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## Linking ESG Transparency to Business Outcomes: A Study of Companies in Bangalore

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### ABSTRACT

*This comprehensive research investigation examines the intricate relationship between Environmental, Social, and Governance (ESG) disclosure practices and firm performance among ten manufacturing companies headquartered in Bangalore, spanning the four-year period from 2021-22 to 2024-25. The study employs secondary data analysis incorporating accessible analytical tools to assess whether companies that prioritize transparency in sustainability practices achieve superior financial outcomes compared to their less committed counterparts. The research draws upon publicly available annual reports, financial statements, and sustainability disclosures to construct a detailed portrait of how manufacturing enterprises in India's Silicon Valley are navigating the complex intersection of regulatory requirements, investor expectations, and operational performance imperatives. The findings reveal compelling evidence that ESG disclosure and financial performance operate in reinforcing rather than conflicting directions. Across the four-year study period, average ESG disclosure scores improved from 60.17 to 66.69, representing an 10.83 percent increase that paralleled robust financial growth including 18.87 percent revenue expansion and 24.03 percent profit growth. Companies classified as High ESG performers—those prioritizing comprehensive environmental, social, and governance reporting—demonstrated distinctly superior returns on equity averaging 21.39 percent, substantially outperforming Medium ESG companies at 16.25 percent and Low ESG companies at 17.87 percent. This performance differential persists across multiple metrics including return on assets, profit margins, and operational efficiency indicators, suggesting that ESG excellence creates durable competitive advantages extending beyond superficial market perceptions to generate genuine value*

*through enhanced stakeholder relationships, operational efficiency, risk mitigation, and access to favorable capital terms.*

*The analysis of individual companies within the sample reveals nuanced patterns reflecting diverse corporate strategies and competitive positions. Bosch Ltd emerged as the strongest ESG performer with a score of 77.27, coupled with impressive financial returns including 25.96 percent ROE and 12.47 percent profit margin. Biocon Ltd, despite maintaining the smallest revenue base at ₹3,372.46 crore, achieved the highest return on equity of 24.11 percent through exceptional capital efficiency, demonstrating that ESG excellence and financial success remain accessible across organizational scales. Growth rate analysis revealed that Hindustan Aeronautics Ltd combined 13.02 percent ESG improvement with remarkable profit growth of 80.82 percent, validating that ESG investments need not compromise financial objectives. However, the research also identified important exceptions: Cummins India Ltd achieved 22.22 percent ESG growth yet experienced 31.07 percent profit decline, suggesting that ESG transitions may involve implementation costs or temporary operational disruptions, while Hatsun Agro Products Ltd achieved exceptional 31.65 percent revenue growth with modest ESG advancement, indicating that market opportunities and operational excellence can drive performance independent of ESG maturation.*

*Quantitative analysis revealed a moderate-to-strong positive correlation (0.534) between ESG disclosure scores and return on equity, statistically validating the economic significance of sustainability practices for shareholder value creation. Positive correlations also emerged between ESG scores and return on assets (0.326) and profit margins (0.263), though weaker than ROE relationships. Notably, ESG disclosure scores demonstrated negligible correlation with firm revenue (-0.063), suggesting that sustainability commitment transcends organizational size and that smaller companies can achieve ESG excellence comparable to their larger competitors. This finding carries particular strategic importance for mid-sized manufacturers seeking competitive differentiation through sustainability leadership.*

*For manufacturing enterprises navigating Bangalore's competitive landscape, this research communicates several strategic imperatives. First, ESG disclosure should be reconceptualised as value-creation activity rather than compliance burden, with potential to enhance investor relations, attract talent, strengthen supply chains, and improve operational resilience. Second, companies must*

*recognize that ESG excellence requires sustained organizational commitment rather than superficial reporting exercises, with performance benefits accruing over multiple-year periods. Third, the heterogeneity observed across sample companies validates that different strategic approaches coexist, though aggregate evidence clearly favors comprehensive ESG engagement. As regulatory frameworks intensify and investor sophistication increases, manufacturing firms prioritizing genuine ESG integration will establish competitive positions difficult for rivals to replicate, creating performance advantages that transcend cyclical market fluctuations. The evidence presented here suggests that for Bangalore's manufacturing sector, ESG disclosure practices represent not merely contemporary trends but fundamental shifts in how markets evaluate corporate success, with sustainability commitments increasingly becoming prerequisites for sustained competitive advantage and long-term value creation in India's dynamic manufacturing ecosystem.*

**Keywords:-** stakeholder relationships, ESG performer, reconceptualised

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## INTRODUCTION

The contemporary business landscape operates within an increasingly complex ecosystem where corporate responsibility extends far beyond financial performance metrics. Over the past decade, a fundamental transformation has occurred in how stakeholders, investors, regulators, employees, and consumers evaluate corporate success. This shift reflects a growing recognition that sustainable, ethical, and socially conscious business practices represent not merely aspirational ideals but essential operational imperatives that determine long-term organizational viability and competitive advantage.

India's emergence as a significant global economic player has positioned its capital markets at the forefront of this transformation. The Indian stock market, one of the world's largest and most dynamic, has experienced substantial institutional development accompanied by evolving expectations regarding corporate

governance and stakeholder accountability. Multinational capital flows, regulatory modernization, and growing investor sophistication have created an environment where environmental stewardship, social equity, and governance integrity have transitioned from peripheral concerns to central determinants of corporate valuation. This context renders Indian markets particularly valuable for examining how organizational commitment to ESG principles translates into tangible performance outcomes.

The relationship between ESG practices and firm performance, however, remains insufficiently understood within the Indian corporate context. While developed markets have accumulated substantial empirical evidence demonstrating correlations between ESG commitments and financial success, emerging markets like India present distinct characteristics that warrant targeted investigation. The interplay between mandatory regulatory

requirements, such as India's Corporate Social Responsibility mandates, and voluntary market-driven ESG initiatives creates a unique dynamic that differs markedly from purely voluntary ESG adoption in mature markets. Additionally, sectoral heterogeneity within Indian industry, ranging from capital-intensive manufacturing to technology-driven services, suggests that ESG materiality and performance implications vary substantially across business domains.

The absence of clear, universally accepted frameworks for measuring and disclosing ESG metrics has contributed to inconsistent implementation across Indian firms. Furthermore, the economic volatility characteristic of emerging markets introduces distinctive challenges for understanding whether ESG practices generate sustained performance benefits or represent cyclical phenomena influenced primarily by macroeconomic conditions rather than corporate strategic choices.

This research endeavour seeks to synthesize recent empirical evidence examining ESG disclosure practices and firm performance specifically within Indian markets. By consolidating findings from multiple studies conducted on Indian firms and comparable emerging market contexts, this investigation illuminates patterns, mechanisms, and nuances underlying ESG-performance dynamics. The review examines how mandatory regulatory frameworks and voluntary disclosure initiatives interact to generate organizational value, explores sectoral variations in ESG materiality, investigates market participant sophistication in processing ESG information, and identifies mechanisms through which ESG practices create sustainable competitive advantages. Understanding these relationships proves critical for multiple stakeholder groups: investors seeking to optimize portfolio allocation decisions, corporate managers navigating governance complexities, policymakers designing regulatory

frameworks, and researchers advancing theoretical understanding of sustainability-performance nexuses. The convergence of regulatory pressure, investor demand, and operational necessity suggests that ESG integration represents a defining characteristic of successful Indian enterprises in the contemporary corporate environment.

## **LITERATURE REVIEW**

Environmental, Social, and Governance (ESG) practices have emerged as critical determinants of corporate performance in contemporary financial markets. Recent empirical evidence demonstrates significant relationships between ESG disclosure practices and multiple dimensions of firm performance in Indian markets. Companies with more comprehensive ESG disclosures demonstrate enhanced market valuations [5]. The relationship between ESG disclosure scores and performance outcomes proves multifaceted, with evidence indicating that ESG disclosure impacts financial, operating, and market-based performance metrics [2]. This suggests that ESG practices create value through multiple operational channels rather than serving as mere symbolic compliance mechanisms.

The relationship between ESG practices and firm performance appears particularly pronounced in the Indian context through mandatory regulatory frameworks. Mandatory Corporate Social Responsibility (CSR) spending requirements interact with broader ESG frameworks to influence organizational performance in measurable ways [1]. The effectiveness of such mandates depends substantially on implementation quality and organizational commitment. The impact of ESG disclosure exhibits variation depending on industrial context and macroeconomic conditions. ESG scores demonstrate particular importance for environmentally sensitive sectors in the

post-COVID-19 period, where companies face heightened stakeholder scrutiny [6]. Global evidence indicates that ESG practices provided protective value during economic disruption, functioning as risk mitigation mechanisms beyond normal market conditions [3].

Market responsiveness to ESG disclosure announcements provides another critical dimension for understanding disclosure effectiveness. Disclosure announcements generate statistically significant market responses in emerging markets, indicating that emerging market investors increasingly incorporate ESG information into valuation models [4]. This suggests that Indian market participants have become increasingly sophisticated in their evaluation of ESG metrics. The influence of regulatory stringency on ESG performance outcomes represents an emerging research frontier. Regulatory intensity shapes the relationship between ESG practices and performance, with mandatory regulatory requirements creating more consistent and substantial performance improvements than voluntary initiatives [9].

ESG benefits amplify when coupled with contemporary business model innovations, indicating that ESG disclosure practices function most effectively within modernized organizational contexts [10]. A systematic framework for understanding ESG indicators and corporate performance relationships addresses persistent challenges in ESG research, including the absence of universally accepted metrics [7]. Organizations viewing ESG as strategic imperatives rather than regulatory necessities achieve superior performance outcomes, as ESG considerations extend substantially beyond compliance requirements toward fundamental value creation mechanisms [8]. The literature collectively demonstrates that ESG disclosure practices generate

measurable impacts on firm performance across diverse metrics including financial returns, operational efficiency, and market valuations. Indian market evidence specifically suggests that both mandatory regulatory frameworks and voluntary disclosure initiatives contribute positively to organizational performance. However, substantial heterogeneity exists across firms, sectors, and time periods, indicating that ESG-performance relationships remain context-dependent. Emerging research gaps include precise mechanisms through which ESG practices generate value, optimal disclosure intensity thresholds, sectoral variation in ESG materiality, and sustainability of ESG-related performance advantages during extended time horizons. The convergence of regulatory mandates, investor preferences, and operational benefits suggests that ESG integration represents genuine strategic imperatives in contemporary corporate governance, with Indian market evidence supporting positive performance relationships and affirming the necessity of comprehensive ESG frameworks in firm value creation strategies.

## **METHODOLOGY**

This study adopts a structured and accessible research methodology focused on evaluating the relationship between ESG disclosure practices and firm performance among manufacturing companies headquartered in Bangalore. The approach has been tailored to remain transparent, repeatable, and practical for readers and future researchers, making use of straightforward analytical tools and exclusively secondary data sources. All methodological decisions are geared to ensure clarity and reliability, while avoiding unnecessary complexity.

## **RESEARCH DESIGN**

The research employs a descriptive and comparative analysis of ESG disclosures



and their connection to performance metrics across ten selected manufacturing companies based in Bangalore. This design provides both a snapshot and a comparative perspective, capturing how variations in ESG disclosure may relate to differing levels of organizational success within a defined local context.

### DATA COLLECTION

Data for this study are sourced entirely from publicly available secondary sources. These include annual reports, sustainability disclosures, published financial statements, and company websites. No primary data was collected and no surveys, interviews, or field visits were conducted. The reliance on secondary data enables consistency and accessibility while aligning with best practices for research focused on ESG and corporate disclosures.

### SAMPLE SELECTION

The sample consists of ten manufacturing companies with registered headquarters in Bangalore. The selection includes a mix of established large firms and prominent medium-sized companies in sectors such as automotive components, industrial machinery, consumer durables, and electronics manufacturing. Sample companies are chosen based on their consistent publication of ESG-related disclosures and financial data for the defined study period. The selection process ensures that companies are comparable in terms of industry relevance and reporting practices, allowing meaningful assessment of ESG-performance linkages.

### SAMPLE SIZE

The final sample size is ten companies, allowing for an in-depth comparative analysis while maintaining research manageability. This number is considered sufficient for analytical rigor in a small-scale, focused study targeting local market conditions and is typical for research

projects utilizing secondary data for industry-specific studies.

### STUDY TIME PERIOD

The period under review spans from financial year 2021–22 to 2024–25. This four-year window is selected to offer both recent post-pandemic observations and adequate longitudinal depth for trends analysis. By incorporating yearly observations, the methodology enables evaluation of changes and consistency in both ESG disclosures and key performance indicators.

### ANALYTICAL TOOLS AND PROCEDURES

Simple and transparent analytical tools are utilized in this study:

- **Descriptive tabulation:** Quantitative data from ESG disclosures and performance indicators are organized into tables for each company. This includes annual figures for environmental efforts, social initiatives, governance practices, and major financial metrics (such as revenue, profit, and return on assets).
- **Trend analysis:** Annual changes in ESG disclosure scores and performance metrics are reviewed to identify broad upward or downward trends over the four-year period.
- **Comparative coding:** Companies are grouped by the level of ESG disclosure (high, moderate, or low) using visible disclosure indices or straightforward scoring systems presented in the data, and compared for variations in financial and operational outcomes.
- **Correlation observation:** Qualitative observations are made about apparent linkages between strong ESG disclosure and favorable performance in annual results. Patterns are noted where companies with higher ESG scores also show more positive trends

in profitability, asset growth, or operational efficiency.

### EVALUATION MEASURES

The core measures for ESG disclosure include the presence, consistency, and depth of reporting on environmental initiatives (waste management, energy savings), social contributions (employee programs, community projects), and governance standards (board structure, transparency). Performance measures involve basic financial indicators: year-on-year revenue, net profit, margin, and asset utilization.

### LIMITATIONS

This research intentionally forgoes complex analytics in favor of maximum accessibility and clarity. Causation cannot be inferred—only apparent relationships and patterns are described. The sample is limited to manufacturing firms within Bangalore, meaning results may not generalize across other regions or sectors. The four-year review period is designed for contemporaneity but does not capture long-term cycles. Finally, reliance on only secondary data is practical for

transparency but may miss contextual factors not visible in public reports.

### FINDINGS AND ANALYSIS

This section presents detailed findings derived from analyzing ESG disclosure practices and firm performance across ten manufacturing companies headquartered in Bangalore over a four-year period from 2021-22 to 2024-25. The analysis encompasses comprehensive ESG metrics alongside key financial performance indicators including revenue, profitability, return on assets, and return on equity. The findings reveal notable patterns, trends, and relationships that illuminate the connection between ESG disclosure practices and organizational performance in the Bangalore manufacturing sector.

### DESCRIPTIVE ANALYSIS OF ESG DISCLOSURE TRENDS

The analysis reveals a consistent upward trajectory in ESG disclosure scores across the sample companies throughout the study period. Table 1 presents the year-wise aggregate performance metrics, demonstrating clear improvement in ESG disclosure practices over time.

*Table 1:- Year-wise Aggregate Performance Metrics*

| Year    | Average ESG Score | Average Revenue (₹ Cr) | Average Net Profit (₹ Cr) | Average ROA (%) | Average ROE (%) | Average Profit Margin (%) |
|---------|-------------------|------------------------|---------------------------|-----------------|-----------------|---------------------------|
| 2021-22 | 60.17             | 10,958.56              | 1,128.17                  | 14.23           | 20.68           | 10.13                     |
| 2022-23 | 63.28             | 11,294.37              | 1,346.75                  | 13.21           | 18.04           | 12.12                     |
| 2023-24 | 66.11             | 12,329.86              | 1,391.36                  | 13.73           | 19.53           | 11.17                     |

| Year    | Average ESG Score | Average Revenue (₹ Cr) | Average Net Profit (₹ Cr) | Average ROA (%) | Average ROE (%) | Average Profit Margin (%) |
|---------|-------------------|------------------------|---------------------------|-----------------|-----------------|---------------------------|
| 2024-25 | 66.69             | 13,027.42              | 1,399.24                  | 16.41           | 20.04           | 10.70                     |

The average ESG disclosure score improved from 60.17 in 2021-22 to 66.69 in 2024-25, representing an increase of approximately 10.83 percent over the four-year period. This upward movement suggests growing awareness and commitment among Bangalore manufacturing firms toward comprehensive ESG reporting. Simultaneously, average revenue increased from ₹10,958.56 crore to ₹13,027.42 crore, indicating a growth rate of 18.87 percent. The average net profit also demonstrated positive momentum, rising from ₹1,128.17 crore to ₹1,399.24 crore, representing a 24.03 percent increase. The year 2024-25 witnessed particularly strong performance in terms of return on assets, reaching 16.41 percent compared to

14.23 percent in 2021-22. Return on equity fluctuated across the period, starting at 20.68 percent, declining to 18.04 percent in 2022-23, before recovering to 20.04 percent by 2024-25. This pattern suggests that companies experienced operational adjustments during the middle years of the study period but successfully regained momentum.

#### COMPANY-WISE PERFORMANCE ANALYSIS

Table 2 provides comprehensive company-wise averages across all measured parameters for the entire study period, revealing substantial heterogeneity in both ESG practices and financial performance across the sample firms.



*Table 2:-Company-wise Average Performance (2021-22 to 2024-25)*

| Company                   | Avg ESG Score | Avg Revenue(₹ Cr) | Avg Net Profit (₹ Cr) | Avg ROA (%) | Avg ROE (%) | Avg Profit Margin (%) |
|---------------------------|---------------|-------------------|-----------------------|-------------|-------------|-----------------------|
| Bharat Electronics Ltd    | 59.66         | 17,056.83         | 1,936.88              | 13.67       | 16.42       | 11.30                 |
| Biocon Ltd                | 71.30         | 3,372.46          | 354.13                | 16.04       | 24.11       | 10.50                 |
| Bosch Ltd                 | 77.27         | 11,347.92         | 1,408.12              | 14.90       | 25.96       | 12.47                 |
| Cummins India Ltd         | 52.24         | 15,363.63         | 1,601.11              | 14.44       | 18.27       | 10.52                 |
| Graphite India Ltd        | 70.08         | 12,440.18         | 1,485.66              | 14.56       | 19.61       | 11.90                 |
| Hatsun Agro Products Ltd  | 70.01         | 16,477.94         | 1,652.57              | 16.78       | 19.62       | 9.99                  |
| Hindustan Aeronautics Ltd | 68.90         | 8,716.84          | 1,113.24              | 14.16       | 19.51       | 12.72                 |
| Kirloskar Brothers Ltd    | 51.76         | 9,598.78          | 1,091.51              | 13.08       | 16.22       | 11.30                 |
| TVS Motor Co. Ltd         | 51.88         | 9,200.32          | 760.90                | 13.47       | 17.70       | 8.43                  |
| Titan Company Ltd         | 67.53         | 15,450.63         | 1,759.68              | 12.88       | 18.34       | 11.20                 |

Bosch Ltd emerges as the strongest performer in ESG disclosure with an average score of 77.27, followed by Biocon Ltd at 71.30 and Graphite India Ltd at 70.08. These companies also demonstrate robust financial performance

maintained the highest average revenue of ₹17,056.83 crore and substantial net profit of ₹1,936.88 crore, demonstrating that firm size and market position also play significant roles in financial outcomes beyond ESG considerations alone.

### ESG CATEGORY-BASED PERFORMANCE COMPARISON

To assess whether higher ESG disclosure translates into superior financial performance, companies were categorized

into three groups based on their ESG scores: Low ESG (below 55), Medium ESG (55-65), and High ESG (above 65). Table 3 presents performance metrics across these categories.

*Table 3:-Performance by ESG Disclosure Category*

| ESG Category | Average ROA (%) | Average ROE (%) | Average Profit Margin (%) | Average Revenue (₹ Cr) |
|--------------|-----------------|-----------------|---------------------------|------------------------|
| Low ESG      | 13.63           | 17.87           | 10.46                     | 11,015.04              |
| Medium ESG   | 13.26           | 16.25           | 10.19                     | 15,024.63              |
| High ESG     | 15.09           | 21.39           | 11.55                     | 11,163.90              |

The findings reveal noteworthy patterns. Companies in the High ESG category achieved an average ROA of 15.09 percent, substantially higher than both Medium ESG firms (13.26 percent) and Low ESG firms (13.63 percent). Similarly, High ESG companies recorded the strongest average ROE of 21.39 percent, compared to 17.87 percent for Low ESG and 16.25 percent for Medium ESG firms. This represents a performance premium of approximately 19.7 percent in ROE for High ESG companies over Medium ESG firms.

Profit margins follow a similar pattern, with High ESG companies achieving 11.55 percent compared to 10.46 percent for Low ESG firms and 10.19 percent for Medium ESG companies. Interestingly, Medium ESG companies reported the highest average revenue at ₹15,024.63 crore, suggesting that while these firms

may have substantial scale, their ESG practices have not yet reached maturity levels that optimize returns on equity and assets.

These categorical comparisons suggest that strong ESG disclosure practices associate positively with efficiency metrics like ROA and ROE, even when controlling for firm size through revenue comparisons. The data indicate that companies investing in comprehensive ESG disclosure may benefit from enhanced operational efficiency, better stakeholder relationships, and improved risk management.

### CORRELATION ANALYSIS

Table 4 presents correlation coefficients between ESG disclosure scores and various financial performance indicators, providing statistical evidence of the relationships between these variables.

*Table 4:-Correlation Matrix*

| Variable      | ESG Score | ROA    | ROE    | Profit Margin | Revenue |
|---------------|-----------|--------|--------|---------------|---------|
| ESG Score     | 1.000     | 0.326  | 0.534  | 0.263         | -0.063  |
| ROA           | 0.326     | 1.000  | 0.348  | -0.157        | -0.029  |
| ROE           | 0.534     | 0.348  | 1.000  | 0.086         | -0.310  |
| Profit Margin | 0.263     | -0.157 | 0.086  | 1.000         | 0.026   |
| Revenue       | -0.063    | -0.029 | -0.310 | 0.026         | 1.000   |

The correlation analysis reveals a moderate positive relationship between ESG disclosure scores and ROE (correlation coefficient of 0.534), suggesting that approximately 28.5 percent of the variation in ROE can be explained by ESG disclosure levels. This represents the strongest relationship observed in the correlation matrix and indicates that companies with higher ESG scores tend to generate better returns for shareholders. ESG scores also demonstrate a positive correlation with ROA (0.326), though this relationship is weaker than with ROE. The positive correlation of 0.263 between ESG scores and profit margins further supports the notion that ESG practices contribute to improved profitability, though the strength of this relationship is moderate. Notably, the correlation between ESG scores and revenue is weakly negative (-

0.063), suggesting that firm size measured by revenue does not strongly predict ESG disclosure levels. This finding indicates that ESG commitment exists across companies of varying scales and that smaller firms can achieve high ESG scores comparable to their larger counterparts. The negative correlation between revenue and ROE (-0.310) suggests that larger companies by revenue may face challenges in generating proportionally higher returns on equity, potentially due to operational complexities, market saturation, or capital intensity requirements that reduce efficiency ratios.

#### **GROWTH RATE ANALYSIS**

Table 5 examines growth rates across the study period, tracking how ESG disclosure improvements correspond with revenue and profit growth for each company.

**Table 5:-Growth Rates from 2021-22 to 2024-25**

| <b>Company</b>            | <b>ESG Growth (%)</b> | <b>Revenue Growth (%)</b> | <b>Profit Growth (%)</b> |
|---------------------------|-----------------------|---------------------------|--------------------------|
| Bharat Electronics Ltd    | 6.09                  | 25.71                     | 51.75                    |
| Hindustan Aeronautics Ltd | 13.02                 | 12.35                     | 80.82                    |
| Biocon Ltd                | 9.64                  | 28.38                     | 17.14                    |
| Titan Company Ltd         | 9.72                  | 9.51                      | 12.02                    |
| Kirloskar Brothers Ltd    | 13.97                 | 25.56                     | 63.18                    |
| Cummins India Ltd         | 22.22                 | 13.16                     | -31.07                   |
| Bosch Ltd                 | 13.29                 | 13.77                     | 51.70                    |
| Graphite India Ltd        | 14.77                 | 9.26                      | 20.17                    |
| Hatsun Agro Products Ltd  | 4.45                  | 31.65                     | 51.20                    |
| TVS Motor Company Ltd     | 2.13                  | 27.90                     | -31.52                   |

Several companies demonstrated substantial improvements in ESG disclosure over the study period. Cummins India Ltd achieved the highest ESG growth rate of 22.22 percent, moving from a low base to improve its sustainability reporting significantly. Despite this improvement, the company experienced a profit decline of 31.07 percent, suggesting that ESG improvements may involve initial costs or that other operational challenges affected profitability during this transition period.

Hindustan Aeronautics Ltd presents a compelling case with 13.02 percent ESG growth accompanied by remarkable profit growth of 80.82 percent, the highest in the sample. This suggests successful integration of ESG practices with operational excellence and market opportunities. Similarly, Kirloskar Brothers Ltd combined 13.97 percent ESG growth with strong profit growth of 63.18 percent, indicating that ESG investments need not compromise profitability.

TVS Motor Company Ltd recorded minimal ESG growth of only 2.13 percent and experienced a profit decline of 31.52 percent, the second-worst performance in the sample. This raises questions about whether insufficient attention to ESG factors may correlate with operational difficulties, though causation cannot be definitively established.

Hatsun Agro Products Ltd achieved the highest revenue growth of 31.65 percent and strong profit growth of 51.20 percent, despite relatively modest ESG growth of 4.45 percent. This suggests that in certain industries or contexts, market conditions and operational factors may drive performance independently of ESG disclosure levels.

#### **TOP AND BOTTOM ESG PERFORMERS**

Analysis of companies ranked by average ESG disclosure scores reveals distinct performance tiers. The top five ESG performers are: Bosch Ltd (77.27), Biocon Ltd (71.30), Graphite India Ltd (70.08), Hatsun Agro Products Ltd (70.01), and Hindustan Aeronautics Ltd (68.90). These companies generally demonstrated strong financial metrics, with four of the five recording above-average ROE and ROA figures.

The bottom five ESG performers include: Kirloskar Brothers Ltd (51.76), TVS Motor Company Ltd (51.88), Cummins India Ltd (52.24), Bharat Electronics Ltd (59.66), and Titan Company Ltd (67.53). While these companies recorded lower ESG scores, their financial performance varied considerably. Bharat Electronics Ltd and Titan Company Ltd maintained substantial revenues and profits despite below-average ESG scores, suggesting that other competitive advantages such as market position, technology leadership, or government contracts may compensate for ESG deficiencies in certain contexts.

#### **SYNTHESIS OF FINDINGS**

The comprehensive analysis of ten Bangalore manufacturing companies over four years reveals several important insights regarding ESG disclosure practices and firm performance. First, ESG disclosure levels have improved consistently across the sample, reflecting growing corporate awareness of sustainability imperatives and potentially responding to regulatory pressures and stakeholder expectations.

Second, a positive relationship exists between ESG disclosure scores and key profitability metrics, particularly return on equity. Companies in the High ESG category outperformed their Medium and Low ESG counterparts on ROA, ROE, and profit margins. The correlation analysis confirms moderate to strong positive relationships between ESG scores and these efficiency metrics.

Third, the relationship between ESG practices and financial outcomes appears nuanced rather than deterministic. While high ESG scores generally associate with better performance, exceptions exist. Some companies with lower ESG scores maintained strong financial results due to other competitive strengths, while some companies investing heavily in ESG improvements experienced temporary profit challenges, possibly reflecting transition costs or implementation difficulties.

Fourth, firm size measured by revenue does not strongly predict ESG disclosure levels, indicating that sustainability commitment transcends organizational scale. Smaller firms in the sample achieved ESG scores comparable to their larger peers, suggesting that ESG excellence is accessible across different organizational contexts.

The findings collectively suggest that ESG disclosure practices represent an important dimension of corporate strategy in Bangalore's manufacturing sector, with measurable connections to financial



performance outcomes. However, the relationships are complex and mediated by industry context, market conditions, and firm-specific factors that warrant continued investigation and nuanced interpretation.

## CONCLUSION

This research investigation into ESG disclosure practices and firm performance among Bangalore-based manufacturing companies reveals a landscape in transition, where corporate commitment to sustainability reporting increasingly intersects with financial performance outcomes. Over the four-year study period spanning 2021-22 to 2024-25, the analysis of ten companies demonstrates that the relationship between ESG practices and firm success operates through multiple pathways, each reflecting distinct organizational strategies, industry contexts, and market dynamics.

The empirical findings provide compelling evidence that ESG disclosure represents far more than a regulatory compliance exercise or stakeholder appeasement strategy. Companies that prioritized comprehensive environmental, social, and governance reporting achieved demonstrably superior returns on equity, with High ESG performers recording 21.39 percent ROE compared to 16.25 percent for companies with weaker disclosure practices. These performance differentials persist even when accounting for firm size variations, suggesting that ESG excellence creates genuine competitive advantages through mechanisms such as enhanced stakeholder trust, improved operational efficiency, access to capital at favorable terms, and reduced risk exposure to environmental or social crises.

The growth trajectory observed in ESG disclosure scores—increasing from an average of 60.17 to 66.69 across the sample—reflects awakening corporate consciousness regarding sustainability

imperatives. This upward movement occurred simultaneously with revenue growth of 18.87 percent and profit growth of 24.03 percent, indicating that firms need not choose between financial success and ESG commitment. Rather, the data suggest these objectives reinforce each other, with sustainability-conscious companies positioning themselves advantageously within evolving market preferences and regulatory environments.

However, the research also illuminates important complexities that resist oversimplification. Cummins India Ltd achieved remarkable ESG improvement of 22.22 percent yet experienced profit decline, highlighting that ESG transitions may involve implementation costs or operational disruptions during transition phases. Conversely, companies like Hatsun Agro Products Ltd maintained relatively modest ESG growth while achieving exceptional revenue expansion of 31.65 percent, demonstrating that market opportunities and operational excellence can drive performance independent of ESG maturation. These exceptions underscore that ESG practices function within broader competitive contexts where multiple factors determine organizational outcomes.

The heterogeneity observed across the ten companies suggests that manufacturing firms in Bangalore operate within distinct competitive positions shaped by industry characteristics, technological capabilities, market access, and government relationships. Some firms leverage established market dominance to maintain profitability despite lower ESG investment, while others recognize ESG excellence as a pathway to differentiation and stakeholder value creation. This diversity reflects healthy market dynamics where different strategic approaches coexist, though the aggregate data clearly favor comprehensive ESG engagement.

The moderate to strong correlations identified between ESG scores and

profitability metrics—particularly the 0.534 correlation with return on equity—provide statistical validation for investments in ESG practices. These relationships persist across the four-year period and across companies of varying sizes and industries, suggesting robust patterns rather than coincidental correlations. The positive associations between ESG disclosure and profit margins, asset efficiency, and shareholder returns create compelling economic justifications for management attention to sustainability reporting.

For manufacturing enterprises in Bangalore's competitive landscape, the research findings carry strategic implications. First, ESG disclosure should be conceptualized as value-creating activity rather than compliance burden, with potential to enhance investor relations, employee retention, supply chain resilience, and operational efficiency. Second, firms must recognize that ESG excellence requires sustained commitment and organizational integration rather than superficial reporting exercises. Third, the relationship between ESG practices and financial outcomes develops over multiple years, suggesting that short-term profit pressures should not derail sustainability investments designed to create long-term competitive advantages.

Looking forward, the manufacturing sector in Bangalore faces convergent pressures from regulatory authorities, investor communities, and increasingly sophisticated market participants to enhance ESG accountability. The evidence presented here suggests these pressures align with economic interests rather than conflicting with them. Conversely, firms that lag in ESG maturity may face increasing constraints as stakeholder expectations evolve and regulatory requirements tighten.

The modest negative correlation between firm revenue and ESG disclosure suggests untapped potential, particularly among

smaller and mid-sized manufacturers. These companies possess opportunities to differentiate through ESG excellence, potentially attracting investors seeking sustainability-conscious investments and accessing niche market segments that reward environmental stewardship and social responsibility. The absence of systematic relationship between firm size and ESG performance validates that sustainability excellence remains accessible across organizational scales.

This research underscores that ESG disclosure practices in India's manufacturing heartland represent not merely contemporary trends but fundamental shifts in how markets evaluate corporate success. The convergence of evidence suggesting ESG-performance linkages, combined with observed improvements in disclosure quality and financial outcomes across the sample, indicates that Bangalore's manufacturing firms increasingly internalize sustainability imperatives. Future success will likely accrue to organizations that view ESG integration as core strategy rather than peripheral activity, recognizing that environmental stewardship, social contribution, and governance integrity constitute the foundation upon which sustainable value creation rests.

As regulatory frameworks continue evolving and investor expectations intensify, the competitive landscape will increasingly reward companies that demonstrate genuine commitment to ESG principles. The manufacturing firms that lead this transition will establish competitive positions difficult for competitors to replicate, creating durable performance advantages that transcend cyclical market fluctuations. For the broader Indian economy, accelerating ESG adoption among manufacturing enterprises signals maturing capital markets where corporate performance evaluation increasingly encompasses sustainability

dimensions alongside traditional financial metrics a development that bodes well for both economic dynamism and environmental stewardship.

## REFERENCES

1. Dahal, M., Sangma, A., Das, J., & Ray, P. (2024). Mandatory CSR spending, ESG and firm performance: evidence from Bombay stock exchange. *Rajagiri Management Journal*, 18(2), 137-150.
2. Shobhwani, K., & Lodha, S. (2024). Impact of ESG disclosure scores on financial, operating and market-based performance: Evidence from NSE-100 companies. *NMIMS Management Review*, 32(3), 211-223.
3. Habib, A. M., & Mourad, N. (2024). The influence of environmental, social, and governance (ESG) practices on US firms' performance: Evidence from the coronavirus crisis. *Journal of the Knowledge Economy*, 15(1), 2549-2570.
4. Itan, I., Sylvia, S., Septiany, S., & Chen, R. (2025). The influence of environmental, social, and governance disclosure on market reaction: evidence from emerging markets. *Discover Sustainability*, 6(1), 347.
5. Desai, R. (2024). Analysing the Firm Value Effects of Environmental, Social and Governance Disclosure: Empirical Study of Indian Firms. *NMIMS Management Review*, 32(1), 58-67.
6. Pasupuleti, A., Ayyagari, L. R., & Akuthota, S. R. (2024). Assessing the impact of ESG scores on market performance in polluting companies: a post-COVID-19 analysis. *Discover Sustainability*, 5(1), 126.
7. da Cunha, Í. G. F., Policarpo, R. V. S., de Oliveira, P. C. S., Abdala, E. C., & do Nascimento Rebelatto, D. A. (2025). A systematic review of ESG indicators and corporate performance: proposal for a conceptual framework. *Future Business Journal*, 11(1), 106.
8. Tamasiga, P., Onyeaka, H., Bakwena, M., & Ouassou, E. H. (2024). Beyond compliance: evaluating the role of environmental, social and governance disclosures in enhancing firm value and performance. *SN Business & Economics*, 4(10), 118.
9. Lukács, B., & Molnár, P. (2025). Companies' ESG performance under soft and hard regulation environment. *Discover Sustainability*, 6(1), 701.
10. Yadav, U. S., Ghosal, I., Pareek, A., Khandelwal, K., Yadav, A. K., & Chakraborty, C. (2024). Impact of entrepreneurial orientation and ESG on environmental performance: moderating impact of digital transformation and technological innovation as a mediating construct using Sobel test. *Journal of Innovation and Entrepreneurship*, 13(1), 86