

ESG Vs Financial Performance: To Examine Whether Companies with High ESG Scores Also Demonstrate Stronger Financial Performance — Measured Using Profitability, Efficiency, or Valuation Ratios.

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ABSTRACT

This study examines the relationship between Environmental, Social, and Governance (ESG) performance and financial performance within the Indian port infrastructure sector. The research primarily focuses on JSW Infrastructure Ltd. as a case study, while also incorporating a sector-wise comparison of major industry players to enhance the robustness of the findings. Secondary data on ESG risk scores were obtained from Sustainalytics, and financial performance was evaluated using profitability, efficiency, and valuation ratios derived from company annual reports over a five-year period.

To analyze the relationship, correlation and regression techniques were applied, considering ESG risk score as the independent variable and net profit as the key financial indicator. The results from the firm-level analysis reveal a moderate negative relationship between ESG risk and profitability, indicating that improved ESG performance is associated with stronger financial outcomes. However, the relatively low explanatory power of the regression model suggests that ESG performance is influenced by multiple operational and strategic factors.

The sector-wise analysis further supports these findings, demonstrating that companies with lower ESG risk scores tend to exhibit stronger financial performance. The consistency between firm-level and sector-level results reinforces the argument that effective ESG risk management contributes to enhanced financial stability, operational efficiency, and investor confidence. The study concludes that ESG and financial performance are interlinked and mutually reinforcing, particularly in capital-intensive industries. It highlights the importance of integrating sustainability practices into core business strategies to achieve long-term value creation and competitive advantage.

Keywords: ESG, Financial Performance, Sustainability, Port Infrastructure Sector, Indian Port Industry, Sector-Wise Analysis, Value Creation

INTRODUCTION

In recent years, the global business environment has undergone a significant transformation, with increasing emphasis on sustainability, ethical governance, and social responsibility. Companies are no longer evaluated solely on the basis of traditional financial metrics; instead, stakeholders—including investors, regulators, and consumers—are placing growing importance on Environmental, Social, and Governance (ESG) performance as a key indicator of long-term value creation and risk management. ESG has thus emerged as a critical framework for assessing how effectively organizations balance financial objectives with broader societal and environmental responsibilities.

The rising importance of ESG considerations has led to an expanding body of academic and empirical research examining its relationship with corporate financial performance. While several studies suggest that strong ESG

practices enhance profitability, improve operational efficiency, and strengthen investor confidence, others argue that sustainability initiatives may impose additional costs and may not yield immediate financial benefits. This divergence in findings highlights the complexity of the ESG–financial performance relationship, particularly in emerging markets such as India, where regulatory frameworks, disclosure standards, and industry dynamics are still evolving.

The Indian port infrastructure sector provides a relevant context for examining this relationship. As a capital-intensive and environmentally sensitive industry, port operations involve significant environmental impact, regulatory scrutiny, and stakeholder engagement. At the same time, the sector plays a vital role in facilitating trade, economic growth, and supply chain efficiency. Companies operating in this sector must therefore balance profitability with sustainability, making ESG integration both a strategic necessity and a competitive differentiator.

Within this context, JSW Infrastructure Ltd. serves as an important case for firm-level analysis due to its rapid growth, expanding asset base, and increasing focus on sustainability practices. However, relying solely on a single-company analysis may limit the generalizability of findings. To address this limitation, the present study extends its scope by incorporating a sector-wise comparison of major Indian port companies, enabling a broader evaluation of whether ESG performance consistently influences financial outcomes across the industry.

The study adopts a quantitative approach using secondary data, analyzing financial performance through profitability, efficiency, and valuation ratios, and examining the relationship between ESG risk scores and net profit using correlation and regression techniques. By combining firm-level and sector-level perspectives, the research aims to provide a more comprehensive understanding of how ESG performance interacts with financial performance in the Indian port sector.

This integrated approach contributes to the existing literature by not only validating company-specific findings but also offering industry-wide insights. The study seeks to inform corporate managers, investors, and policymakers on the importance of aligning ESG strategies with financial objectives to achieve sustainable growth, improved risk management, and long-term value creation.

LITERATURE REVIEW

Financial performance shortfall, ESG controversies, and ESG performance: Evidence from firms around the world

DAS Gupta

This research investigates how firms react to financial performance shortfalls by improving their ESG practices as a means to preserve legitimacy. It also explores whether ESG controversies play a mediating role in shaping such responses. The study finds that declining financial performance motivates firms to enhance their ESG efforts. However, when companies face significant ESG controversies, their ability to engage in strong ESG initiatives weakens. Even so, controversies partially mediate the relationship between financial shortfalls and ESG performance, indicating that they indirectly influence firms' sustainability strategies.

ESG factors and corporate financial performance

Ghassan H. Mardini

This study examines how environmental, social, and governance (ESG) dimensions influence corporate financial performance (CFP) across 7,081 non-financial firms from 35 countries between 2012 and 2020. The analysis reveals that ESG factors collectively strengthen both market-based (Tobin's Q) and accounting-based (ROA and ROE) performance indicators. Firms with robust environmental and governance practices tend to improve market valuation, while the social component shows a negative relationship with performance, suggesting possible cost implications and reputational effects. The research contributes by offering broad empirical insights into the independent and combined effects of ESG dimensions on financial outcomes globally.

ESG risk and financial performance of the Indian financial firms

Mohit Saini, Barkha Dhingra, Mahender Yadav

Based on stakeholder theory, this study evaluates the relationship between ESG risk levels and financial performance for 57 Indian financial firms in the year 2021. Using data from Prowess IQ and Sustainalytics, and employing OLS regression, the results indicate a significant negative correlation between ESG risk and firm profitability. Companies with higher ESG risks show weaker financial returns. The findings highlight the need for financial institutions to actively reduce ESG risks to sustain profitability and strengthen stakeholder confidence. This study bridges a crucial research gap by addressing ESG risk within India's financial industry.

Good for the planet, good for the wallet: The ESG impact on financial performance in India

Amar Rao, Vishal Dagar, Kazi Sohag, Leila Dagher, Tauhidul Islam Tanin

This study assesses the relationship between ESG practices and financial performance among Nifty 50 companies in India from 2015 to 2022 using fixed-effects panel quantile regression. Results demonstrate that ESG's impact on profitability varies across the ROE distribution. The environmental and governance dimensions consistently exert a negative effect on ROE across most quantiles, while the social pillar shows weak or insignificant influence. These findings underline the complex nature of ESG–performance dynamics and provide valuable implications for investors, corporate managers, and policymakers seeking to balance sustainability goals with financial outcomes.

The business value of ESG performance: The Indian context

Hemlata Chelawat & Indra Vardhan Trivedi

This paper explores the influence of ESG performance on corporate financial results in India, addressing a gap in research from emerging economies. Using panel regression models, the study finds that companies demonstrating higher ESG performance experience improved financial outcomes. Enhanced sustainability practices appear to reduce business risks and strengthen profitability. The findings emphasize the growing importance of ESG integration for investors, regulators, and management in developing markets such as India.

Impact of ESG score on financial performance of Indian firms: static and dynamic panel regression analysis

Rupamanjari Sinha Ray, Sandeep Goel

This study investigates the influence of ESG scores on financial indicators among 48 Indian firms listed in the BSE-100 index between 2011 and 2019. Employing static and dynamic panel regression models, the analysis incorporates variables such as ROA, ROE, firm size, market capitalization, Tobin's Q, and share price. The findings indicate that ESG performance affects these financial variables, though often with a time lag. Importantly, a long-term positive association is observed between ESG disclosures and share price, suggesting that ESG serves as a forward-looking measure of firm value and risk management in developing economies.

ESG measures and financial performance of logistics companies

Jitendra Nenavani, Asha Prasuna, S.N.V. Siva Kumar & Alivelu Kasturi

This research explores the link between ESG compliance and financial performance in the logistics industry, which plays a pivotal role in global trade. The study acknowledges the sector's contribution to carbon emissions and sustainability challenges but also its ongoing transition towards greener technologies. Using panel data models, the study analyses how ESG investment affects profitability in logistics and supply chain firms. Findings indicate mixed results, highlighting that while ESG efforts improve environmental responsibility, their immediate financial returns vary across firms. Managerial insights focus on balancing sustainability and profitability in a post-pandemic economy.

Unveiling the financial effect of ESG disclosure on financial performance in India: climate-sensitive corporates' perspective

Santi Gopal Maji, Prachi Lohia

This study examines how ESG disclosure influences firm performance, considering the moderating role of climate sensitivity across industries. The analysis reveals that ESG disclosure positively affects financial outcomes, with governance showing the strongest influence. Moreover, the relationship between ESG disclosure and performance is moderated by industry type—firms in less climate-sensitive sectors benefit more from ESG reporting. The results confirm the value-enhancing role of transparent ESG communication, particularly for industries with lower environmental exposure.

Impact of ESG on financial performance: An Indian perspective

S Vidhi, Joseph Durai Selvam

This research explores the relationship between ESG performance and financial results in Indian companies from a corporate viewpoint. By using ROA and Tobin's Q as accounting-based and market-based indicators respectively, the study employs correlation and regression analyses to determine the linkages. Results confirm a positive connection between ESG initiatives and firm performance, underscoring how sustainable practices can enhance shareholder value. The findings encourage Indian companies to integrate ESG principles as part of their long-term value creation strategy.

Analysis of corporate sustainability performance and corporate financial performance causal linkage in the Indian context

Milind Kumar Jha & K. Rangarajan

This paper investigates the bidirectional relationship between corporate sustainability performance (CSP) and financial performance (CFP) for the top 500 Indian firms from 2008 to 2018. Using Granger causality and panel regression, the findings suggest limited causal linkage between CSP and CFP overall. However, at a disaggregated level, certain ESG dimensions show negative associations with profitability. The study concludes that Indian firms do not yet experience consistent financial benefits from sustainability investments, offering insights for policymakers and corporate strategists.

An empirical study of supply chain sustainability with financial performances of Indian firms

Nikunj Sachin & R. Rajesh

This study empirically evaluates how sustainable supply chain practices influence the financial performance of 25 Indian firms listed with ESG scores on Bloomberg. Using Partial Least Squares (PLS) regression, the analysis indicates that sustainable practices in the supply chain may not directly enhance financial returns as measured by ROA and ROE.

The study highlights the importance of aligning ESG efforts with profitability strategies and calls for extended research across developing economies to capture broader insights on sustainable supply chain management.

Research Objectives

Primary Objective

- To examine the relationship between ESG risk scores and financial performance, using JSW Infrastructure Ltd. as a case study and validating the findings through a comparative sector-wise analysis of selected companies in the Indian port industry.

Secondary Objective

- To analyse the financial performance of JSW Infrastructure Ltd. using profitability, efficiency, and valuation ratios.
- To assess the relationship between ESG risk scores and financial performance of JSW Infrastructure Ltd. using correlation and regression analysis.
- To compare ESG risk scores among selected companies in the Indian port sector.
- To evaluate the financial performance of selected port companies to identify relative strengths and differences.
- To examine whether companies with lower ESG risk scores demonstrate stronger financial performance at the sector level.
- To analyze the consistency between firm-level findings and sector-wise trends in ESG–financial performance relationships.

Research Method and Data

This study adopts a quantitative research approach to examine the relationship between Environmental, Social, and Governance (ESG) performance and financial performance within the Indian port infrastructure sector. The research combines both firm-level analysis and sector-wise comparative analysis to enhance the robustness and generalizability of the findings. The study is based entirely on secondary data. ESG performance is measured using ESG risk scores obtained from Sustainalytics, where lower scores indicate better ESG performance and lower exposure to sustainability-related risks. Financial data are collected from the published annual reports of the selected companies and include key indicators such as net profit, total assets, shareholders’ equity, and revenue.

For the firm-level analysis, JSW Infrastructure Ltd. is selected as the primary case study. Its financial performance is evaluated over a five-year period using ratio analysis, including profitability ratios (Return on Assets, Return on Equity, Net Profit Margin), efficiency ratios (Asset Turnover Ratio), and leverage ratios (Debt-to-Equity Ratio). In addition, comparative financial statements and common-size analysis are used to assess structural changes and performance trends over time. To examine the relationship between ESG performance and financial outcomes at the firm level, correlation and regression analyses are employed. The ESG risk score is treated as the independent variable, while net profit is considered the primary dependent variable. These statistical tools help determine the direction and strength of the relationship between sustainability performance and profitability. To complement the firm-level findings, a sector-wise analysis is conducted by comparing selected companies within the Indian port industry, including Adani Ports and Special Economic Zone, JSW Infrastructure Ltd., and Gujarat Pipavav Port Ltd. The comparison is based on ESG risk scores and overall financial performance indicators to identify patterns and relative positioning within the sector. The integration of both analytical approaches enables the study to provide a comprehensive understanding of the ESG–financial performance relationship, not only at the individual company level but also across the industry. This combined methodology enhances the reliability of the findings and offers broader insights into the role of ESG practices in driving financial performance in capital-intensive sectors.

DATA ANALYSIS

Ratio Analysis

Return on Assets (ROA)

In Lakhs

| Year | Net Profit | Total Assets | ROA |
|------|------------|--------------|-------|
| 2021 | 9,898.81 | 1,95,893.76 | 5.05% |
| 2022 | 14,054.28 | 4,80,805.52 | 2.92% |

| | | | |
|------|----------|-------------|-------|
| 2023 | 6,706.55 | 5,05,231.08 | 1.33% |
| 2024 | 28,721 | 8,32,798 | 3.45% |
| 2025 | 39,139 | 9,19,339 | 4.26% |

Interpretation

The company's Return on Assets (ROA) fluctuated from 2021 to 2025, initially strong at 5.05% in 2021, dropping to a low of 1.33% in 2023, and then recovering to 4.26% by 2025, indicating a bounce back in asset efficiency after a period of decline.

Return on Equity (ROE)

ROE = Net profit / Shareholders' Equity

In Lakhs

| Year | Net Profit | Shareholders' Equity | ROE |
|------|------------|----------------------|--------|
| 2021 | 9,898.81 | 1,20,069.88 | 8.24% |
| 2022 | 14,054.28 | 1,39,249.47 | 10.09% |
| 2023 | 6,706.55 | 1,60,276.44 | 4.18% |
| 2024 | 28,721 | 4,79,674 | 5.99% |
| 2025 | 39,139 | 5,14,453 | 7.61% |

Interpretation

The company's Return on Equity (ROE) fluctuated, peaking at 10.09% in 2022, then dropping to 4.18% in 2023, before recovering to 7.61% by 2025. This shows a period of declining efficiency in using shareholder funds, followed by a strong rebound.

Net Profit Margin

Net Profit Margin = Net Profit / Revenue

In Lakhs

| Year | Net Profit | Revenue | Net Profit Margin |
|------|------------|-----------|-------------------|
| 2021 | 9,898.81 | 32,025.89 | 30.9% |
| 2022 | 14,054.28 | 45,797.24 | 30.69% |
| 2023 | 6,706.55 | 53,158.17 | 12.62% |
| 2024 | 28,721 | 53,438 | 53.7% |
| 2025 | 39,139 | 51,993 | 75.27% |

Interpretation

The net profit margin of JSW Infrastructure was at a stable level of about 30% in 2021-2022. It then halved as of 2023 to 12.62%, probably because of the economic strains of the post-pandemic period such as Cost-effecting supply chain disruptions in the world, even when the revenue is growing. Nevertheless, the company has made an impressive recovery and tremendous growth in 2024. It has a high operational efficiency and recovery of 2025 (75.27%), and 53.7%. profitability, which may be through efficient cost management or better market conditions.

Asset Turnover Ratio

Asset Turnover = Revenue / Total Assets

In Lakhs

| Year | Revenue | Total Assets | Asset Turnover |
|------|-----------|--------------|----------------|
| 2021 | 32,025.89 | 1,95,893.76 | 0.1635 |
| 2022 | 45,797.24 | 4,80,805.52 | 0.0952 |
| 2023 | 53,158.17 | 5,05,231.08 | 0.1052 |
| 2024 | 53,438 | 8,32,798 | 0.0642 |
| 2025 | 51,993 | 9,19,339 | 0.0566 |

Interpretation

The Asset Turnover Ratio shows that JSW Infrastructure has a downward trend in Asset Turnover Ratio since 16.35% in 2021 to 5.66% in 2025. This trend indicates that the capacity of the company to create is declining. The asset base revenue of this company has been reducing during this period. The notable increase in total assets, especially in 2022 and further on, signifies substantial capital investments. But the revenue generation has not been able to keep Janes of this asset. growth, which causes an inefficient utilization of such assets to generate revenue. This perhaps is a characteristic of a company with long-term investments in new or expanded infrastructure, in which the entire revenue-generating potential of these assets can take time to materialize.

Debt-to-Equity Ratio

Debt-to-Equity Ratio = Total Debt / Shareholders Equity

In Lakhs

| Year | Total Debt | Shareholders' Equity | Debt-to-Equity Ratio |
|------|-------------|----------------------|----------------------|
| 2021 | 22,47,949 | 1,20,069.88 | 0.19 |
| 2022 | 3,15,674.22 | 1,39,249.47 | 2.27 |
| 2023 | 3,25,963.02 | 1,60,276.44 | 2.03 |
| 2024 | 3,31,092 | 4,79,674 | 0.69 |
| 2025 | 3,40,433 | 5,14,453 | 0.66 |

Interpretation

Debt levels of JSW Infrastructure are growing largely between 2021 and 2022 because of investments in expansion projects. Nevertheless, the company has achieved significant improvement in cutting its debt burden since. The debt-to-equity ratio of the company has decreased to. enhanced significantly, which means improved financial health and minimized risk. This implies that the company has been able to control its debt and is in a successful stage. stable growth path.

Correlation

Correlation between Profitability and ESG Risk Profit in Crores

| YEAR | NET PROFIT | ESG RISK SCORE |
|------|------------|----------------|
| 2023 | 67.07 | 23.2 |

| | | |
|------|--------|------|
| 2024 | 287.21 | 32 |
| 2025 | 391.39 | 12.3 |

Correlation

| | | |
|----------------|-------------|----------------|
| | NET PROFIT | ESG RISK SCORE |
| NET PROFIT | 1 | |
| ESG RISK SCORE | -0.37230858 | 1 |

Interpretation

The correlation coefficient of Net Profit and ESG Risk Score is -0.37 which is below one. shows that there is a moderate negative correlation between the two variables. This means that as the profitability of the company is higher, the ESG risk is likely to be reduced.

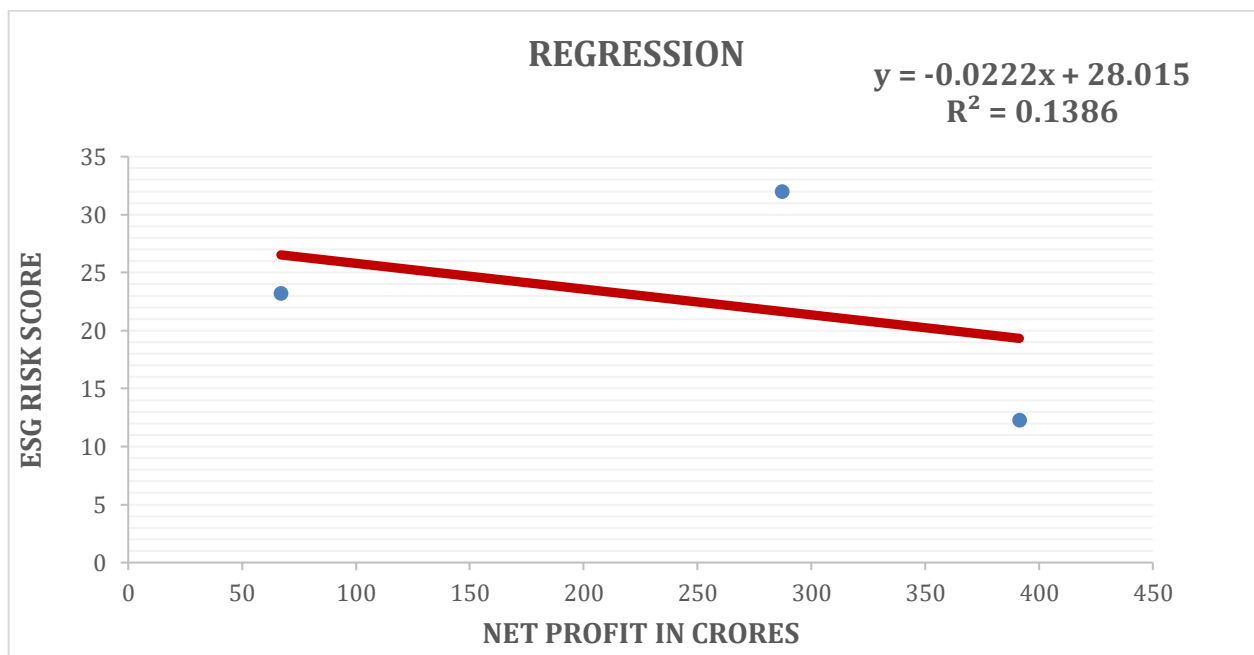
Specifically, over the period observed:

Net profit rose sharply from ₹67.07 crores in 2023 to ₹391.39 crores in 2025, indicating substantial financial growth. Meanwhile, the ESG Risk Score dropped from 23.2 to 12.3, showing a marked improvement in the company’s sustainability and governance performance. This trend suggests that higher profitability is associated with stronger ESG performance—likely due to better operational efficiency, more resources allocated toward sustainability practices, and improved risk management frameworks.

Regression

Profit in Crores

| Year | Net Profit | ESG Risk Score |
|------|------------|----------------|
| 2023 | 67.07 | 23.2 |
| 2024 | 287.21 | 32 |
| 2025 | 391.39 | 12.3 |



Interpretation

The regression equation is:

$$\text{ESG Risk Score} = -0.0222 \times \text{Net Profit} + 28.015$$

With an R^2 value of 0.1386.

This indicates a negative relationship between Net Profit and ESG Risk Score — as the company's profitability increases, its ESG (Environmental, Social, and Governance) risk tends to decrease.

Specifically, between 2023 and 2025, JSW Infrastructure's Net Profit increased significantly from ₹67.07 crore to ₹391.39 crore, while its ESG Risk Score reduced from 23.2 to 12.3.

This trend suggests that as the company improved its financial performance, it likely also enhanced its sustainability practices or governance quality, resulting in lower ESG-related risks.

However, the R^2 value of 0.1386 (13.86%) means that only a small portion of the variation in ESG Risk Score is explained by Net Profit alone. Other factors — such as environmental policies, social impact initiatives, or external ratings methodology — also play important roles.

Key Insights

There is a negative relationship between Net Profit and ESG Risk Score — as profits rise, ESG risk tends to decline.

Net Profit was also rising in the timeframe of 2023-2025, with the figure growing at 67.07 to 391.39 crores. Risk Score had decreased to 12.3 and 23.2, which means that the sustainability performance improved.

The regression equation ($\text{ESG Risk Score} = -0.0222 \times \text{Net Profit} + 28.015$) shows that higher profitability is associated with lower ESG risk.

However, the R^2 value of 0.1386 suggests that only around 14% of ESG variation is explained by profit; other operational, environmental, and governance factors also influence ESG risk.

Comparative Evaluation of ESG Risk and Financial Performance in the Indian Port Sector

The Indian port infrastructure sector includes several major private operators such as

- Adani Ports and Special Economic Zone
- JSW Infrastructure
- Gujarat Pipavav Port Limited.

These companies play a significant role in facilitating maritime trade and logistics in India. Adani Ports and Special Economic Zone is the largest private port operator in the country with a diversified port and logistics network. JSW Infrastructure, part of the JSW Group, has emerged as one of the fastest-growing port infrastructure companies with operations across several strategic ports. Gujarat Pipavav Port Limited is one of the early private sector ports in India and handles container, dry bulk, and liquid cargo operations.

ESG Risk Profile

ESG performance of these companies can be evaluated using ESG risk scores provided by Morningstar Sustainalytics, which measures the exposure of companies to environmental, social, and governance risks. Among the selected firms, Adani Ports and Special Economic Zone has the lowest ESG risk score of 8.5, indicating relatively lower ESG risk exposure. JSW Infrastructure records an ESG risk score of 12.3, reflecting moderate ESG risk. Gujarat Pipavav Port Limited has an ESG risk score of 13, representing slightly higher ESG risk compared to the other companies in the sample.

| Company | ESG Risk Score | Risk Exposure |
|--------------------------------------|----------------|-----------------------|
| dani Ports and Special Economic Zone | 8.5 | < 10, Negligible Risk |
| JSW Infrastructure | 12.3 | <20, Low Risk |
| Gujarat Pipavav Port Limited | 13 | <20, Low Risk |

Financial Performance

When comparing financial performance, Adani Ports and Special Economic Zone demonstrate the strongest financial position, supported by higher revenue, profitability, cargo handling capacity, and overall market share within the Indian port sector. JSW Infrastructure follows as the second strongest performer, showing consistent growth and expanding operational capacity. Gujarat Pipavav Port Limited, although financially stable, operates at a comparatively smaller scale of revenue and market presence.

The comparison suggests a potential relationship between ESG risk management and financial performance. The company with the lowest ESG risk score also exhibits the strongest financial performance, indicating that effective ESG risk management may contribute to improved operational efficiency, investor confidence, and long-term sustainability.

| Company | ESG Risk Score | Risk Exposure | Financial Performance |
|--------------------------------------|----------------|-----------------------|------------------------|
| dani Ports and Special Economic Zone | 8.5 | < 10, Negligible Risk | Strongest |
| JSW Infrastructure | 12.3 | <20, Low Risk | Comparatively Moderate |
| Gujarat Pipavav Port Limited | 13 | <20, Low Risk | Comparatively Weaker |

Therefore, ESG considerations and financial performance should not be viewed as separate objectives. Instead, companies can integrate ESG strategies with financial goals to achieve sustainable growth, competitive advantage, and long-term value creation.

FINDINGS

Firm-Level Findings: JSW Infrastructure Ltd.

The analysis of JSW Infrastructure Ltd. indicates a generally improving financial performance over the study period. Profitability ratios such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin showed fluctuations but demonstrated a strong recovery in recent years, reflecting improved operational efficiency and effective cost management.

However, efficiency indicators, particularly the Asset Turnover Ratio, revealed a declining trend. This suggests that the company’s rapidly expanding asset base has not yet been fully utilized to generate proportional revenue, which is typical in capital-intensive industries where returns materialize over time.

From an ESG perspective, the company’s ESG risk score has shown improvement in recent years, indicating better sustainability practices and governance standards.

The correlation analysis revealed a moderate negative relationship (-0.37) between ESG risk score and net profit, suggesting that higher profitability is associated with lower ESG risk.

The regression analysis further confirmed this inverse relationship, indicating that improvements in financial performance are accompanied by reductions in ESG risk. However, the low R^2 value (13.86%) suggests that ESG performance is influenced by multiple factors beyond profitability, including environmental policies, governance frameworks, and external rating methodologies.

Sector-Wise Findings: Indian Port Industry

The comparative analysis of selected companies in the Indian port sector reveals a consistent relationship between ESG risk and financial performance.

Among the companies analyzed:

Adani Ports and Special Economic Zone exhibit the lowest ESG risk score and the strongest financial performance.

JSW Infrastructure Ltd. demonstrates a moderate ESG risk score and a comparatively moderate financial position.

Gujarat Pipavav Port Ltd. shows a relatively higher ESG risk score and comparatively weaker financial performance.

This pattern suggests that companies with lower ESG risk exposure tend to perform better financially, possibly due to enhanced risk management, improved operational efficiency, and stronger investor confidence.

Integrated Findings: Firm-Level and Sector-Level Alignment

A key finding of this study is the consistency between firm-level and sector-level results. The negative relationship between ESG risk and financial performance observed in JSW Infrastructure Ltd. is supported by the broader sector analysis.

The sector-wise comparison demonstrates that the company with the lowest ESG risk also achieves the strongest financial performance, reinforcing the argument that effective ESG risk management contributes to superior financial outcomes. This alignment indicates that ESG and financial performance are complementary rather than conflicting objectives, and that companies integrating sustainability into their operations are more likely to achieve long-term financial success term sustainability.

Suggestions

Integrate ESG into Core Business Strategy

The findings indicate a complementary relationship between ESG performance and financial outcomes. Therefore, companies should embed ESG principles into their core business strategies rather than treating them as compliance requirements. Strategic integration of sustainability can enhance long-term profitability and resilience.

Benchmark ESG Practices with Industry Leaders

Companies such as JSW Infrastructure Ltd. can benchmark their ESG initiatives against leading firms within the sector that demonstrate lower ESG risk and stronger financial performance. Adopting best practices in environmental management, governance standards, and stakeholder engagement can improve both ESG outcomes and financial strength.

Enhance Operational Efficiency Alongside ESG Initiatives

The decline in efficiency ratios highlights the need for better utilization of assets. Firms should focus on improving operational efficiency through technology adoption, process optimization, and resource management while simultaneously advancing ESG practices.

Strengthen ESG Disclosure and Transparency

Improved ESG reporting and transparency can build investor confidence and attract responsible investments. Companies should adopt standardized ESG reporting frameworks and clearly communicate their sustainability goals, performance metrics, and long-term commitments.

Adopt a Long-Term Perspective on ESG Investments

The relatively low explanatory power of regression results suggests that ESG benefits may not be fully captured in the short term. Organizations should adopt a long-term perspective, recognizing that ESG investments contribute to sustained value creation over time.

Promote Sector-Wide ESG Standardization

There is a need for greater consistency in ESG measurement and reporting across the industry. Policymakers and regulatory bodies should encourage standardized ESG frameworks to enable meaningful comparison and informed decision-making by investors and stakeholders.

Diversify Revenue Streams with Sustainable Innovations

Companies should explore new opportunities such as green logistics, sustainable infrastructure development, and digital port solutions. Diversification aligned with sustainability can enhance financial stability and reduce dependence on traditional revenue sources.

Strengthen Stakeholder Engagement and Social Responsibility

Firms should actively engage with stakeholders—including local communities, regulators, and investors—to align business operations with broader social and environmental objectives. Strong stakeholder relationships contribute to improved ESG performance and long-term business sustainability.

CONCLUSION OF THE STUDY

The present study examined the relationship between Environmental, Social, and Governance (ESG) performance and financial performance using a dual approach that combines firm-level analysis of JSW Infrastructure Ltd. with a sector-wise comparison of selected companies in the Indian port industry.

The firm-level analysis revealed that JSW Infrastructure has demonstrated an overall improvement in financial performance over the study period, supported by growth in profitability, expansion of its asset base, and improved financial stability.

The statistical findings indicated a moderate negative relationship between ESG risk scores and profitability, suggesting that stronger financial performance is associated with lower ESG risk. This implies that financially sound firms are better positioned to invest in sustainability initiatives and strengthen governance practices.

The sector-wise analysis further reinforced these findings by identifying a consistent pattern across major port companies. Firms with lower ESG risk scores were observed to exhibit relatively stronger financial performance compared to those with higher ESG risk exposure.

This highlights the role of effective ESG risk management in enhancing operational efficiency, reducing uncertainties, and improving investor confidence within the industry. By integrating both firm-level and sector-level perspectives, the study enhances the robustness and generalizability of its findings.

The consistency between the two levels of analysis confirms that ESG performance and financial performance are not conflicting objectives but are, in fact, mutually reinforcing components of long-term value creation.

In conclusion, the study establishes that companies that effectively manage ESG risks are more likely to achieve sustainable financial performance, competitive advantage, and long-term resilience.

It emphasizes the need for organizations, particularly in capital-intensive and environmentally sensitive sectors such as port infrastructure, to incorporate ESG principles into their core strategies. Such integration is essential not only for meeting stakeholder expectations but also for ensuring sustained growth and value creation in an increasingly sustainability-driven business environment.

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