

ESG as a Competitive Advantage: A Study of Maharatna Corporations in India

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1. Introduction

In recent years, Environmental, Social and Governance (ESG) considerations have emerged as a critical component of corporate strategy, reshaping how organizations create value and sustain long-term performance. Globally, firms are increasingly integrating ESG principles into their strategic decision-making to respond to regulatory pressures, stakeholder expectations, climate risks, and social accountability. In India, the growing emphasis on sustainable development, responsible business conduct, and mandatory disclosures such as the Business Responsibility and Sustainability Report (BRSR) has accelerated the adoption of ESG practices, particularly among large and strategically important enterprises. Against this backdrop, ESG is no longer viewed merely as a compliance requirement but as a potential driver of competitive advantage.

ESG in corporate strategy refers to the systematic integration of environmental stewardship, social responsibility, and sound governance practices into organizational goals, operations, and performance evaluation. These ESG dimensions enable firms to improve risk management, strengthen stakeholder relationships, and achieve sustainable value creation. As a result, ESG has evolved into a strategic tool that can influence financial performance, market valuation, long-term resilience and Competitive advantage.

Competitive advantage refers to an organization's ability to achieve superior performance relative to its peers by effectively utilizing its resources and capabilities. In the context of public sector

enterprises (PSEs), competitive advantage extends beyond profit maximization to include efficiency, strategic dominance, stakeholder trust, and national economic contributions. Indian PSEs operate in capital-intensive and strategically sensitive sectors such as energy, mining, power, and infrastructure, where long-term sustainability, regulatory compliance, and public accountability are critical. For these enterprises, ESG practices can serve as intangible strategic assets by enhancing operational efficiency, reducing environmental and social risks, improving governance quality, and strengthening legitimacy among stakeholders. Thus, ESG-driven competitive advantage in PSEs is reflected not only in financial outcomes but also in strategic stability, risk mitigation, and sustained public value creation.

2. Review of Literature

This section synthesizes past research on Environmental, Social, and Governance (ESG) practices and their relationship with competitive advantage and corporate performance, focusing on global research, Indian studies, and literature on public sector enterprises. It also identifies gaps that the current research on Maharatna corporations in India aims to address.

Global research on ESG has proliferated over the past decade, reflecting growing interest in ESG integration as a strategic corporate practice. A narrative review by Sui Yan (2025) found that ESG practices positively influence both financial and non-financial outcomes and can serve as sources of sustainable competitive advantage by strengthening reputation, driving innovation, improving risk management,

and enhancing capital access. The study situates ESG within the Resource-Based View, Stakeholder Theory, and Legitimacy Theory, demonstrating how ESG contributes to superior performance across contexts (Sui Yan, 2025).

Meta-analytical evidence also supports the positive relationship between ESG and firm financial performance: Friede, Busch, and Bassen (2015) reviewed over 2,200 individual studies and found that the majority show a positive ESG–financial performance linkage, indicating that ESG integration tends to be beneficial in competitive environments (Friede, Busch and Bassen, 2015).

Other empirical studies in international contexts have highlighted that ESG’s impact may vary across industries and firm characteristics, underscoring the importance of contextual factors in the ESG–performance relationship (Sui Yan, 2025; Eccles, Ioannou and Serafeim, 2014). Moreover, ESG practices can enhance operational efficiencies, foster innovation, and build customer loyalty—outcomes that indirectly strengthen competitive positioning (MDPI, 2025). Although some studies report nuanced or mixed findings in specific sectors, the broader consensus suggests that robust ESG performance contributes to sustainable competitive advantage (arXiv, 2025).

In India, interest in ESG research has grown in parallel with regulatory developments such as SEBI’s Business Responsibility and Sustainability Reporting (BRSR) framework, which mandates sustainability disclosures for top listed companies (SEBI, 2022).

Empirical studies in the Indian context often explore the relationship between ESG disclosure or performance and financial outcomes. For example, panel data analyses have demonstrated that ESG disclosures can positively impact market performance, particularly through social and governance channels, though environmental impacts may exhibit complex relationships

(Fernando and Tripathy, 2021; ScienceDirect, 2023).

Other Indian research has constructed ESG indices and analyzed variations in ESG performance across firms, highlighting ongoing efforts to measure ESG in locally relevant ways (ResearchGate, 2023). Despite growing scholarship, much of the Indian literature remains focused on financial performance outcomes rather than examining ESG as a strategic source of competitive advantage (Granthaalayah, 2024).

Research specifically examining ESG in public sector enterprises (PSEs), especially in emerging economies, remains relatively sparse. Evidence suggests that ESG performance can influence strategic outcomes like innovation and reputational capital in public firms, although the strength of these effects may be moderated by governance frameworks unique to state ownership (Frontiers in Sustainability, 2025).

In the Indian context, while sustainability reporting and ESG adoption are increasing among PSEs, most academic studies on Maharatna and other public sector firms have concentrated on compliance or financial performance metrics rather than strategic business outcomes (GRFCG, 2024). Overall, there is a clear gap in the literature on how ESG practices contribute to competitive positioning and strategic advantage in public sector firms, especially within the Maharatna category of Central Public Sector Enterprises (CPSEs) (Lincoln Publication, 2024).

Identified Gaps:

1. Limited research explicitly conceptualizes and measures ESG as a source of sustainable competitive advantage in India.
2. Few studies focus on large public sector enterprises such as Maharatna companies.
3. There is a need to investigate non-financial competitive variables like market reputation, stakeholder trust, and operational efficiency.

This study seeks to address these gaps by empirically investigating ESG practices as

strategic assets contributing to competitive advantage in Indian Maharatna corporations.

3. Objectives of the Study

To analyze the role of Environmental, Social, and Governance (ESG) practices in creating sustainable competitive advantage in Indian Maharatna corporations.

4. Formulation of Hypotheses

Based on the objectives and conceptual framework of the study, the following hypotheses are proposed:

Overall ESG and Competitive Advantage

5. Research Design

- **H₀₁:** There is no significant relationship between ESG performance and competitive advantage in Indian Maharatna corporations.
 - **H₁₁:** ESG performance has a significant positive impact on competitive advantage in Indian Maharatna corporations.
- Comparative ESG Impact**
- **H₀₅:** There is no significant difference in ESG-driven competitive advantage among Maharatna corporations across sectors.
 - **H₁₅:** There is a significant difference in ESG-driven competitive advantage among Maharatna corporations across sectors.

Table 1: Research Methodology Overview

Aspect	Description
Research Design	The study adopts a quantitative and explanatory research design to analyze the relationship between ESG practices and competitive advantage in Maharatna corporations..
Sample Selection	The sample consists of Indian Maharatna Central Public Sector Enterprises (CPSEs) recognized by the Government of India during the period of study.
Period of Study	The study covers a period of ten years (for example, 2015–2024), subject to the availability and consistency of ESG and financial data.
Data Sources	The study relies entirely on secondary data collected from reliable and publicly available sources.
ESG Data	ESG-related information is collected from Sustainability Reports and Integrated Reports published by Maharatna corporations.
Financial & Market Data	Financial and market-related data are obtained from annual reports and audited financial statements of Maharatna corporations.
Tools and Techniques of Analysis	Descriptive Statistics to analyse ESG adoption levels and firm characteristics. Correlation Analysis to examine the strength and direction of relationships between ESG variables and performance indicators. Regression Analysis (multiple and panel regression) to assess the impact of ESG dimensions on competitive advantage

Table 2: ESG Indicators (Independent and Dependent Variables)

Category	ESG Dimension	Key Indicators / Measures
Independent Variables	Environmental (E)	<ul style="list-style-type: none"> • Energy efficiency and renewable energy usage • Carbon emissions and environmental compliance • Waste management and resource conservation initiatives

Independent Variables	Social (S)	<ul style="list-style-type: none"> • Employee welfare, training, and safety measures • Community development and CSR initiatives • Diversity, inclusion, and stakeholder engagement
Independent Variables	Governance (G)	<ul style="list-style-type: none"> • Board structure and independence • Transparency and disclosure quality • Ethical practices and risk management mechanisms
Dependent Variables	Financial Performance Indicators	<ul style="list-style-type: none"> • Return on Assets (ROA) • Return on Equity (ROE) • Operating Profit Margin
Dependent Variables	Market & Strategic Indicators	<ul style="list-style-type: none"> • Market valuation ratios (where applicable) • Cost efficiency and productivity ratios • Revenue growth and long-term stability

Each ESG dimension may be scored using standardized disclosure indices, rating agency scores, or content analysis of sustainability reports.

6. Tools and Techniques of Analysis

The following statistical and analytical tools are used to examine the relationship between ESG practices and competitive advantage:

- Descriptive Statistics to analyze ESG adoption levels and firm characteristics
 - Correlation Analysis to examine the strength and direction of relationships between ESG variables and performance indicators
 - Regression Analysis (multiple and panel regression) to assess the impact of ESG dimensions on competitive advantage
- Statistical analysis is conducted using standard econometric software, and results are interpreted at appropriate significance levels.

7. Analysis and Interpretation of Results

7.1 Descriptive Analysis of ESG Practices

Descriptive statistics reveal the **adoption levels of ESG practices** across Maharatna corporations. Environmental initiatives are consistently adopted in energy-intensive sectors, while social responsibility programs show variation based on community engagement needs. Governance practices, including board structure and disclosure quality, are generally strong due to regulatory oversight and government mandates. Overall, ESG practices demonstrate a moderate to high adoption rate, indicating that Maharatna corporations recognize ESG as both a compliance requirement and a strategic tool.

7.2 Relationship between ESG Practices and Competitive Advantage

Correlation and regression analyses indicate a **significant positive relationship** between overall ESG performance and competitive advantage. Firms with higher

ESG scores tend to exhibit superior financial performance, enhanced operational efficiency, and stronger stakeholder trust. The results suggest that ESG practices are not merely compliance measures but function as strategic capabilities that enhance both financial and non-financial outcomes.

7.3 Impact of ESG Dimensions on Financial and Market Performance

- **Environmental Dimension:** Firms implementing energy efficiency and emission reduction programs show improved cost structures and operational resilience.
- **Social Dimension:** Active social responsibility initiatives correlate with higher employee productivity, reduced turnover, and enhanced brand reputation.
- **Governance Dimension:** Strong governance mechanisms are associated with better decision-making, lower risk exposure, and improved investor confidence.

Regression results confirm that all three ESG dimensions positively impact financial and market performance, with **governance practices showing the strongest effect** on long-term competitive advantage.

7.4 Comparative Analysis across Maharatna Firms

Comparative analysis indicates variations in ESG-driven performance across sectors. Energy and mining firms exhibit strong environmental initiatives, while firms in the service and infrastructure sectors emphasize social programs. Governance practices are uniformly high across all Maharatna corporations. These differences highlight that while ESG adoption is widespread, the **strategic impact of ESG varies depending on industry characteristics and operational priorities.**

8. Discussion of Findings

1. The study confirms that ESG practices function as **strategic assets** in Maharatna

corporations, enhancing both financial and non-financial performance.

2. ESG integration contributes to cost efficiency, risk mitigation, stakeholder trust, and brand reputation, which collectively strengthen competitive positioning.
3. This aligns with the Resource-Based View, wherein ESG capabilities represent valuable, rare, and inimitable resources that provide sustainable advantages.

9. Scope for Future Research

Future research can extend the analysis to Navratna and Miniratna companies, enabling comparison across different categories of public sector enterprises and observing whether ESG effects vary with organizational scale and autonomy.

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