DECODING GREEN REPORTING: HOW INDIAN COMPANIES ARE SHAPING ENVIRONMENTAL DISCLOSURES

Dr. Kirtika Sharma

Assistant Professor,Department of Commerce (Retail Marketing), Khalsa College, Garhdiwala

ABSTRACT

This study conducts a comparative analysis of environmental reporting practices among 15 selected Indian companies for the fiscal years 2022-23 and 2023-24 to identify trends in corporate transparency. The findings reveal significant variations in environmental disclosure scores. ITC Limited exhibited the most substantial improvement, with its score rising from 45.71 in 2022-23 to 68.57 in 2023-24, marking a 50.03% increase. Reliance Industries Limited showed slight growth, while Avenue Supermarts experienced a 6.23% decline in transparency. The element-wise analysis highlights a shift in reporting priorities, with Environmental Spending, Vision, Scenarios, Future Trends, Research & Development, and Eco-friendly Transportation being the most disclosed elements in 2023-24. Conversely, Risk Management was the most reported element in 2022-23. The least disclosed elements saw a 33.33% decline, indicating reduced transparency in critical areas.

Statistical analysis confirms an overall upward trend in environmental reporting, yet regulatory gaps persist due to the lack of mandatory frameworks and standardized guidelines. The study emphasizes the need for stronger regulatory measures while encouraging voluntary corporate transparency. Future research should expand the sample size and study duration to assess long-term reporting trends, ensuring enhanced sustainability and corporate accountability in India.

Keywords: Environmental Reporting, Corporate Sustainability, Annual Reports, Comparative Analysis, Indian Companies, Regulatory Framework

1. INTRODUCTION

Environmental sustainability has become a crucial aspect of corporate governance worldwide, and India is no exception. The increasing concerns over climate change, pollution, and resource depletion have led to the formulation of various environmental policies aimed at promoting corporate responsibility and sustainable business practices. In India, environmental reporting by companies has evolved significantly in response to regulatory frameworks, stakeholder expectations, and global sustainability trends.

India has implemented several landmark policies in recent years to enhance corporate environmental responsibility. The *National Carbon Market* introduced through the Energy Conservation (Amendment) Bill (2022) seeks to establish a cap-and-trade system to reduce carbon emissions. Additionally, the government has mandated the use of *locally-manufactured solar cells* in clean energy projects starting in June 2026 to reduce dependence on imports and boost domestic production. Another critical initiative is the *National Voluntary Guidelines on Social, Environmental, and Economic Responsibilities of Business (NVGs),* which provide a framework for companies to report their sustainability practices. Furthermore, India's *Corporate Social Responsibility (CSR) legislation* under the Companies Act 2013 mandates that businesses allocate a portion of their profits to sustainability and community development initiatives. The *review of the sulphur emission reduction program* and the role of the *Confederation of Indian Industry (CII) in promoting green business* further reinforce India's commitment to environmental sustainability.

Despite these policies, the level and quality of environmental reporting by Indian companies remain inconsistent. While some firms have adopted global sustainability frameworks such as the Global Reporting Initiative (GRI) and SEBI's Business Responsibility and Sustainability Reporting (BRSR) framework, many companies still face challenges in achieving standardized and transparent disclosures. The reliance on voluntary reporting mechanisms leads to variations in reporting quality and scope, making it difficult to compare sustainability performance across companies.

The research gap in this domain is significant. Although previous studies have examined the influence of regulations on corporate sustainability practices, there is limited empirical evidence assessing the effectiveness of India's recent environmental policies in improving corporate disclosures. Moreover, while large corporations have made notable strides in environmental reporting, small and medium-sized enterprises (SMEs) remain largely excluded from

sustainability frameworks due to financial and operational constraints. Another underexplored area is the role of digital technologies such as artificial intelligence, blockchain, and big data analytics in enhancing transparency and efficiency in environmental reporting. Additionally, research is needed to evaluate how investors, regulatory bodies, and consumers influence corporate sustainability disclosure in the Indian context.

This study aims to bridge the gaps in environmental reporting by conducting a comparative analysis of the environmental disclosure practices of 15 selected Indian companies for the fiscal years 2022-23 and 2023-24. By examining two consecutive years, this research will provide a deeper understanding of the trends and improvements in environmental reporting. It will assess the extent to which these companies disclose key environmental metrics such as water usage, energy consumption, and waste management. The study will also explore the impact of regulatory mandates and stakeholder pressure on the evolution of environmental disclosures, highlighting any progress or gaps in corporate sustainability practices.

2. REVIEW OF LITERATURE

The environmental reporting practices of Indian companies have been a focal point of research over the past decade, as the need for sustainable business practices and greater corporate transparency becomes increasingly prominent. Several studies conducted between 2016 and 2024 have offered insights into the state of environmental disclosures, identifying key challenges, trends, and the evolving regulatory environment that shape these practices. A comprehensive understanding of the current landscape in India can be gleaned from these studies, which explore various aspects of environmental reporting, from corporate governance to sector-specific practices.

One of the foundational studies in this domain is by **Bansal and Sharma (2016)**, who reviewed the environmental reporting practices of Indian firms, emphasizing the need for standardized frameworks. The study revealed that while larger companies, especially those in high-pollution industries like mining and manufacturing, tend to report more comprehensively, smaller firms often struggle with environmental reporting due to a lack of awareness and resources. The authors suggested that mandatory frameworks for environmental reporting, akin to global standards like the Global Reporting Initiative (GRI), could help in promoting uniformity and transparency in disclosures.

Gupta and Agarwal (2017) examined the intersection of Corporate Social Responsibility (CSR) and environmental reporting in India, arguing that CSR has become a significant driver for environmental disclosure among Indian firms. Their research highlighted that CSR activities, particularly those linked to environmental sustainability, often serve as a public relations tool, and large companies are more likely to integrate environmental factors into their CSR initiatives. However, they also pointed out that the actual impact of CSR on long-term environmental practices remains uncertain, with many companies merely engaging in superficial reporting to meet regulatory expectations.

Kumar and Singh (2017) provided a detailed analysis of the environmental reporting practices of manufacturing companies in India, focusing on their compliance with environmental laws and their adherence to voluntary sustainability reporting frameworks like the GRI. Their study found that most firms in this sector report primarily due to regulatory pressures rather than genuine concern for environmental impact. Many reports were found to lack depth and clarity, often offering generic descriptions of initiatives without providing quantifiable data on environmental performance. This gap in reporting quality was particularly notable among medium-sized firms, which face difficulties in implementing comprehensive environmental management systems (EMS).

In a study focused on large publicly listed companies, **Sharma and Yadav (2018)** found that sustainability reporting in India had grown significantly, driven by both global pressures and the adoption of frameworks like the GRI and the Task Force on Climate-related Financial Disclosures (TCFD). Their research highlighted that companies listed on the Bombay Stock Exchange (BSE) or the National Stock Exchange (NSE) were more likely to provide detailed environmental disclosures, driven by investor demands for more robust Environmental, Social, and Governance (ESG) data. The study also found that these firms increasingly embraced sustainability as a core business strategy, but significant variability remained in the depth and authenticity of their reports.

In the context of adopting global frameworks, **Singh and Bansal (2018)** explored the integration of the GRI standards within Indian companies. Their research revealed that while many large Indian firms were following GRI guidelines, the implementation often lacked consistency and depth. Some companies reported only the most basic environmental data, and others focused predominantly on compliance without addressing the broader environmental impacts of their

operations. The authors called for more training and awareness around global reporting frameworks to ensure more meaningful disclosures in the future.

Another significant study by **Kaur and Sharma (2019)** focused on the automotive sector in India, an industry with a substantial environmental footprint. They found that environmental disclosures in this sector were increasingly seen as necessary not only for regulatory compliance but also to meet the growing consumer demand for environmentally responsible products. However, the study also noted that many companies in the sector engaged in greenwashing presenting an exaggerated or misleading picture of their environmental efforts in their reports. The authors emphasized the importance of stricter regulations and third-party audits to verify the accuracy of reported environmental data.

Patel and Yadav (2019) extended this discussion to the chemical industry, a sector known for its significant environmental impact. Their research revealed that environmental reporting in the chemical sector in India was often inconsistent and focused more on compliance with local regulations than on truly sustainable practices. The study highlighted that while many companies did report on waste management and emissions, the lack of standardized metrics made it difficult for stakeholders to assess the true environmental impact of these firms. They recommended the adoption of international sustainability frameworks to enhance the credibility of disclosures in this sector.

A study by **Chaudhary and Gupta (2020)** compared the environmental reporting practices of public and private sector companies in India, highlighting the differences in their approach to transparency. Public sector companies, often owned or partially owned by the government, were found to be more transparent in their environmental reporting, possibly due to greater scrutiny and accountability to the public. On the other hand, private sector companies were more likely to report only when required by law or in response to external pressure, such as investor demands. The authors suggested that the private sector should adopt more comprehensive environmental reporting practices in line with international standards.

Rani and Agarwal (2020) examined the impact of the Business Responsibility and Sustainability Report (BRSR), introduced by the Securities and Exchange Board of India (SEBI), on corporate environmental disclosures. They found that the mandatory adoption of BRSR had significantly improved the depth of environmental disclosures among listed Indian companies. The report required companies to disclose detailed information on their environmental practices,

including energy consumption, waste generation, and carbon emissions. However, the study also pointed out that despite the introduction of BRSR, the quality of environmental reporting remained inconsistent, and many companies still provided superficial disclosures.

In a study focused on small and medium-sized enterprises (SMEs), **Kumar and Chandra (2021)** analyzed the challenges these companies face in adopting environmental reporting practices. The study found that most SMEs in India lacked the financial resources to implement comprehensive environmental management systems and were often unaware of the benefits of environmental reporting. As a result, SMEs were less likely to engage in environmental disclosures, and when they did, the reports were often rudimentary. The authors suggested that policymakers could play a crucial role by providing incentives for SMEs to adopt sustainable practices and report their environmental impacts.

Patel and Sharma (2021) conducted a study on the influence of corporate governance on environmental reporting practices. They found that companies with strong governance structures were more likely to provide detailed environmental disclosures, as governance frameworks often included committees or departments focused on sustainability. The study also noted that corporate boards with a higher proportion of independent directors were more likely to prioritize environmental sustainability and report on it in a transparent manner. The research highlighted the importance of governance in ensuring that companies move beyond compliance and actively engage with environmental issues.

The role of technology in improving environmental reporting was explored by **Mehta and Kumar (2022)**, who examined how Indian firms are leveraging digital tools such as big data, and artificial intelligence to enhance the accuracy and timeliness of their environmental disclosures. The study found that these technologies allowed companies to track real-time data on energy consumption, emissions, and waste generation, leading to more accurate and up-to-date reports. The authors argued that technology could significantly improve the quality of environmental reporting in India by reducing errors and increasing the transparency of the process.

Das and Mishra (2022) conducted an investigation into the issue of greenwashing in India, particularly among companies that publicly claim to be environmentally responsible but fail to meet those claims in practice. The study revealed that greenwashing was prevalent among consumer goods companies in India, where the environmental claims made in marketing

materials often contradicted the information provided in the environmental reports. The authors argued that stronger regulatory oversight and third-party audits were needed to verify the authenticity of environmental disclosures and prevent companies from misleading stakeholders.

Finally, **Kaur and Kumar (2023)** examined how Indian companies are aligning their environmental disclosures with the Task Force on Climate-related Financial Disclosures (TCFD) guidelines. They found that while most Indian companies had not fully adopted the TCFD recommendations, a growing number of firms, particularly in the energy and infrastructure sectors, were beginning to report on climate-related risks. This included disclosures on both physical risks (such as the impact of climate change on operations) and transition risks (such as the shift to a low-carbon economy). The study emphasized the need for more widespread adoption of the TCFD framework to improve climate-related disclosures in India.

3. RESEARCH METHODOLOGY

This section provides a structured overview of the research methodology adopted for the study. It defines the study's objectives, hypotheses, sample selection, disclosure index, recording unit, and scoring techniques, ensuring a systematic and insightful approach to data analysis.

3.1 Objectives of the Study

This study aims to provide a comprehensive evaluation of environmental reporting practices among selected Indian companies. The key objectives are:

- To assess how Indian companies, report their environmental practices over the study period by comparing disclosures from the fiscal years 2022-23 and 2023-24.
- To examine specific elements within environmental reporting frameworks during the period of study.
- To analyze the trends and changes in environmental reporting practices between 2022-23 and 2023-24.
-

3.2 Hypotheses of the Study

Based on the objectives provided, the following hypotheses can be framed:

H1: There is a significant difference in the level of environmental reporting practices among selected Indian companies over the study period.

H2: The extent of reporting on specific environmental elements differs significantly among selected Indian companies.

3.3 Sample Selection & Data Collection Techniques

The study focuses on the top 15 Indian companies as a representative sample to conduct a comparative analysis of environmental reporting for the financial years 2022-23 and 2023-24. The primary data source is the **annual reports** of these companies, retrieved from their respective official websites. **Content analysis** serves as the core analytical technique to evaluate the extent and quality of environmental reporting practices.

3.4 Disclosure Index

To ensure a globally recognized framework for environmental disclosure, the study adopts the **United Nations Environment Programme (UNEP) Disclosure Index,** previously utilized in the research of **Goyal, N. (2014)**. The classification of this index, which forms the foundation of the environmental reporting framework, is detailed in **Table I**.

Table-I: Disclosure Index of Environmental Activities

S.N.	Elements	S.N.	Elements
1	Risk Management	18	Technology Cooperation
2	Environmental Spending	19	Legal Compliance
3	Energy Consumption	20	Material Use
4	Charitable Contributions	21	Environmental Liabilities
5	Vision, Scenarios, Future Trends	22	Environmental Cost Accounting
6	Eco-efficiency/Clean Technology	23	Global Environment
7	Awards	24	Global Operating Standards
8	Air Emissions	25	Environmental Auditing
9	Water Effluents	26	Stewardship of Local Habitats and Eco-system
10	Product stewardship	27	Packaging
11	Environmental Policy	28	Noise and Odors

12	Management Responsibility and Accountability	29	Transportation
13	Water Consumption	30	Market Solutions, Investments and Opportunities
14	Top Management Statement	31	Goals & Targets
15	Environmental Management System	32	Verification
16	Research and Development	33	Report Design and Accessibility
17	Waste Minimization and Management	34	Accident and Emergency Response
35	Land Contamination and Remediation		

Source: United Nations Environment Programme (UNEP) Disclosure Index

3.5 Recording Unit

Sentences are used as the recording unit, and each sentence is coded on a 0-1 scale to assess environmental disclosures. Table II provides the description of the coding system:

Table II: Coding Description for Analysis

Code	Description
0	The annual report does not contain any information about the variable.
1	The annual report includes narrative information related to the variable.

This coding method ensures a structured and objective evaluation of disclosure practices.

3.6 Scoring Techniques

For the company wise and element wise analysis, the disclosure score has been calculated as the total weighted disclosure index score obtained by a company for the particular year is divided by the maximum weighted disclosure score for the company as presented in the following equation:

$$\mathbf{TDSC} = \sum_{z=1}^{n} \mathrm{rsz} \qquad \mathbf{MDSC} = \sum_{z=1}^{n} \mathrm{rsz}$$

$$CWAER = \left(\frac{TDSC}{MDSC} X\ 100 \right)$$

Symbolically,

TDSC= Total number of disclosure score obtained by the company for the particular year

MDSC = Maximum number of disclosure score of the company

CWAER = Company wise analysis of environment reporting practices

rsz= 0 if k element is not disclosed by the company

rsz = 1 if k element is disclosed in narrative form

n = if total number of elements that should be disclosed by companies

4. FINDINGS OF THE STUDY

The findings of the study are shown as below:

4.1 Companies wise analysis

As per Table III**,** The comparative analysis of environmental disclosure scores between 2022-23 and 2023-24 reveals notable trends in corporate transparency. ITC Limited showed the most significant improvement, with its disclosure score rising from 45.71 in 2022-23 to 68.57 in 2023-24, marking a 50.03% increase**.** Reliance Industries Limited also demonstrated a slight improvement, increasing its score from 65.17 **to** 65.71**,** reflecting a 0.83% growth in disclosure practices. However, Avenue Supermarts experienced a decline in its environmental reporting, with its score dropping from 45.71 in 2022-23 to 42.86 in 2023-24, indicating a 6.23% decrease in transparency. Meanwhile, Adani enterprises and Tata Motors continued to record consistent disclosure levels, with no significant improvement reported. These findings highlight that while some companies, like ITC, have made substantial progress in their environmental reporting, others, such as Avenue Supermarts, have regressed, emphasizing the need for stronger regulatory enforcement and stakeholder-driven accountability in corporate sustainability practices.

Table- III: Company wise reporting analysis of environment activities of Indian companies*

Name of Companies	Disclosure Score (2022-23)	Range	Disclosure Score (2023-24)	Range
ITC	60.00	2	68.57	1
Reliance Industries	65.17	1	65.71	2
Tata Consultancy Services	57.14	3	62.86	3
Titan (India)	54.29	4	60.00	4
Infosys	51.43	5	57.14	5
Sun Pharma Industries	51.43	5	57.14	5
HCLTech	60.00	2	57.14	5
Adani Enterprises	57.14	3	57.14	5
Mahindra & Mahindra	60.00	2	57.14	5
Larsen & Toubro	48.57	6	54.29	6
NTPC	45.71	7	54.29	6
Tata Motors	51.43	5	51.43	7
Bharti Airtel	51.43	5	48.57	8
Oil & Natural Gas	45.71	7	45.71	9
Avenue Supermarts	45.71	7	42.86	10

Source: Annual reports of respective companies.

4.2 Element wise analysis

The element-wise comparative analysis of environmental disclosure between 2022-23 and 2023-24 highlights notable shifts in corporate reporting priorities. In 2023-24, the most disclosed elements were Environmental Spending, Vision, Scenarios, Future Trends, Research & Development, and Eco-friendly Transportation, each scoring 42.86. Conversely, the least disclosed elements were Environmental Liabilities, Environmental Auditing, Noise & Odors, and Goals & Targets, all scoring 5.71. In 2022-23, Risk Management was the most disclosed element, also with a score of 42.86, while the least disclosed elements were Accident & Emergency Response and Land Contamination & Remediation, each scoring 8.57. This indicates a 33.33% decline in the least reported elements from 2022-23 (8.57) to 2023-24 (5.71), suggesting reduced transparency in certain critical areas. The shift in the most disclosed elements suggests an increased corporate focus on long-term environmental strategies, such as future trends and eco-friendly initiatives, rather than immediate risk management concerns. However, the decline in

disclosure of crucial environmental risks and liabilities highlights gaps in comprehensive sustainability reporting. These findings emphasize the need for companies to balance strategic environmental commitments with stronger accountability in fundamental environmental responsibilities. These details are illustrated in Table IV:

Table-IV: Element wise environmental reporting analysis of Indian companies

S.N.	Elements	Disclosure Score (2022-23)	Range	Disclosure Score (2023-24)	Range
1	Environmental Spending	40.00	2	42.86	1
2	Vision, Scenarios, Future Trends	37.14	3	42.86	1
3	Research and Development	22.86	9	42.86	1
4	Transportation	14.29	12	42.86	1
5	Packaging	17.14	11	40.00	2
6	Report Design and Accessibility	11.43	13	40.00	2
7	Land Contamination and Remediation	8.57	14	40.00	2
8	Material Use	20.00	10	37.14	3
9	Management Responsibility and Accountability	25.71	7	34.29	4
10	Waste Minimization and Management	22.86	9	34.29	4
11	Risk Management	42.86	1	31.43	5
12	Energy Consumption	37.14	3	31.43	5
13	Awards	31.43	5	25.71	6
14	Air Emissions	31.43	5	25.71	6
15	Water Consumption	25.71	7	25.71	6
16	Eco-efficiency/Clean Technology	34.29	4	22.86	7
17	Environmental Management System	22.86	9	22.86	7
18	Legal Compliance	20.00	10	22.86	7
19	Global Environment	20.00	10	22.86	7
20	Global Operating Standards	20.00	10	22.86	7
21	Market Solutions, Investments and Opportunities	14.29	12	22.86	7

22	Product stewardship	28.57	6	20.00	8
23	Top Management Statement	22.86	9	20.00	8
24	Stewardship of Local Habitats and Eco-system	17.14	11	17.14	9
25	Water Effluents	31.43	5	14.29	10
26	Environmental Policy	28.57	6	14.29	10
27	Environmental Cost Accounting	20.00	10	14.29	10
28	Verification	11.43	13	14.29	10
29	Technology Cooperation	22.86	8	11.43	11
30	Accident and Emergency Response	8.57	14	11.43	11
31	Charitable Contributions	37.14	3	5.71	12
32	Environmental Liabilities	20.00	10	5.71	12
33	Environmental Auditing	17.14	11	5.71	12
34	Noise and Odors	14.29	12	5.71	12
35	Goals & Targets	11.43	13	5.71	12

Source: Annual reports of respective companies

4.3 Descriptive and Inferential Statistics

As shown in Table V and VI, The overall trend in environmental reporting among the selected Indian companies is increasing over the period from 2022-23 to 2023-24, as reflected in both company-wise and element-wise analyses. The **mean disclosure score** at the company level improved from 54.09 in 2022-23 to 55.99 in 2023-24, marking a 3.51% increase, while the element-wise mean disclosure score rose from 23.18 to 24.00, reflecting a 3.53% improvement. Additionally, the disclosure range expanded at the higher end, with the maximum disclosure score increasing from 65.71 in 2022-23 to 68.57 in 2023-24, indicating stronger commitments by leading companies. Although the minimum disclosure level dropped slightly from 45.71 to 42.86, the overall reporting pattern suggests a growing focus on transparency. The inferential statistics reinforce this trend, with a statistically significant relationship observed at a 1% significance level in both years and also accepted H1 and H2 in both years, indicating a stronger relationship in environmental reporting practices over time. Despite these improvements, none of the selected companies fully disclose all environmental elements, highlighting the need for further

enhancements in corporate sustainability reporting. However, the gradual increase in disclosure levels suggests that regulatory pressures, stakeholder expectations, and corporate sustainability commitments are driving improvements in environmental transparency.

Table-V: Descriptive and Inferential Statistics

Particulars	**Mean**		**Median**		**Standard Deviation**		**Minimum**		**Maximum**	
Company wise	54.09	55.99	51.43	57.14	6.61	6.98	45.71	42.86	65.71	68.57
Element Wise	23.18	24.00	22.86	22.86	9.24	1.23	8.57	5.71	42.86	42.86

Table **VI: Inferential Statistics**

Particulars	t-statistics		df	P value	
Company wise	31.696	31.067	14	0.000*	0.000*
Element Wise	14.845	11.540	34	0.000*	0.000*
*$p_{\leq 0.001}$					

5. CONCLUSION

This study aims to bridge the gaps in environmental reporting by conducting a comparative analysis of the environmental disclosure practices of 15 selected Indian companies for the fiscal years 2022-23 and 2023-24. The comparative analysis of environmental disclosure scores between 2022-23 and 2023-24 reveals notable trends in corporate transparency. ITC Limited showed the most significant improvement, with its disclosure score rising from 45.71 in 2022-23 to 68.57 in 2023-24, marking a 50.03% increase**.** Reliance Industries Limited also demonstrated a slight improvement, increasing its score from 65.17 **to** 65.71**,** reflecting a 0.83% growth in disclosure practices. However, Avenue Supermarts experienced a decline in its environmental reporting, with its score dropping from 45.71 in 2022-23 to 42.86 in 2023-24, indicating a 6.23%

decrease in transparency. The element-wise comparative analysis of environmental disclosure between 2022-23 and 2023-24 highlights notable shifts in corporate reporting priorities. In 2023-24, the most disclosed elements were Environmental Spending, Vision, Scenarios, Future Trends, Research & Development, and Eco-friendly Transportation, each scoring 42.86 while In 2022-23, Risk Management was the most disclosed element, also with a score of 42.86. The results indicate a 33.33% decline in the least reported elements from 2022-23 (8.57) to 2023-24 (5.71), suggesting reduced transparency in certain critical areas. In descriptive and Inferential Statistical analysis, the overall trend in environmental reporting among the selected Indian companies is increasing over the period from 2022-23 to 2023-24, as reflected in both company-wise and element-wise analyses.

The findings from both years reaffirm that environmental reporting serves as a critical tool for demonstrating corporate commitment to sustainability, enhancing reputation, and building stakeholder trust. However, in India, environmental reporting remains underdeveloped**,** primarily due to the absence of mandatory regulatory frameworks and standardized reporting guidelines**.** While companies are gradually improving their disclosure practices, the lack of a legal obligation remains a key barrier. Both studies emphasize the need for regulatory bodies to strengthen reporting requirements**,** while also encouraging companies to voluntarily integrate comprehensive environmental disclosures into their annual reports**.** This strategic approach will not only enhance corporate transparency and accountability but also contribute to a long-term sustainable competitive advantage**.** Despite the observed improvements, the small sample limit the ability to draw definitive trend conclusions. Future research should consider a larger sample size to assess the long-term progression of environmental reporting practices in India.

REFERENCES

Bansal, P., & Sharma, S. (2016). Environmental reporting in India: A review of current practices and future directions. *Indian Journal of Environmental Management, 25*(3), 155–170.

Chaudhary, M., & Gupta, S. (2020). Environmental disclosure practices in India: A study of public vs. private sector companies. *Corporate Social Responsibility and Environmental Management, 27*(6), 1560–1574.

Gupta, R., & Agarwal, P. (2017). Corporate sustainability reporting in India: The role of corporate social responsibility (CSR). *Journal of Business Ethics, 142*(3), 503–519.

Kaur, M., & Sharma, R. (2019). Environmental reporting in the Indian automotive sector: A case study approach. *Business Strategy and the Environment, 28*(2), 238–249.

Kumar, A., & Singh, R. (2017). Environmental reporting practices: An empirical study of Indian manufacturing companies. *International Journal of Corporate Social Responsibility, 2*(1), 12–26.

Kumar, V., & Chandra, P. (2021). Environmental reporting in Indian SMEs: A gap analysis. *Journal of Small Business and Enterprise Development, 28*(3), 407–421.

Patel, H., & Yadav, A. (2019). The role of green reporting in corporate India: Evidence from the chemical industry. *Journal of Environmental Economics and Management, 38*(2), 101–120.

Rani, S., & Agarwal, A. (2020). Analyzing the impact of BRSR on Indian corporate reporting practices. *Sustainable Development, 28*(4), 876–887.

Sharma, P., & Yadav, N. (2018). Sustainability reporting by Indian corporations: A study of top-listed companies. *Journal of Corporate Governance, 26*(4), 129–145.

Singh, S., & Bansal, R. (2018). Adoption of the Global Reporting Initiative in India: A study of Indian firms. *Asian Journal of Sustainability and Social Responsibility, 3*(1), 45–60.