores into discount rates to enhance mid- to long-term investment accuracy. Batae, Dragomir, and Feleaga (2020) analyzed ESG and financial performance of European banks and found regional variations. This study provides useful parallels to sectoral ESG differences in Indian blue-chip companies, suggesting that geographic or industry-specific classifications can significantly affect ESG-related outcomes.

Khanchel, Lassoued, and Baccar (2023) confirmed that ESG reporting and green innovation jointly improve financial performance. Their findings underscore the sector-specific implications of sustainability tools in shaping firm value. Zhao et al. (2024) explored the ESG decoupling in Chinese state-owned enterprises and found that structured reforms like the Classified Reform of State-Owned Enterprises (CRSOE) reduced the ESG aspiration-performance gap. Their findings stress the importance of transparent ESG disclosures in mitigating greenwashing and aligning corporate behaviour with regulatory expectations. Dema and S. V. (2024) examined ESG scores in Indian banks, finding weak correlations between ESG and stock price growth but positive relationships with ROA and ROE. Their work aligns with stakeholder theory, emphasizing ESG's role in stakeholder engagement and strategic performance.

The above review confirms that ESG risk and materiality vary significantly across sectors and disclosure practices. A sector-wise analysis of Blue chip Indian companies, therefore, becomes vital in identifying key ESG issues and informing targeted policy recommendations. This review sets the foundation for empirically evaluating ESG risk scores and material issues by sector, thereby contributing to more sustainable and transparent corporate governance in India.

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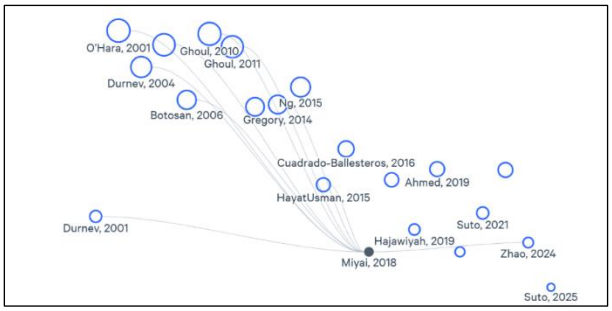

Fig. 1- Literature Mapping of ESG Themes Related to Risk Scores and Sectoral Materiality. (*Source: Compiled by Author)*

Objectives

1. To categorize NIFTY50 companies by sector and analyze average ESG risk scores per sector.
2. To identify the most common material ESG issues in each sector.
3. To determine which sectors are at greatest ESG risk.

RESEARCH METHODOLOGY

The study is based on secondary data extracted from a curated dataset titled *"NIFTY50 Companies ESG Score Data"*, available through the open-source platform Kaggle. The dataset includes ESG-related data for all 50 companies listed on the NSE NIFTY50 index and contains the following key variables:

- Company Name
- Sector and Industry
- ESG Risk Score (2024)
- Three Material ESG Issues listed for each company
- Controversy Level and Score

The data was compiled and analyzed using Microsoft Excel for statistical computations, tabulation, and charts.

Research Design

This study adopts a descriptive and exploratory design utilizing secondary data to understand ESG risk patterns across NIFTY50 sectors. Both quantitative and qualitative techniques were employed for analysis:

a) Sector Categorization and ESG Score Analysis

- Companies were grouped based on the Sector column.
- Mean ESG scores were calculated for each sector
- Risk classification was done using global ESG benchmarks (Low, Moderate, High)

b) Material ESG Issue Frequency Analysis

- A frequency analysis was done on the three issues listed per company
- The most common ESG concerns per sector were identified group.

c) Risk Classification

- Companies were categorized into risk bands per sector.
- Sectoral ESG risk patterns were compared and ranked.

Limitations

- Focuses only on large-cap NIFTY50 firms (excludes mid- and small-cap companies)
- The ESG risk score is limited to 2024 data.
- No correlation with financial performance, stock returns, or effect of ESG was conducted.

Findings

a. Sector-wise ESG risk scores comparison

Table 1: Average ESG Risk Scores by Sector 2024 (Source: Author's Calculation from NIFTY50 ESG Data)

Sector	Average ESG Risk Score (2024)
Energy	41.88
Basic Materials	33.4
Utilities	30.75
Healthcare	28.88
Consumer Defensive	26.44
Financial Services	24.15
Industrials	23.35
Consumer Cyclical	19.94
Communication Services	19.5
Technology	13.95

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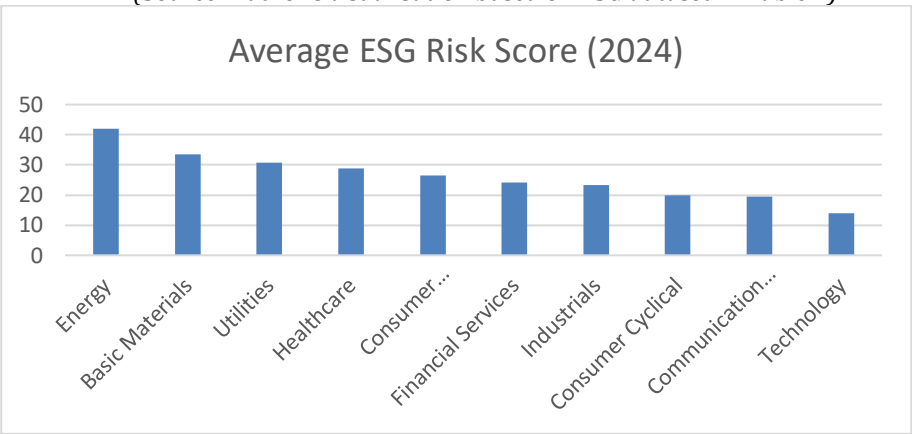
Fig.2: *Sector-Wise Average ESG Risk Scores of NIFTY50 Companies (2024) (Source: Author's visualisation based on ESG dataset in Table 1)*



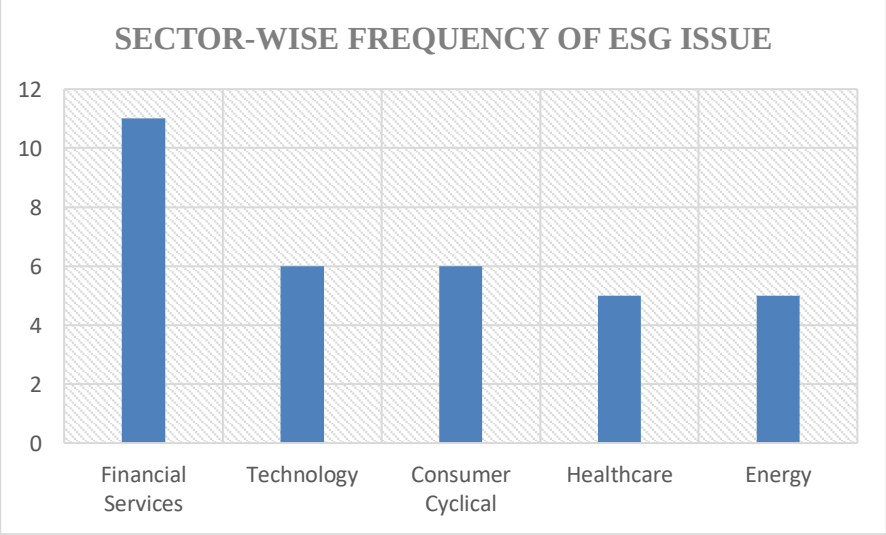
The Energy sector has the highest ESG risk score, indicating greater sustainability exposure, whereas the Technology sector shows the lowest, suggesting better ESG risk management.

b. Insights into the most common material ESG issues in each sector.

Table 2: Most Common Material ESG Issues by Sector (Source: Aggregated Frequency from dataset)

Sector	**Most Frequent ESG Issue**	**Frequency**
Financial Services	Data Privacy & Cybersecurity	11
Technology	Human Capital	6
Consumer Cyclical	Carbon	6
Healthcare	Product Governance	5
Energy	Carbon	5

Fig.3: Sector-Wise ESG Risk Classification (Company Distribution) (Source: ESG Risk Category Analysis from Dataset)



ESG challenges are sector-specific. For example:

- Data and cybersecurity issues dominate finance sector companies.
- Energy and Consumer Cyclical are carbon-intensive sectors.
- Technology sector faces pressure on human capital (e.g., workforce development, diversity).

c. Sector-Wise ESG Risk Classification

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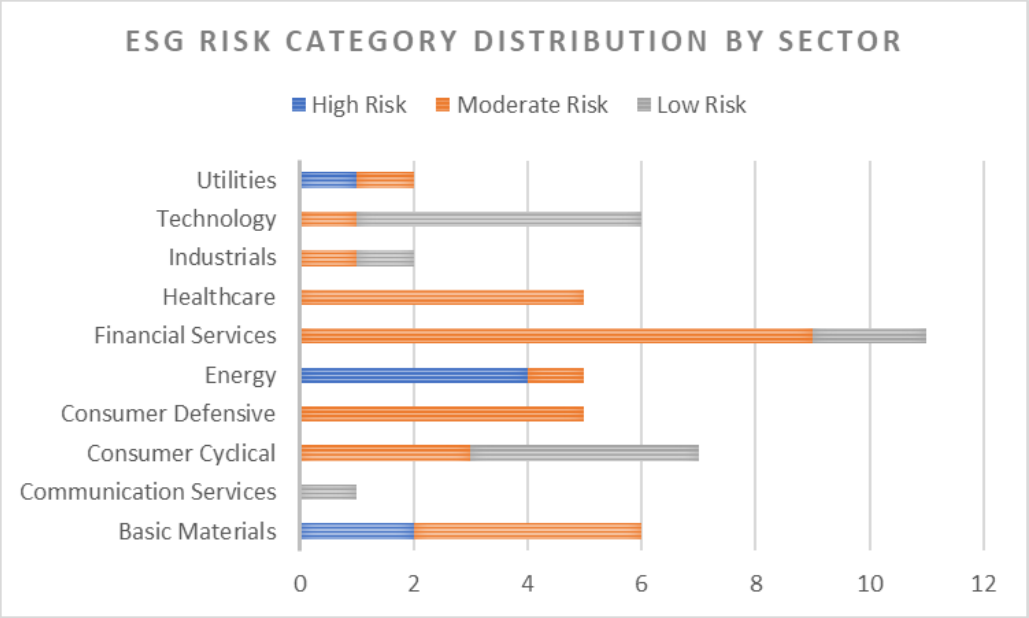
Table 3: ESG Risk Category Distribution by Sector (compiled by researcher)

Sector	High Risk	Moderate Risk	Low Risk
Energy	4	1	0
Basic Materials	2	4	0
Utilities	1	1	0
Healthcare	0	5	0
Consumer Defensive	0	5	0
Financial Services	0	9	2
Consumer Cyclical	0	3	4
Technology	0	1	5
Communication Services	0	0	1
Industrials	0	1	1

Fig.4: Distribution of ESG Risk Categories by Sector (Source: Author's Sectoral Classification)



d. Ranking of Sectors w.r.t ESG risk score

Table 4: Sector Ranking *(Compiled by researcher using Kaggle ESG Dataset, 2024)*

Rank	Sector	Avg. ESG Risk Score
1	Energy	41.88
2	Basic Materials	33.4
3	Utilities	30.75
4	Healthcare	28.88
5	Consumer Defensive	26.44
6	Financial Services	24.15
7	Industrials	23.35
8	Consumer Cyclical	19.94
9	Communication Services	19.5
10	Technology	13.95

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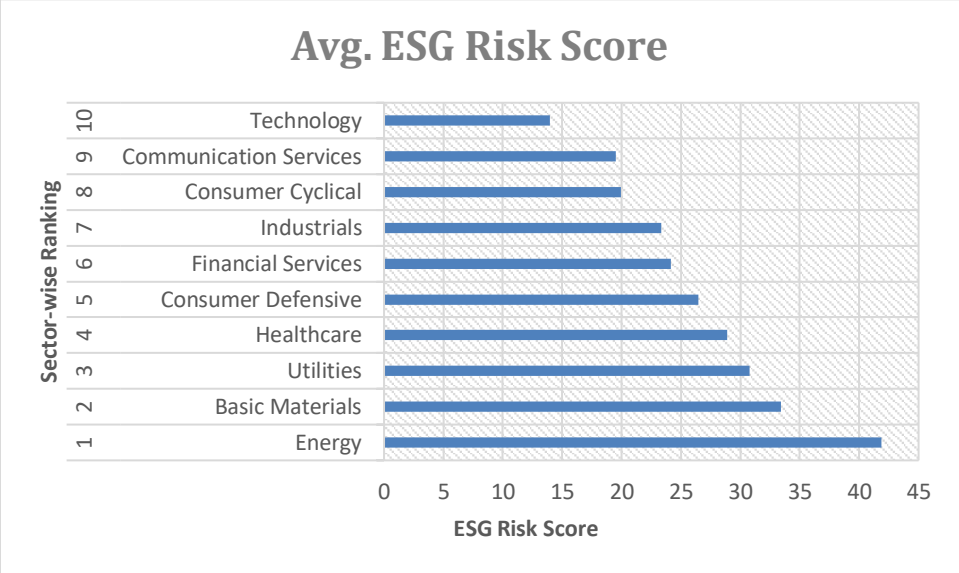
Fig.5: Sector-Wise ESG risk ranking (compiled by researcher)



Observations

The ESG risk assessment of NIFTY50 companies highlights significant variations in risk exposure across different industry sectors:

- Energy sector holds the highest ESG risk score, with majority of its sector companies in the high-risk category, primarily due to carbon emissions and environmental non-compliance.
- Basic Materials and Utilities sectors also reflect significant ESG concerns, with no companies falling under the low-risk category, indicating a need for tighter operational controls and improved sustainability practices.
- Conversely, Technology and Communication Services demonstrate strong ESG performance with predominantly low-risk scores. Their focus on Data Privacy, Cybersecurity, and Human Capital aligns with global best practices.
- Sectors like Financial Services and Healthcare fall into the moderate-risk bracket, but have a favourable mix of governance and social impact performance.
- Key ESG issues were clearly sector-specific. ie.- Financial Services: Data Privacy & Cybersecurity; Technology: Human Capital Development; Energy and Consumer Cyclical: Carbon Emissions; Healthcare: Product Governance

e. Suggestions for sectoral policy recommendations or sustainability focus areas

Sector	Focus Area	Policy Suggestion
Energy	Carbon Management	Mandate Greenhouse Gas reporting and renewable integration
Basic Materials	Waste & Emissions	Enforce cleaner production norms
Financial Services	Data Privacy, Ethics	Strengthen cyber audit frameworks & ethics reviews
Healthcare	Access to Basic Services	Incentivize affordable & ethical healthcare models
Technology	Human Capital Development	Promote diversity, upskilling, and transparency

CONCLUSION

The study provides valuable insights into how ESG risks and material issues manifest across sectors within India's most influential companies. The findings indicate that ESG performance is far from uniform and is deeply linked to the nature of operations, regulatory pressures, and stakeholder expectations in each industry. High-emission sectors such as Energy, Utilities, and Basic Materials carry considerable ESG risks due to their environmental

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footprints, legacy infrastructure, and exposure to operational controversies. Notably, these sectors had no companies in the low-risk category, pointing toward an urgent need for regulatory tightening, environmental audits, and more robust sustainability disclosures.

On the other hand, Technology and Communication Services, characterized by intangible assets and strong governance frameworks, reflect a lower ESG risk profile. These sectors emphasize social and governance factors such as employee wellbeing, diversity, and data protection. The Financial Services and Healthcare sectors occupy the moderate-risk middle ground but still display ESG maturity through focus areas like cybersecurity and ethical governance. These insights reinforce the importance of crafting sector-specific ESG strategies rather than blanket frameworks. Policymakers should integrate differentiated sustainability mandates based on sectoral risk exposure, while investors must calibrate their portfolios accordingly to align risk with returns. For corporate leaders, the study offers a roadmap to prioritize material issues most relevant to their industry. By doing so, Indian companies can foster trust, enhance transparency, and accelerate the transition toward responsible capitalism.

REFERENCES

1. Batae, O., Dragomir, V. & Feleaga, L. (2020). Environmental, social, governance (ESG), and financial performance of European banks. Journal of Accounting and Management Information Systems. https://doi.org/10.24818/jamis.2020.03003
2. Botosan, C. (2006). Disclosure and the cost of capital: what do we know?. . https://doi.org/10.1080/00014788.2006.9730042
3. Dema, W. and S, V. (2024). Sustainable Banking in India: An Empirical Study of ESG Scores and Financial Performance. International Journal For Multidisciplinary Research. https://doi.org/10.36948/ijfmr.2024.v06i02.18674
4. Durnev, A., Morck, R. & Yeung, B. (2001). Welcome Value Enhancing Capital Budgeting and Firm-Specific Stock Returns Variation.
5. Gregory, A., Tharyan, R., & Whittaker, J. (2014). Corporate social responsibility and firm value: disaggregating the effects on cash flow, risk and growth. Journal of Business Ethics, 124(4). https://doi.org/10.1007/s10551-013-1898-5\
6. Ghoul, S. E., Guedhami, O., Kwok, C. C. & Mishra, D. R. (2011). Does Corporate Social Responsibility Affect the Cost of Capital. Journal of Banking and Finance, 35(9). https://doi.org/10.1016/j.jbankfin.2011.02.007
7. Hayat, U., and Orsagh, M. (2015). Environmental, Social, and Governance Issues in Investing: A Guide for Investment Professionals. http://www.cfapubs.org/doi/abs/10.2469/ccb.v2015.n11.1
8. Khanchel, I., Lassoued, N., & Baccar, I. (2023). Sustainability and firm performance: the role of environmental, social and governance disclosure and green innovation. Management Decision. https://doi.org/10.1108/md-09-2021-1252
9. Miyai, H. and Sugiura, Y. (2018). Environmental, Social, and Governance Investment and Material Disclosure by Companies. . https://doi.org/10.2139/ssrn.3109050
10. O'Hara, M.., and Easley, D. (2001). Information and the Cost of Capital. https://doi.org/10.2139/ssrn.300715
11. Yadav, M., Dhingra, B. & Saini, M. (2022). ESG risk and financial performance of the Indian financial firms. International Journal of Governance and Financial Intermediation. https://doi.org/10.1504/ijgfi.2022.10052918
12. Zhao, H., Wang, D., Zhang, Z., & Hao, X. (2024). Does the Classified Reform of Chinese State-Owned Enterprises Alleviate Environmental, Social and Governance Decoupling?. *Sustainability, 16*(23). https://doi.org/10.3390/su162310622.

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