SUSTAINABILITY REPORTING PRACTICES: A COMPARATIVE STUDY ON THE SUSTAINABILITY REPORTING OF CONSTITUENTS OF NIFTY ENERGY INDEX AND THE TOP CONSTITUENTS OF NIFTY 50

1.1 INTRODUCTION

Unprecedented economic growth and technological advancements were brought about by the industrial revolution, while non-financial factors such as the environment, society, and others suffered as a result of the quest for growth and progress. The pursuit of economic expansion has led to issues like social inequality and environmental deterioration. In order to advance development across three fundamental pillars-social inclusiveness, environmental sustainability, and economic prosperity-sustainable development advocates for a more balanced approach to growth. A report titled "Our Common Future" was released in response to the plea for a more sustainable method of development (also known as the Brundtland Report). The United Nations Commission on Environment and Development published a report in 1987 that introduced the idea of sustainable development as well as its guiding principles.

The ambitious Sustainable Development Goals (SDGs), a 15-year plan that addresses 17 global and interconnected issues, including reducing poverty and hunger, putting an end to discrimination, and preventing the long-term effects of climate change, were adopted by the United Nations and its 193 member countries in 2015. On their way to growth and expansion, many businesses understood the need of promoting the idea of sustainability and raising their social impact, which in turn serves to improve stakeholder confidence.The reporting on sustainability has received importance in industry and academia since the end of the 1990s. Environmental, social, and governance (ESG) goals and a company's progress toward them are disclosed and communicated through sustainability reporting. Higher consumer confidence, increased creativity, and even better risk management are all advantages of sustainability reporting for businesses.In general, a company's corporate sustainability report will contain text outlining its (i)sustainability vision and objectives (e.g., Adams, 2017; Gray, 2006); (ii) company policies, management systems, and stakeholder relations (e.g., Daub, 2007; Lozano, 2020); and (iii) performance in the context of sustainability, including pertinent key performance indicators (KPIs) (e.g., GRI, 2016; Roca & Searcy, 2012).Several standards have arisen that allow a wide range of stakeholders to more efficiently review and compare sustainability reports . The Global Reporting Initiative

Standards are the framework that is most extensively used. It has connections to corporate social responsibility (CSR) reporting and other non-financial reporting strategies like triple bottom line reporting.

Aa stated by the GRI, 83% of the 250 largest firms in the world publish sustainability reports that adhere to GRI criteria, and 93% of those corporations use sustainability reports to reveal their sustainability performance (GRI, 2020). Among the top 250 global corporations, companies in the energy and mining sectors report their sustainability efforts at the highest rate (KPMG, 2017).

Indian businesses are recognizing and embracing sustainability due to the rising environmental knowledge and concern in line with global trends. Companies throughout the nation have begun to concentrate on problems like pollution, unethical labour practices, energy, and climate change. According to studies, businesses in India are starting to see the benefits of using sustainable and responsible practices in their operations as they move toward a sustainable future (GIZ, 2012; Planken, Sahu, & Nickerson, 2010).

Furthermore, the Indian government added a clause in the Companies Act 2013 to include a provision requiring Indian businesses to spend over 2% of their yearly net profits over the previous three years in sustainable endeavours (Adams, Muir, & Hoque, 2014; PWC, 2013). For businesses with yearly revenues of 10 billion Indian rupees or more, net worth of 5 billion dollars or more, or net profits of 50 million dollars or more, there is a specific sustainability committee. The top reporting industries in India from 1999 to 2017 were conglomerates, the automotive, financial services, metals products, and the energy sector, with 525 sustainability reports altogether (GRI Disclosure Database, 2017).

With a nominal Gross Domestic Product (GDP) growth rate of 12% in 2019, India has overtaken other major economies as the one that is growing at the quickest rate (IBEF, 2020). The primary factors credited with the swift economic expansion of the Indian economy are the energy and mining sectors (Mehrotra & Gupta, 2020). Around 17% of the GDP is contributed by these two industries (IBEF, 2020). Energy businesses were chosen for the study since they are at the centre of the conversation about sustainable development. Although they exist and play an inevitable function, they are often held accountable for a number of societal and environmental issues (Mahmood & Orazalin, 2017). As sustainability challenges gain more attention, how these businesses respond to these difficulties will have a significant impact on their capacity to survive and develop (Bohling et al., 2019; Laplume et al., 2008). These corporations must now embrace social development and environmental protection strategies as a result (Boiral & Henri, 2017).

Research has been active in the areas of examining sustainability performance and the disclosure policies of environmentally sensitive sectors.

1.2 STATEMENT OF PROBLEM

The introduction of sustainability reporting is viewed favourably by society at large. But even so, releasing the same is fraught with problems and challenges. Participation in sustainability reporting is optional or voluntary, so an organization is not liable to a third party if it does not submit a report. Businesses that abide by the requirements for sustainability reporting may be at a disadvantage compared to businesses that do not due to the additional expenses they will incur in maintaining these reports. Additionally, firms that practice sustainability may introduce bias through selective disclosure. There is no legal basis for fining an entity for non-compliance with sustainable reporting. Again, a company is free to create a custom framework for reporting on sustainability, but there are no consequences if the information is inaccurate. As the global standards call for sustainability reporting, it is necessary to investigate how far Indian companies are complying with that. As Indian companies are competing against global players , we need to understand how far our companies are in line with sustainability reporting standards.

1.3 RESEARCH QUESTIONS

1. Which companies among the top 10 Nifty 50 constituents and those included in Nifty Energy practise sustainability reporting?
2. Which companies comply with and disclose their environmental, governance, social, human rights, and labour relations dimensions in their reports?
3. Which companies in Nifty Energy and the top constituents of the Nifty 50 follow the global reporting initiative?
4. Who among Nifty Energy and the top 10 constituents of the Nifty 50 contributes the most to ESG goals?
5. Whether there is any significant difference between the sustainability reporting by the top 10 Nifty 50 and the constituent companies of Nifty energy?

1.4 OBJECTIVES

1. To study how the existing scholarly research approached the topic of sustainability reporting.
2. To study the various sustainability initiatives taken by the companies included in Nifty Energy and the top constituents of Nifty 50.

3. To study whether the constituent companies of Nifty energy and the top constituents of Nifty 50 follow the Global reporting initiative (GRI).
4. To make a comparison of the sustainability reporting of nifty energy companies and top constituents of nifty 50 to find which among them and the company that contributes the most to achieving ESG goals.

1.5 HYPOTHESIS OF THE STUDY

H1: There is a significant difference between the sustainability reporting practices of the two groups considered. (Nifty energy and the top 10 constituents of Nifty50).

H2: There is a significant difference between the environmental dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H3: There is a significant difference between the governance dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H4: There is a significant difference between the social dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H5: There is a significant difference between the human rights and labor relations dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H6: There is a significant difference between the global reporting initiative of Nifty Energy and the top 10 constituents of Nifty 50.

1.6 SIGNIFICANCE OF THE STUDY

Sustainability is now recognised by many investors as a crucial long-term goal that will aid in developing successful company models. Approximately 80% of senior executives believe that sustainability is essential to achieving a competitive advantage in the market today, according to a report from the United Nations Global Compact (UNGO). In the corporate sector, sustainability reporting is a crucial component to enhancing a business's environmental initiatives and its relationships with investors and customers, in keeping with stakeholders' demands for accountability and transparency. So, it is considered necessary to probe into the sustainability reporting practices of Indian companies.

1.7 SCOPE OF STUDY

Investors are interested in the companies that are putting an emphasis on their employees, suppliers, and the communities in which they operate, and the Covid-19 pandemic has made

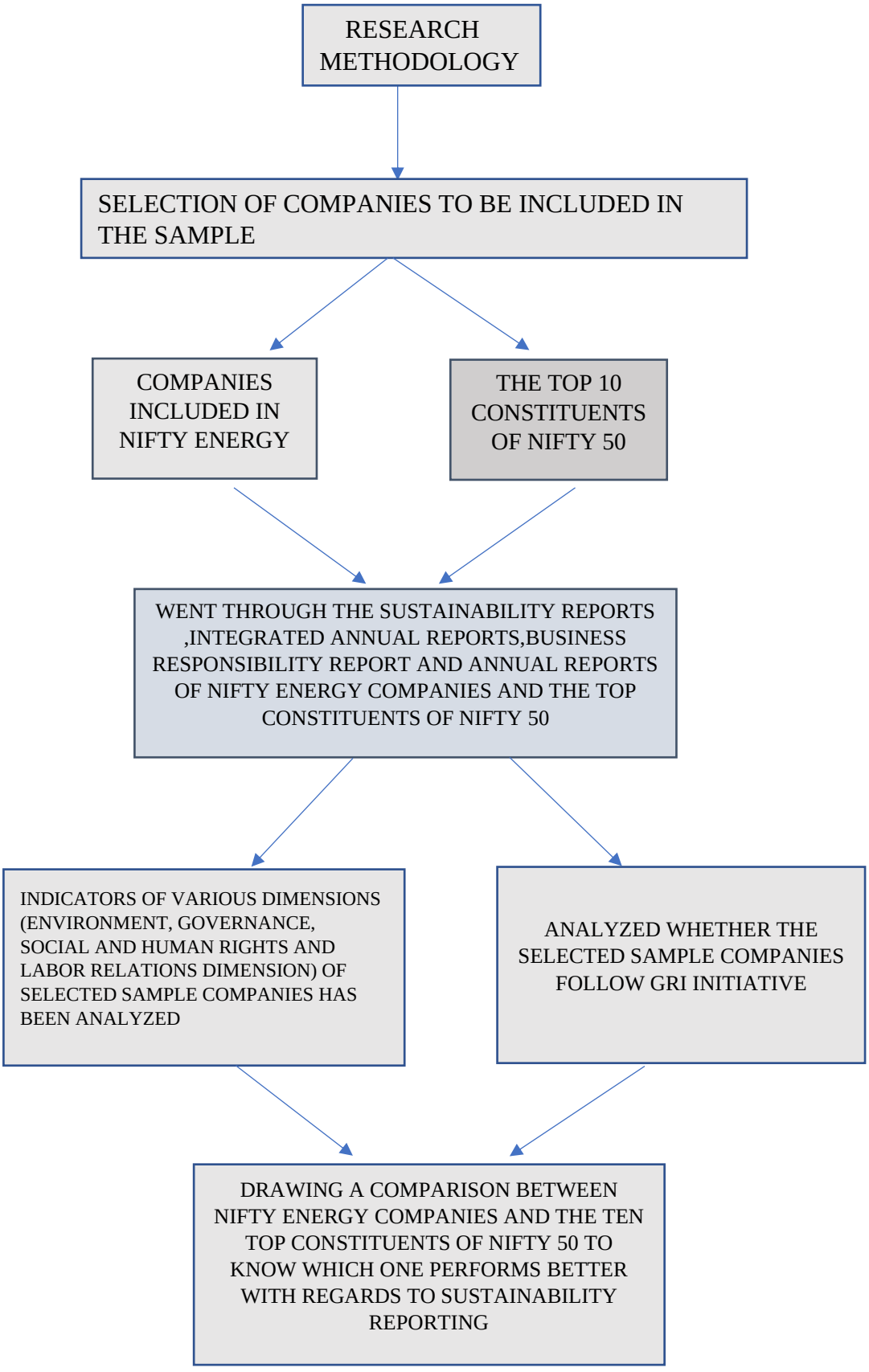
sustainability disclosures more crucial than ever (BSR 20). The energy industry is regarded as one of those sectors that could negatively affect the environment. This paper aims to study the sustainability initiatives of Nifty Energy companies and the top 10 constituents of Nifty 50 and their successful implementation. This paper's other objective is to find which group contributes the most to ESG goals. This study mainly focuses on analyzing the sustainability reporting of Nifty Energy and the top constituents of Nifty 50 for the period 2020–2021.

1.8 RESEARCH DESIGN AND METHODOLOGY

The research has been conducted with the help of secondary data analysis. From the Nifty 50, only the top 10 constituents by market capitalization have been included in the study. Sustainability reports, integrated annual reports, and annual reports of Nifty Energy and the Top 10 constituents of Nifty 50 have been taken into consideration. Indicators of various dimensions (ie; environment, governance, social and human rights and labor dimension) of sustainability reporting has been studied and analyzed by going through the reports of companies included in Nifty energy and the top 10 constituents of Nifty 50.

Research framework and design

The following flow chart shows the research framework and design of the study



1.8.1 Research design

When a research project is carried out, it adheres to a clear pattern or plan of action from problem identification to report preparation and presentation. The term "research design" refers to this specific pattern or course of action. It provides a road map for the researcher as they gather and examine the data. In other words, the study design acts as a blueprint for conducting the research.

1.8.2 Data Sources used for the study

The research study mainly used secondary data.

Secondary Data

The secondary data for the research was collected from the research papers, sustainability reports, annual reports, integrated annual reports, and business responsibility reports of Nifty Energy and the top constituents of Nifty 50 for the financial year 2020-2021. Social science research databases like Wiley online library and Emerald Insight were used to collect research papers for the review of the literature.

1.8.3 Universe of the study

The companies included in Nifty Energy and the constituents of Nifty 50 were the universe of the study.

1.8.4 Method of study

Content analysis was used for extracting the data required for the study.Content analysis is a critical examination of recorded human communication that aims to draw reliable conclusions about specific phenomena(Cronjé, 2008). This study uses content analysis because it is seen to be appropriate for studies involving vast amounts of text, like the examination of corporate annual reports (Mouton, 2001).As it was difficult to study all the companies included in Nifty 50, sampling was used to draw the units of the study.

1.8.5 Unit of study

The companies included in Nifty Energy and the top 10 constituents of Nifty 50 were the units of study.

1.8.6 Sampling deign

The factors for selecting samples for a study include (1) lower cost,(2) greater accuracy of results,(3) greater speed of data collection, and availability of population elements .The components of the sampling frame are discussed below.

1.8.6.1 Sampling frame

The top 10 Nifty 50 constituents and the Nifty Energy companies were considered in the analysis. The companies included in Nifty Energy were Reliance industries ltd, Adani Transmission ltd, Adani Green energy ltd, Bharat Petroleum corporation ltd, Tata power Company Ltd, Power Grid

Corporation, NTPC ltd, Oil and Natural Gas Corporation, GAIL (India) ltd, and Indian oil corporation. The top 10 constituents of Nifty 50 include Reliance industries ltd, TCS, HDFC bank, Infosys, ICICI bank, HUL, SBI, HDFC, Adani Transmission Ltd, Bajaj Finance.

1.8.6.2 Sample size

The size of the sample was 20. 10 companies included in Nifty Energy and the top 10 top constituents of Nifty 50 were included in the study.

1.8.6.3 Sampling technique

All the companies included in Nifty energy were chosen for the study. But with regard to the constituents of Nifty 50, Purposive sampling was used for selecting the sample companies. Purposive sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which the researcher uses his/her own judgment while selecting members of a population to participate in the study. Purposive sampling is a non-probability sampling technique in which the components of the sample are chosen depending on the researcher's experience and judgement.

Selection of companies

The manufacturing and processing sectors that are involved in the production and distribution of energy are collectively known as the energy industry. These industrial procedures include energy extraction from the source, production, purification, and distribution to the necessary sectors. The petroleum industry, alternative energy industry, gas industry, nuclear power industry, electrical power industry, coal industry, and traditional energy sector are a few of the common energy industries now available. Energy has played an important part in supporting our daily activities for many centuries. Energy is used to provide light, heat, and occasionally even safety.This diversity can be used to explain the rise in the commercialization of commodities and energy sources.

In the path of growth and expansion, the energy sector has been negatively impacting the environment.For eg; the ecosystem is seriously harmed by petroleum and its byproducts. It is a mixture of extremely hazardous complex aromatic hydrocarbons which are considered to be highly toxic to soil and the atmosphere. The petroleum byproduct benzene is the most dangerous because it has been linked to leukaemia. Additionally, the extraction of petroleum results in the buildup of greenhouse gases that contaminate the air and generate acid rain.

These are a few of the aspects that were taken into account while choosing the companies that make up Nifty Energy in order to thoroughly examine the steps they have done to lessen their negative effects on environment and research their sustainability-related contributions.

The Nifty, the primary benchmark of the National Stock Exchange (NSE), is an index that includes the top 50 publicly traded companies in terms of free-float market capitalization. It is intended to reflect the health of all market conditions of the listed universe of Indian companies and, by extension, the overall economy. Today, index funds are launched and mutual fund portfolios and results are benchmarked using the Nifty, exactly as the BSE benchmark Sensex.

The top Nifty 50 constituents were included in the study since it is considered as a benchmark index and could serve as a solid foundation for comparison.

1.8.7 Tools used for data analysis

An independent T-test was used for the study. An inferential statistical test known as the independent t-test, also known as the two sample t-test or independent-samples t-test, examines whether there is a statistically significant difference between the means in two unrelated groups.

1.9 LIMITATIONS OF THE STUDY

1. Only the top 10 constituents of Nifty 50 have been considered for the study due to time restraints.
2. Primary data has not been used for the study. The research has been conducted solely based on secondary data.
3. The study has been conducted based on specific indicators of various dimensions of sustainability reporting.
4. As the concept of sustainability reporting is relatively new in India, the study was restricted to the contents disclosed in the annual reports of the companies.

1.10 OPERATIONAL DEFINITIONS

1. **Sustainability**-Sustainability focuses on preserving the environment, combating climate change, and fostering social advancement without threatening life or leaving anyone behind. With this idea, our immediate needs would be met without sacrificing the resources available to future generations.

2. **Sustainability reporting**-A sustainability report is a report that a firm or organisation publishes detailing the economic, environmental, and social effects of its daily operations. The organization's values and governance structure are also presented in a sustainability report, which demonstrates how the organization's strategy and commitment to a sustainable global economy are related.

3. **Global Reporting Initiative**-The Global Reporting Initiative (also known as GRI) is a global, independent standards-setting body that aids in understanding and communicating the effects of businesses, governments, and other organisations on issues including climate change, human

rights, and corruption. The most popular sustainability reporting standards in the world are provided by GRI.

4. **Nifty Energy**-Petroleum, gas, and power industry businesses are included in the NIFTY Energy Sector Index. Ten firms listed on the National Stock Exchange of India make up the Index (NSE).

5.**Nifty 50-**The Nifty, the primary benchmark of the National Stock Exchange (NSE), is an index that includes the top 50 publicly traded companies in terms of free-float market capitalization. It is intended to reflect the health of all market conditions of the listed universe of Indian companies and, by extension, the overall economy.

1.11 CHAPTERISATION

Chapter 1-Introduction

This chapter include introduction of the study, significance of the study, statement of problem, scope of the study, objectives of the study, methodology and limitation.

Chapter 2-Review of Literature

The second chapter include reviews of previous studies on the topic sustainability reporting

Chapter 3-Theoretical Framework

The third chapter include an account of available information related to the sustainability reporting.

Chapter 4-Data analysis and Interpretation

The examination of sustainability reporting for Nifty Energy and the top ten Nifty 50 constituents, as well as their results and interpretation, are covered in this chapter.

Chapter 5-Findings, Suggestions and Conclusion

The conclusions, recommendations, and findings of the study are covered in this final chapter.

1.12 CHAPTER SUMMARY

A broad overview of sustainability reporting and the adoption of sustainability reporting practices in India are provided in this chapter as an account of the research topic. It also contains research questions, objectives, statement of the problem, scope, significance of the study, research methodology and the important terms connected with the study.

REVIEW OF LITERATURE

2.1 INTRODUCTION

A literature review is a thorough summary of earlier studies on a subject. The literature review examines scholarly books, journals, and other sources that are pertinent to a particular field of study. This prior research should be listed, described, summed up, impartially evaluated, and clarified in the review. It need to provide a theoretical framework for the study and assist you (the author) in defining its scope. The literature review ensures the reader that your work has been carefully thought out by recognising the contributions of earlier scholars.

2.2 STUDIES ON SUSTAINABILITY REPORTING IN THE INDIAN CONTEXT

1. **Kishore Kumar (2020)** studied, "Emerging phenomenon of corporate sustainability reporting: Evidence from top 100 NSE listed companies in India". The goal of the study was to look into the nature and scope of sustainability reporting practices used by the top 100 Indian companies listed on the National Stock Exchange (NSE). In addition, this study examines the variations in corporate sustainability reporting practises based on ownership structure, industry sector, and Global Reporting Initiatives (GRI) reporting. In light of the results, India's most environmentally damaging industries—such as those in the energy, metal, and automotive sectors—disclose important sustainability data through sustainability reporting.Although IT businesses have little direct influence on the environment or society, they still provide sustainability information at a rate that ranks second in India. Businesses who submit sustainability reports in accordance with GRI criteria reportedly disclose more sustainability information.

2. **Anushree Poddar and Sapna A.Narula(2018)** studied "Sustainability reporting practices in India: A study of selected conglomerates" and concluded that each company first began with its group's flagship company and eventually expanded it to include other group companies. Similar to how not all stakeholders were included at the beginning of the journey, as the report developed, various stakeholders were engaged, which gave reports an entirely new focus. This might be because GRI forms are shifting to focus more on stakeholders. Additionally, each company mentions a strong internal management system framework for sustainability reporting, demonstrating that it takes time for the organisation

to create a culture of sustainability reporting, particularly with reference to data collection and implementation.

3. **Kishore Kumar, Ranjita Kumari and Rakesh Kumar(2021)**, studied "The state of corporate sustainability reporting in India: Evidence from environmentally sensitive industries" and found that that factors including firm size, market capitalization, and standalone sustainability reporting are positively related to how much information businesses disclose about their sustainability efforts. The study's findings also point to the need for governments to encourage the development of a stand-alone sustainability reporting framework based on Global Reporting Initiative (GRI) standards and to expand India's current framework for corporate social responsibility reporting. They consider that their general conclusions and suggestions will assist regulators and policymakers in evaluating and advancing disclosure measures to enhance sustainability reporting in India.

2.3 STUDIES ON SUSTAINABILITY REPORTING IN THE GLOBAL CONTEXT

1. **Azlan Amran and Roszaini Haniffa (2011)** studied, "Evidence in Development of Sustainability Reporting: a Case of a Developing Country" with the aim of studying the reasonable explanations for Malaysia's sustainability reporting. This study has found that the primary reason businesses adopt sustainability reporting is to exploit it as a public relations strategy. This strategy is aimed at the most important individuals who control a significant amount of the resources needed by businesses to thrive and survive in the marketplace. It is evident that companies are incorporating sustainability reporting into their plans to gain a competitive edge. According to the authors' observations of specific companies, the entire exercise does have an impact on how well they perform in terms of social and environmental issues.

2. **Wendy Stubbs, Colin Higgins and Markus Milne (2013)** studied, "Why Do Companies Not Produce Sustainability Reports? This paper investigates the lack of sustainability reporting by 23 of Australia's top 200 firms. The managers who were interviewed feel that SR is superfluous or irrelevant, in part because they don't feel any responsibility to support it by making the necessary structural and cultural changes. Many of these companies, particularly those in the mining sector, have a compliance culture, but for some, SR is simply considered a luxury — something that is "great to do," but not a "must do" for those

who "fly under the radar." The companies in the sample do not face ongoing pressure from society and stakeholders regarding their social and environmental performance, nor are there any demands for information from stakeholders regarding their performance.

3. **Eduardo Schiehll and Sam Kolahgar(2021)** studied, "Financial materiality in the informativeness of sustainability reporting". The goal of this study was to gain a deeper understanding of how disclosure of ESG information benefits the stock market. In order to understand this, they employed automated content analysis of 150 000 electronic documents from 1999 to the end of 2014 submitted by companies listed on the S&P/TSX Composite Index. Their findings demonstrate that financial materiality in ESG disclosure results in more informative stock prices and that ESG disclosure is important for investors. Additionally, the social component is more sensitive to the impact of ESG disclosure on stock price informativeness than the other ESG components.

4. **Ans Kolk (2003)** studied, "Trends in sustainability reporting by the Fortune Global 250". The analysis of the Global Fortune 250 companies shows that since 1998, reporting on non-financial issues has increased significantly. Reporting remains far more widespread in industrial sectors than in the financial sector, particularly in the areas of insurance, communications and media, trade and retail, and other services, despite the fact that there has been a general increase in non-financial reporting. Utilities, communications, media, computers and electronics, have seen significant and major growth in sustainability reporting.

5. **Amina Buallay (2022)** studied, "Sustainability reporting and retail sector performance: worldwide evidence". The aim of the study was to investigate the relationship between the level of sustainability reporting and retail sector performance giving due consideration to operational, financial and market. The conclusions drawn from the empirical research demonstrates that there is a big connection between ESG and market performance, financial performance, and operational performance (ROA) (TQ). The model in this study offers a useful analytical framework for examining sustainability reporting as an economic performance driver in the retail sector.

6. **Charles T. Crespy and Van V. Miller (2011)** studied, "Sustainability Reporting: A Comparative Study of NGOs and MNCs". They compare the commitment to sustainable development of these two organizational kinds using data from the Fortune 250

(corporations) and the Forbes 200 (NGOs). They discovered that businesses performed better than NGOs on all eight dimensions of legitimacy. The findings' directionality propose that companies are more committed to sustainability than NGOs are. The findings imply that NGOs cannot claim legitimacy in their pursuit of participation in corporate governance because of an inadequate level of commitment and disclosure on their part.

7. **Diogenis Baboukardos,Musa Mangena and Abdullahi Ishola (2021)** studied, "Integrated thinking and sustainability reporting assurance: International evidence". They aim to study whether integrated thinking has an impact on businesses' decisions to produce a report on assured sustainability. They discover that IT is positively related to the assurance of sustainability reporting using a global dataset.They noted that, regardless of the environment in which the organisation operates, integrated thinking continues to have a substantial impact, demonstrating its importance for reporting decisions.
8. **António Pedro Vieira and Gregor Radonjic (2020)** studied "Disclosure of eco-innovation activities in European large companies' sustainability reporting". The goal of this study was to examine how eco-innovations activities are reported within the context of sustainability reporting and to determine whether or not the idea of eco-innovations has been used directly or indirectly as a component of sustainability reporting. The outcomes from their research indicate a widespread lack of explicit references to the term "eco-innovation." Analysis of the reports revealed that although corporations did not precisely identify them as eco-innovations, they gave information on several eco-innovations.

9. **Belen Fernandez-Feijoo, Silvia Romero and Silvia Ruiz-Blanco (2013)** studied, "Women on Boards: Do They Affect Sustainability Reporting?". This study investigates the connection between sustainability reporting and having at least three female directors. Their findings demonstrate that levels of CSR reporting are greater in countries with a higher percentage of boards of directors with at least three women. They also find that more companies in nations with greater gender equality have boards of directors that have at least three women on them.
10. **Arshad Hasan, Khaled Hussainey & Doaa Aly studied (2022)** "Determinants of sustainability reporting decision: evidence from Pakistan". They looked into the factors that influence business sustainability reporting choices. For the years 2009 to 2018, they examined information gathered from a sample of 138 companies listed on the Pakistan Stock Exchange. They discover that companies are more likely to publish sustainability reports if their audit committees are bigger, they consist of gender-diverse boards, and their

institutional ownership is higher. They also came to the conclusion that the decision of the corporations to report on sustainability is negatively impacted by concentrated ownership, managerial ownership, foreign ownership, and audit committee independence.

11. **Katelin Opferkuch, Sandra Caeiro, Roberta Salomone and Tomás B. Ramos (2021)** studied, "Circular economy in corporate sustainability reporting: A review of organisational approaches". This study intends to investigate how businesses could include the circular economy in their corporate sustainability reporting by making use of an academic literature review and content analysis of existing reporting approaches. Results revealed a glaring gap between the literature on CE and sustainability reporting. Overall, only a few of the revised reporting ways specifically include CE and the advice provided to enterprises is highly generic and inconsistent, leaving it up to them to choose the performance assessment approaches.

12. **Antonia Garcia-Benau, Laura Sierra-Garcia and Ana Zorio (2013)** studied "Financial crisis impact on sustainability reporting". This article attempts to shed some light on the effects of the current financial crisis on corporate social responsibility (CSR) reporting and CSR assurance procedures that firms disclose online to stakeholders by dividing the time horizon into two periods, before 2008 and after 2008. They reached to the following conclusion: The findings show that the frequency of CSR reports increased dramatically during the financial crisis, despite worries that its assurance could constitute a threat to company (indeed, significant differences were found in ROE between CSR adopters to CSR discontinuing companies). Although there is no reason to expect reductions in this area given the slight but continuous growth in the overall number of guaranteed reports, no noticeable effect of the changes in assurance strategy was detected.
13. **Ina Ehnerta, Sepideh Parsab, Ian Roperc, Marcus Wagnerd and Michael Muller-Camen (2016)** studied "Reporting on sustainability and HRM: a comparative study of sustainability reporting practices by the world's largest companies". This article's objectives were to examine the corporate sustainability reporting of the largest corporations in the world, compare the HRM aspects of sustainability to the environmental aspects of sustainable management, and assess whether organisational characteristics, particularly country of origin, have an effect on the reporting of such practises. The findings of the paper imply that total performance disclosure for HRM-related activities is not less than for environmental activities. Businesses report more data about their internal employees than they do about their external workforce. Finally, global differences, particularly those

between businesses with headquarters in coordinated market countries and liberal market economies, are less pronounced than anticipated.

14. **Carol A. Adams and Patty McNicholas(2007)** studied "Making a difference: Sustainability reporting, accountability and organisational change". The goal of this project is to advance knowledge of corporate processes for creating sustainability reports, the challenges that organisations encounter, and the mechanisms by which organisational transformation toward enhanced accountability happens and can affect sustainability performance.The study outlined a variety of catalysts for change as well as obstacles to the development of a sustainability reporting system and its integration into planning and decision-making. These were examined using organisational literature, particularly Kurt Lewin's integrated model of planned change. It was found that the state-owned organization's goals for increasing sustainability and greater accountability were different from those of earlier studies of shareholder-owned businesses.

15. **Zainabu Tumwebaze, Juma Bananuka, Twaha Kigongo Kaawaase, Caroline Tirisa Bonareri and Fred Mutesasira(2021)** studied "Audit committee effectiveness, internal audit function and sustainability reporting practices". The main purpose of this study was to investigate the relationship between internal audit function (IAF), audit committee effectiveness (ACE), and sustainability reporting practices. The study's findings show that ACE and IAF are strongly and favourably related to sustainability reporting practices. The ACE and IAF have a stronger relationship with economic and social indicators than environmental sustainability measures do.
16. **Ans Kolk (2004)** studied "A decade of sustainability reporting: developments and significance". This research, which was based on surveys conducted in the early 1990s, provides an overview of global trends in reporting frequencies during the past ten years. Reporting is on the rise, and there is a strong trend towards including societal and occasionally also financial topics, despite the obvious variances between countries and industries. The study also examines recent trends regarding the information contained in these sustainability reports, concentrating on business and economic drivers, stakeholder feedback and dialogue, and performance benchmarking.

17. **Nguyen Van Linh, Dang Ngoc Hung and Ta Quang Binh (2022)** studied "Relationship between sustainability reporting and firm's value: Evidence from Vietnam". This study's goal is to investigate the connection between SR and the firm value(FV) of non-financial companies listed on the Vietnamese stock exchange. The 360 businesses' level of SR

disclosure in accordance with GRI guidelines between 2015 and 2019 was assessed by authors using a combined method. When SR is measured by the aggregate indicator and components such as the general indicators, the economic dimension, and the environmental and social dimensions, the research results have shown a positive association between SR and FV.

2.4 CHAPTER SUMMARY

This chapter is an account of all the previous studies relating to sustainability reporting reviewed from both global and Indian contexts to get an overview of the subject.

THEORETICAL FRAMEWORK

3.1 FINANCIAL REPORTING

Financial reporting is providing detailed financial information to all relevant parties regarding the organization's financial position and performance over a predetermined time period. Investors, creditors, the general public, debt providers, governments, and government agencies are some of these stakeholders. Financial reporting occurs quarterly and annually for listed corporations. Financial reports include a prospectus, financial statements, notes to accounts, director and auditor reports, and reports on corporate governance. These studies are important for developing a firm's long-term growth and sustainability strategies.

In the current context, corporate reporting resembles a puzzle with parts scattered out across the table ready to be put together to create a clear image. While strong and largely uniform financial reporting requirements are still mandated by disclosure regulations and audit standards, expectations for comprehensive corporate reporting have grown more complicated and open-ended. This is primarily due to the inclusion of elements known collectively as "ESG" (environmental, social, and governance principles) or "sustainability" in the company narratives (the ability to create value over the long term). Institutional investors and issuers alike today view corporate reporting on these subjects—often referred to as "non-financial" or "extra-financial" matters—as crucial to getting the right picture of a company's culture, risk profile, financial health, and long-term prospects. Even if financial reporting at many businesses is still primarily a compliance exercise, there are now practically endless opportunities for how a business should "tell its story."

Here are some of the elements that are influencing and will keep influencing corporate reporting in the near future:

1.The need from investors for more thorough, substantial information about ESG and sustainability will only increase. There is no longer any question that corporate governance, social policies, and environmental practises are both the risks and business opportunities that can significantly affect a company's financial performance. Recent high-profile corporate scandals have increased awareness of the risks and confirmed the importance of ESG problems in assessing the sustainability and financial health of businesses.

2.In addition to shareholders, stakeholders now determine who should get corporate reporting. Customers, employees, suppliers, and the communities affected by the company's operations, including those in other countries, are typical examples of stakeholders, which are company-specific. The audiences for corporate reporting are also growing, as are their access points and the possible effects they may have on the company's operations due to changes in shareholder demography, new technology, and social media.

3.Traditional financial audit standards are being questioned by academics and governance proponents as to whether they are adequate to provide a thorough picture of a company's financial health and risk profile. The outcome of a discussion at the Oxford Union in December 2018 favoured the resolution that the Sustainability Accounting Standards Board (SASB), Financial Accounting Standards Board (FASB), and International Accounting Standards Board (IASB) should work together to create ESG reporting standards for corporations.A guidance document titled "Climate-Related and Other Emerging Risks Disclosures: Assessing Financial Statement Materiality" was released by the Australian Accounting Standards Board and the Auditing and Assurance Standards Board in December 2018. It is anticipated that this kind of guidance will raise the disclosure of the financial implications resulting from non-financial risk factors. Global corporate reporting will be significantly impacted over time by audit firms' choice to either continue with "pure financial reporting" or adopt "broader financial reporting."

4.Comprehensive sets of ESG indicators have already been produced by in global standard-setting bodies like SASB and GRI (Global Reporting Initiative) for use by investors and issuers. The implementation of standardised ESG measures enables increased comparison among businesses and industry peers in addition to potentially serving as the foundation for audit standards.

5.International Integrated Reporting Council (IIRC) support is growing in a number of nations. With a focus on stakeholder relationships, materiality, and an all-encompassing view of the business enterprise, its seven guiding principles read like a framework for efficient corporate reporting. Integrated reporting is required in South Africa, and it is becoming more typical to produce integrated annual reports (known as strategic reports in the UK) throughout Europe and Japan.A small number of American businesses also release integrated annual reports. The Corporate Reporting Dialogue, which the IIRC also organised, aims to "strengthen cooperation, coordination, and alignment between important standard setters and framework developers that have a large international influence on the corporate reporting landscape."

6.ESG/sustainability disclosure is receiving increased scrutiny from regulators all around the world. The Shareholder Rights Directive has been reinforced by the European Commission, and there is now more pressure on businesses to enhance the calibre of their justifications under the voluntary comply-or-explain governance framework. Regulations concerning the reporting of non-financial information have also been made by the EC. French businesses make explicit disclosures about their non-financial performance. On October 1, 2018, a petition requesting rulemaking on ESG disclosure was presented to the U.S. Securities and Exchange Commission by a consortium of academics and investors representing $5 trillion in AUM.

Despite the fact that parts of the corporate reporting puzzle are still missing, issuers in various markets have adopted a range of actions to satisfy stakeholder and investor demands for a more meaningful and comprehensive image of the business enterprise. Currently, a lot of businesses release in-depth reports on a range of ESG subjects, including Corporate Governance, Social Responsibility, Climate Change, Environmental Practices, Codes of Business Conduct, Strategic Vision, and others. The ultimate objective of corporate reporting, a narrative that combines and integrates financial performance, strategy, ESG policies, and sustainability, is not achieved by separate reports.

Issuers are aware of the importance of corporate reporting to their relationships with shareholders and their ability to respond to market challenges. Businesses are developing internal resources and disseminating more ESG and sustainability data. Additionally, they are attempting to coordinate their communication plans and improve internal cooperation. More and more businesses are realising the value of fundamental investor relations and shareholder relations activities like ownership profiling, market monitoring, investor engagement, proxy solicitation, governance road shows, board evaluation, and activism readiness in helping them better understand the audiences they serve and the issues they need to address in their corporate reporting.

3.2 SUSTAINABILITY

Sustainability focuses on preserving the environment, combating climate change, and fostering social advancement without threatening life or leaving anyone behind. With this idea, our present needs would be met without sacrificing the resources available to future generations.

3.3 THE 17 SUSTAINABLE DEVELOPMENT GOALS

1.No poverty

One of the biggest problems facing humanity is the eradication of poverty in all of its manifestations. Between 1990 and 2015, the number of people living in extreme poverty decreased by more than half, yet still, far too many people continue to struggle to meet even the most basic necessities.About 736 million people, many of whom lack food, clean drinking water, and sanitary facilities, continued to live on less than $1.90 USD per day as of 2015. Although millions of people have been lifted out of poverty by rapid growth in nations like China and India, development has been uneven. Because females have less paid employment, less education, and less property ownership than men, women are more likely to be impoverished.

Other regions, including South Asia and sub-Saharan Africa, which account for 80% of individuals living in extreme poverty, have similarly made little progress. Even more effort is
required to lift people out of poverty because of the new dangers posed by food insecurity, conflict, and climate change.The SDGs represent a strong pledge to eradicate poverty in all of its forms and manifestations by 2030. Targeting the most disadvantaged, expanding access to fundamental resources and services, and assisting communities affected by natural and man-made disasters are all part of this.

2.Zero hunger

Due to accelerated economic growth and higher agricultural output, the number of undernourished individuals has decreased by approximately half over the past two decades. Many developing nations that once experienced famine and hunger are now able to achieve their dietary requirements. Extreme hunger has been largely eradicated in Central and East Asia, Latin America, and the Caribbean.

Unfortunately, severe hunger and malnutrition continue to be major development obstacles in many nations. As of 2017, 821 million people were estimated to be suffering from chronic undernourishment, frequently as a direct result of environmental deterioration, drought, and biodiversity loss. Dangerously underweight children under the age of five number over 90 million. In nearly every region of Africa and South America, undernourishment and severe food insecurity appear to be on the rise.

By 2030, the SDGs hope to eradicate all types of hunger and malnutrition, ensuring that everyone, especially children, has access to enough food throughout the year. This entails encouraging sustainable agriculture, helping small-scale farmers, and ensuring that everyone has access to markets, technology, and land. International collaboration is also necessary to ensure that money is invested in technology and infrastructure to increase agricultural output.

3.Good health and well-being

The 2030 Agenda acknowledges the complexity and interdependence of both good health and sustainable development. It accounts for growing economic and social disparities, increased urbanisation, climatic and environmental risks, the ongoing impact of HIV and other infectious diseases, as well as new problems including noncommunicable diseases. In order to achieve SDG 3, which calls for eradicating poverty and decreasing inequality, universal health care is essential. Action is also required to address new global health problems, such as antimicrobial resistance, that are not expressly addressed by the SDGs.

However, the world is not on track to meet the SDGs relating to health. There has been uneven development within and between nations. The difference in life expectancy between the nations with the shortest and longest lifespans is 31 years. National averages conceal the fact that many nations are falling behind, even while some have made impressive achievements. To reduce inequality and promote everyone's health, multisectoral, rights-based, and gender-sensitive approaches are crucial.

4.Quality education

The goal of elementary education for all people has come a long way since 2000. The global percentage of children not in school has decreased by nearly half, while the global enrollment rate in developing regions reached 91 percent in 2015. Additionally, there have been more girls in school, and literacy rates have dramatically increased. These are all outstanding accomplishments. In certain emerging regions, progress has also been difficult because of extreme poverty, violent conflicts, and other calamities. Children are missing more school as a result of persistent armed violence in Western Asia and North Africa. Large gaps still exist despite Sub-Saharan Africa having made the biggest gains in primary school attendance among all emerging regions, going from 52 percent in 1990 to 78 percent in 2012. Children from the poorest homes are up to four times more likely than those from the wealthiest homes to miss school. There are still significant differences between urban and rural locations.

Realizing universal access to inclusive, high-quality education confirms the idea that it is one of the most effective and reliable engines of sustainable growth. By 2030, all boys and girls will have access to free elementary and secondary education. Additionally, it seeks to achieve gender equality, the eradication of economic and gender gaps, and universal access to high-quality higher education.

5.Gender equality

In addition to being a fundamental human right, eliminating all forms of discrimination against women and girls is essential for a sustainable future. It has been demonstrated that empowering women and girls promotes economic growth and development.

However, despite the fact that there are more women than ever in the workforce, some areas still experience significant inequalities, with women often denied the same employment rights as males. The unequal distribution of unpaid care and domestic work, sexual abuse and exploitation, and discrimination in public office continue to be major obstacles. Women and children continue to be disproportionately affected by migration, conflict, and natural catastrophes.

Giving women equitable access to land, property, sexual and reproductive health, as well as to technology and the internet, is crucial. Although there are already more women than ever holding public office, encouraging more women to lead will contribute to greater gender equality.

6.Clean Water and sanitation

More than 40% of people experience water scarcity, a startling statistic that is expected to increase as temperatures rise. Even though 2.1 billion people have improved their water cleanliness since 1990, every continent is being impacted by diminishing drinking water supplies.Increasing droughts and desertification are already making water stress a problem in more and more nations. At least one in four individuals are anticipated to have ongoing water shortages by 2050.

By 2030, we must invest in sufficient infrastructure, offer sanitary facilities, and promote good hygiene in order to ensure that everyone has access to safe, cheap drinking water. Ecosystems associated to water need to be preserved and restored.

Reaching the roughly 800 million people who lack basic services and enhancing the accessibility and safety of services for over two billion people are both necessary for ensuring universal access to safe and affordable drinking water.

7.Affordable and clean energy

The percentage of individuals who have access to electricity rose from 78 to 90 percent between 2000 and 2018, while the number of those without it fell to 789 million.

However, as the population increases, so will the need for cheap energy, and a fossil fuel-based economy is causing significant alterations to our climate.If we want to reach SDG 7 by 2030, we must invest in thermal, wind, and solar power, increase energy productivity, and ensure that everyone has access to energy.Increasing infrastructure and modernising technologies will help all nations deliver cleaner, more efficient energy, which will promote development and benefit the environment.

8.Decent work and economic growth

Despite the long-lasting effects of the 2008 financial crisis and the global recession, the number of workers living in extreme poverty has significantly decreased over the past 25 years. In developing nations, the middle class currently accounts for more than 34% of all employment, an increase of nearly threefold between 1991 and 2015.

But as the world economy continues to recover, we are witnessing slower growth, greater inequality, and a shortage of jobs to meet the demands of an expanding labour force. In 2015, the International Labor Organization reported that there were over 204 million unemployed persons worldwide.

The SDGs encourage technological innovation, increased productivity, and steady economic growth. This requires comprehensive efforts to end forced labour, slavery, and human trafficking, as well as encouraging entrepreneurship and job development. By 2030, it is intended to have full and productive employment as well as respectable work for all women and men.

9.Industry, Innovation and infrastructure

Innovation and infrastructure spending are important catalysts for economic expansion. Mass transit, renewable energy, the development of new industries, and information and communication technologies are all becoming increasingly significant as more than half of the world's population moves into cities.

In order to create new jobs and encourage energy efficiency, for example, technological advancement is essential to addressing both economic and environmental problems in a long-term manner. Investing in scientific research and innovation, as well as promoting sustainable industries, are all crucial methods to support sustainable development.

10.Reduced inequalities

The richest 10% of people earn up to 40% of the world's income, while the poorest 10% only make between 2 and 7%. Income disparity is on the rise. Inequality in developing nations has increased by 11% when population growth is taken into consideration.

In recent decades, income disparity has risen almost everywhere, but at varying rates. The Middle East has the greatest and lowest values.

Because of these growing disparities, sound policies are needed to support lower-income workers and encourage economic inclusion for all people, regardless of gender, race, or ethnicity.

Global solutions are required to income disparity. This entails strengthening the oversight and regulation of financial markets and institutions, promoting development aid, and promoting foreign direct investment in areas with the highest need. Another important factor in closing the gap between groups is to make it safer for people to move around and migrate.

11.Sustainable cities and communities

Two-thirds of humanity—6.5 billion people—will live in cities by 2050. It is impossible to achieve sustainable development without fundamentally altering how we design and maintain our cities.

Slums are becoming a more major aspect of urban life as a result of the fast urbanisation caused by rising populations and increased migration, especially in emerging nations.Building resilient societies and economies, safe and affordable housing, and career and business possibilities are all necessary components of sustainable city development. Investments in public transportation, the development of green public areas, and enhanced urban planning and administration using inclusive and participatory methods are all part of it.

12.Responsible consumption and production

We urgently need to lower our ecological footprint by altering how we produce and use resources in order to achieve economic growth and sustainable development. The largest consumer of water on the planet, irrigation now accounts for close to 70% of all freshwater used for human consumption.

Important goals to reach this aim include the effective management of our shared natural resources and the manner we get rid of toxic waste and pollution. Equally crucial is encouraging trash

reduction and recycling among enterprises, industries, and consumers, as well as assisting developing nations in shifting to more sustainable consumption patterns by 2030.

The majority of people on the planet continue to consume much too little to even cover their most basic necessities. It's crucial to reduce food waste per person globally at the consumer and retailer levels in order to improve the effectiveness of the supply and manufacturing chains. This may improve our economy's use of resources and contribute to food security.

13.Climate action

There is not a single nation that is untouched by the severe repercussions of climate change. In comparison to 1990, greenhouse gas emissions have increased by more than 50%. If we do nothing, global warming will continue to alter our climate system, with potentially disastrous results.

Disasters caused by climate change cause hundreds of billions of dollars in annual economic losses. Not to mention the human toll of geophysical disasters, which between 1998 and 2017 resulted in 1.3 million fatalities and 4.4 billion injuries and are 91 percent climate-related. By 2020, the goal is to raise $100 billion yearly to support developing nations' requirements for climate change adaptation and investments in low-carbon development.

Providing assistance to vulnerable areas will directly support both Goal 13 and the other SDGs. Efforts to include catastrophe risk reduction measures, sustainable resource management, and human security into national development strategies must coexist with these actions. With strong political will, greater investment, and use of current technology, it is still conceivable to keep the rise in the global mean temperature to two degrees Celsius above pre-industrial levels, with the goal of 1.5°C, but this calls for swift and aggressive group action.

14.Life below water

Global processes that keep the Earth habitable for humans are driven by the oceans of the world and their temperature, chemistry, currents, and life. For the sake of mankind as a whole and to mitigate the effects of climate change, it is crucial how we manage this important resource.The livelihoods of more than three billion people depend on marine and coastal biodiversity. However, 30 percent of the world's fish stocks are currently overfished, with their yields falling below what can be sustained.

Approximately 30% of the carbon dioxide created by humans is also absorbed by the oceans, and since the start of the industrial revolution, ocean acidification has increased by 26%. Marine

pollution is at alarmingly high levels, with 13,000 pieces of plastic garbage on every square kilometre of water, the most majority of which originates from land-based sources.

The SDGs seek to mitigate ocean acidification's effects while safeguarding marine and coastal ecosystems from pollution. Another way to lessen some of the problems facing our seas is to improve conservation and the sustainable use of resources derived from the ocean.

15.Life on land

For nutrition and a means of subsistence, humans are as dependent on the soil as they are on the ocean. Humans eat 80% of what is found in plants, therefore agriculture is a significant source of income for us. Providing habitat for millions of species, significant sources of clean air and water, and being essential for preventing climate change, forests encompass 30% of the Earth's surface.

The ongoing degrading of drylands has resulted in the desertification of 3.6 billion hectares, disproportionately harming impoverished populations, while 13 million hectares of forests are lost each year.

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Although only 15% of the land is protected, biodiversity is still in danger. Animals and plants from close to 7,000 different species have been traded illegally. In addition to destroying biodiversity, wildlife trafficking also fosters instability, war, and corruption.

In order to ensure global food and water security, climate change mitigation and adaptation, peace and security, it is imperative that immediate action be made to limit the loss of natural habitats and biodiversity, which are a part of our shared legacy.

16. Peace, justice and strong institutions

Without peace, stability, respect for human rights, and effective, law-based governance, there is no chance for sustainable growth. However, there is a growing rift in our world. While some regions experience peace, security, and prosperity, others are trapped in what seems like never-ending cycles of conflict and violence. This need not be unavoidable; it needs to be addressed.

Armed conflict and instability have a negative effect on a nation's progress, stunting economic expansion and frequently giving rise to resentments that persist for generations. Where there is a conflict or no rule of law, sexual violence, crime, exploitation, and torture are also commonplace, and nations must take action to safeguard those who are most vulnerable.

In addition to working with governments and communities to put an end to conflict and insecurity, the SDGs seek to dramatically reduce all forms of violence. In order to achieve this, it is crucial to advance the rule of law and human rights, as well as to stop the flow of illegal arms and increase the participation of developing nations in the institutions of global governance.

17. Partnerships for the goals

Only through effective global collaboration and partnerships can the SDGs be achieved. At US$147 billion in 2017, official development assistance remained constant but fell short of expectations. Conflict- or disaster-related humanitarian problems continue to necessitate increased funding and assistance. To promote trade and economic progress, many nations also require official development assistance.

More than ever, the world is connected. A key strategy for encouraging innovation and idea exchange is to increase access to knowledge and technology. Sustainable growth and development depend on coordinating policies to aid developing nations in managing their debt and supporting investment for the least developed.

The objectives seek to improve North-South and South-South cooperation by assisting national efforts to meet all of the goals. Achieving a global, fair, and open trading system that benefits everyone requires promoting international trade and aiding emerging nations in growing their exports.

3.4 PILLARS OF SUSTAINABILITY

Social, economic, and environmental sustainability are three interconnected factors that are frequently used to describe sustainability. These three types of sustainability are often referred to as the "three pillars of sustainability." With the help of the three pillars of sustainability, it is possible to apply a solutions-focused strategy to challenging sustainability problems like fisheries management.

Many organisations, institutions, and governmental bodies, like the United Nations (UN) and the U.S.Environmental protection agency, today place a strong emphasis on the "three pillars" idea. The three pillars don't have a known beginning, despite their frequent use. The three pillars of sustainability are instead believed to have developed through time as a result of economic, environmental, and social criticisms in early academic writing. The three pillars of sustainability weren't fully embraced by the general public until the 1980s.

1.Social sustainability

Among other significant societal components, social sustainability encompasses environmental justice, human health, resource security, and education. The three pillars concept states that in addition to promoting social sustainability, initiatives should also seek to develop economic and environmental benefits.

Businesses' efforts to create social sustainability could include putting staff retention first rather than financial concerns. For instance, investing in the welfare of employees is likely to benefit the business financially by boosting employee motivation.

Increased social sustainability has a positive impact on the environment. For instance, promoting healthy eating can improve the environment because people's dietary decisions can have a significant impact on both human health and the health of the ecosystem.

2. Economic sustainability

Economic sustainability comprises the development of the labour force, profitability, and accurate accounting of ecosystem services for optimal cost-benefit evaluations. According to research, high rates of employment improve both the economic and the social well-being of the people because of the resource security that employment offers. In this way, economic drivers that force businesses to need workers and people to need jobs can also support social sustainability if jobs provide security for workers.

The economic sustainability of an organisation can also benefit from efforts to be more environmentally sustainable. Recycling valuable resources, such as electronic trash and textile waste, for instance, can cut operational expenses and the amount of resource extraction needed to keep enterprises operating.

3. Environmental Sustainability

The goal of environmental sustainability is to protect the environment. This pillar covers the improvement of environmental stresses such as greenhouse gas emissions, air quality, and water quality. Human health and environmental conditions are closely linked, with human health being highly dependent on environmental quality. Consequently, actions taken to protect and restore the environment also benefit people.

The environment also offers the natural resources required to support long-term economic growth. For businesses to be economically viable, natural resource extraction is essential. Through the ongoing availability of resources, efforts to extract resources at levels that are sustainable for the environment will also ensure economic sustainability.

3.5 SUSTAINABILITY REPORTING

Companies communicate their performance and impacts on a broad variety of sustainability concerns, encompassing environmental, social, and governance dimensions, through sustainability reporting. It enables businesses to be more open about the risks and opportunities they face, providing stakeholders with a better understanding of performance outside of the bottom line.

Sustainability reporting is a "public report by corporations to internal and external stakeholders to present a picture of the corporate situation and operations on economic, environmental, and social dimensions" (WBCSD, 2002). In academic circles, sustainability reporting is often referred to as social reporting, corporate social and environmental reporting (CSER), or environmental reporting, all of which share the same goal and definition: to document an organization's commitment to its stakeholders (Stiller and Daub, 2007).

A sustainability report is a document produced by an organisation that outlines its economic, social, and environmental aspects. As a result, it offers a general understanding of how an organisation is run. Sustainability reporting is a report that is not only collected from various kinds of data but also allows an organisation to better itself which may be exposed through internal as well as external stakeholders. This report discusses each and every action that has an impact on the organization's overall economic, social, and environmental. Additionally, it enables businesses to learn more about the risks and possibilities they are facing. The company's values and governance model are discussed in the sustainability report, which also shows how the company's strategies and commitment to a sustainable global economy are intertwined. It aids a business in taking the additional measures required for internal reforms. A sustainability report is a tool for illustrating sustainability performance and any positive or negative effects.

Reporting on sustainability is synonymous with other concepts. These phrases include integrated reporting, triple-bottom-line reporting, and corporate social responsibility reporting. The study of both financial and non-financial reporting is part of the present practice of integrating reporting. Thus, integrated reporting reflects firm performance and aids in decision-making for long-term company success.

3.6 IMPORTANCE OF SUSTAINABILITY REPORTING

It is a means of fostering business and governmental ties while attaining a globally sustainable economy. Many different parties, including labour, financial institutions, society, etc., are reliant on the choices made by business organisations and the government. Maintaining those stakeholders' trust without jeopardising the company's progress is crucial. A few decisions made by the corporation that is only based on financial data are required to govern such situations. Utilizing data based on current and upcoming problems, this knowledge also aids in understanding risks and opportunities. Stakeholders are crucial in identifying non-financial risks and

opportunities for the organisation. Therefore, it is crucial to continue to uphold transparency and trust between corporate and government entities while also making better decisions.

3.7 BENEFITS OF SUSTAINABILITY REPORTING

1. Maintain trust: Regarding non-financial performance, transparency between businesses and stakeholders enables a company to seek feedback from clients and investors while lowering reputational risks. Thus, sustainability reporting upholds a company's reputation and brand image.

2. Helps in the improvement of the process and the whole system: The cost of the organisation can be decreased by monitoring internal management and decision-making processes and assessing issues like material consumed, waste produced, energy use, etc. A company's ability to adopt changes with the aid of sustainable development is further enhanced by sustainability reporting.

3. Enhancing decision-making strength: Sustainability helps businesses introduce innovation and gain a competitive edge in the marketplace. It aids businesses in managing risks and overcoming them. It creates a way for businesses to seize various opportunities, boosting their capacity to access new markets and draw in investment. As a result, it aids businesses in becoming innovators and leaders.

4. Building strategies for improvement: Utilizing a sustainability report to analyse strengths and shortcomings gives businesses a clearer perspective, motivates them to address flaws, and directs their strategy for overall development. Additionally, participation from stakeholders can help businesses develop broad perspectives. In order to establish a strong and competitive brand in the market, sustainability can be made an essential component of the company. It makes it possible for customers or other stakeholders to comprehend the core values of the company, both tangible and intangible. It makes it possible for businesses to develop long-term beneficial policies, business plans, and strategies.

5. Reduce compliance cost: Analysis and measurement of sustainability reports assist businesses in gathering cost-effective data, enforcing regulations, preventing violations, and tackling problems in an effective and efficient manner.

3.8 ISSUES WITH SUSTAINABILITY REPORTING

1. Even though using sustainability reports and implementing sustainable development have many benefits, standardisation still needs attention. Slager, Gond, and Moon (2012) identified three elements that control a standard's power. The first element has to do with design, which is also a collection of established practices. The second is legitimacy, which depends on a number of different parties. The third one is monitoring, which deals with the guidelines for keeping an eye on the actions. However, the first component is the only one that is inconsistent, and without the first component, the practice cannot advance to the other components.

2. The disparity in enforcement for sustainability reporting is the second significant problem. There is no jurisdiction to fine an entity for a violation if maintaining sustainable reporting is kept optional. Again, a company can create its own framework for reporting on sustainability, but if there is any inaccuracy, there are no penalties for such companies.

3. An organization's participation in sustainability reporting is optional or voluntary, hence these organisations are exempt from formal third-party attestation procedures. Additionally, firms that practise sustainability may introduce bias through selective disclosure. It should also be avoided revealing nasty and negative news. Disclosures guaranteed by outside expert accountants may strengthen the credibility of such disclosure in the future, according to Coram, Monroe, and Woodliff (2009).

4. There are some restrictions on how social obligations related to sustainability should be measured, and this makes them further harder to quantify. Furthermore, purpose and requirement of a corporation for compliance is not evident. For instance, US-based environmental organisations extensively scrutinise and assess US businesses, but this pressure encourages US businesses to focus on domestic sustainability rather than global sustainability.

3.9 THEORIES RELATING TO SUSTAINABILITY REPORTING

Stakeholder theory

The stakeholder theory is the most commonly referenced theory in studies on voluntary disclosure and sustainability reporting. A theoretical framework for investigating the factors that influence

corporate sustainability reporting is provided by stakeholder theory (Lourenço and Branco 2013). The stakeholders make a variety of social, economic, and environmental demands to help the company reach its strategic goals. Sustainability reporting is the method through which businesses respond to these requirements (Buallay and Al-Ajmi
2019).

The corporate planning model and the corporate social responsibility model are two divisions of the stakeholder idea (Freeman and Dmytriyev 2017). The corporate planning approach emphasises the support of company strategic decisions by a variety of groups, including owners, creditors, employees, suppliers, staff, and clients (Artiach et al. 2010). This model is founded on the core tenet of stakeholder theory, which states that a firm's ability to successfully manage the complex and dynamic interactions with its stakeholders is a condition of its success.The conflicting interests of many business stakeholders are likewise addressed by this stream of stakeholder idea (Saleh, Zulkifli, and Muhamad 2010). In contrast, the corporate social responsibility model adds external factors to the corporate planning model that are detrimental to the company which include societal interest groups or regulators (Freeman and Dmytriyev 2017). It results in the creation of an organisational strategy plan that complies with corporate social responsibility.

Legitimacy theory

According to legitimacy theory, there is a social contract between businesses and society that obligates them to uphold implicit social norms and values (Arena et al., 2018). According to Deegan et al. (2002), businesses should take into account the aspirations of all societal members, not only their investors. Business prospects could be hampered and the company's reputation could suffer if expectations of the many stakeholders are not met (Dare, 2016). This is because a company's socially responsible image is presented through the reporting of its environmental and social performance, which helps to validate its place in society (Ching & Gerab, 2017).

3.10 GLOBAL REPORTING INITIATIVE(GRI)

The Global Reporting Initiative (also known as GRI) is a global, independent standards-setting body that aids in understanding and communicating the effects of businesses, governments, and other organisations on issues like climate change, human rights, and corruption. GRI provides the world's most frequently utilised sustainability reporting standards (the GRI Standards).

Numerous businesses release a sustainability report, also known as a corporate social responsibility (CSR) or environmental, social, and governance (ESG) report, in response to growing pressure from various stakeholder groups, including governments, consumers, and investors, to be more transparent about their environmental, economic, and social impacts. Businesses can identify, compile, and report this information in a transparent and comparative way with the aid of GRI's framework for sustainability reporting. GRI's sustainability reporting framework, which was first introduced in 2000, is currently the one that is most frequently utilised by governments, small and medium-sized businesses (SMEs), NGOs, and business associations across more than 90 countries. 75 per cent of the Global Fortune 250 (G250) and 63 per cent of the top 100 corporations (N100) in the world reported using the GRI reporting framework in 2017.

The GRI Standards, which were introduced in October 2016, are the most recent reporting structure from GRI. The GRI Standards, which were created by the Global Sustainability Standards Board (GSSB), are the first international guidelines for sustainability reporting and a free public good. The GRI Standards feature a modular structure, which makes them easier to update and adapt than the older reporting systems.

The global network of thousands of people known as "GRI" are those that developed the reporting framework, utilise it to share their sustainability performance, demand that companies use it as the foundation for information disclosure, or are actively working to improve the standard. Additionally, strong sustainability reporting methods include digitising an organization's supply chain management, using two-way communication strategies that support sensemaking and sensegiving simultaneously, and implementing communication and stakeholder relationship mechanisms.

3.11 INTERNATIONAL SUSTAINABILITY STANDARDS BOARD (ISSB)

The demand for high-quality, transparent, trustworthy, and comparable reporting by firms on climate and other environmental, social, and governance (ESG) issues is growing among international investors with global investment portfolios.

To assist satisfy this demand, the International Sustainability Standards Board (ISSB), a new standard-setting body, was announced by the IFRS Foundation Trustees on November 3, 2021.

The ISSB's goal is to offer a thorough worldwide baseline of sustainability-related disclosure requirements that inform investors and other capital market players about the potential and risks associated with sustainability in organizations so they may make wise decisions.

3.12 SUSTAINABILITY ACCOUNTING STANDARDS BOARD(SASB)

In order to create sustainability accounting standards, Jean Rogers established the non-profit Sustainability Accounting Standards Board (SASB) in 2011. The need for standardised reporting of ESG data is being driven by the increased awareness of investors, lenders, insurance underwriters, and other financial capital providers regarding the influence of environmental, social, and governance (ESG) concerns on the financial performance of businesses.The stated mission of SASB is to "establish industry-specific disclosure standards across ESG topics that facilitate communication between companies and investors about financially important issues," similar to how the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) established International Financial Reporting Standards and Generally Accepted Accounting Principles (GAAP), respectively, which are currently used in the financial statements. Such data must to be pertinent, trustworthy, and comparable among businesses globally.

Companies all throughout the world apply SASB standards in a range of disclosure channels, such as annual reports, financial filings, business websites, sustainability reports, and more.

NIFTY ENERGY

Table 3.1 Nifty energy companies

SL NO.	Company name	Market cap(Cr)
1	Adani Transmission Ltd	4,38,573
2	Reliance Industries Ltd	17,37,913

3	Adani Green energy Ltd	3,66,672
4	Bharat Petroleum corporation ltd	73,451
5	Tata power company	77,439
6	Power Grid corporation	1,55,518
7	NTPC Ltd	1,61,546
8	Oil and Natural Gas Corporation	1,68,513
9	GAIL (India) Ltd	60,754
10	Indian oil corporation	1,02,238

Source: Adapted from https://www.moneyworks4me.com/nse-index/top-nse-energy-companies-list/

3.13 COMPANY PROFILE OF NIFTY ENERGY

1.Adani Transmission ltd

On December 9, 2013, Adani Transmission Limited, a publicly traded corporation, was established. It is based in Ahmedabad, Gujarat, and is categorised as a public limited corporation. Its total paid-up capital is INR 1,115.49 cr, and its authorised share capital is INR 1,500.00 cr.

The operating revenue range for Adani Transmission Limited for the financial year that ended on March 31, 2019 was over INR 500 cr. EBITDA has dropped by -103.14% compared to the prior year. Additionally, its book net worth has grown by 33.89%.

Description: The company offers electricity generation, transmission, and distribution services

Products & Services: generation, transmission, and distribution

Category: Service provider

2. Reliance industries

With its headquarters in Mumbai, Reliance Industries Limited is a multinational conglomerate corporation in India. Energy, petrochemicals, natural gas, retail, telecommunications, mass media, and textiles are just a few of the many industries it is involved in. One of India's most profitable businesses, Reliance is also the country's biggest publicly traded business in terms of market capitalization and by revenue. With more than 5,50,000 workers, it ranks as India's tenth largest employer. As of August 7, 2022, RIL's market capitalization was 219 billion US dollars.

As of 2022, the company is listed as the 104th largest organisation on the Fortune Global 500 list. With 8% of all Indian merchandise exports and access to markets in more than 100 nations, Reliance is still India's top exporter. Reliance is in charge of nearly 5% of all customs and excise duty revenue received by the Indian government. Additionally, it is India's largest private sector income tax payer. The business has negative free cash flows. Reliance Industries became the first firm in India to earn more than $100 billion in sales.

3.Adani Green energy ltd

One of India's major renewable energy firms, Adani Green Energy Limited (AGEL), has a current project portfolio of 20,434 MW. The Adani Group has pledged to provide India a better, cleaner, and greener future, and AGEL is a part of that. The Company designs, constructs, owns, runs, and maintains utility-scale grid-connected solar and wind farm projects, guided by the Group's philosophy of "Growth with Goodness." The central, state, and government-backed enterprises are given access to the electricity produced.

Due to long-term Power Purchase Agreements (PPAs) of 25 years with central and state government agencies, AGEL has grown its footprint across 12 Indian states by utilising its resources. In its initiatives, the company uses the newest technologies. India's transition to renewable energy is being led by AGEL, which now has 12 projects under construction and 54 operational projects in its portfolio.One of the biggest solar photovoltaic facilities in the world, the Kamuthi Solar Power Project, is run by the business.

4.Bharat Petroleum Corporation Ltd

With its headquarters in Mumbai, Bharat Petroleum Corporation Limited (BPCL) is an oil and gas producer and explorer owned by the Indian government. It runs refineries in Mumbai, Kochi, and Bina. The Ministry of Petroleum and Natural Gas is in charge of BPCL, the second-largest government-owned downstream oil company in India. It came in at 309 on the 2020 Fortune list of the largest firms in the world and at 792 on the 2021 Forbes "Global 2000" list.
Seven SBUs (Strategic Business Units) make up the company's business, including retail, lubricants, aviation, refinery, gas,and LPG.Popular loyalty programmes like Petrocard and Smartfleet are available.

5.Tata power Company ltd

The largest integrated power firm in India, Tata Power has a substantial global footprint. The Company is present in all power sector segments, including Fuel & Logistics, Generation (thermal, hydro, solar, and wind), Transmission, Distribution, and Trading, with an installed generation capacity of 12808 MW in India. It has productive public-private partnerships in India's generation, transmission, and distribution sectors. These partnerships include "Tata Power Delhi Distribution Limited" with the Delhi Government for distribution in North Delhi, "Powerlinks Transmission Ltd." with Power Grid Corporation of India Ltd. for the transfer of power from Bhutan's Tala hydro plant to Delhi, and "Maithon Power Ltd." with Damodar Valley Corporation for a 1050 MW Mega Power Project in Jharkhand.One of India's biggest companies in the renewable energy sector, it created the first 4000 MW Ultra Mega Power Project in Mundra (Gujarat) using super-critical technology.

6.Power Grid Corporation

An Indian public sector company called Power Grid Corporation of India Limited specialises in bulk power transmission across several Indian states. Its headquarters are in Gurugram and it is governed by the Ministry of Power, Government of India. On its transmission network, Power Grid transports nearly 50% of the total power produced in India.A Schedule "A," "Maharatna" public sector enterprise of the Indian government, Power Grid Corporation of India Limited (POWERGRID), was established on October 23, 1989, in accordance with the Companies Act,

1956. The Government of India owns 51.34% of the shares of POWERGRID, a publicly traded company. Institutional investors and the general public hold the remaining shares.

7.NTPC ltd

An Indian public sector company called NTPC Limited, formerly known as National Thermal Power Corporation Limited, is involved in the production of electricity and related activities. The company's corporate headquarters are in New Delhi. The primary duties of NTPC in India are the production and distribution of power to State Electricity Boards. The organisation also works on consulting and turnkey project contracts for engineering, project management, construction management, and power plant operation and management.

The Union Government of India granted NTPC Maharatna status in May 2010, making it one of just four companies to receive this designation. In the Forbes Global 2000 for 2016, it is ranked 400th.

8.Oil & Natural gas corporation

With its headquarters in New Delhi, The Oil and Natural Gas Corporation (ONGC) is an oil and gas producer and exploration company in India. On August 14, 1956, the Indian government established ONGC. The Ministry of Petroleum and Natural Gas is in charge of overseeing the activities of this public sector undertaking. It is the largest government-owned oil and gas exploration and production company in the nation and produces over 84% of India's natural gas and about 70% of the country's crude oil, which corresponds to around 57% of total demand. The Indian government granted ONGC the Maharatna designation in November 2010.It was listed as the largest profit-making Public Sector Undertaking (PSU) in India in a study conducted by the Government of India for the fiscal year 2019–20.

9.GAIL(India)ltd

The top natural gas company in India is GAIL (India) Limited, which has varied interests in trading, transmission, LPG production and transmission, LNG re-gasification, petrochemicals, city gas, E&P, and other areas along the natural gas value chain. It is the owner and operator of a network of 14,488 km of natural gas pipes that span the entire nation. To further improve the spread, it is also executing many pipeline projects at once. GAIL controls a market share of 70% in gas transmission and more than 50% in gas trading in India. The market share of GAIL and its

affiliates and joint ventures in city gas distribution is also impressive. GAIL has a sizably sizable portfolio in the liquefied natural gas (LNG) sector. GAIL is also increasing its footprint in renewable energy sources, such as solar,wind and biofuels.

10.Indian oil corporation

With its headquarters in New Delhi, Indian Oil Corporation Limited is a government-owned oil and gas producer and explorer in India. The Ministry of Petroleum and Natural Gas is in charge of overseeing the activities of this public sector undertaking. As of 2021, Indian Oil is listed as the 212nd largest corporation on the Fortune Global 500 list. With a net profit of $6.1 billion for the fiscal year 2020–2021, it is the largest oil company controlled by the government in the nation.

The commercial activities of Indian Oil span the full hydrocarbon value chain, including refining, pipeline transportation, marketing of petroleum products, and the exploration and production of crude oil, natural gas, and petrochemicals. Indian Oil has expanded its downstream activities internationally and entered the alternative energy sector.

THE TOP 10 CONSTITUENTS OF THE NIFTY 50

Table 3.2 The top 10 constituents of Nifty 50

SL NO.	Company name	Market cap(Cr)
1	Reliance	1,738,331.72
2	TCS	1,177,354.67
3	HDFC bank	834,104.64
4	Infosys	636,065.05

5	ICICI bank	627,662.24
6	HUL	608,238.69
7	SBI	493,843.39
8	HDFC	441,520.63
9	Adani Transmission Ltd	438,511.33
10	Bajaj Finance	434,752.68

Source:Adapted from https://www.moneycontrol.com/stocks/marketinfo/marketcap/nse/paper.html?classic=true

3.14 COMPANY PROFILE OF THE TOP 10 CONSTITUENTS OF NIFTY 50

1.TCS

With its headquarters in Mumbai, Tata Consultancy Services (TCS) is a multinational Indian provider of IT services and consulting. It operates in 149 locations throughout 46 countries as a member of the Tata Group.

TCS is one of the most valuable IT service brands in the world and the second-largest Indian company in terms of market capitalization. TCS, one of the top-ranked Indian corporations and an IT services provider, was ranked 64th overall in the Forbes list of the "World's Most Innovative Companies" in 2015. It is listed as number 11 on the Fortune India 500 list as of 2018.

TCS's market capitalization on the Bombay Stock Exchange was 6.793 trillion rupees (equal to 7.7 trillion or US$97 billion in 2020), making it the second Indian business ever to cross $100 billion in market capitalization, after Reliance Industries did it in 2007.

2. HDFC bank

Indian banking and financial services provider HDFC Bank Limited has its corporate office in Mumbai. As of April 2021, it was the largest private sector bank in India by assets and the tenth largest bank in the world by market capitalization. With a market value of $122.50 billion, it is the third-largest firm listed on the Indian stock exchanges. With little under 150,000 workers, it ranks as India's fifteenth largest employer.

Numerous products and services are offered by HDFC Bank, such as wholesale and retail banking, treasury, auto, motorcycle, and personal loans as well as loans secured by real estate, consumer durable loans, lifestyle loans, and credit cards. Payzapp and SmartBUY are two additional digital products that go along with this assortment.

3.Infosys

Business consulting, information technology, and outsourcing services are all offered by Infosys Limited, a multinational information technology firm based in India. Bangalore serves as the company's headquarters; it was established in Pune. The Forbes Global 2000 list places Infosys as the 602nd largest public business in the world and the second-largest Indian IT company by 2020 revenue figures.

On August 24, 2021, Infosys crossed the $100 billion market capitalization threshold, becoming the fourth Indian firm to do so.For businesses in the finance, insurance, manufacturing, and other sectors, Infosys offers software development, maintenance, and independent validation services.

4.ICICI Bank

With its headquarters in Vadodara, ICICI Bank Limited is a multinational bank and provider of financial services in India. Through a variety of delivery channels and specialist subsidiaries in the fields of investment banking, life, non-life insurance, venture capital, and asset management, it provides a broad range of banking products and financial services for corporate and retail customers.The bank is present in 17 countries and has a network of 5,275 branches and 15,589 ATMs throughout India. The bank maintains subsidiaries in the UK and Canada, branches in the US, Singapore, Bahrain, Hong Kong, Qatar, Oman, Dubai International Finance Centre, China, and South Africa, representative offices in the UAE, Bangladesh, Malaysia, and Indonesia, and subcontractors in these countries.

5.HUL

Consumer goods company Hindustan Unilever Limited (HUL) is based in Mumbai, India. It is a subsidiary of the British business Unilever. Foods, drinks, cleaning supplies, toiletries, water purifiers, and other quickly used commodities are among its offerings.

Hindustan Vanaspati Manufacturing Co. was founded in 1931; in 1956, it merged with other constituent organisations to become Hindustan Lever Limited. As of June 2007, the business is now known as Hindustan Unilever Limited.With presence in more than 20 consumer product categories, including soaps, tea, detergents, and shampoos among others, HUL is the market leader in Indian consumer goods. More than 700 million Indians use its products.

6.SBI

State Bank of India (SBI) is a statutory organisation for financial services and a multinational public sector bank with its headquarters in Mumbai, Maharashtra. The only Indian bank on the Fortune Global 500 list of the biggest companies in the world in 2020, SBI is the 43rd largest bank in the world and is rated 221st. With a 23% market share by assets and a 25% market share for all loans and deposits, it is a public sector bank and the largest bank in India. With almost 250,000 people, it ranks fifth in terms of employment in the country.

The bank is the oldest commercial bank in the Indian subcontinent and descended from the Bank of Calcutta, established in 1806 through the Imperial Bank of India. In total, the bank has been formed through the merger and acquisition of close to twenty banks over the course of its 200-year history. The Bank of Madras merged with the other two presidency banks in British India, the Bank of Calcutta and the Bank of Bombay, to form the Imperial Bank of India, which in turn became the State Bank of India in 1955.

7.HDFC ltd

Mumbai-based Housing Development Finance Corporation Limited (HDFC) is a provider of financial services in India. It is a significant provider of house financing in India. Additionally, it operates in the banking industry and provides life and general insurance, asset management, venture capital, real estate, educational loans, and deposits.Their main goal is to encourage home ownership while improving the nation's supply of residential housing through the systematic and professional provision of housing finance.

8.Bajaj Finance

A deposit-taking Non-Banking Financial Company (NBFC-D), Bajaj Finance Limited (BFL) is a division of Bajaj Finserv Limited and is registered with the Reserve Bank of India (RBI). It is classified under the NBFC-Investment and Credit Company (NBFC-ICC) with RBI. Its main business activities are lending and accepting deposits. The Company's lending portfolio is spread up among retail, SMEs, and commercial clients who are widely distributed both in urban and rural India. It provides its clients with a range of financial services products and takes public and corporate deposits. BFL is located in 3,504 sites across the nation, with 2,136 locations in smaller, more rural towns and villages, and it uses more than 133,200 distribution points all over the country.

3.15 CHAPTER SUMMARY

This chapter is an account of all the concepts and theories relating to sustainability reporting. It also includes company profile Nifty Energy and the top 10 constituents of Nifty 50.

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

The process of giving meaning to the information gathered, as well as determining the conclusions, importance, and implications of the findings, is known as data analysis and interpretation.

NIFTY ENERGY

Table 4.1 The environment dimension of Nifty Energy

SLNO	Indicators of various dimension of sustainability reporting	Reliance industries ltd	Adani Transmission ltd	Adani Green Energy ltd	Power Grid corporation of India ltd	NTPC Ltd	ONGC	Tata power co.ltd	BPCL	IOC ltd	GAIL (India) ltd	Percentage of companies N=10
I	**Environment dimension**											
1	Environment policy	1	1	1	1	1	1	1	1	1	1	100
2	Effluents and waste	1	1	1	1	1	1	1	1	1	1	100
3	Re-use & re-cycle	1	1	1	1	1	1	0	1	1	1	90
4	Reduction in energy consumption	1	1	1	1	1	1	1	1	1	1	100
5	Adoption and diffusion of eco-friendly technology	1	1	1	1	1	1	1	1	1	1	100
6	Initiatives for clean energy	1	1	1	1	1	1	1	1	1	1	100
7	Reduction in water consumption	1	1	1	1	1	1	1	1	1	1	100
8	Reduction in carbon emission	1	1	1	1	1	1	1	1	1	1	100
9	Adoption of environment management system	1	1	1	1	1	1	1	1	1	1	100
10	Impact on bio diversity	1	1	1	1	1	1	1	1	1	1	100

11	Environmental impact of product & services	1	1	1	1	1	1	1	1	0	1	90
12	Environment risk assessment framework	1	1	1	1	1	1	1	1	1	1	100
13	Reduction in GHG	1	1	1	1	1	1	1	1	1	1	100
14	Suppliers environmental impact assessment	0	0	0	1	0	1	1	1	0	1	50
15	Environmental impacts of transportation	0	0	0	1	0	0	0	1	0	0	20

Table 4.2 The governance dimension of Nifty Energy

II	**GOVERNANCE DIMENSION**											
1	Anti-bribery/anti corruption policy	1	1	1	1	1	1	1	1	1	1	100
2	Sustainability and CSR policy	1	1	1	1	1	1	1	1	1	1	100
3	Ethical code of conduct	1	1	1	1	1	1	1	1	1	1	100
4	Sustainability /business responsibility committee or structure	1	1	1	1	1	1	1	1	1	1	100
5	Reporting mechanism of unlawful behaviour	0	1	0	1	1	0	1	1	1	1	70
6	Role of highest body in environmental &social impact assessments	1	1	1	0	1	1	1	1	1	1	90
7	Appointment of executive level	0	1	1	0	1	0	1	0	0	1	50

	sustainability positions											

Table 4.3 The social dimension of Nifty Energy

III	**SOCIAL DIMENSION**											
1	Community development program	1	1	1	1	1	1	1	1	1	1	100
2	Training & development program	1	1	0	1	1	1	1	1	1	1	90
3	Women empowerment program	1	1	0	1	1	1	0	0	1	0	60
4	Education & awareness programs	1	1	1	1	1	1	1	1	1	1	100
5	Healthcare programs	1	1	1	1	1	1	1	1	1	0	90
6	Charity and sponsorships	1	1	0	1	1	1	1	0	1	0	70
7	Anti - competitive behaviour	0	1	0	0	0	1	1	1	1	1	60
8	Policy or association for advancement of public good	1	0	0	1	1	0	1	0	1	0	50
9	Grievance mechanism for impacts on society	0	1	1	1	1	0	0	1	1	1	70
10	Suppliers Assessment for impacts on society	0	1	0	1	0	0	1	0	0	1	40
11	Assessment of product impacts on customer health & safety	1	1	0	0	0	1	1	1	1	1	70

12	Indigenous people rights policy	0	0	1	1	1	1	1	1	1	1	80

Table 4.4 The human rights and labor relations dimension of Nifty Energy

IV	**HUMAN RIGHTS AND LABOR RELATIONS DIMENSION**											
1	Policy for forced & child labor	1	1	1	1	1	1	1	1	1	1	100
2	Human rights grievance mechanism	1	1	1	1	1	1	1	1	1	1	100
3	Labor relations grievance mechanism	0	0	1	1	0	0	0	1	0	1	40
4	Occupational health and safety (OHS)	1	1	1	1	1	1	1	1	1	1	100
5	Freedom of association, recognition and collective bargaining	0	1	0	1	0	1	1	1	1	1	70
6	Employees turnover rate	0	0	0	1	1	1	1	1	1	1	70
7	Prevention of sexual harassment	1	1	1	1	1	0	1	1	1	0	80
8	Non-discrimination	1	1	1	1	1	1	1	1	1	1	100
9	Diversity in work force	1	1	1	1	1	1	1	1	1	1	100
10	Retention rate and return to work after parental leave	1	0	1	1	1	1	1	0	0	0	60
11	Employee associations	1	0	0	0	1	0	1	1	1	1	60

	recognized by the management											
12	Benefits provided to temporary /casual employees	0	0	0	0	1	0	1	0	0	0	20
13	Equal remuneration to men & women	1	1	1	1	1	1	1	1	1	1	100
14	Suppliers assessment for labor practices	0	1	0	1	1	0	1	0	0	1	50
15	Suppliers human rights assessment	0	1	1	1	1	0	1	1	1	1	80

Table 4.5 The global reporting initiative of Nifty Energy companies

GRI	1	1	1	1	1	1	1	1	1	1	100

THE TOP TEN CONSTITUENTS OF NIFTY 50

Table 4.6 The environment dimension of the top 10 constituents of Nifty 50

SLNO	Indicators of various dimension of sustainability reporting	Reliance industries	TCS	HDFC bank	Infosys	Hindustan Unilever	ICICI Bank	HDFC	Bajaj Finance	SBI	Adani Transmission	Percentage of companies N=10
I	**Environment dimension**											
1	Environment policy	1	1	1	1	1	1	1	1	1	1	100
2	Effluents and waste	1	1	1	1	1	1	1	1	1	1	100
3	Re-use & re-cycle	1	1	1	1	1	0	1	1	1	1	90
4	Reduction in energy consumption	1	1	1	1	0	1	1	1	1	1	90
5	Adoption and diffusion of eco-friendly technology	1	1	0	0	0	0	1	0	1	1	50
6	Initiatives for clean energy	1	1	1	1	1	1	0	0	1	1	80
7	Reduction in water consumption	1	1	0	1	1	1	1	1	1	1	90
8	Reduction in carbon emission	1	1	1	1	1	1	1	1	1	1	100
9	Adoption of environment management system	1	1	1	1	0	0	0	0	0	1	50
10	Impact on bio diversity	1	1	1	0	0	0	0	0	0	1	40
11	Environmental impact of product & services	1	1	1	0	0	0	0	0	0	1	40

12	Environment risk assessment framework	1	1	1	1	0	1	0	1	1	1	80
13	Reduction in GHG	1	1	1	1	1	1	0	1	1	1	90
14	Suppliers environmental impact assessment	0	0	1	1	1	0	0	0	0	0	30
15	Environmental impacts of transportation	0	0	0	0	0	0	1	0	0	0	10

Table 4.7 The governance dimension of the top 10 constituents of Nifty 50

II	**GOVERNANCE DIMENSION**											
1	Anti-bribery/anti corruption policy	1	1	1	1	1	0	1	1	1	1	90
2	Sustainability and CSR policy	1	1	1	1	1	1	1	1	1	1	100
3	Ethical code of conduct	1	1	1	1	1	1	1	1	1	1	100
4	Sustainability /business responsibility committee or structure	1	1	1	1	1	1	1	1	1	1	100
5	Reporting mechanism of unlawful behaviour	0	1	1	1	1	0	1	1	1	1	80
6	Role of highest body in environmental &social impact assessments	1	1	1	1	1	1	1	1	1	1	100
7	Appointment of executive level sustainability positions	0	1	1	1	1	1	0	0	1	1	70

Table 4.8 The social dimension of the top 10 constituents of Nifty 50

III	**SOCIAL DIMENSION**											
1	Community development program	1	1	1	1	1	1	1	1	1	1	100
2	Training & development program	1	1	1	0	0	1	0	0	0	1	50
3	Women empowerment program	1	1	1	1	0	1	0	1	1	1	80
4	Education & awareness programs	1	1	1	1	1	1	1	1	1	1	100
5	Healthcare programs	1	1	1	1	1	1	1	1	1	1	100
6	Charity and sponsorships	1	0	0	0	0	0	0	0	0	1	20
7	Anti - competitive behaviour	0	0	0	1	0	0	1	0	0	1	30
8	Policy or association for advancement of public good	1	0	1	0	0	1	1	0	0	0	40
9	Grievance mechanism for impacts on society	0	0	1	0	1	0	0	1	0	1	40
10	Suppliers Assessment for impacts on society	0	0	0	0	1	0	0	0	0	1	20
11	Assessment of product impacts on customer health & safety	1	1	1	0	1	0	0	0	0	1	50

12	Indigenous people rights policy	0	0	0	0	1	0	0	0	0	0	10

Table 4.9 The human rights and labor relations dimension of the top 10 constituents of Nifty 50

IV	**HUMAN RIGHTS AND LABOR RELATIONS DIMENSION**											
1	Policy for forced & child labor	1	0	1	1	1	0	1	1	1	1	80
2	Human rights grievance mechanism	1	0	1	0	1	0	0	1	1	1	60
3	Labor relations grievance mechanism	0	0	1	0	0	0	0	0	0	0	10
4	Occupational health and safety (OHS)	1	1	1	1	1	1	1	1	1	1	100
5	Freedom of association, recognition and collective bargaining	0	1	1	0	1	0	0	0	1	1	50
6	Employees turnover rate	0	1	1	0	0	0	0	0	0	0	20
7	Prevention of sexual harassment	1	1	0	1	1	1	1	1	1	1	90
8	Non-discrimination	1	1	1	1	1	0	1	1	1	1	90
9	Diversity in work force	1	1	1	1	1	1	0	1	1	1	90
10	Retention rate and return to work after parental leave	1	0	0	1	0	0	0	0	1	0	30

11	Employee associations recognized by the management	1	1	0	0	1	0	0	0	1	0	40
12	Benefits provided to temporary /casual employees	0	0	0	0	0	0	0	0	0	0	0
13	Equal remuneration to men & women	1	1	0	0	0	0	0	1	1	1	50
14	Suppliers assessment for labor practices	0	0	1	1	0	0	0	0	0	1	30
15	Suppliers human rights assessment	0	0	1	1	1	0	0	0	0	1	40

Table 4.10 The global reporting initiative of the top 10 constituents of Nifty 50

GRI	1	1	1	1	1	1	0	1	1	1	90

Adapted from Kumar, Kishore.(2020).Emerging phenomenon of corporate sustainability reporting: Evidence from top 100 NSE listed companies in India.Journal of public affairs.

https://doi.org/ 10.1002/pa.2368

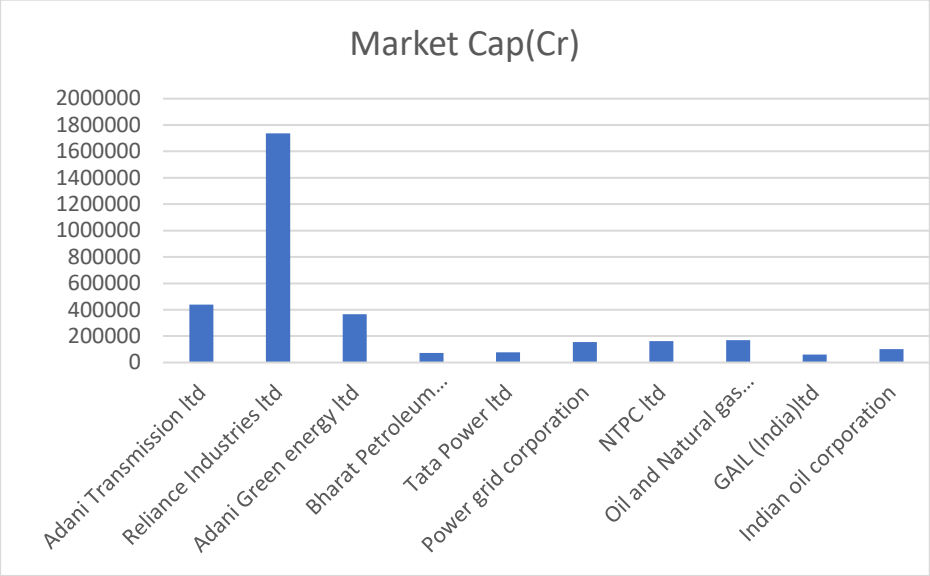

Figure 4.1 Market Capitalization of Nifty Energy

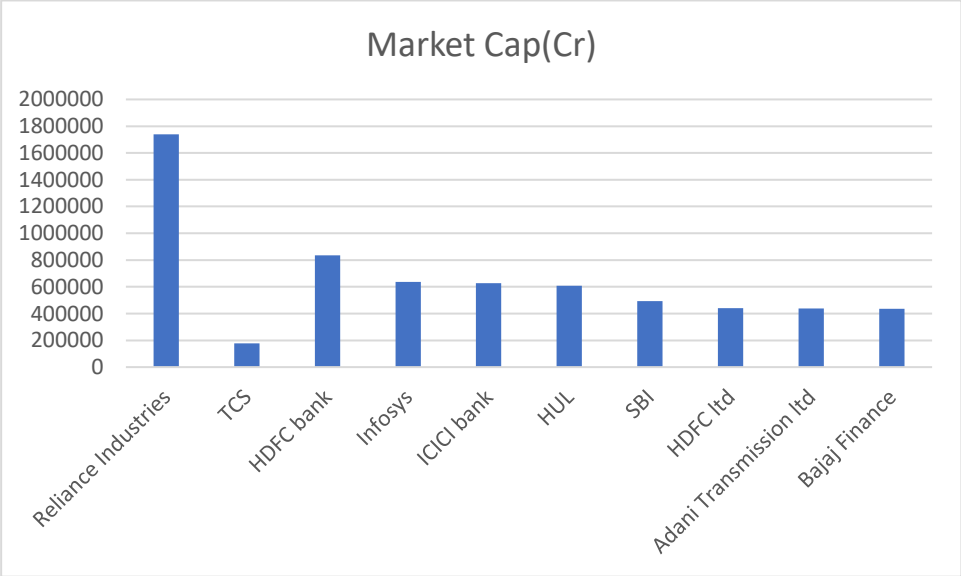

Figure 4.2 Market Capitalization of the top 10 constituents of Nifty 50

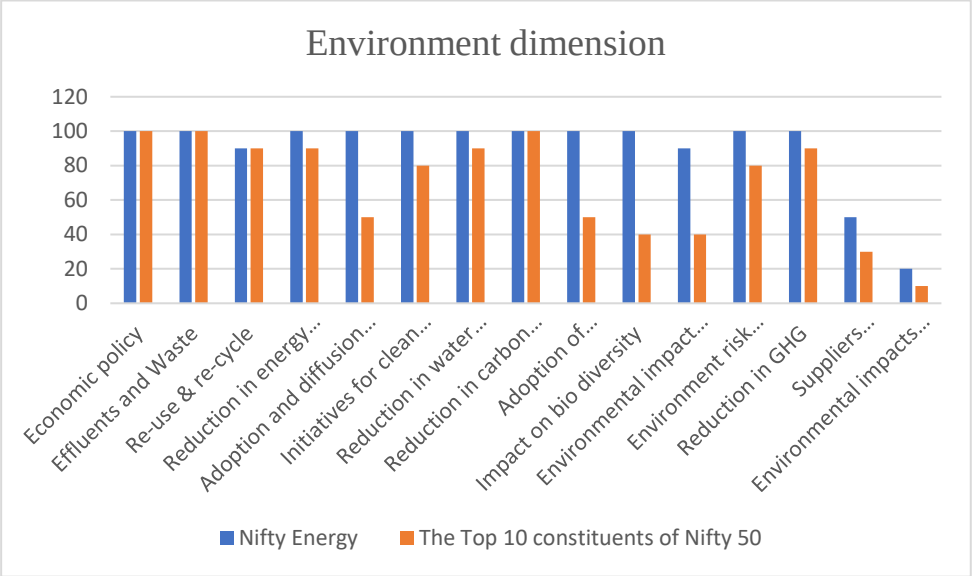

Figure 4.3 Comparison of Environment dimension indicators of Nifty Energy and the top 10 constituents of Nifty 50

Interpretation

The environment dimension has been studied to know the percentage of companies in Nifty energy and the top 10 constituents of Nifty 50 that comply with the indicators listed in this dimension. It was clear from the study that Nifty Energy and the top 10 Nifty 50 constituents, which were both indicated with a 100 percent, had adequately tracked and reported on the economic policies, effluents and waste, and reduction in carbon emission. Both Nifty Energy and the top 10 constituents of the Nifty 50 had a percentage of 90 on the re-use and recycling indication of the environment dimension.The reduction in energy consumption indicator of Nifty energy had exhibited a percentage of 100 whereas it had been 90 for the top 10 constituents of Nifty 50. The adoption and diffusion of eco-friendly technology indicator of Nifty energy show a 100 percent whereas it had been 50 for the top 10 constituents of Nifty 50. Initiatives for clean energy receive a perfect score from Nifty Energy. On the other side, when it comes to disclosing clean energy initiatives, the top 10 Nifty 50 constituents only show 80%. Reduction in water consumption, adoption of the environmental management system, and impact on biodiversity had indicated a percentage of 100 for Nifty energy. At the same time, the percentage put forward by the top 10 constituents of Nifty 50 was 90,50, and 40 respectively. Environmental impact of products and services, Environment risk assessment framework, Suppliers environmental impact assessment had shown a clear indication of 90,100 and 50 percentage for Nifty energy whereas the top 10 constituents of Nifty 50 had shown a percentage of 40,80 and 30 for the respective indicators. For GHG emissions and environmental impacts of transportation , Nifty Energy displayed percentages

of 100 and 20, whereas the top 10 constituents displayed percentages of 90 and 10 for the same parameters.

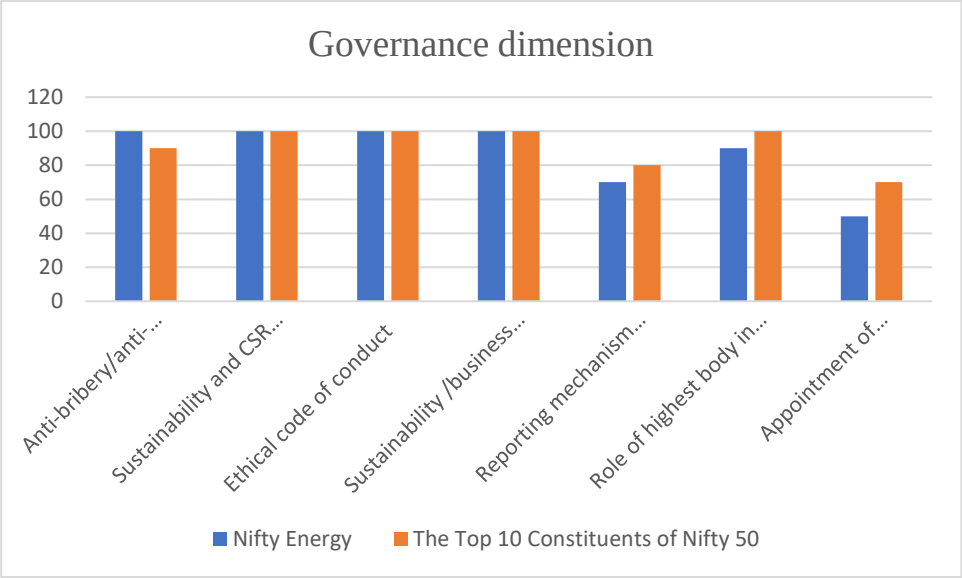

Figure 4.4 Comparison of Governance dimension indicator of Nifty Energy and the top 10 constituents of Nifty 50

Interpretation

When the governance dimension of Nifty energy and the top 10 constituents of Nifty 50 had been studied, the following conclusions had been made. The ethical code of conduct, sustainability and CSR policy, and sustainability/business responsibility committee or structure indicators of governance dimension had revealed that both Nifty Energy and the top 10 constituents of Nifty 50 had been duly following it and had reported the same. Nifty Energy shows that 100 percent of companies follow an anti-bribery/anti-corruption policy, whereas it had been 90 percent for the top constituents of Nifty 50 concerning the same indicator. Nifty Energy reveals that 100% of businesses have anti-bribery/anti-corruption policies, compared to 90% of the top Nifty 50 corporations for the same indication. A percentage of 70, 90, and 50, respectively, was indicated by Nifty Energy for the reporting mechanism of unlawful behavior, the role of the highest body in environmental and social impact assessments, and the appointment of executive level sustainability positions. On the other hand, the top 10 Nifty 50 constituents showed the following percentages for the same indicators: 80, 100, and 70.

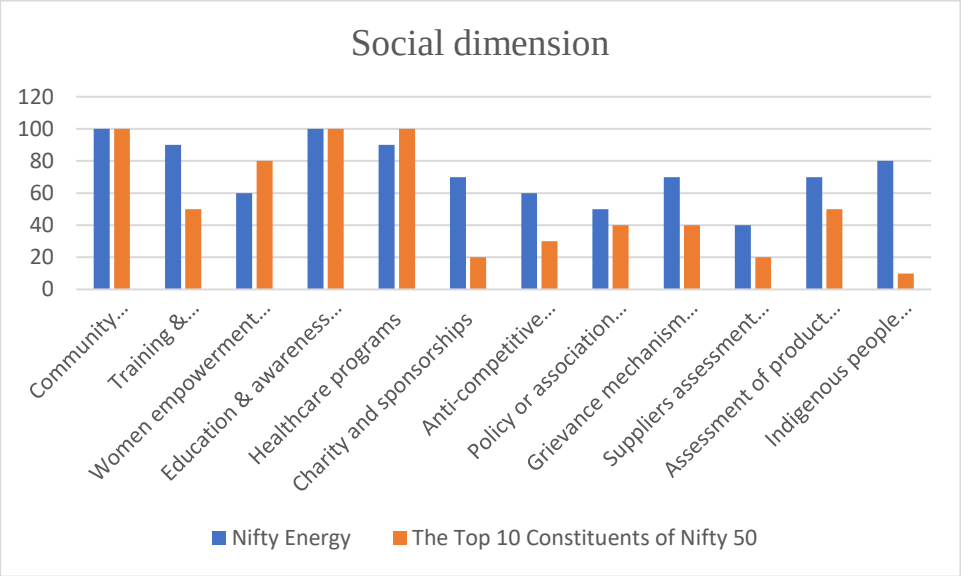

Figure 4.5 Comparison of Social dimension indicator of Nifty Energy and the top 10 constituents of Nifty 50

Interpretation

After analyzing the various social dimension indicators of Nifty Energy and the top 10 constituents of Nifty 50, the following conclusions were noted. The health care program, training, and development program women empowerment program taken up by Nifty Energy companies displayed a percentage of 90,90, and 60 respectively. The top 10 constituents of Nifty 50 had revealed a percentage of 100,50 and 80 for the reporting of the same indicators. The community development programs and education and awareness programs of both Nifty Energy and the top constituents of Nifty 50 had shown a 100 percent. This indicates that all the companies in Nifty energy and the top 10 constituents of Nifty 50 had been complying and had disclosed the same in their sustainability reports. The percentage of companies that had included charity and sponsorship,anti-competitive behavior, and policy or association for the advancement of public good in their reports in Nifty energy were 70,60, and 50 respectively. At the same time, the percentage of companies that reported the same indicators in the top 10 constituents of Nifty 50 were 20,30, and 40 respectively. Nifty Energy showed a percentage of 70,40 and 70 for the indicators such as grievance mechanism for impacts on society, suppliers assessment for impacts on society, and assessment of product impacts on customer health & safety. This shows the percentage of companies abiding by the above-mentioned indicators. On the other hand, the percentage was 40,20, and 50 for the top 10 constituents of Nifty 50 concerning the same indicator. The final indicator of the social dimension ie; the indigenous people's rights policy exhibited a percentage of 80 for Nifty Energy and 10 for the top 10 constituents of Nifty 50.

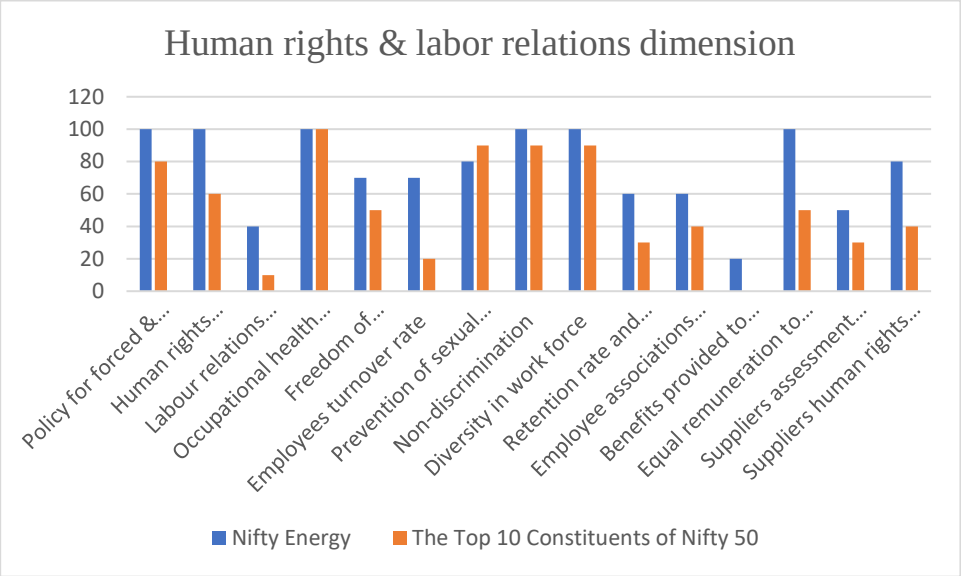

Figure 4.6 Comparison of human rights and labor relations dimension indicator of Nifty Energy and the top 10 constituents of Nifty 50

Interpretation

The human rights and labor relations dimensions of Nifty Energy and the top 10 constituents of Nifty 50 were studied and the following inferences were made.

The occupational health and safety indicator for both Nifty Energy and the top 10 Nifty 50 constituents, both displays a 100%, indicating that every company in the sample discloses the data related to this specific indication.. The policy for forced and child labor, human rights grievance mechanism, and labor relations grievance mechanism of Nifty energy revealed a percentage of 100, 100, and 40, respectively. For Nifty Energy, a percentage of 70,70, and 80 were noted for indicators such as freedom of association, recognition and collective bargaining, employee turnover rate, and prevention of sexual harassment. The percentages for the top 10 Nifty 50 constituents for disclosing the same indicator were 50,20, and 90, respectively. For Nifty Energy, the corresponding percentages for non-discrimination, diversity in the workforce, retention rate, and return to work after paternal leave were 100, 100, and 60, respectively. On the other side, the top 10 constituents of Nifty 50 exhibit a percentage of 90, 90, and 30 for reporting the same indicator. Nifty Energy shows a percentage of 60,20 and 100 respectively for indicators such as employee associations recognized by the management, benefits provided to temporary /casual employees, and equal remuneration to men and women. A percentage of 40,0 and 50 had been displayed by the top constituents of Nifty 50 concerning the same indicators. Nifty Energy is rated as having a percentage of 50 and 80 for the final indicators of this particular dimension, i.e.,

suppliers' assessment of labour practises and suppliers' assessment of human rights. The top 10 Nifty 50 constituents, however, show a percentage of 30 and 40, respectively.

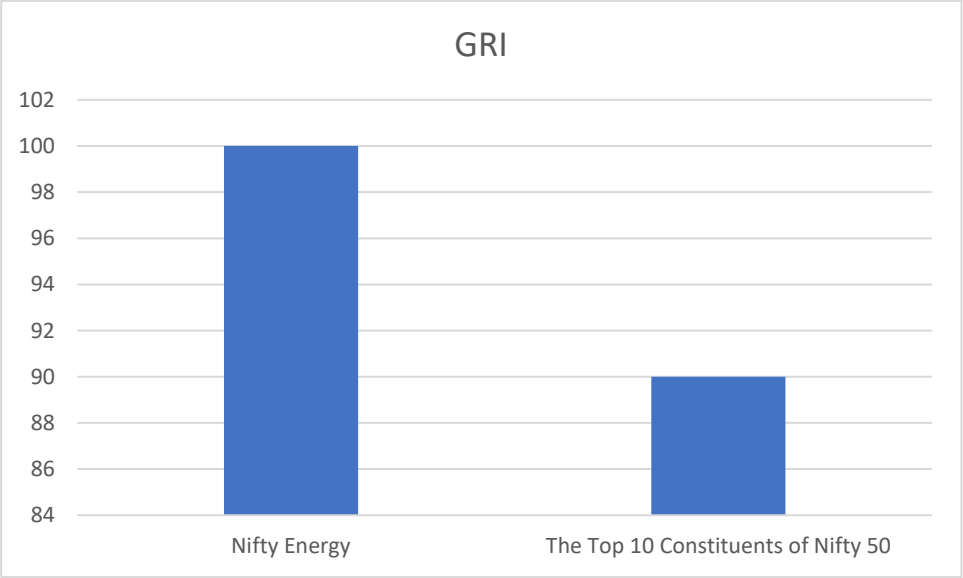

Figure 4.7 Comparison of Global reporting initiative of Nifty Energy and the top 10 constituents of Nifty 50

Interpretation

The GRI indicator of Nifty energy shows a percentage of 100. The top 10 Nifty 50 constituents, on the other hand, display a percentage of 90.

Table 4.11 Shows the results of sustainability reporting difference between Nifty Energy and the top 10 constituents of Nifty 50

	Nifty Energy		The top 10 constituents of Nifty 50		Independent t-test		
	Mean	SD	Mean	SD	t	Df	p-value
Environment	0.90	0.064788	0.69333	0.151372	3.969	18	0.002
Governance	0.87143	0.125085	0.91429	0.120468	-0.780	18	0.445
Social	0.73939	0.138645	0.53333	0.153156	3.154	18	0.005
Human rights & labour relations	0.75333	0.117799	0.52000	0.165701	3.629	18	0.002
GRI	1.00	0.000	0.90	0.316	1.00	18	0.343

Hypothesis under study

H1: There is a significant difference between the sustainability reporting practices of two groups considered (Nifty energy & the top 10 constituents of Nifty50).

H2: There is a significant difference between the environment dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H3: There is a significant difference between the governance dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H4: There is a significant difference between the social dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H5: There is a significant difference between the human rights and labor relations dimension of Nifty Energy and the top 10 constituents of Nifty 50.

H6: There is a significant difference between the global reporting initiative of Nifty Energy and the top 10 constituents of Nifty 50.

Decision Criteria

If p-value is less than 0.05, we reject null hypothesis at 5% level of significance.

If p-value is greater than 0.05, we accept null hypothesis at 5% level of significance.

As can be seen in Table 1, there was no statistically significant difference in environment dimension of sustainability reporting between Nifty energy companies (M = 0.90, SD = 0.064788)

and the top 10 constituent of Nifty 50 companies in India (M = 0.69333, SD = 0.151372), t(18) = 3.969, $p < 0.05$.

Results also indicated that there is statistically significant difference in governance dimension disclosure of Nifty energy companies (M = 0.87143, SD = 0.125085) and the top 10 constituents of Nifty 50 companies in India (M = 0.91429, SD = 0.120468), t(18) = -0.780, $p > 0.05$.

Social dimension disclosure of Nifty energy companies (M = 0.73939, SD = 0.138645) has no statistically significant difference from the top 10 constituents of Nifty 50 companies (M = 0.53333, SD = 0.153156), t (18) = 3.154, $p < 0$ .05).

It was also found that there is no significant difference in human rights & labor relations dimension disclosure of Nifty energy companies (M = 0.75333, SD = 0.117799) and the top 10 constituents of Nifty 50 companies in India (M = 0.52000, SD = 0.165701), t(18) = 3.629, $p < 0.05$).

And finally while looking into GRI, we can find significant difference between Nifty energy companies (M=1, SD=0) and the top 10 constituents of Nifty 50 companies (M = 0.90, SD=0.316), t(18)= 1, $p > 0.05$.

From the analysis, we could conclude that there is significant difference between the sustainability reporting practices of Nifty Energy and the top 10 constituents of Nifty 50.

4.2 CHAPTER SUMMARY

This chapter is an account of all the data collected, analyzed, and interpreted. The data for the study was collected from sustainability reports, annual reports, business responsibility reports, and integrated annual reports of Nifty Energy and the top 10 constituents of Nifty 50. After due analysis, interpretations of each dimension were made.

5.1 FINDINGS

ENVIRONMENT DIMENSION

- The environment dimension has been studied to know the percentage of companies in Nifty energy and the top 10 constituents of Nifty 50 that comply with the indicators listed in this dimension. It was clear from the study that Nifty Energy and the top 10 Nifty 50 constituents, which were both indicated with a 100 per cent, had adequately tracked and reported on the economic policies, effluents and waste, and reduction in carbon emission.
- Both Nifty Energy and the top 10 constituents of the Nifty 50 had a percentage of 90 on the re-use and recycling indication of the environmental dimension.
- The reduction in energy consumption indicator of Nifty energy had exhibited a percentage of 100 whereas it had been 90 for the top 10 constituents of Nifty 50.
- The adoption and diffusion of eco-friendly technology indicator of Nifty energy show a 100 per cent whereas it had been 50 for the top 10 constituents of Nifty 50.
- Initiatives for clean energy receive a perfect score from Nifty Energy. On the other side, when it comes to disclosing clean energy initiatives, the top 10 Nifty 50 constituents only show 80%.
- Reduction in water consumption, adoption of the environmental management system, and impact on biodiversity had indicated a percentage of 100 for Nifty energy. At the same time, the percentage put forward by the top 10 constituents of Nifty 50 was 90,50, and 40 respectively.
- Environmental impact of products and services, Environment risk assessment framework, Suppliers environmental impact assessment had shown a clear indication of 90,100 and 50 percentage for Nifty energy whereas the top 10 constituents of Nifty 50 had shown a percentage of 40,80 and 30 for the respective indicators.
- For GHG emissions and environmental impacts of transportation, Nifty Energy displayed percentages of 100 and 20, whereas the top 10 constituents displayed percentages of 90 and 10 for the same parameters.

GOVERNANCE DIMENSION

When the governance dimension of Nifty energy and the top 10 constituents of Nifty 50 had been studied, the following conclusions had been made.

- The ethical code of conduct, sustainability and CSR policy, and sustainability/business responsibility committee or structure indicators of governance dimension had revealed that

both Nifty Energy and the top 10 constituents of Nifty 50 had been duly following it and had reported the same.

- Nifty Energy shows that 100 percent of companies follow an anti-bribery/anti-corruption policy, whereas it had been 90 percent for the top constituents of Nifty 50 concerning the same indicator.
- A percentage of 70, 90, and 50, respectively, was indicated by Nifty Energy for the reporting mechanism of unlawful behavior, the role of the highest body in environmental and social impact assessments, and the appointment of executive level sustainability positions. On the other hand, the top 10 Nifty 50 constituents showed the following percentages for the same indicators: 80, 100, and 70.

SOCIAL DIMENSION

After analyzing the various social dimension indicators of Nifty Energy and the top 10 constituents of Nifty 50, the following conclusions were noted.

- The health care program, training, and development program women empowerment program taken up by Nifty Energy companies displayed a percentage of 90,90, and 60 respectively. The top 10 constituents of Nifty 50 had revealed a percentage of 100,50 and 80 for the reporting of the same indicators.
- The community development programs and education and awareness programs of both Nifty Energy and the top constituents of Nifty 50 had shown a 100 percent. This indicates that all the companies in Nifty energy and the top 10 constituents of Nifty 50 had been complying and had disclosed the same in their sustainability reports.
- The percentage of companies that had included charity and sponsorship, anti-competitive behavior, and policy or association for the advancement of public good in their reports in Nifty energy were 70,60, and 50 respectively. At the same time, the percentage of companies that reported the same indicators in the top 10 constituents of Nifty 50 were 20,30, and 40 respectively.
- Nifty Energy showed a percentage of 70,40 and 70 for the indicators such as grievance mechanism for impacts on society, suppliers assessment for impacts on society, and assessment of product impacts on customer health & safety. This shows the percentage of companies abiding by the above-mentioned indicators. On the other hand, the percentage was 40,20, and 50 for the top 10 constituents of Nifty 50 concerning the same indicator

- The final indicator of the social dimension ie; the indigenous people's rights policy exhibited a percentage of 80 for Nifty Energy and 10 for the top 10 constituents of Nifty 50.

HUMAN RIGHTS & LABOR RELATIONS DIMENSION

The human rights and labor relations dimensions of Nifty Energy and the top 10 constituents of Nifty 50 were studied and the following inferences were made.

- The occupational health and safety indicator for both Nifty Energy and the top 10 Nifty 50 constituents, both displays a 100%, indicating that every company in the sample discloses the data related to this specific indication.
- The policy for forced and child labor, human rights grievance mechanism, and labor relations grievance mechanism of Nifty energy revealed a percentage of 100, 100, and 40, respectively. The top 10 constituents of Nifty 50 revealed a percentage of 80,60 and 10 concerning the same indicators.
- For Nifty Energy, a percentage of 70,70, and 80 were noted for indicators such as freedom of association, recognition and collective bargaining, employee turnover rate, and prevention of sexual harassment. The percentages for the top 10 Nifty 50 constituents for disclosing the same indicator were 50,20, and 90, respectively.
- For Nifty Energy, the corresponding percentages for non-discrimination, diversity in the workforce, retention rate, and return to work after paternal leave were 100, 100, and 60, respectively. On the other side, the top 10 constituents of Nifty 50 exhibit a percentage of 90, 90, and 30 for reporting the same indicator.
- Nifty Energy shows a percentage of 60,20 and 100 respectively for indicators such as employee associations recognized by the management, benefits provided to temporary /casual employees, and equal remuneration to men and women. A percentage of 40,0 and 50 had been displayed by the top constituents of Nifty 50 concerning the same indicators.
- Nifty Energy is rated as having a percentage of 50 and 80 for the final indicators of this particular dimension, i.e., suppliers' assessment of labour practises and suppliers' assessment of human rights. The top 10 Nifty 50 constituents, however, show a percentage of 30 and 40, respectively.

GRI

- The GRI indicator of Nifty energy shows a percentage of 100. The top 10 Nifty 50 constituents, on the other hand, display a percentage of 90.

NIFTY ENERGY COMPANIES AND THE TOP 10 CONSTITUENTS OF NIFTY 50 CONTRIBUTION TOWARDS ESG GOALS

One of the objectives of this research was to find the company that contributes the most to ESG goals. This study primarily focuses on examining the dimensions of environmental, governance, social and human rights and labour relations. The number of indicators complied by each company in Nifty Energy and the top 10 constituents of Nifty 50 pertaining to each dimension is as follows;

ENVIRONMENT DIMENSION

The total number of indicators studied under the environment dimension was 15.

Nifty Energy

Reliance industries (13), Adani Transmission ltd(13),Adani Green energy ltd(13),Power Grid corporation of India ltd(15),NTPC ltd(13),ONGC ltd(14),Tata Power co ltd(13),BPCL(15),Indian oil corporation(12) and GAIL (India) ltd(14).

The top 10 constituents of Nifty 50

Reliance industries(13), TCS (13),HDFC bank(12),Infosys(11),Hindustan Unilever(8),ICICI bank(8),HDFC ltd(8),Bajaj Finance (8),SBI(10),Adani Transmission ltd(13).

It could be inferred that Power Grid Corporation of India Ltd (15) and Bharat Petroleum Corporation Ltd (15) from Nifty Energy is following and reporting on all the indicators of the environmental dimension of sustainability reporting.

GOVERNANCE DIMENSION

The total number of indicators studied under the governance dimension was 7.

Nifty Energy

Reliance industries (5),Adani Transmission ltd (7),Adani Green energy ltd(6),Power Grid corporation of India ltd(5),NTPC ltd (7),ONGC ltd(5),Tata Power co ltd(7),BPCL(6),Indian oil corporation (6)and GAIL (India) ltd(7).

The top 10 constituents of Nifty 50

Reliance industries(5), TCS(7) ,HDFC bank(7),Infosys(7),Hindustan Unilever(7),ICICI bank(5),HDFC ltd(6),Bajaj Finance(6) ,SBI(7),Adani Transmission ltd(7).

The study came to a conclusion that Adani Transmission ltd(7),NTPC ltd(7),Tata power co.ltd(7) and GAIL(India) ltd(7) from Nifty Energy and TCS(7),HDFC bank(7),Infosys(7),Hindustan Unilever(7),SBI(7) and Adani Transmission ltd from the top constituents of Nifty 50 adhere to all the indicators of governance dimension and report the same in their sustainability reports.

SOCIAL DIMENSION

The total number of indicators studied under the social dimension was 12.

Nifty Energy

Reliance industries(8),Adani Transmission ltd(10) ,Adani Green energy ltd(5),Power Grid corporation of India ltd(10),NTPC ltd(9) ,ONGC ltd(9),Tata Power co ltd(10),BPCL(8),Indian oil corporation(11) and GAIL (India) ltd(8).

The top 10 constituents of Nifty 50

Reliance industries(8), TCS(6) ,HDFC bank(8),Infosys(5),Hindustan Unilever(7),ICICI bank(6),HDFC ltd(5),Bajaj Finance(5) ,SBI(4),Adani Transmission ltd(10).

From the analysis, it was found that Indian Oil Corporation of Nifty Energy complies with 11 of the 12 indicators of social dimension.

HUMAN RIGHTS AND LABOR RELATIONS DIMENSION

The total number of indicators studied under the human rights and labor relations dimension was 15.

Nifty Energy

Reliance industries(9),Adani Transmission ltd(10) ,Adani Green energy ltd(10),Power Grid corporation of India ltd(13),NTPC ltd(13) ,ONGC ltd(9),Tata Power co ltd(14),BPCL(12),Indian oil corporation(11) and GAIL (India) ltd(12).

The top 10 constituents of Nifty 50

Reliance industries(9), TCS(8) ,HDFC bank(10),Infosys(8),Hindustan Unilever(9),ICICI bank(3),HDFC ltd(4),Bajaj Finance(7) ,SBI(10),Adani Transmission ltd(10).

When compared to other companies, Tata Power Company from Nifty Energy adheres to 14 of 15 indicators of the human rights and labor relations dimension.

TOTAL NUMBER OF INDICATORS STUDIED UNDER VARIOUS DIMENSION

The total number of indicators studied under various dimensions taken together was 49.

Nifty Energy

Reliance industries(35),Adani Transmission ltd(40) ,Adani Green energy ltd(34),Power Grid corporation of India ltd(43),NTPC ltd(42) ,ONGC ltd(37),Tata Power co ltd(44),BPCL(41),Indian oil corporation(40) and GAIL (India) ltd(41).

The top 10 constituents of Nifty 50

Reliance industries(35), TCS(34) ,HDFC bank(37),Infosys(31),Hindustan Unilever(31),ICICI bank(22),HDFC ltd(23),Bajaj Finance(26) ,SBI(31),Adani Transmission ltd(40).

When different dimensions of sustainability reporting were examined, Tata Power Co. Ltd. stood out from the competition with a compliance rate of 44 indicators out of 49. This shows that Tata Power continuously made an effort to support ESG goals to the best of their ability.

GRI

The global reporting initiative is followed by all the companies included in Nifty Energy and the top constituents of Nifty 50 except HDFC ltd.

5.2 SUGGESTIONS

- The top 10 constituents of Nifty 50 should try to adhere to and incorporate more indicators relating to sustainability reporting. They should also be considering taking more initiatives to promote sustainable development.
- Indicators such as environmental impacts of transportation, suppliers' assessment for impacts on society and benefits provided to temporary or casual employees are excluded in most sustainability reports of companies. They should give due consideration and include these indicators in their reports.
- The government and policymakers should consider providing more incentives to companies, which would encourage companies to adopt a sustainable path.

5.3 CONCLUSION

Businesses are using sustainability reporting increasingly as a potential tool for company strategy and policy (Ong and Djajadikerta 2018). It is crucial for providing the resources needed to carry out the sustainable development goals, spur investment in sustainable business practices, and finance the sustainability outcomes that the world seeks (Durand, Paugam, and Stolowy 2019).

Reporting on sustainability includes all facets of business ethics, social responsibility, environmental awareness, and corporate governance. Sustainability reporting practices is considered to be relatively new concept in India. With the implementation of mandated CSR standards under the Companies Act of 2013, as well as disclosure revisions in 2015, it has attracted the attention of many businesses. India-based companies' sustainability reporting is still mostly underexplored (Kumar & Prakash, 2019b). The current study offers useful insights into sustainability reporting practices undertaken by Nifty Energy and the top 10 constituents of Nifty 50.The research aims to explore the environment ,governance ,social ,human rights and labor relation dimensions of Nifty Energy and the top 10 constituents of Nifty 50. The present study reveals that Nifty energy companies are the most active disseminators across all four dimensions of sustainability reporting.

The study makes it quite evident that the companies which has an adverse effects on the environment contributes the most to ESG goals. All the companies in Nifty Energy and the top 10 constituents of Nifty 50 diligently followed and reported on some of the indicators, such as environment policy, effluents and waste, and the reduction in carbon emission related to the environment dimension.The environment impact of transportation and suppliers environmental impact assessment were least disclosed indicator by both Nifty Energy and the top 10 constituents of Nifty 50. The companies that performed the best in the environmental dimension were Power Grid Corporation of India ltd and Bharat Petroleum Corporation ltd. Their sustainability report discloses all the 15 indicators included in the environmental dimension of the study. A detailed analysis of governance dimension revealed that the ethical code of conduct, sustainability and CSR policy, sustainability/business responsibility committee or structure indicators were duly adhered by all the companies in Nifty Energy and the top 10 constituents of Nifty 50. Most companies have full compliance with the governance dimension of sustainability reporting. Adani Transmission Ltd, NTPC ltd, Tata Power ltd, and GAIL(India) ltd of Nifty Energy and TCS, HDFC bank, Infosys, Hindustan Unilever, and SBI of the top 10 constituents of Nifty 50 conform with all the indicators specified in the governance dimension. When the social dimension has been analyzed, community development programs and education and awareness programs have been duly followed and reported by both Nifty Energy and the top 10 constituents of the Nifty 50.The suppliers' assessment for impacts on society had been the least tracked indicator in this particular dimension. Indian Oil Corporation of Nifty Energy performs better in the social dimension of sustainability reporting. The final dimension explored in the study was Human rights and labor relations dimension. The occupational health and safety indicator was reported by all the companies in Nifty Energy and the top constituents of Nifty 50.The benefits provided to temporary/casual employees had not been given much relevance in sustainability reports. Tata

Power Company, Ltd. outperformed its competitors in this dimension. When various dimensions of sustainability reports were studied, Tata power co. ltd had the most compliance. It shows their commitment to achieving ESG goals. The study also found that all the companies except HDFC ltd follow the Global reporting initiative. When foreign companies are accelerating to achieve the net zero carbon emission tag, most of the Indian companies are still lagging behind. We must act decisively to combat climate change, make the best use of our resources, and pursue a sustainable path of growth and development to reach greater heights.

5.4 CHAPTER SUMMARY

This chapter is an account of the findings from the research study, its conclusion, and suggestions to government and companies on how to improve and adopt a more sustainable path.

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