



SUSTAINABILITY BEYOND FINANCIAL PERFORMANCE: COMPARATIVE ESG INSIGHTS FROM INDIAN MANUFACTURING AND IT COMPANIES

¹Rashika, ²Dr. Rubeena Bajwa, ³Dr. Kanchan Rani

¹Research Scholar, ²Assistant Professor, ³Assistant Professor

¹Department of commerce and management, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, India.

²Department of commerce and management, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, India.

³Department of commerce and management, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, India.

Abstract: Environmental, social, and governance (ESG) performance is an important measure of corporate sustainability and ethics. Companies have been compelled to integrate concerns regarding ESG within their strategies and operations due to factors such as stakeholder awareness, regulations, and investor interest. Although there have been several studies done concerning the impact of ESG performance on financial performance, little attention has been paid to sector-based comparisons, especially in an Indian context where sectors may have different operating features. In an attempt to fill this void, this paper seeks to make a comparison of the ESG performance of some Indian manufacturing firms and some Indian IT companies. One of the main measures of corporate sustainability and ethics is ESG performance. Scores from the CRISIL ESG platform were obtained for 10 firms, out of which five firms belong to the manufacturing category, and five firms belong to the IT category. The analysis was carried out with respect to the scores of the Environment, Social, Governance, and ESG.

Findings indicate that in all ESG parameters, the IT industry is superior to the manufacturing industry. Relative to the manufacturing firms, the firms in the IT sector have performed well in the dimensions of Environment, Social, Governance, and total ESG. It is evident from the data that the coefficients of variation and standard deviation in case of IT industry are much lower, indicating more maturity in ESG dimensions. The environmental aspect has been the worst performing segment in the manufacturing industry, and the governance segment has been the best performer in both industries. This research concludes that sector-specific characteristics play a significant role in determining the outcome for both ESG initiatives and sustainability. This research is very important for all those who wish to achieve effective ESG integration and sustainability within different industrial sectors.

Keywords: ESG Performance, Corporate Sustainability, Sectoral Comparison, Manufacturing Sector, Information Technology Sector, CRISIL ESG Ratings.

1. INTRODUCTION

Corporate Social Responsibility (CSR) is a kind of remuneration for supplying resources, either directly or indirectly, and includes ethical, legal and economic expenditure for society (Panicker, 2017). It has become increasingly important since 2008 as different nations have had to contribute to society in order to recover from the global financial crisis. CSR requires businesses to tackle social and environmental issues (Adams, 2004, Brammer and Pavelin, 2008, Muttakin and Subramaniam, 2015). The financial scandals, which had nothing to do with CSR, provided a boost to the governance component. Moreover, the big accounting scandals of Enron, Worldcom and other companies shocked the investors and then Corporate Governance (CG) started to promote CSR (Agrawal and Chadha, 2005, Sahut et al., 2019).

Kendall (1999) states that good CG protects the interests of many stakeholders on CSR policy. The interest of all stakeholders in financial and non-financial disclosures has led to many years of discussion on corporate governance. According to Albareda et al. (2008) and Sahut et al. (2019), the implementation of a company's CSR policies leads to the adoption of improved CG procedures and the use of current rules and regulations. As per Henisz et al. (2019) and Yu and Zhao (2015), CSR integration with CG will add environmental, social and governance issues that will provide holistic development to the organization, creating value and gaining support from the stakeholders.

The term ESG was invented by the United Nations in its study "Who Cares Wins" in 2004 to raise awareness about the importance of ESG in financial markets, according to Kempeneer et al. (2021). A year later, the UN Environmental Program's Finance Initiative (UNEP-FI) demonstrated the financial consequences of ESG. Organizations communicate their initiatives in various ways such as Environmental, social and governance (ESG), triple bottom line, sustainability reporting, global reporting initiative, and sustainability reporting (Fahad and Nidheesh, 2020). Regulators and socially conscious investors are pushing firms to include the ESG report in the annual report (Yadav, 2020, Holder-Webb et al., 2009).

Economic organizations have released ESG data for about 20 years now. Yet, most of it ends up in sustainability and annual reports - and these are more narrative than factual, often missing detailed ESG info. Focusing on qualitative data seems to hold back smart decision-making because it keeps true ESG clarity from those who need it most. Companies choose to reveal details about their ESG impact and risk, but only because there's no legal push to do so. To really understand how a business handles ESG, you'd look at metrics that shed light on their governance and how they share information with stakeholders (Boffo & Patalano, 2020). Still, even with all the call for change, old reporting methods which skip non-financial facts are widely used around the globe (Bouten et al., 2012).

More and more, ESG disclosures are tied to how well companies do. In fact, 80% of global CEOs now include sustainability in their business plans (PwC, 2021). The KPMG Survey of Sustainability Reporting shows that 80% of the world's biggest companies' issue ESG reports, up from just 35% back in 2010. This trend follows growing demands from investors and stricter laws. In India, things are no different. Of the firms listed in the NIFTY100, around 80% use the GRI framework, which has become extremely popular worldwide (EY India, 2022). Plus, CRISIL reported that financial companies in India were early adopters of the Business Responsibility and Sustainability Report (BRSR). Because of this, there was a big jump—60%—in climate-related information being shared by businesses (CRISIL, 2023). The 2022 TCFD Progress Report also spotted a 50% increase year-over-year in such data. Companies seem more focused on their carbon footprints, climate risks, and aiming for net-zero goals.

ESG is becoming increasingly important, but sustainability performance can vary between industries because of different operational characteristics, resource needs, stakeholder pressures and regulatory exposure. Different industries have different ESG opportunities and challenges leading to different levels of ESG performance and adoption. Therefore, sector-specific assessments are vital for evaluating the effectiveness of ESG implementation and identifying areas for improvement.

The manufacturing and information technology (IT) sectors are the important sectors of the Indian economy as they contribute to economic growth, employment creation, exports and industrial development. However, these industries have rather different operational characteristics and sustainability issues. Manufacturing businesses are generally resource-intensive in their production methods, consume significant amounts of energy, create waste, emissions and environmental effects. This leads to a growing concern for environmental sustainability on the part of manufacturing

companies. Moreover, manufacturing organizations have to deal with challenges such as supply chain management, labour welfare, occupational safety, and regulatory compliance.

On the other hand, the environmental impact of the IT industry is lower and it is relatively less dependent on the physical resources. The industry is highly dependent on knowledge-based services, innovation and human resources. This makes social and governance issues – such as corporate governance, diversity, talent management, ethical behaviour, employee development and data security – even more critical. Due to these differences, the ESG performance of manufacturing companies can differ significantly from that of IT companies.

People have done a lot of research on how companies do with Environmental Social Governance and how it affects their financial results. Not many people have looked at how different industries in India compare to each other when it comes to Environmental Social Governance. Most research only looks at one industry at a time or how Environmental Social Governance affects the performance of companies. Not many studies use a way to measure Environmental Social Governance to see how different industries are doing. This means we do not know much about how different industries with ways of operating are doing with sustainability. Environmental Social Governance is important. We need to know more, about how it works in different industries.

The study tries to fill a gap by comparing how selected manufacturing and IT industries in India do in terms of ESG, which stands for Environmental, Social and Governance. This is done using CRISIL ESG scores. The study checks if ESG performance is consistent over time using statistics. It looks at the Environmental, Social, Governance scores and overall ESG scores of organizations. The goal was to find out what sectors were good or bad at sustainability. This will help understand how well Indian businesses are adopting ESG now by comparing the two sectors. The study focuses on ESG performance, in these sectors. ESG scores are used to measure this performance.

2. REVIEW OF LITERATURE

According to Trespeuch (2022), companies that volunteer, donate to charity, and support community projects boost society's wellbeing. Their commitment to community welfare shows in their Social Score, a metric that highlights their positive impact. These businesses back initiatives such as health care, education, reducing poverty, and protecting the environment. Plus, they enhance their reputation and permission to operate by respecting human rights and ensuring ethical practices. This means stopping child and forced labor, and making sure workers are safe. So, not only do these firms help their communities, but they also show responsibility in how they run their supply chains.

Atik (2023) found companies with solid governance have skilled leaders focused on growing long-term value, not just quick profits. This helps them deal with market issues and grab chances when they can. Effective accountability shows a high Governance Score, meaning the board and managers answer to both shareholders and stakeholders. They do this to make sure the company stays true to its goals and ethics.

Tsang (2023) stated businesses with high environmental scores often use energy-efficient tech. This helps them rely less on fossil fuels and lowers costs. Things like renewable energy and fixing supply chains can make companies more competitive too. Recycling, smart waste management, and using a circular economy also help. In this setup, products are meant for reuse. Basically, a strong commitment to cutting waste and being more resource efficient boosts a company's Environmental Score.

Xingyu (2023) found sustainability matters more to many job seekers, particularly the younger crowd, when choosing where to work. Companies with great Environmental Scores attract passionate folks who care about the planet. Staff tend to be happier and more engaged in firms that prioritize being green. Plus, employees often feel more motivated and productive knowing they're doing something positive for the environment.

Nanda (2024) found the Governance Score is super important because it highlights how a company's leadership handles moral principles and transparency, along with risk and opportunity management. This helps investors judge the management's quality and their commitment to ethical, legal, and sustainable practices. A high score cuts down risk, builds trust with stakeholders, improves the company's reputation, and boosts its ability to deal with challenges. Strong governance sets businesses up for long-

term success, making sure they follow both legal rules and moral standards that benefit both the company and society.

Peng (2024) examined that investors now focus more on firms with solid environmental policies, often through green funds or ESG-focused portfolios. Companies with better Environmental Scores attract more funding from investors looking to back future-proof businesses that cut down their ecological footprint. These environmentally conscious companies usually have more sustainable strategies too. Plus, a strong environmental record points to potential long-term profits, especially as we face rising environmental risks and resource scarcity.

Rashmitha (2024) found that businesses focused on social issues promote fairness and help various groups in the community. This not only makes society more equal and sustainable but also enhances the company's reputation. When firms consistently address social problems like inequality and access to opportunities, people start trusting them. And trust, it turns out, is a big advantage. Customers, staff, and investors prefer supporting businesses they think care about the greater good. So, over time, such companies gain a loyal following and a real edge in the market.

Wang (2024) stated that businesses slashing greenhouse gas emissions and switching to renewables score high environmentally. This makes them look more responsible as temps rise worldwide. Plus, eco-focused firms are better prepared for climate-linked hazards like severe weather and disasters. Essentially, a top Environmental Score signals a company's plans to thrive in a climate-resilient future.

Zhang (2024) examined that a high Environmental Score means a company is doing more than just meeting basic legal requirements. Governments worldwide are getting stricter with rules on things like carbon emissions and pollution control. Not following these can land companies in hot water—with fines, legal troubles, and damage to their reputation. A good Environmental Score suggests better risk management. It also shields firms from costly cleanup efforts and hefty regulatory penalties that come with poor environmental performance.

Zhang (2024) examined that a high Social Score means treating workers right—safe conditions, fair pay, and respecting their rights. Companies with awesome workplace cultures attract and keep top talent. To boost well-being, many offer stuff like mental health help, good work-life balance, and medical care. This leads to happier staff, more productivity, and less churn. Embracing diversity and inclusion makes employees feel valued, boosting morale, creativity, and innovation. It also helps companies make better decisions and solve problems faster. So, promoting fairness and equality for all kinds of people really pays off.

Shaik and Tripathy (2025) examined 678 sustainability reports from G20 countries, where their objective was to analyze the effects of different determinants on sustainability reporting through content analysis on a global scale. To do this, they calculated QUID and SUSQ among a selected number of cross-sectional firms. Country, industry, and firm characteristics had an effect on sustainability reporting. OECD guidelines, external audit, and country standards are significant determinants of sustainability reporting, emphasizing the importance of being locally relevant in global sustainability literature.

2.1. Objectives of the Study

- i. To compare the environmental, social and governance performance and overall ESG performance of Manufacturing and IT sector.

3. RESEARCH METHODOLOGY

3.1 Research Design

The present study adopts a descriptive and comparative research design to evaluate and compare the Environmental, Social, Governance (ESG), and overall ESG performance of selected manufacturing and Information Technology (IT) companies in India. The study seeks to identify sectoral differences in sustainability performance by analyzing ESG scores obtained from a standardized rating framework.

3.2 Data Sources

The research is solely dependent on secondary data. The CRISIL ESG platform, which offers environmental, social, governance, and overall ESG evaluations for Indian enterprises, was the source of the ESG scores. CRISIL Sustainability year book, 2025, scores ESG disclosure score of 997 companies spread over 63 sectors in India. CRISIL has computed the ESG score of these companies by considering the information available in the public domain like annual reports, sustainability reports, i.e. Business Sustainability and Responsibility Reporting (BRSR) and the relevant information available on the company website.

The organizations are scored on a range from 0 to 100 based on their performances in the environmental (E), social (S), and governance (G) aspects using CRISIL ESG ratings. The method used in the scoring process is that proposed by SEBI, the Securities and Exchange Board of India, for rating providers in terms of ESG Rating Providers (ERPs). CRISIL ESG ratings are a dependable and consistent way to evaluate business sustainability performance in a variety of industries.

3.3 Sample Selection

Ten businesses, five of which were manufacturing firms and five of which were IT firms, were chosen using a purposive sample technique. The availability of ESG scores on the CRISIL ESG platform was the basis for selecting the chosen companies.

3.4 Data Analysis Techniques

To ensure analytical depth suitable for academic research, the following statistical tools are applied:

3.4.1 Descriptive Statistics

Measures such as mean, minimum, maximum, standard deviation and coefficient of variation (c.v.) are used to summarize ESG performance. This study relies on scoring data from the CRISIL ESG platform to assess and compare the environmental, social, governance, and overall ESG performance of enterprises in India's manufacturing industry and information technology (IT) industry. The study finds that the two industries differ significantly in their level of sustainable integration and ESG maturity.

Table No. 1: Descriptive Statistics of Manufacturing Sector ESG Scores

Statistics	E Score	S Score	G Score	ESG Score
Mean	47.00	53.40	66.60	56.60
Maximum	61	59	71	64
Minimum	38	40	60	50
Standard Deviation	9.00	7.16	4.67	5.59
Coefficient of Variation (%)	19.15	13.41	7.01	9.88

Table No. 2: Descriptive Statistics of IT Sector ESG Scores

Statistics	E Score	S Score	G Score	ESG Score
Mean	72.80	68.80	76.80	73.60
Maximum	77	74	83	76
Minimum	70	66	72	71
Standard Deviation	2.77	3.42	4.15	1.95
Coefficient of Variation (%)	3.81	4.97	5.40	2.65

The IT industry outperforms the manufacturing industry across all dimensions. Specifically, the table no. 2 showed that the IT industry records an average score of 72.80 on the environmental dimension, while the manufacturing industry in table no. 1 scores only 47.00. The difference between these two types of companies can be explained by the fact that IT companies do not hurt the environment much as other companies do. IT companies use technologies and energy-efficient processes. They also do a job of reporting how they affect the environment. Manufacturing businesses on the hand have a lot of environmental problems. This is because they use a lot of resources to make things they release things into the air and they produce a lot of waste.

IT companies also do better when it comes to social dimension. They scored 68.80 on this while manufacturing companies scored 53.40. This is because IT companies take care of their employees. The higher social scores indicate stronger employee welfare programs, workforce diversity initiatives, human capital development, stakeholder engagement, and community outreach activities within the IT sector. Manufacturing companies, while demonstrating moderate social performance, exhibit greater variability in social responsibility practices.

Governance was the leading ESG attribute for both industries. But again, IT companies had a higher mean Governance score (76.80) than industrial companies (66.60). The findings show IT firms have built stronger governance frameworks encompassing risk management, ethical conduct, board effectiveness, transparency and regulatory compliance.

The outstanding sustainability performance of the IT industry is also supported by the overall ESG score. All selected organizations are within Leadership category with the average ESG score of 73.60 for IT enterprises. By contrast, manufacturing companies had an average ESG score of 56.60 and were classified as Adequate. This finding indicates that IT companies have reached a higher level of sustainability management and ESG integration.

The coefficient of variation analysis tells us a lot about how consistent companies with ESG practices in different industries. When we look at ESG we see that manufacturing companies have a lot of variation with Environmental practices with a coefficient of variation of 19.15%. This means that some manufacturing companies are really good at ESG while others are just starting out. On the hand IT companies have much lower variation with coefficients of variation between 2.65% and 5.40%. This shows that IT companies are pretty similar when it comes to ESG performance. The reason for this could be that IT companies have adopted sustainability reporting standards and they have business structures and client requirements. The IT industry also has to meet international expectations, which might contribute to the consistency. This consistency in ESG performance is likely due to factors. The ESG practices of IT companies seem to be on the page. Manufacturing companies however need to work on standardizing their ESG practices. ESG practices are important, for all companies. The coefficient of variation analysis helps us understand ESG consistency. It shows us which industries need to improve.

Overall, the results demonstrate that while industrial companies continue to face challenges, particularly in environmental sustainability, the IT sector has developed stronger and more consistent ESG frameworks. The findings underscore the imperative for manufacturing firms to enhance ESG integration and fortify their environmental efforts to align with shifting sustainability criteria and stakeholder anticipations.

4. CONCLUSION

In this study, we have used CRISIL ESG scores to compare the ESG performance of a subset of Indian manufacturing and IT firms. The investigation revealed significant differences between the sustainability performance of both industries. The IT industry always performed better than the manufacturing industry in terms of environmental, social, governance, and general ESG aspects. The IT companies selected were all rated Leadership, with advanced sustainability policies, strong governance frameworks, efficient stakeholder management, and thorough ESG integration. Further, low variability in the IT sector indicates high consistency in sustainability performance.

Conversely, the manufacturing industry revealed moderate ESG performance, with most companies falling into the Adequate category and one falling into the Below Average category. The manufacturing sector had quite good governance standards, but environmental performance was still lower and more uneven between businesses. This underlines the need for increased funding for resource efficiency initiatives, carbon reduction plans, environmental management systems, and sustainability disclosures.

Our findings indicate that sectoral factors are significant determinants of ESG performance. With industrial companies facing more operational and environmental challenges, the asset-light nature of the IT industry means it can more easily adopt sustainable practices. However, as stakeholders, investors and regulators pay more attention to ESG factors, manufacturing organizations need to step up their sustainability initiatives to stay competitive and improve long-term value creation.

The study contributes to the growing body of ESG literature by presenting a comparative sectoral assessment of the Indian corporate landscape. Future studies may increase the sample size, include longitudinal data and apply sophisticated statistical methods to better understand the factors affecting ESG performance across industries and the financial ramifications.

REFERENCES

1. Ali, Atik. (2023). Exploring the Organizational Impact of ESG Leadership in Strategic Human Resource Management (SHRM)
2. Clement, Alexnadre, Robinot,E, & Trespeuch, L (2022). Improving ESG Score with Sustainability Concepts. Sustainability 14, no.20: 13154
3. Hua Tang, Langyu Xiong, Ru Peng, (2024) The mediating role of investor confidence on ESG performance and firm value: Evidence from Chinese listed firms, Finance Research Letters, Volume 61, 2024,104988, ISSN 1544-6123
4. Huang, Bei & Qiu,Xingyu. (2023). The Impact of ESG Ratings on Employee Performance in Companies. Academic Journal of Management and Social Sciences. 3. 89-92.
5. Jagannayaki, Dr.K. & Lakshmi, Dr.T.Vara & V. Rashmitha, (2024). Impact of ESG Factors on Long-Term Sustainability-An Empirical Analysis. International Research Journal on Advanced Engineering and Management (IRJAEM). 2. 1596-1599
6. Kumar, S. (2023). A review esg performance as a measure of stakeholder's theory. Academy of Marketing Studies Journal, 27(S3), 1-18.
7. Lee, C. & Luppi, Joley & Simmons, Tyler & Tran,BaoTram & Zhang, Ruoqing. (2023). Examining the Impacts of ESG on Employee Retention: A Study of Generational Differences. J. of Business and Management. 29. 1-22.
8. Louis T.W. Cheng, Shu Kam Lee, Sung Ko Li, Chun Kei Tsang (2023) Understanding resource deployment efficiency for ESG and financial performance: A DEA approach, Research in International Business and Finance, Volume 65, 2023, 101941, ISSN 0275-5319

9. Umakanta Gartia, Ajaya Kumar Panda, Apoorva Hegde, Swagatika Nanda (2024) Environmental, social and governance aspects and financial performance: A symbiotic relationship in Indian manufacturing, Cleaner Production Letters, Volume 7, 2024.
10. Wang, Y., Cao, J., & Cai, X. (2024). The impact of environmental, social and governance performance on brand value: The role of the digitalisation level. South African Journal of Business Management, 55(1), a4448.
11. Wee, Kyeong-Woo & Kang, Yun-Sik & Chung, Jay & Lee, Jaehyun. (2020). The Effect of ESG Levels on Fund Performance and Cash Flows. Financial Planning Review. 13. 83-115.
12. Zhang, T., Zhang, J., & Tu, S. (2024). An Empirical Study on Corporate ESG Behavior and Employee Satisfaction: A Moderating Mediation Model. Behavioral Sciences, 14(4), 274.
13. Zhang, Yuqing. (2024). Impact of ESG Performance on Enterprise Risk. Highlights in Business, Economics and Management. 29. 103-116. 10.54097/2w37vj62.

