
INDIAN INSTITUTE OF MANAGEMENT KOZHIKODE

Working Paper

**IIMK/WPS/603/FIN/2024/03**

March 2024

# ESG Performance of Indian Firms: A Thematic Analysis of ESG Reports

Ritika Agrwal [1]
Pankaj Kumar Baag [2]



[1]PGP LSM Student, Indian Institute of Management Kozhikode, IIMK Campus PO, Kunnamangalam, Kozhikode, Kerala 673 570, India.

[2]Associate professor, Finance, Accounting and Control Area, Indian Institute of Management Kozhikode, IIMK Campus PO, Kunnamangalam, Kozhikode, Kerala 673 570, India; Email - baagpankaj@iimk.ac.in, Phone Number - 0495 2809121

# ESG Performance of Indian Firms: A Thematic Analysis of ESG Reports

Ritika Agrwal

## Abstract

The research paper focuses on analyzing the concepts in the ESG reports of the companies presented in different sectors under NIFTY 50 INDEX. We examine the latest ESG reports of Indian firms to understand the patterns and different practices across various sectors. Based on the thematic analysis we found that ESG practices vary across different sectors. The paper provides a thematic analysis and provides a glance at how the sectors give importance to particular practices under their sustainability and ESG reporting. The policymakers and the researchers can use it to understand the current practices of ESG reporting by Indian companies, including the specific themes and areas they focus on.



**Keywords:** Environment, Social, Governance, Customers , NIFTY, ESG reports

## Table of Contents

## Table of Figures

## Table of Tables

# 1. Introduction

Undoubtedly, the future will be characterized by sustainable performance and investing, as the demand to transition to a low-carbon economy becomes increasingly apparent. Investors are no longer solely concerned with maximizing returns from businesses of interest; rather, they are taking precautions to safeguard the local and global environment. ESG investing is a strategy that considers a company's environmental, Social, and Governance (ESG) factors when making investment decisions. ESG factors include; *Environmental factors:* These factors assess a company's environmental impact, such as its water usage, and recycling & waste management practices. *Social factors:* These factors assess the relationship of a company with its employees, customers, and suppliers. Social factors can include employee satisfaction, workplace diversity, and human rights. *Governance factors:* These factors assess the corporate governance practices of the company, such as the composition of its board of directors, its executive compensation policies, and its risk management practices.

BRSR stands for Business Responsibility and Sustainability Reporting, a mandatory disclosure framework in India for certain listed companies. It requires them to publish for their Environmental, Social, and Governance (ESG) performance. While the BRSR framework is regulated by the Securities and Exchange Board of India (SEBI). Some key provisions include a Standardized reporting format to ensure comparability between companies, independent assurance requirements for a subset of disclosures, Penalties for non-compliance, and publicly available reports (Source: SEBI Guidance Note for BRSR Format). Currently, the BRSR is mandatory for the top 1000 listed companies (by market capitalization) in India. This list is updated annually, and companies entering or exiting the top 1000 have specific compliance timelines. The BRSR report covers a wide range of topics related to the company's impact on the environment, society, and governance. This includes things like energy consumption, waste management, employee diversity, human rights, and anti-corruption practices. The report must include specific KPIs for each ESG area, allowing for a quantitative assessment of the company's performance. These KPIs are defined within the BRSR framework. BRSR Core, introduced in July 2023, mandates disclosures and assurance requirements beyond the company itself, going into its entire value chain. This means reporting on the ESG practices of suppliers, contractors, and other stakeholders.

The BRSR framework encompasses nine core principles that guide companies in their approach to responsible and sustainable business practices. These principles address a wide range of ESG considerations: 1. Business Conduct: Operate with integrity, ethics, transparency, and accountability. Maintain robust anti-corruption practices. Respect fair competition and consumer rights. 2. Sustainable and Safe Products and Services: Design and deliver products and services that are sustainable and minimize environmental impact. Prioritize the safety and health of consumers and employees. Implement responsible sourcing practices throughout the supply chain. 3. Employee Well-being: Respect and promote the well-being of all employees, including those in the value chain. Ensure fair and non-discriminatory work practices. Invest in employee training and development. 4. Stakeholder Engagement: Identify and engage with all stakeholders, understanding their interests and concerns. Foster constructive dialogue and address stakeholder issues effectively. Maintain responsible communication and accessibility. 5. Human Rights: Respect and promote human rights, adhering to international standards and national laws. Avoid complicity in human rights abuses throughout the value chain. Implement due diligence practices to identify and mitigate risks. 6. Environment: Respect and protect the environment, minimizing negative impacts on ecosystems and biodiversity. Promote resource efficiency and conservation. Implement effective measures to manage pollution and waste. 7. Community Development: Contribute to the social and economic development of communities where the company operates. Support local infrastructure and services. Engage in responsible philanthropic activities. 8. Inclusive Growth and Equitable Development: Promote inclusive growth and equitable development in the economic and social spheres. Address inequalities and contribute to poverty reduction. Advocate for sustainable and responsible business practices throughout the industry. 9. Responsible Consumer Engagement: Engage with consumers responsibly, providing accurate and transparent information about products and services. Respect consumer privacy and data security. Address consumer concerns fairly and effectively.



A few benefits of BRSR include Transparency and accountability: BRSR promotes transparency in companies' ESG practices, making them accountable to stakeholders, and better-informed investment decisions: Investors can use BRSR reports to assess the ESG risks and opportunities of companies they invest in, and Sustainable business practices: BRSR encourages companies to adopt more sustainable practices, which can benefit the environment, society, and the economy. To know which component is getting more attention in each sector from the BRSR Report of companies under the INDEX NIFTY 50, we have conducted this research. We analyze the different forms of ESG reports of the NIFTY 50 firms to examine the differences in ESG practices in different sectors. Contribution to literature: To the best of my knowledge, this is the first study in India, exploring the ESG practices of Indian firms using the Thematic analysis framework. Major findings of this research imply that each sector gives importance to different things, for which different policies are being made in terms of ESG in the firm.

# 2. Literature Review

This section provides an overview of the research conducted on ESG investing. It describes, (i) ESG investing and its motivations, (ii) Different perspectives on the efficiency of ESG investing, (iii) ESG Integration and the Investment Management Process, (iv) Methods of ESG investment (v) ESG investing challenges, and (vi) Factors influencing ESG practices in different sectors

## 2.1 ESG investing and its motivations

The Nifty ESG 100 index outperformed the Nifty 50 index by an average of 1.1% per year over the past decade. This outperformance was statistically significant. The Nifty ESG 100 index had lower volatility than the Nifty 50 index. This suggests that ESG portfolios may be less risky than traditional portfolios. (ESG Investments for Sustainability with Superior Returns in Indian Equity Market, Tiwari, R., Chauhan, A. S., Agrawal, P., Goel, S., Sharma, R., Chaudhary, V., Kumari, K. and Kumari, S., 2022). The future of ESG investing" by Bloomberg Intelligence, 2022 predicts that ESG investing will continue to grow rapidly in the coming years. The report cites several factors driving this growth, including, Increased investor demand: Investors are increasingly seeking to invest in companies that are committed to environmental, social, and governance (ESG) best practices. This is due to several factors, including a growing awareness of the importance of ESG issues, the belief that ESG investing can generate superior returns, and the desire to invest in companies that are aligned with their values. Regulatory pressure: Governments around the world are increasingly regulating ESG issues, such as climate change and human rights. This is creating a more favorable environment for ESG investing. Technological innovation: New technologies are making it easier and more affordable to invest in ESG funds. For example, there are now several robo-advisors that offer ESG investment portfolios. The report also identifies a few trends that are shaping the future of ESG investing, including, (a) The rise of impact investing: Impact investing is a type of ESG investing that focuses on generating positive social and environmental impacts, in addition to financial returns. Impact investing is growing rapidly, as investors are keen to use their capital to make profits with making a positive change in the world. (b)The increasing focus on climate change: As change in the climate is one of the most talked ESG issues in today's world. People are increasingly looking to invest in companies which are taking actions to reduce their carbon emissions and adapt to the impacts of climate change. (c) The growing importance of social factors: Social factors, such as human rights and labor practices, are becoming increasingly important to investors. Investors are looking to invest in companies that have strong social performance and are committed to respecting human rights and labor standards. The ESG indices outperformed their benchmark indices in 14 of the 22 countries over the five years, with an average outperformance of 0.66%. The ESG indices also had lower volatility than their benchmark indices, on average. (ESG Portfolio Vs Traditional Portfolio Analysis Study of MSCI ESG Indices" by Gattaiah Tadoori 2021). ESG integration is a good way to invest responsibly and sustainably, while also generating competitive returns. ESG investing is a strategy that concentrates on several non-financial aspects of a stock's performance, such as the company's impact on the environment, its social responsibility, and its corporate governance. For each of these dimensions, a substantial amount of data regarding the company's practices is being gathered and analyzed. A portfolio manager uses the results of this analysis to construct a diversified portfolio. This is typically structured to satisfy minimum requirements for the three dimensions. ESG investing is predicated on the belief that including ESG information benefits both investors and society. This optimistic viewpoint is articulated very well by Shiller (2013), who discusses the crucial role of financial markets in sustaining numerous societal activities.

## 2.2 Different perspectives on the efficiency of ESG investing



Most of the studies find a positive relationship between ESG performance and financial performance. For example, one study found that companies with high ESG ratings outperformed companies with low ESG ratings by an average of 2.6% per year over the period 2012 to 2016. There are a number of mechanisms through which ESG investing can lead to better financial performance. For example, companies with strong ESG performance may be more attractive to investors, which can lead to lower capital costs. Companies with strong ESG performance may also be more efficient and productive, and they may be better able to manage risks (The Impact of ESG Investing on Financial Performance by Harvard Business Review, 2018). There is a growing body of evidence that suggests that ESG integration can have a positive impact on financial performance. One study found that companies with high ESG ratings outperformed companies with low ESG ratings by an average of 2.3% per year over the period 1992 to 2015 (Integration in Investment Portfolios: A Review of the Literature by the Journal of Sustainable Finance & Investment, 2017). The law of corporate fiduciary duties does not require directors to choose between shareholder value and ESG considerations. Rather, directors must consider all stakeholders in making decisions that promote the long-term success of the corporation (ESG, Stakeholder Governance, and the Duty of the Corporation by the Harvard Law School Forum on Corporate Governance, 2022). A survey found that younger investors are interested in ESG investing, but they are also skeptical. Most of the respondents (70%) said that they are interested in ESG investing, but only 30% said that they currently invest in ESG funds. The lack of knowledge about ESG investing is a major barrier to investment. Asset managers and other financial institutions need to do more to educate investors about ESG investing. The lack of transparency is another major barrier to investment. Investors need to be able to understand how ESG funds are investing their money and how they are measuring their ESG performance. The performance concerns of younger investors are valid. There is some evidence that ESG funds may outperform non-ESG funds over the long term, but there is also evidence that they may underperform in the short term. Investors need to do their own research and understand the risks involved before investing in ESG funds. (Interested but skeptical: What younger investors think about ESG by Nick Britton, head of intermediary communications, AIC 2023). ESG investing is not a silver bullet and investors should be skeptical of it. Some of them are, The lack of a clear definition of ESG: There is no single definition of ESG, and different investors may have different interpretations of what it means. Difficulty measuring ESG performance: It is difficult to measure and quantify ESG performance, making it difficult for investors to compare ESG funds and assess their ESG impact. Potential for greenwashing: Greenwashing is the practice of making misleading or exaggerated claims about the ESG credentials of a company or investment product. Greenwashing is a risk in the ESG investing industry, as there is no clear definition of ESG or standard for measuring ESG performance. Potential for underperformance: Some investors argue that ESG investing can lead to underperformance, as ESG funds may be more likely to invest in companies that are smaller, less profitable, or less liquid. (Sounding good or doing good: A Skeptical look at ESG by Aswath Damodaran, 2023)

## 2.3 ESG Integration and the Investment Management Process

ESG integration is not a new or separate investment discipline, but rather a natural extension of fundamental investing. ESG integration can be defined as the process of considering environmental, social, and governance factors alongside traditional financial factors in the investment decision-making process. ESG integration is becoming increasingly important for investors. This is due to a lot of factors, including, The growing awareness of the risks and opportunities associated with ESG factors. The increasing demand from investors for sustainable investment options. The regulatory pressure on investors to consider ESG factors. (ESG Integration and the Investment Management Process: Fundamental Investing Reinvented" by the Journal of Business Ethics, 2015). ESG integration can be seen as a new form of fundamental investing. ESG integration is becoming increasingly common among asset managers, but there is no single "correct" way to integrate ESG factors. ESG factors can provide valuable insights into a company's long-term prospects and risks. For example, a company with a strong ESG performance may be less exposed to regulatory risk and may have a more loyal customer base. ESG integration is a powerful tool that can help asset managers to improve their investment performance. ESG integration can also help asset managers to better align their portfolios with the values of their clients. (ESG Integration and the Investment Management Process: Fundamental Investing Reinvented). ESG integration can have a positive impact on investment performance. For example, a lot of studies have found that ESG- integrated portfolios tend to outperform traditional portfolios over the long term. ESG integration can help to reduce risk. For example, ESG-integrated portfolios are less likely to be exposed to companies that are involved in environmental or social controversies. There are some risks and challenges associated with ESG integration. For example, ESG data can be difficult and expensive to obtain. Additionally, there is no single definition of ESG, which can make it difficult to compare the ESG performance of different companies. (ESG Integration in Investment Portfolios: A Review of the Literature by Journal of Sustainable Finance & Investment, 2017). ESG-integrated portfolios are less likely to be exposed to companies that are involved in environmental or social controversies. It can help investors to achieve their sustainable investment goals (The Impact of ESG Investing on Financial Performance by Harvard Business Review, 2018).



## 2.4 Methods of ESG investment

There is a lack of consensus on how to integrate ESG factors into investment portfolios in the best way. However, some common approaches include negative screening, positive screening, and integration (ESG Integration in Investment Portfolios: A Review of the Literature by the Journal of Sustainable Finance & Investment, 2017). Apart from these approaches, a few more approaches are there that can be followed in terms of ESG investment. (Methods of ESG Integration by CFA Institute, 2022)

Negative screening: This approach involves excluding companies from an investment portfolio based on their ESG performance. For example, an investor might exclude companies that are involved in the fossil fuel industry or that have a history of human rights abuses.

Positive screening: This approach involves selecting companies for an investment portfolio based on their strong ESG performance. For example, an investor might select companies that are developing renewable energy technologies or that have a strong commitment to diversity and inclusion.

ESG integration: By incorporating ESG factors into conventional financial analysis, investors can identify companies that are better equipped to address potential risks and capitalize on desirable opportunities arising from environmental, social, and governance factors. Intelligent investing necessitates a comprehensive comprehension of these criteria; consequently, investing judiciously entails utilizing information garnered from ESG scores, ratings, and data. This approach incorporates ESG factors into the investment analysis process. For example, an investor might consider a company's ESG performance when assessing its financial risks and opportunities. (Top ESG Investment Strategies for Your Portfolio by Know ESG)



ESG scoring- involves assigning scores to companies based on their ESG performance. These scores can be used to create a ranked list of companies or to screen out companies with low ESG scores.

ESG-aware valuation- involves adjusting traditional valuation models to account for ESG factors. For example, an investor might adjust a company's valuation to reflect its climate change risk.

ESG-thematic investing: involves investing in companies that are aligned with specific ESG themes, such as renewable energy or sustainable agriculture.

Active ownership: This involves using shareholder engagement to promote ESG improvements at companies in which an investor is invested.

Impact investing: Impact investors actively attempt to invest in businesses, nonprofits, and funds operating in sectors such as renewable energy, housing, healthcare, education, microfinance, and sustainable agriculture in addition to financial return.

## 2.5 ESG investing challenges

ESG investing has faced a few challenges, including data inconsistencies, lack of comparability, greenwashing, and inadequate clarity over how ESG integration affects asset allocation (ESG Investing: Practices, Progress, and Challenges, published by the OECD, 2020) The challenges facing ESG investing include,

Lack of standardization (lack of comparability): There is no single, universally accepted standard for measuring and reporting ESG performance. This can make it difficult for investors to compare ESG investments and assess their impact.

Data quality (Data inconsistencies): ESG data can be incomplete, inconsistent, and difficult to interpret. This can make it challenging for investors to make informed ESG investment decisions.

Greenwashing: Greenwashing refers to the practice of making false claims about the ESG performance of a company or investment product. This can undermine investor confidence in ESG investing. It sometimes can make it difficult for investors to identify truly sustainable investments.

Inadequate clarity over how ESG integration affects asset allocation: There is a lack of clarity on how ESG factors should be integrated into asset allocation decisions. This can make it difficult for investors to develop effective ESG investment strategies.

### 2.6 Factors influencing ESG practices in different sectors

Business sustainability and performance may be improved by ESG disclosures of environmental, economic, and social sustainability performance. Businesses with a religious focus perform better in the socioenvironmental, but not in governance. Overall, the company's sustainability and social and environmental performance show a very positive link, suggesting a mutual dependence between the business economy and generating value for society. (Ahmad, Hadiqa, Muhammad Yaqub, and Seung Hwan Lee. Environmental-, social-, and governance-related factors for business investment and sustainability: a scientometric review of global trends). There are various models used for deciding upon the investment in ESG one of which is the Four-capital model. The four-capital model encourages companies to integrate human, manufactured, and natural capital to ensure sustainable business practices (Michael Bamidele Fakoya, Segopotje Evonia Malatji, 2020).



## 3. Data, Method & Methodology

The discussion in this paper presents an overview of thematic and content analysis methodology by using the content analysis software Leximance. In addition, we provide details of the criteria for sustainability reports selection to be analyzed. Finally, we have discussed the strategy used to analyze the sustainability reports. The initial sample was the entire 50 companies and the research was done based on NIFTY 50 INDEX taking care of all the sectors available. We have taken the latest sustainability or ESG report available on the company’s website.

Our sampling strategy aimed to provide a sample of stand-alone sustainability reports whose content could be used to do Leximancer theme and conceptual analyses. For the sake of this research, standalone sustainability reports are defined as texts with a sustainability focus that are offered in content-analyzed text format. We found that businesses report on their sustainability initiatives in a number of ways. While some businesses only publish stand-alone sustainability reports, others provide sustainability data directly on their websites. Additional methods for reporting on sustainability include data that is integrated into yearly reports and BRSR reporting. So, this paper looks into several reports available in different formats including ESG reporting, BRSR Report, and the Integrated Annual Report. The sampling framework was taken based on the Nifty 50 stocks list in 2024 by Forbesindia.

Using our initial sample of 50 companies, we searched for the most recent ESG reports for each company. During this phase of our sampling, we found that not all companies publish their separate ESG reports. Through the process of searching for standalone ESG reports and it was discovered that approximately 20% of reports are in the form of Business Responsibility and Sustainability Reports(BRSR), 40 are in the form of ESG reports or Sustainability reports and the rest 16% reports are in the format of integrated annual reports. In the sampling, the sectors having less than or equal to two companies under NIFTY 50 INDEX were excluded from this research analysis, as we cannot make meaningful interpretations for the whole sectors from them.

Thematic analysis is a methodology that is suitable for determining concepts and related themes in the text documents. This type of analysis has been used in a variety of contexts, including healthcare communications and social media marketing (Cretchley, Gallois, Chenery, & Smith, 2010; Dann, 2010).

Conceptual analysis determines if words are present in a sample text as well as how frequently they appear. Once terms or groups of related terms and phrases are recognized, they can be arranged into ideas. Relational analysis establishes the relationships between concepts seen in a sample text. Semantic analysis is another name for relational analysis. Relational analysis's main objective is to extract meaning from the text by recognizing the connections between its concepts. Leximancer (http://www.leximancer.com) performs both conceptual and relational analyses by detecting concepts in sample text and clustering or organizing these concepts into higher-level themes, depending on how often concepts appear together in the sample text and the relationships among the concepts. In addition, Leximancer displays the analysis results of the given reports visually, thus it provides the opportunity to develop a deep understanding of the analyzed structure through piecharts and the tables.



# 4. Analysis and Discussion

Before analyzing the sample of ESG reports using Leximancer, we performed an analysis to identify outliers concerning the number of companies in a single sector under the INDEX NIFTY 50. This was done to mitigate the biases on the sector's Thematic analysis because of a smaller number of companies available in the sample taken. It was observed that out of 14 sectors in NIFTY 50 INDEX (Segregation based on https://www.forbesindia.com/) only 7 sectors had more than two companies so, based on the outliers I excluded these reports from this sample. Excluding the sustainability reports for these 12 companies resulted in 7 sectors (Construction, Telecommunication, Consumer Durables, Power, Construction Materials, Services, and

Chemicals) being dropped from this sample because there were less than or equal to two reports available in the sector. This Final sample includes 38 ESG reports in seven sectors. In this sample, 10 reports are in the form of Business Responsibility and Sustainability Reports, 20 are in the form of ESG reports or Sustainability reports and the rest 8 reports are in the format of integrated annual reports.



**TABLE 1a:** Sampled companies; Report year/ format, company names and stock symbols in NIFTY 50 and Sustainability Report size (number of pages)

| Sr. No. | Report Format / Year | Company & Stock Symbol | Report Size (No. of pages) |
|---|---|---|---|
| **1** | BRSR 2021-22 | HDFC Bank (HDFCBANK) | 30 |
| **2** | BRSR Report 2022-23 | Reliance Industries (RELIANCE) | 55 |
| **3** | ESG Report 2022-23 | ICICI Bank (ICICIBANK) | 88 |
| **4** | ESG Report 2022-23 | Infosys (INFY) | 65 |
| **5** | Sustainability Report 2023 | ITC (ITC) | 212 |
| **6** | Sustainability Report 2022-23 | Tata Consultancy Services (TCS) | 35 |

| | | | |
|---|---|---|---|
| **7** | Sustainability Report 2021-22 | Axis Bank (AXISBANK) | 49 |
| **8** | Integrated Annual Report 2022-23 | Kotak Mahindra Bank (KOTAKBANK) | 197 |
| **9** | Integrated Annual Report 2022-23 | Hindustan Unilever (HINDUNILVR) | 190 |
| **10** | Sustainability Report 2022-23 | State Bank of India (SBIN) | 65 |
| **11** | Sustainability Report 2022-23 | Mahindra & Mahindra (M&M) | 235 |
| **12** | Sustainability Report 2022-23 | HCL Technologies (HCLTECH) | 113 |
| **13** | Sustainability Report 2022-23 | Maruti Suzuki India (MARUTI) | 170 |
| **14** | Sustainability Report 2022-23 | Sun Pharma (SUNPHARMA) | 108 |
| **15** | Integrated Report 2022-23 | Tata Steel (TATASTEEL) | 89 |
| **16** | BRSR 2022-23 | IndusInd Bank (INDUSINDBK) | 32 |
| **17** | BRSR 2022-23 | Bajaj Finserv (BAJAJFINSV) | 86 |

| | | | |
|---|---|---|---|
| **18** | Sustainability Report 2022 | Nestle India (NESTLEIND) | 63 |
| **19** | Sustainability Report 2021-23 | Adani Enterprises (ADANIENT) | 65 |
| **20** | BRSR Report 2021-22 | Coal India (COALINDIA) | 108 |
| **21** | Sustainability Report 2022-23 | Tech Mahindra (TECHM) | 68 |
| **22** | BRSR Report 2022-23 | Oil & Natural Gas Corp. (ONGC) | 47 |
| **23** | Integrated Annual Report 2022-23 | Hindalco Industries (HINDALCO) | 326 |
| **24** | Integrated Annual Report 2022-23 | JSW Steel (JSWSTEEL) | 560 |
| **25** | ESG Report 2022-23 | HDFC Life Insurance Co. (HDFCLIFE) | 85 |
| **26** | Integrated Annual Report 2022-23 | Dr. Reddy's Laboratories (DRREDDY) | 221 |
| **27** | BRSR 2022-23 | Bajaj Auto (BAJAJ-AUTO) | 42 |
| **28** | Integrated Annual Report 2022-23 | SBI Life Insurance Co. (SBILIFE) | 416 |
| **29** | BRSR Report 2021-22 | Cipla (CIPLA) | 19 |

| | | | |
|---|---|---|---|
| **30** | BRSR Report 2022-23 | Wipro (WIPRO) | 34 |
| **31** | Sustainability Report 2022-23 | Britannia Industries (BRITANNIA) | 37 |
| **32** | Business Responsibility Report | Tata Consumer Products (TATACONSUM) | 8 |
| **33** | Sustainability Report 2022-23 | Apollo Hospitals Enterprise (APOLLOHOSP) | 136 |
| **34** | Integrated Report 2022-23 | Eicher Motors (EICHERMOT) | 432 |
| **35** | Sustainability Report 2022-23 | LTIMindtree Ltd (LTIM) | 66 |
| **36** | ESG Report 2022-23 | Hero MotoCorp (HEROMOTOCO) | 111 |
| **37** | Sustainability Report 2022-23 | Divi's Laboratories (DIVISLAB) | 36 |
| **38** | Sustainability Report 2023 | Bharat Petroleum Corp. (BPCL) | 304 |



**Table 1b:** Sampled sectors and number of companies in each sector

| Sectors included in the Sector | No. of Companies selected from the Sector |
|---|---|
| Financial Services | 8 |
| Oil & Gas | 4 |
| Information Technology | 6 |
| FMCG | 5 |
| Automobile | 5 |
| Healthcare | 5 |
| Metals & Mining | 4 |



The sustainability reports were analyzed with the final sample with Leximancer software. We performed a separate analysis of the sustainability reports for each of the seven sectors to know which component is getting more attention in each sector from the company's BRSR or ESG Reports.

As per the software, these were the main concepts that were mentioned in the reports of respective sectors, and based on the concepts and the mapping, the themes were identified.

The sector-wise result of the sample reports, appended in Table 1b appears in Fig 1. Additionally, Fig 1.8 includes all the reports of the sample taken, the concepts are noticed and the themes are being analyzed based on concepts and the frequency of those concepts. Fig 1.8 serves as a visual representation of the overarching trends observed across all the sampled reports. This comprehensive view allows for comparative analysis, enabling stakeholders to identify commonalities and differences in the thematic emphasis across sectors. By considering the frequency of concepts within the reports, the figure provides a perfect view of the collective sustainability landscape, offering a valuable perspective on the cross-sectoral alignment or divergence in sustainability priorities.

Furthermore, the identification of themes through Leximancer software goes beyond mere concept extraction. It provides a qualitative dimension by capturing the interconnectedness and contextual relevance of these concepts. This nuanced understanding allows for a more holistic interpretation of the reported information, enabling stakeholders to grasp the underlying narratives shaping sustainability strategies within each sector.

**Automobiles Sector**

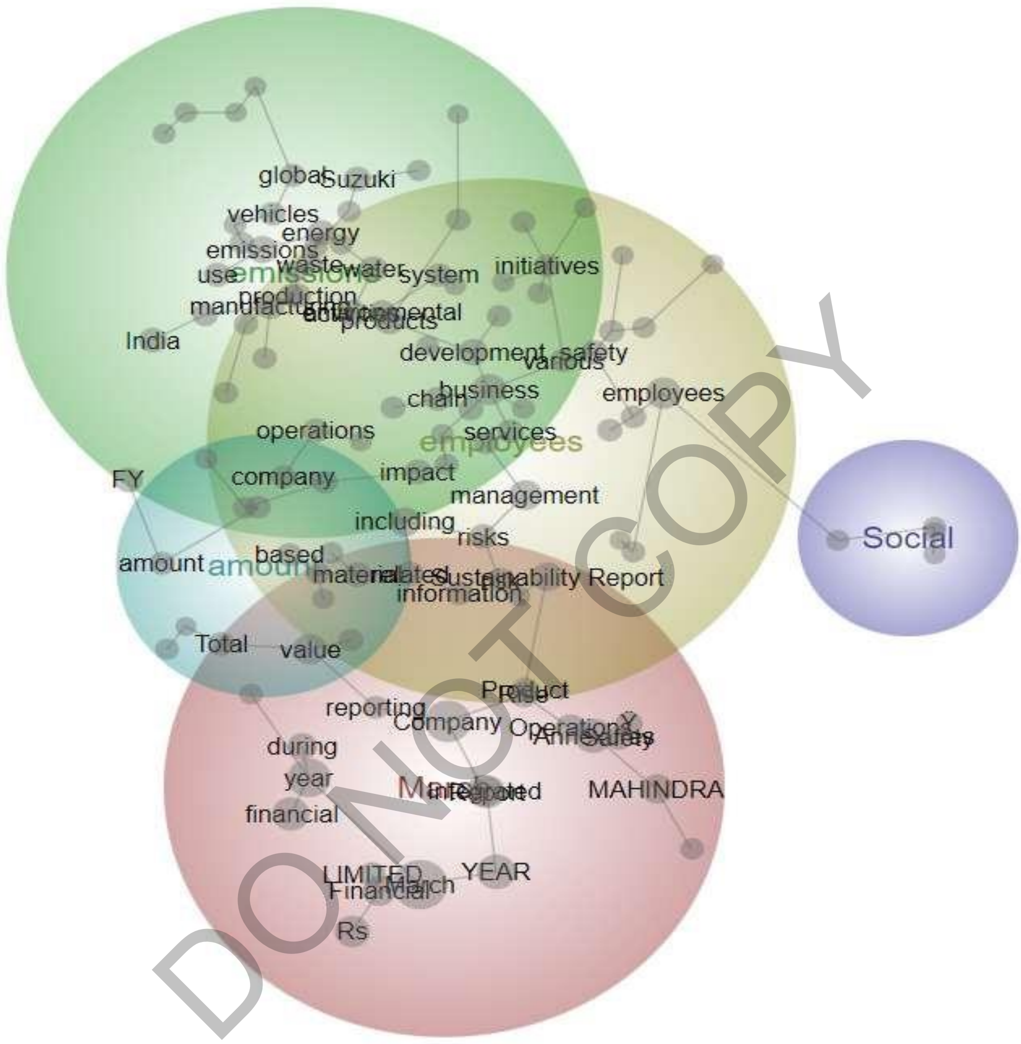




**Fig 1.1 Themes, concepts and Concept Map: Automobile Sector**

| Themes | Emission | Employees | Social |
|---|---|---|---|
| Concept | Energy, Activities, Waste, Environmental, Manufacturing | Business, base, Management, Safety, services | Sustainable, progress, Initiatives, Policies, Essential guidance, awareness |

**Financial Services Sector**

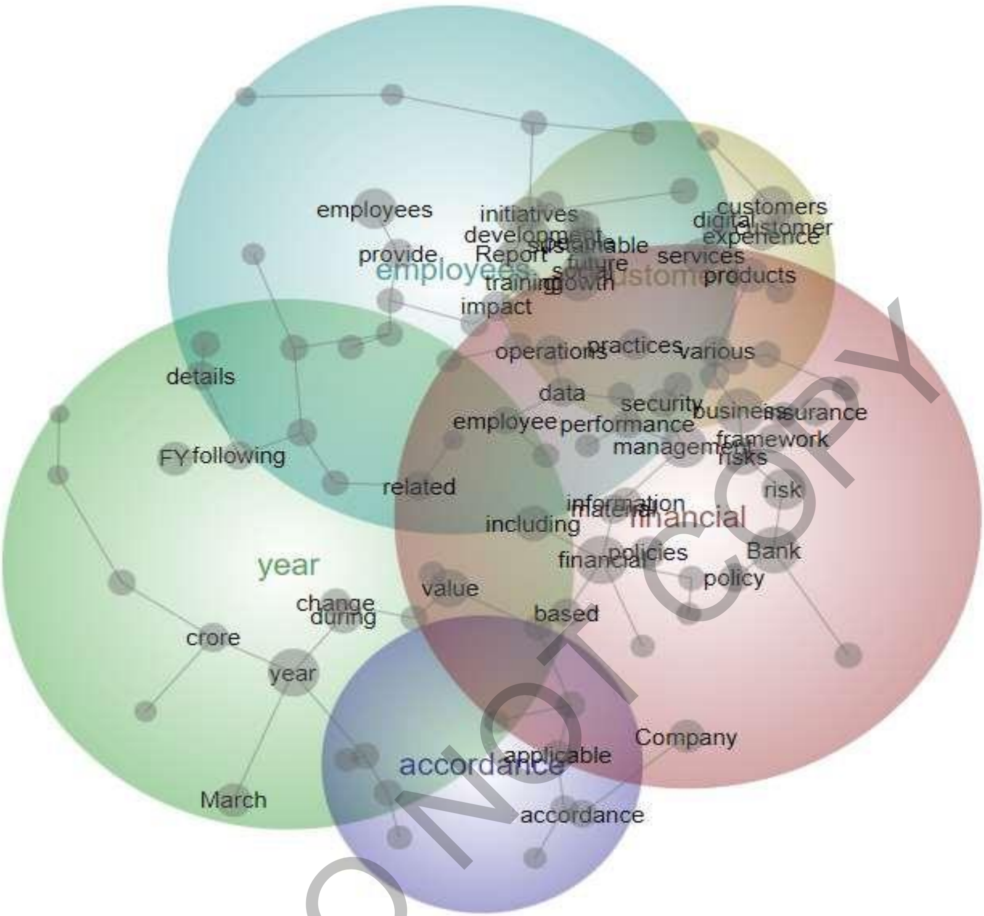




**Fig 1.2 Themes, concepts and Concept Map: Financial Services Sector**

| **Themes** | **Employees** | **Customers** | **Financial** |
|---|---|---|---|
| Concept | Initiatives, Impact, Training, Provide, Development, Report, Services | Growth, Products, People, Practices, Operations, Experience, Data, Digital | Policies, Banks, Risks, performance, insurance |

**FMCG Sector**

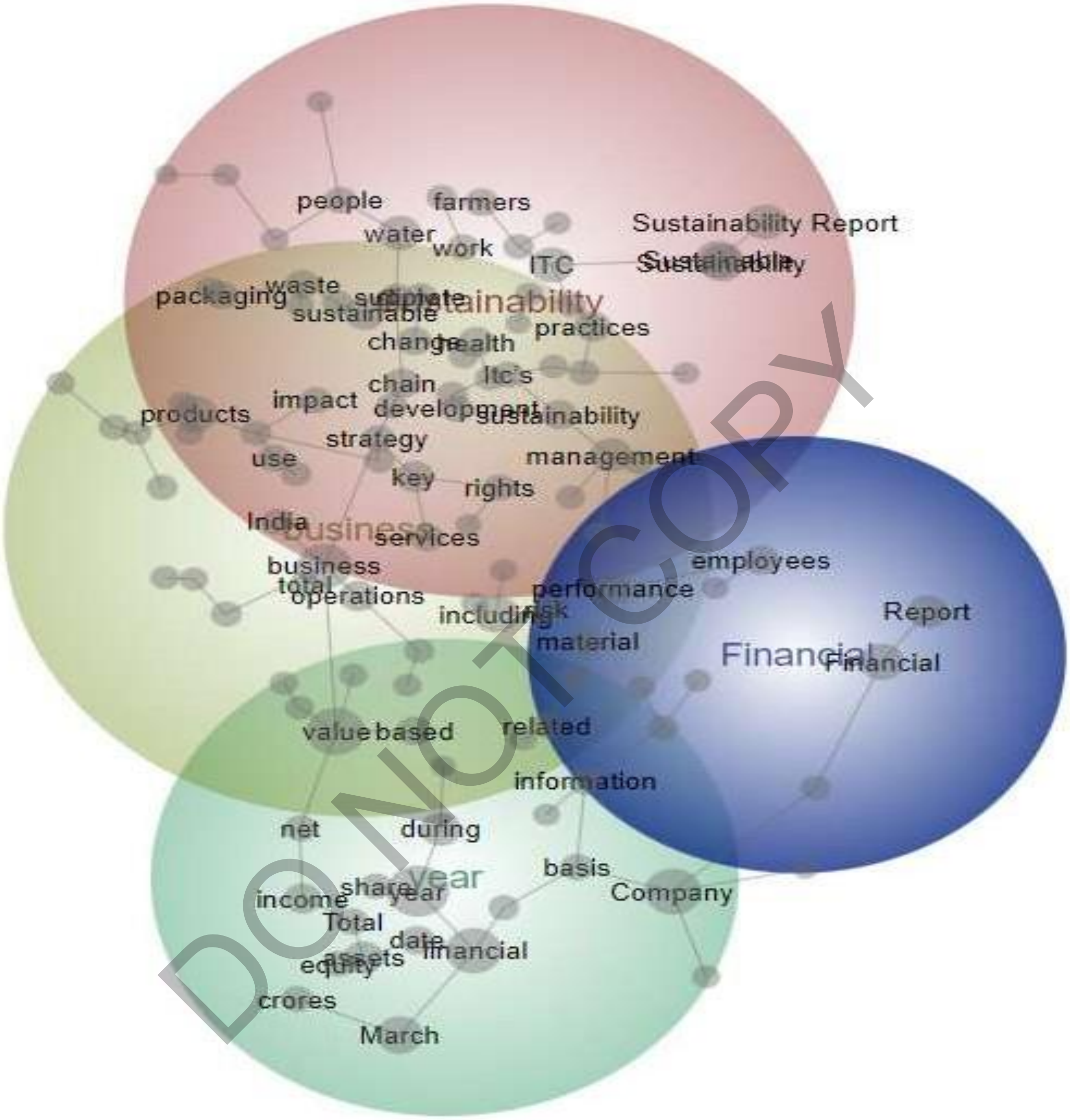




**Fig 1.3 Themes, concepts, and Concept Map: FMCG Sector**

| **Themes** | **Sustainability** | **Business** | **Financial** |
|---|---|---|---|
| Concept | Sustainable, Health, Sustainability, waste, climate | Growth, Products, Operations, services, Strategy, Impact, | Report, Employees, Financials, |

## Healthcare Sector

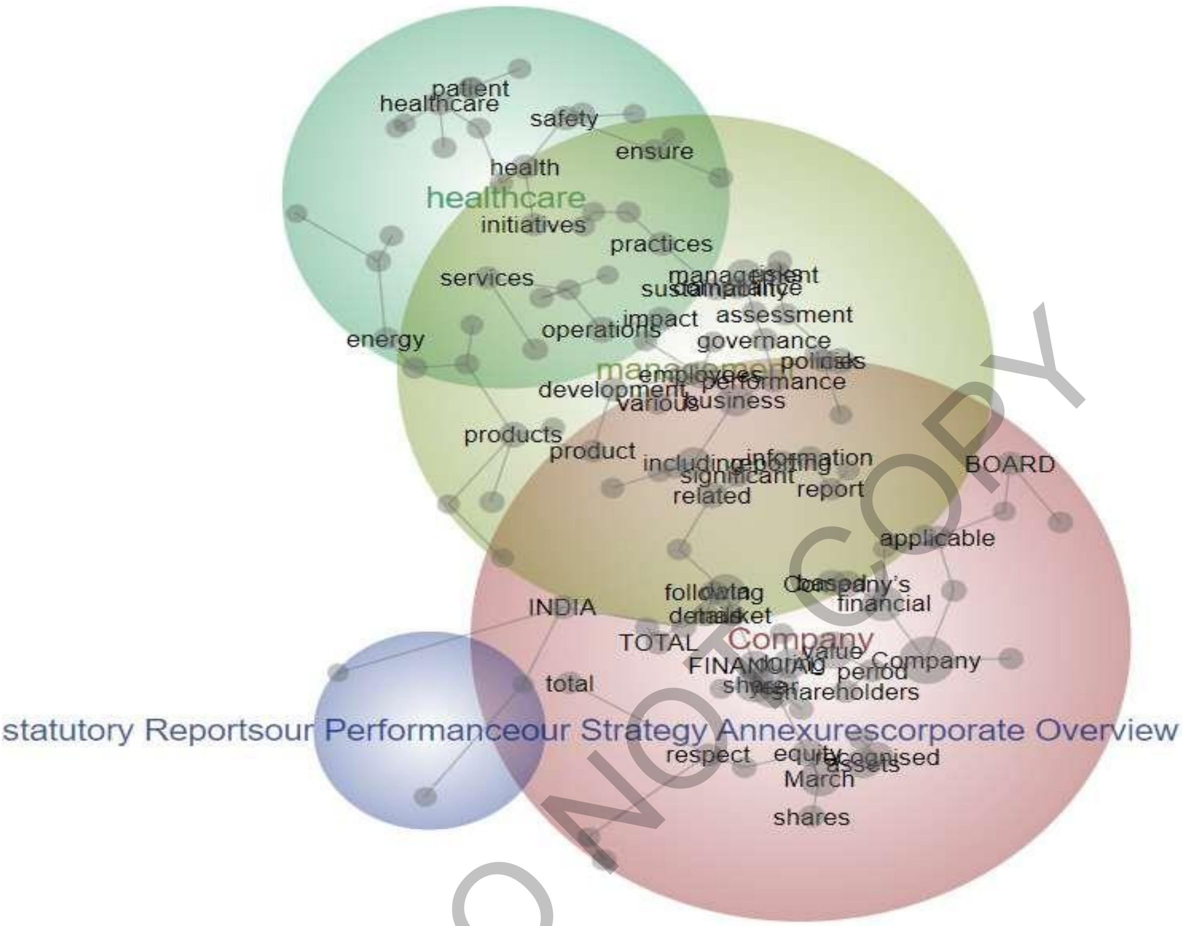




**Fig 1.4 Themes, concepts and Concept Map: Healthcare Sector**

| **Themes** | **Company** | **Management** | **Healthcare** |
|---|---|---|---|
| Concept | Value, Company, Assets, Period, Shareholders | Employees, Management, Governance, Compliance, Policies | Care, Safety, Health, Services, Initiatives |

**Information Technology Sector**

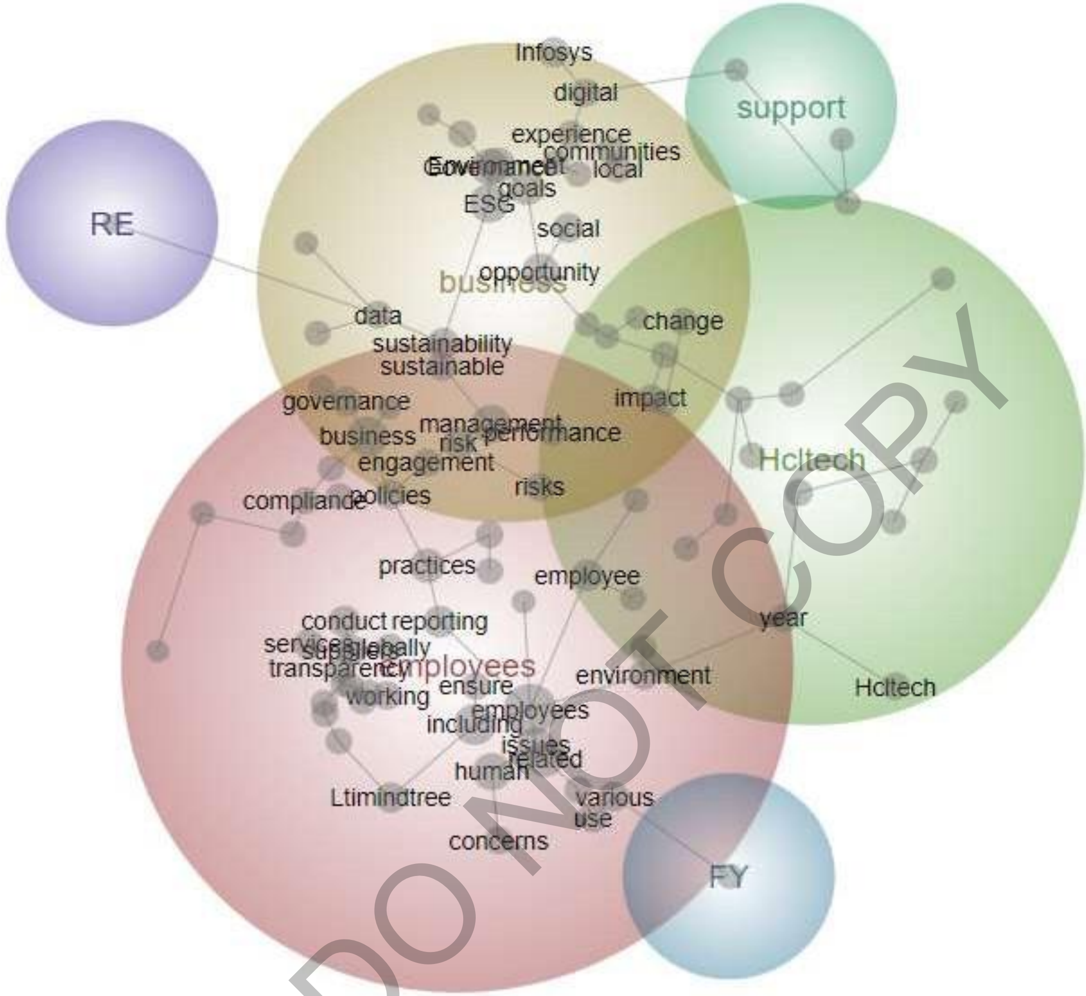



**Fig 1.5 Themes, concepts, and Concept Map: IT Sector**

| Themes | Employees | Business | Support |
|---|---|---|---|
| Concept | Reporting, Policies, Working, Compliance, Humans | Goals, Risks, Opportunities, Communities, Management | Improve, Empower, Education for children, Local, Engagement, |

## Metals & Mining Sector

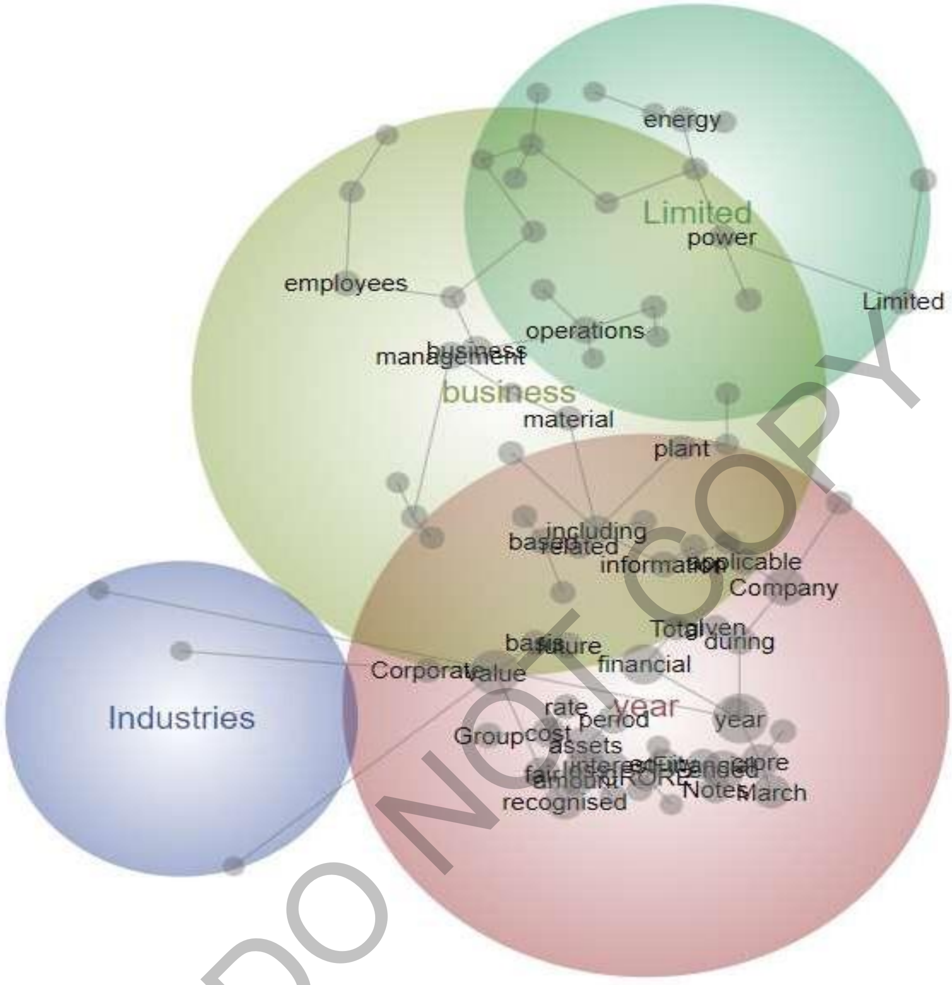



**Fig 1.6 Themes, concepts and Concept Map: Metals & Minings Sector**

| **Themes** | **Year** | **Business** | **Limited** |
|---|---|---|---|
| Concept | Financial, Period, Notes, interest, Group, basis, Corporate, rate | Initiatives, Impact, Training, Services, Development | Energy, Power, Limited, Resources |

**Oil & Gas Sector**

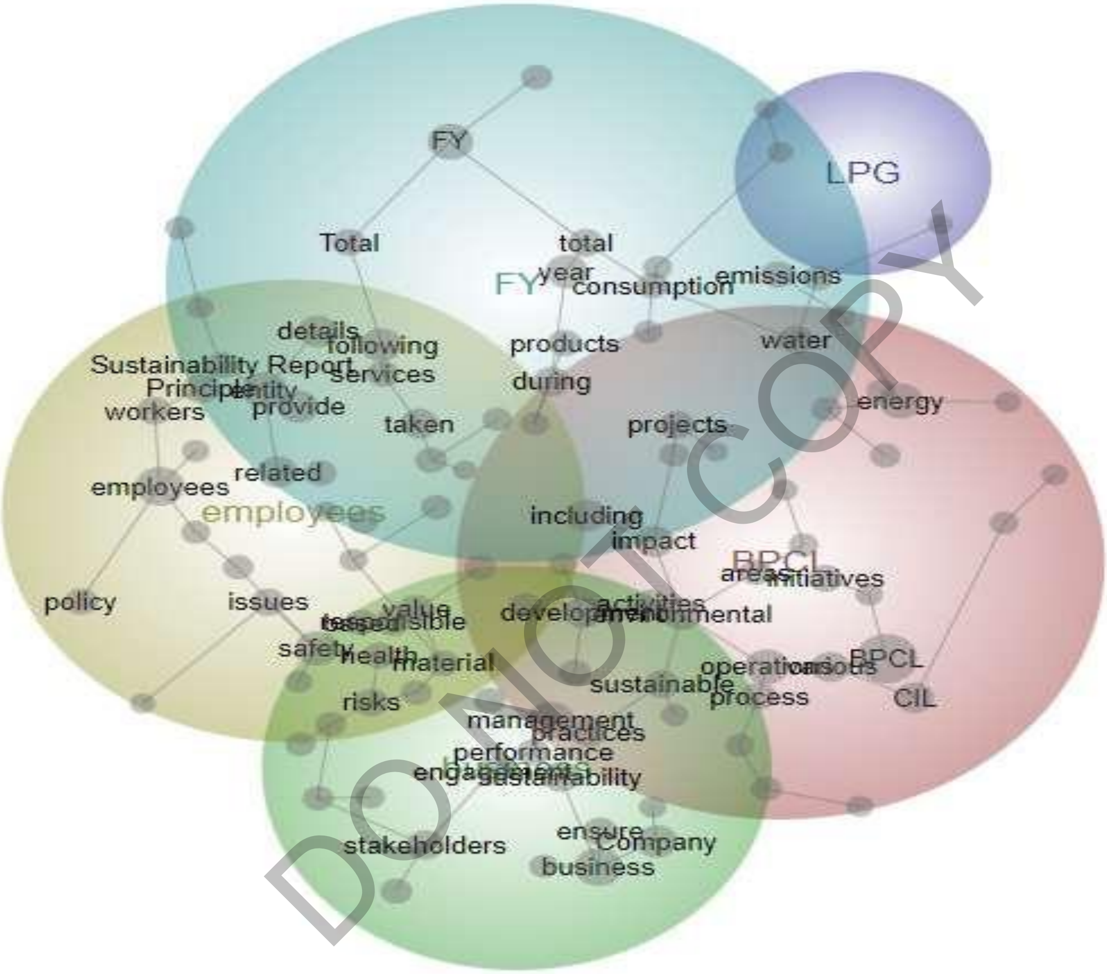




**Fig 1.7 Themes, concepts and Concept Map: Oil & Gas Sector**

| **Themes** | **Employees** | **Business** | **LPG** |
|---|---|---|---|
| Concept | Safety, Related, Principle, Workers, Issues, Policy | Management, Company, Practices, Stakeholders, Risks, Engagement | Refinery, Retail, Lubricants, Liquefied Industry, Initiatives |

**All sectors Combined**

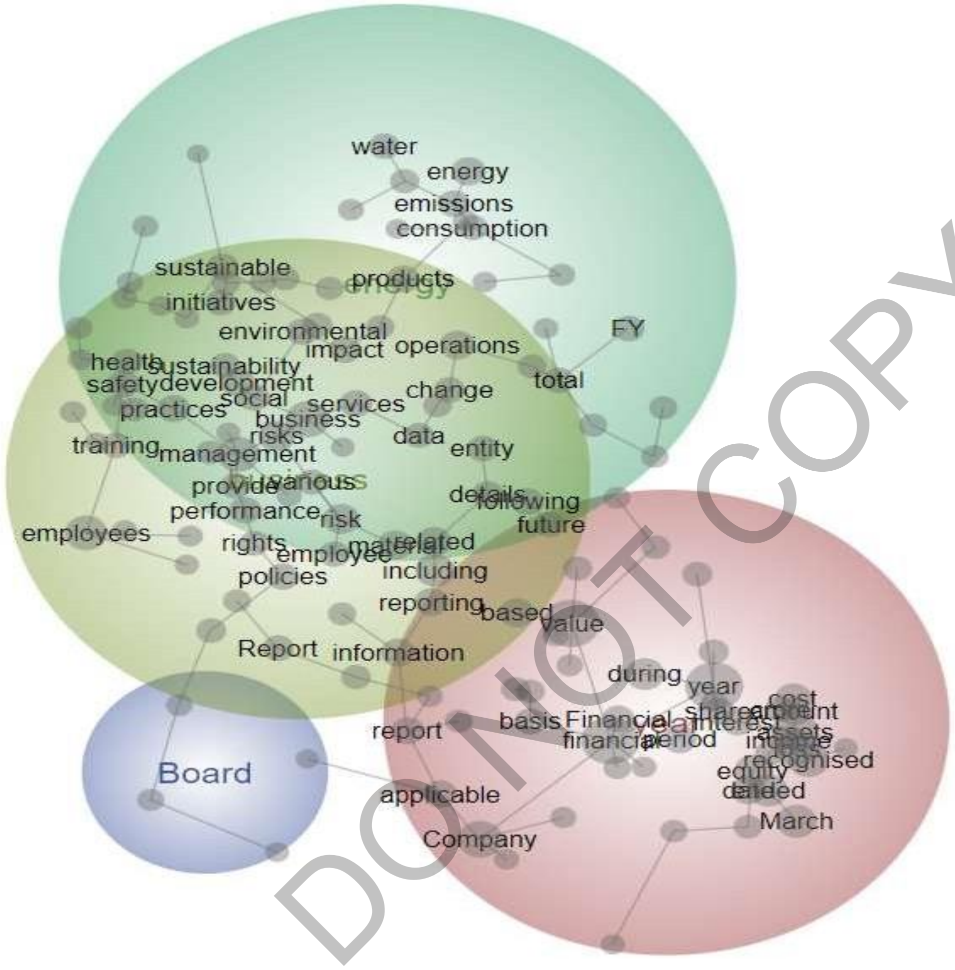




**Fig 1.8 Themes, concepts, and Concept Map: Integrated reports of all the seven sectors**

| **Themes** | **Business** | **Energy** | **Board** |
|---|---|---|---|
| Concept | Management, Employee, Risk, Services, Impact | Production, emission, water, consumption | Committees, Members, Leaders |

Delving deeper into the themes identified through Leximancer reveals fascinating insights. Each theme, visualized as a column in the "Thematic Landscape" of Figure 1, carries varying degrees of significance within each industry. The first column showcases the most prominent theme, followed by the second and third most significant ones in descending order.

This hierarchy of importance isn't solely determined by the frequency of keywords and phrases (concept occurrence). Leximancer goes beyond simple word counting by analyzing the intricate relationships and connections between concepts, allowing it to capture the true essence of each theme's importance within the broader context.

Further enriching this visualization, a concept map is positioned above each industry's thematic landscape. This map provides a visual representation of the interlinked concepts that contribute to each theme, offering a deeper understanding of the thematic tapestry within each analyzed sector. Figure 1.1-1.7 contains the themes, related concepts, and the concept map for the seven sector analyses individually while Fig 1.8 contains the analysis of reports of all of these seven sectors.

## 5. **Results:**

We employed Leximancer, a powerful text analysis tool, to delve into the corporate responsibility reports of seven prominent sectors within India's NIFTY 50 Index. This research unearthed a fascinating tapestry of themes, revealing both unifying threads and distinct industry narratives.

Across all seven sectors, a single theme, "Business," emerged as a common thread, reflecting a shared focus on core operational activities. However, beyond this unifying element, each sector unveiled its unique thematic fingerprint. The analysis exposed a diverse array of themes specific to each industry, reflecting the varying priorities and challenges they navigate.

Themes like "Employees," "Management," and "Sustainability" emerged as recurring threads, highlighting the cross-cutting significance of workforce development, effective leadership, and environmental responsibility across various sectors. Further exploration of these themes, identified through Leximancer, revealed intriguing nuances. Each sector, it appears, prioritizes specific areas within its broader business landscape, resulting in distinct thematic emphases.

### 5.1 | Automobiles Sector

The most important theme in this sector was Emissions (based on the frequency of concepts used in the reports of the sector) demonstrated by the integrated ESG reports of the Automobile sector. The next important aspect is employees which is one factor given the importance in most of the sectors. The reason which the importance is given to emissions most can be identified in various ways and based on my research and knowledge this emission factor in the automobile sector has become a crucial turning point driven by a multitude of factors like environmental imperative; Transportation in the automobile sector is a major contributor to greenhouse gas emissions, with vehicles accounting for around a quarter of global emissions. The burning of fossil fuels in cars and trucks releases harmful pollutants like carbon dioxide, nitrous oxides, and particulate matter, all of which contribute to climate change and its devastating consequences. The shortage of low-carbon technology, the technical standard system of carbon emission, the targeted carbon reduction policy framework, etc. are only a few of the issues that the automobile sector in the BRI participating nations continues to face and has to be resolved. To provide the automobile sector with reasonable and scientific guidance about the development of carbon emission limits, policy proposals have been put forth based on the results of the above research and two kinds of BRI participating countries. On the one hand, governments are increasingly legislating bans on the sale of gasoline-powered cars, with the EU tightening emissions standards and other countries implementing phase-outs over the next two decades. This creates a clear external pressure for change (ESG in Automotive - Thematic Research) Next is the Regulatory landscape and Customer Demand; Consumers are becoming more and more aware of the environmental impact of their choices, and this includes the vehicles they drive. A growing number of consumers are actively seeking out electric vehicles and other fuel-efficient options, putting pressure on automakers to cater to this demand.

## 5.2 | F i n a n c i a l Service Sector



It was observed that in the financial service sector, the most pop-up themes were Customers, employees, and financials which is justifiable. In the financial service, the business runs when more and more customers do the transaction repetitively and make investments (ESG in Banking: The Future Of The Financial Sector). So, along with the features in the financial products, the convenience and feasibility for its customers and employees is the most important factors considered by the Financial Service Sector. Proactively considering environmental and social factors helps identify and address potential risks, enhancing the company's long-term sustainability.

Market Volatility and technological advancement are other factors that give importance to financial factors as the volatility in the financial markets happens very frequently so timely actions are required. Focusing on both customer needs and time is not simply a one-way street. It's a symbiotic relationship where each element reinforces the other. Understanding customer needs informs the development of timely solutions, while efficient processes and fast service allow institutions to meet those needs effectively. This virtuous cycle leads to enhanced customer satisfaction, loyalty, and ultimately, profitability.

## 5.3 | FMCG Sector

This is the sector where the emphasis was given to sustainability followed by business. Concepts like value, sustainability, climate, and development are being observed in this sector. FMCG: Where Green Meets Growth ("The Future of FMCG: Why Sustainability is the Key to Growth" by Forbes) is the quote for the FMCG sector, The Fast-Moving Consumer Goods (FMCG) sector, encompassing household staples like food, beverages, and cleaning products, might not seem like the most obvious champion of sustainability. Yet, in recent years, a crucial shift has occurred. Sustainability is no longer a fringe concern for FMCGs, but a core business driver intertwined with growth and profitability. A few of the reasons are resource scarcity, the climate change impact, Stringent Environmental Regulations, and customer demand which is moving towards sustainability.



## 5.4 | Healthcare Sector

Through the thematic analysis, the most important themes identified in this sector were management and healthcare. In the healthcare sector, it is prominently seen that the business grows when the people and the service are of high quality so the reports are more focused on concepts like safety, services, finances, and facilities. Resource Allocation and Efficiency, quality improvement and patient security, change management, and innovation are the related concepts with the management in the healthcare sector that drive the businesses. Ethics, legal considerations, and public knowledge and practice are the other key factors in this sector. Within the pharmaceutical and medical device realm, safeguarding individual health information stands as a paramount concern. Ensuring the well-being and safety of both employees and patients is equally crucial.

Issues of pricing, accessibility, ethical conduct, labor practices, and ensuring a safe and healthy environment for all stakeholders remain a central focus.



## 5.5 | Information Technology Sector

Employee, Business, and support were the major themes in this sector in which employee and business importance are dominated themes, and support was also given some importance. Talent acquisition and retention are the biggest factors in the IT sector so, the more importance is given to the employees' growth and taking care of them in the ESG report as well (How Tech Companies Are Leading ESG Innovations). System Maintenance and Security is another factor in this sector that plays a key role. Ensuring their smooth operation, implementing robust security measures, and proactively addressing potential issues are crucial support themes that guarantee data integrity and operational continuity.

## 5.6 | Metals & Mining Sector

Year was the most frequent word found in this sector's report, even twice and more than thrice than business and limited respectively. Many ESG metrics are assessed on a yearly basis, such as greenhouse gas emissions reductions or safety incident rates. Highlighting specific year-on-year changes or comparisons to industry benchmarks demonstrates the company's commitment to improvement. reports focus on the company's overall "business" operations and their social and environmental impact. This encompasses all mining activities, processing facilities, supply chains, and other relevant business aspects.



## 5.7 |Oil & gas Sector

As in every business, employees are the pillar for the growth of the business. Oil and gas companies employ a significant workforce across various roles, making employee well-being and safety a crucial pillar of their ESG strategies. Promoting a diverse and inclusive workforce is often highlighted through employee demographics and initiatives. Health and safety are also important in this sector so businesses are emphasizing workplace safety measures, incident rates, and initiatives to prioritize employee well-being. While oil and gas remain dominant energy sources, "LPG" emerges as a key focus due to its cleaner burning characteristics and increasing adoption for cooking, particularly in developing economies. Community development and health impacts; Showcasing how LPG access improves health outcomes by reducing indoor air pollution associated with traditional cooking methods.

Each sector gives importance to different factors and various concepts are discussed in the ESG reports accordingly. Businesses invest in ESG according to their business requirement and growth-driven factors. In the environmental dimension, companies assess and report on their impact on ecosystems, climate change, and resource efficiency. For instance, the Automobile sector focuses more on reducing emissions, optimizing energy usage, and implementing sustainable supply chain practices. In contrast, technology companies emphasize the reduction of electronic waste and increasing support efficiency. Tailoring ESG initiatives to the specific environmental challenges of each sector ensures that companies are addressing the most pressing issues within their sphere of influence.

## 6. Implications & Limitations

In this paper, the sample size taken is based on certain criteria, and seven sectors are included based on the number of companies existing in a sector and the sector segregation is done based on Forbesindia article on NIFTY 50 companies with sector details. In this study, we have included only 38 companies out of NIFTY 50 INDEX as we excluded the reports of 12 companies belonging to different sectors where the number of companies in each sector is less than or equal to two. Since the final sample was restricted to 38 companies, it might affect the generalizability of the findings. Apart from that, all the companies have their own format for releasing their press report. So, it was observed that a few companies give information about their ESG practices in their Integrated Annual report while some follow the BRSR format which was introduced by SEBI in 2021 as a mandatory reporting requirement for the top 1,000 listed companies in India and others give their separate report on their sustainability or ESG practices in their business and the impact they are creating in the society. Since the integrated reports have information other than ESG practices, the findings might have got affected. To overcome this issue, we have manually eliminated themes that were unrelated to ESG practices. Additionally, we have tried to pick the latest report of all the companies included in the sample but still, there are a few companies whose 2022-23 report was not available so, we have included the latest report provided by them on ESG practices.

## 7. Conclusion:

In this study, we have included 38 companies from the INDEX NIFTY 50 and categorized them into seven sectors. We have observed that the ESG practices vary across different sectors. In the Automobile sector, the major themes are employees, emissions, and social. It is prominent that the rules and regulations are increasing in the automobile sector in terms of zero carbon emission and customer awareness of the environment. In the Financial Service Sector, the main themes recognized were Customers, employees, and financials. Financial companies are adopting a new approach, weaving ESG factors into their services. This allows them to stay profitable while aligning with customer and investor desires for a sustainable future, responsible social impact, and ethical leadership. Next comes, the FMCG sector, in this sustainability, business and Financial are major themes in their reports. The factors like performance, health, waste, and climate have driven the FMCG sectors to these themes. In the Healthcare Sector, the pop-up themes are Management, company, and healthcare. Ensuring the wellbeing and safety of both employees and patients is equally crucial and ESG practices need to be strong towards the management. In the IT sector, the most important themes are employees, support, and business. Taking care of employee growth to maximize the retention rate. Ensuring proper security of the data and providing resources for child education to make them stronger. In the Metal and Mining Sector, the most visible themes are Business, limited, and year. As the natural resources are limited and the regulations for the emission change on a yearly basis. Last comes the oil and gas sector, the important and most frequent themes are employees, business, and LPG, showcasing factors like safety, refinery, risks, lubricants, and a few other initiatives in the sector by the firms.

This understanding of sector-specific themes holds immense value for both researchers and policymakers. For researchers, it offers a window into the unique challenges and priorities of different industries, guiding future research endeavors. Policymakers, on the other hand, can leverage this knowledge to craft targeted regulations and promote best practices in corporate social responsibility tailored to the specific needs of each sector.

**Future Scope**

Comparison of ESG performance and reporting practices of Indian firms with those of companies in other emerging markets or with developed economies. Understanding the differences and similarities can provide valuable insights for global investors and policymakers.

Conduct in-depth case studies on specific sectors to explore the unique challenges, opportunities, and best practices related to ESG reporting. This could involve qualitative interviews with industry experts and stakeholder

Examine the regulatory landscape governing ESG reporting in India and assess its impact on corporate disclosure practices. Identify potential gaps or areas for improvement in the regulatory framework to enhance ESG transparency and accountability

## 8. References:


Tiwari, R., Chauhan, AS, Agrawal, P., Goel, S., Sharma, R., Chaudhary, V., Kumari, K. and Kumari, S.,(2022). ESG Investments for Sustainability with Superior Returns in Indian Equity Market. YMER, 21(11), 777-783.; https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4281553

Fu, T., & Li, J. (2023). An empirical analysis of the impact of ESG on financial performance: the moderating role of digital transformation. Frontiers in Environmental Science, 11, 1256052.; https://www.frontiersin.org/articles/10.3389/fenvs.2023.1256052/full

Marc, W., & Mark, R. (2022). The essential link between ESG targets & financial performance. Harvard Business Review.https://hbr.org/2022/09/the-essential-link-between-esg-targets-financial-performance

Integration in Investment Portfolios: A Review of the Literature by the Journal of Sustainable Finance & Investment (2017); https://www.atlantis-press.com/article/125983135.pdf

SEBI BRSR Core Framework; https://www.sebi.gov.in/legal/circulars/jul-2023/brsr-core-framework-for-assurance-and-esg-disclosures-for-value-chain_73854.html

SEBI Circular on BRSR Core Framework; https://www.sebi.gov.in/legal/circulars/jul-2023/brsr-core-framework-for-assurance-and-esg-disclosures-for-value-chain_73854.html

SEBI GUIDANCE NOTE FOR BRSR Reporting; https://www.sebi.gov.in/sebi_data/commondocs/may-2021/Business%20responsibility%20and%20sustainability%20reporting%20by%20listed%20entitiesAnnexure2_p.PDF

Consultivo's BRSR FAQs; https://consultivo.in/social-sustainability/brsr-business-responsibility-sustainability-reporting/

https://www.dpncindia.com/blog/mandatory-brsr-reporting-for-top-1000-listed-companies-applicable-from-fy-2022-23/

How ESG Screening Helps Investors Make Decisions https://www.diginex.com/insights/how-esg-screening-helps-investors-make-decisions#:~:text=sustainability%2Dconscious%20investors.-,What%20is%20ESG%20Screening%3F,companies%20or%20funds%20of%20interest

https://thegiin.org/impact-investing/need-to-know/#:~:text=NOUN%3A%20Impact%20investments%20are%20investments,impact%20alongside%20a%20financial%20return.

https://www.globaldata.com/store/report/esg-in-automotive-industry-theme-analysis/

ESG Integration; https://www.financestrategists.com/wealth-management/esg/esg-integration/

Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. Global finance journal, 38, 45-64. https://www.sciencedirect.com/science/article/pii/S1044028316300680

Seth, R., Gupta, S., & Gupta, H. (2021). ESG investing: a critical overview. Hans Shodh Sudha, 2(2), 69-80. ; https://www.hansshodhsudha.com/volume2-issue2/October_December%202021_%20article%207.pdf

Gattaiah Tadoori & V. Usha Kiran (2023) "ESG Portfolio Vs Traditional Portfolio - A Study of MSCI ESG Indices" Research Bulletin, ICMAI: Volume 48, Issue 3-4, October 2022 - January 2023. pp51-70. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4049919

https://www.apollohospitals.com/apollo_pdf/AHEL-ESG23-Full-Report.pdf

https://www.cipla.com/sites/default/files/Business-Responsibility-and-Sustainability-Report.pdf

https://www.wipro.com/content/dam/nexus/staticsites/annual-report-

2023/pdf/business-responsibility-report.pdf

https://insights.techmahindra.com/esg/sustainability-booklet_fy2022-23.pdf

https://www.drreddys.com/cms/cms/sites/default/files/2023-07/Dr.%20Reddy%E2%80%99s%20Integrated%20Annual%20Report%202022-23_0.pdf

https://corpgov.law.harvard.edu/2022/09/18/esg-stakeholder-governance-and-the-duty-of-the-corporation/

https://pages.stern.nyu.edu/~adamodar/pdfiles/blog/ESG.pdf

Interested but skeptical: What younger investors think about ESG; https://esgclarity.com/interested-but-sceptical-what-younger-investors-think-about-esg/

ESG Integration in Investment Portfolios: A Review of the Literature by Journal of Sustainable Finance & Investment, 2017; https://www.blackrock.com/se/individual/themes/sustainable-investing/esg-integration

https://www.snowflake.com/trending/esg-banking-financial-sector/

ESG Integration and the Investment Management Process: Fundamental Investing Reinvented; https://link.springer.com/article/10.1007/s10551-015-

2610-8

ESG and financial performance: Aggregated evidence from more than 2000 empirical studies; https://www.scirp.org/%28S%28351jmbntvnsjt1aadkposzje%29%29/reference/referencespapers.aspx?referenceid=2875118

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. Organization & Environment; https://journals.sagepub.com/doi/pdf/10.1177/0170840603024003910

https://hbr.org/sponsored/2023/02/why-every-tech-company-needs-esg-at-the-core-of-its-strategy

Elkington, J. (1997). Cannibals with forks: The triple bottom line of 21st century business;https://edisciplinas.usp.br/pluginfile.php/7876632/mod_resource/content/1/Elkington_Triple_Bottom_Line.pdf

https://www.knowesg.com/featured-article/7-best-esg-investment-strategies-to-integrate-into-your-portfolio#:~:text=ESG%20investing%20involves%20four%20distinct,ESG%20integration%20and%20impact%20investment.

https://en.wikipedia.org/wiki/Impact_investing https://kotak.com/en/about-us/sustainability/csr.html

https://www.axisbank.com/Sustainability-Reports/2021-2022/Axis-Bank_SR.pdf

https://www.icicibank.com/ms/aboutus/annual-reports/2022-23/icici/environmental-sustainability.html

https://v.hdfcbank.com/content/dam/hdfc-aem-microsites/Annual_Report_FY22/pdfs/Business-Responsibility-Sustainability-Report.pdf

https://www.heromotocorp.com/content/dam/hero-aem-website/in/investors/financial-results/annual-reports/annual-reports/stxintimationbrsr17072023.pdf

https://www.mahindra.com/sites/default/files/2023-10/Mahindra-Sustainability-Report-2022-23.pdf

https://www.globalsuzuki.com/corporate/environmental/report/pdf/2022_enve_all.pdf

https://www.bajajfinserv.in/finserv-digital-annual-report-fy22/finserv-digital-annual-report-assets/pdf/bfs-business-responsibility-and-sustainibility-report-fy-2022pdf.pdf https://www.hul.co.in/files/92ui5egz/production/f2b53a9092b5053781292e071ccb72b42d4fb76c.pdf

https://archives.nseindia.com/corporate/TATAMTRDVR_12062023225740_brsr.pdf

https://investors.bajajauto.com/wp-content/uploads/2023/06/BAL2023_BRSR_Final_Digital.pdf

https://www.itcportal.com/sustainability/sustainability-integrated-report-2023/ITC-Sustainability-Integrated-Report-2023.pdf

https://www.britannia.co.in/data/Sustainability_Report_FY_2022_23_713fca0904_c17a09b187.pdf?updated_at=2023-11-07T07:28:09.115Z

https://www.nestle.com/sites/default/files/2023-03/creating-shared-value sustainability-report-2022-en.pdf

Zainullin, S., & Zainullina, O. (2021). Scientific review digitalization of corporate culture as a factor influencing ESG investment in the energy sector. International Review, (1-2), 130-136.

Ho, C. C., Huang, C., & Ou, C. Y. (2018). Analysis of the factors influencing sustainable development in the insurance industry. Corporate Social Responsibility and Environmental Management, 25(4), 391-410.

Ahmad, H., Yaqub, M., & Lee, S. H. (2023). Environmental-, social-, and governance-related factors for business investment and sustainability: A scientometric review of global trends. Environment, Development and Sustainability, 1-23. https://link.springer.com/article/10.1007/s10668-02302921-x

Michael Bamidele Fakoya and Segopotje Evonia Malatji (2020). Integrating ESG factors in investment decisions by mutual fund managers: a case of selected Johannesburg Stock Exchange-listed companies. Investment Management and Financial Innovations, 17(4), 258-270. doi:10.21511/imfi.17(4).2020.23

https://www.britannia.co.in/data/Sustainability_Report_FY_2022_23_71 3fca09 04_c17a09b187.pdf?updated_at=2023-11-07T07:28:09.115Z

https://www.nestle.com/sites/default/files/2023-03/creating-shared-value-sustainability-report-2022-en.pdf

Zainullin, S., & Zainullina, O. (2021). Scientific review digitalization of corporate culture as a factor influencing ESG investment in the energy sector. International Review, (1-2), 130-136.

Ho, C. C., Huang, C., & Ou, C. Y. (2018). Analysis of the factors influencing sustainable development in the insurance industry. Corporate Social Responsibility and Environmental Management, 25(4), 391-410.

Ahmad, H., Yaqub, M., & Lee, S. H. (2023). Environmental-, social-, and governance-related factors for business investment and sustainability: A scientometric review of global trends. Environment, Development and Sustainability, 1-23. https://link.springer.com/article/10.1007/s10668-023- x

Michael Bamidele Fakoya and Segopotje Evonia Malatji (2020). Integrating ESG factors in investment decisions by mutual fund managers: a case of selected Johannesburg Stock Exchange-listed companies. Investment Management and Financial Innovations, 17(4), 258-270. doi:10.21511/imfi.17(4).2020.23

भारतीय प्रबंध संस्थान कोषिक्कोड
Indian Institute Management Kozhikode
*Globalizing Indian Thought*

Research Office
Indian Institute of Management Kozhikode
IIMK Campus P. O.,
Kozhikode, Kerala, India,
PIN - 673 570
Phone: +91-495-2809237/ 238
Email: research@iimk.ac.in
Web: https://iimk.ac.in/publications