

INTEGRATING SUSTAINABILITY INTO FINANCIAL MANAGEMENT  
PRACTICES: AN INDIAN SCENARIO

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## **Dedication**

This dissertation is dedicated to my family, whose unwavering love, patience and encouragement have supported me through every stage of this journey.

To my parents, who instilled in me the value of education and the strength of perseverance, and to my partner, whose steadfast belief in me never wavered even during times of doubt thank you for your constant presence, understanding, and support.

To those who believed in me when I struggled to believe in myself, and to those who stood by me when the path grew difficult this work is in every way for you.

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ABSTRACT

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This study investigates investor perspectives on sustainable financial management (SFM) and the key determinants influencing sustainability-oriented investment decisions in India. As sustainable investing gains prominence globally, a critical knowledge gap remains regarding investor awareness, perceived risks, and motivations specific to emerging economies like India. To address this, a mixed-methods research design was adopted, comprising 300 structured surveys and 20 in-depth interviews with institutional investors, self-directed investors, and policymakers. Quantitative analysis, including regression and ANOVA, revealed a strong positive correlation ( $R = 0.895$ ,  $R^2 = 0.802$ ) between investor awareness of SFM and sustainable investment decision-making, signifying that greater awareness directly enhances sustainable behaviors. Additionally, a high correlation ( $r = 0.903$ ) was found between sustainable finance practices and risk management, underscoring their interdependence. The study also identified key

motivational drivers such as ethical values, long-term profitability, and regulatory incentives, along with barriers like data limitations and perceived financial trade-offs. Qualitative insights further highlighted that external factors, including market trends and ESG policies, significantly influence investor behavior. The findings imply that targeted investor education and regulatory alignment could accelerate sustainable investment adoption while strengthening firms' risk mitigation capacities. This research contributes original empirical evidence from India, a major emerging market, offering a scalable framework for understanding how awareness, risk perceptions, and policy contexts shape sustainability in financial decision-making. It underscores the need for integrated strategies that promote sustainable finance while addressing its associated implementation challenges.

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# CHAPTER I: INTRODUCTION

## **1.1 Introduction**

At a time when there has been a push for sustainability between economic development and the conservation of the environment, sustainable financial management has gained a lot of currency. Sustainable financial management (SFM) is the process of managing funds in such a manner that they will ensure sustainable financial returns in the future, besides the consideration of ESG factors. This approach to the management of finances aims at creating value for the shareholders and the stakeholders including the employees, customers, society and the environment (Adams, 2015).

Thus, it is impossible to overstate the importance of the modern financial environment's sustainable financial management practices. Traditional financial management has largely focused on the present generation to achieve the highest profit and increase the value of shareholders' funds at the expense of other factors such as environmental degradation and social justice. These are some of the negative effects that have been attributed to the limited scope; degradation of the environment, social injustice, and economic fluctuation. On the other hand, sustainable financial management is the process of balancing the economic goals and objectives with the other social objectives in order to enhance sustainability.

The changing perception of the synergy between the economic, environmental, and social systems is one of the leading causes of the expansion of sustainable financial management. The traditional approach of the separated structure of the financial management is gradually seen as inadequate in addressing the complex and diverse issues of the twenty-first century. These are all overarching issues that are linked to economic

processes and financial choices with regards to climate change, resource depletion, and social justice. Thus, it has been stated that there is the need for financial management approaches to consider these broader elements (Adams, 2015).

In the recent past, there has been a shift in view from the investors, regulators and other players on the aspect of sustainability. The stakeholders are gradually demanding more transparency and disclosure from firms on their ESG performance. The rationale behind the change is grounded in the understanding that organisations with strong sustainability management systems are better equipped to address risks and capitalize on opportunities and create sustainable value. They are also actively engaged in the process of putting into practice new legislation and standards that aim at creating sustainable and ethical corporate behavior (Amel-Zadeh et al. , 2018).

The use of technology and analysis of data is helping in enhancing sustainable financial management. Technological progress in big data, artificial intelligence and blockchain help to introduce ESG factors into financial decision-making more effectively. Big data analysis can be applied to find ESG risks and opportunities. Likewise, the use of blockchain technology can increase the level of transparency and accountability within the chains of supply (Zindler et al. , 2010).

Because of unique characteristics of the Indian economy, society, and environment, sustainable financial management remains highly relevant in the Indian context. India, being one of the fastest-growing countries in the global economy, faces numerous issues regarding the growth of the economy in conjunction with environmental protection and social justice. The nation is facing a number of issues at the moment including pollution of the atmosphere and water, scarcity of materials and social injustice. At the same time, India has a growing middle class, developing entrepreneurial environment, and a shift towards innovation and technology (Amel-Zadeh et al. , 2018).

Currently the Indian government has realized the importance of sustainable development and has come up with several policies and strategies to support sustainability in various fields. For instance, the GST to simplify the taxation system and the IBC to improve the efficiency of the economy. The government's commitment toward sustainable development is seen in the execution of such schemes as the Smart Cities Mission and the National Action Plan on Climate Change.

In particular, the corporate sector has recently started to realize the importance of the issue of sustainability as a component of the business strategy and management. Sustainable practices are being adopted by Indian corporations slowly and gradually as a result of legal requirements, investors' expectations, and competition. For instance, firms are investing in Renewable energy, improving energy intensity and adopting sustainable supply chain management. In addition, there is a growing concern towards CSR and engagement with society (Anbumozhi et al. , 2018).

However, it is still in its nascent stage in the case of India as to the kind of sustainable financial management methods that have been made available. Many challenges need to be addressed to achieve the promotion of SFM among the population and its utilization in their daily lives. One of the major challenges is lack of understanding and knowledge of sustainable financial management among organisations and investors. Education and capacity development should be improved to help the stakeholders understand the benefits and importance of SFM.

The last challenge is the lack of standardisation of ESG performance measurement and reporting practices. While there are numerous international guidelines and standards like GRI and SASB, there is a need for more coordination and harmonisation in the use of these standards. In addition, there is a demand for robust and

extensive data and analytics to enable accurate and efficient decision-making and enhance transparency and governance (Zu et al. , 2009).

Another challenge that is evident is the issue of sourcing for financial capital, particularly for SMEs. It was found that many SMEs lack the financial resources and expertise to incorporate sustainable processes. For the transition to sustainable financial management, one should apply new funding models, including green bonds, sustainability-linked loans, and impact investments (Boffo et al., 2020).

Besides, it is crucial to improve collaboration and partnership between various stakeholders, including the government, business, educational institutions, and non-profit organizations. Sustainability issues and the related issues are complex and interrelated; therefore, it is beneficial for several stakeholders to work together to address them and share experiences, ideas, and information.

In conclusion, sustainable financial management means the transformation of the financial management approach and the distribution of financial resources. SFM aims at improving value creation for all the stakeholders and the financial system by integrating ESG factors into decision-making for better resilience. Considering the peculiarities of the challenges and the prospects for development in India, the concept of sustainable financial management is most pertinent to the Indian context. While there have been some positive developments, it is important to raise awareness, build capacity, develop benchmarks as well as standard, and improve access to financing and other stakeholders to support the increased use of sustainable FM practices. While challenges exist, sustainable financial management remains crucial for building a sustainable and equitable future (Barkemeyer et al., 2015).

### **1.1.1 Significance of Sustainability in Investment Decisions**

In recent years, the idea of sustainability has gone from being a specialized parameter to a key characteristic of investment. Not only has the consideration of the sustainability factor in investment decisions turned into a moral imperative, but it has also become a strategic imperative for achieving sustainable financial returns. This is because the awareness of the global community on environmental, social, and governance (ESG) matters is rising (Zhou et al. , 2017). This change is an indication of a realization that other factors beyond the traditional financial measures are required to capture all the risks and returns that affect the success of an investment fully. This section looks into the effects of sustainability on the strategies and results of investors and increased focus on sustainability in investing decisions (Khan et al. , 2016).

### **1.1.2 Environmental, Social, and Governance (ESG) Standards**

ESG criteria consist of a broad range of issues that influence the ethical and sustainable characteristics of an investment. Among the environmental concerns that are being taken into consideration some of them include pollution, resource depletion, waste, and climate change. Conditions such as employment, employees, and the effects on the community are among the features that fall under social factors. Corporation management is a broad concept that covers issues such as board of directors' diversity, CEO remuneration, and shareholders' protection among others. Governance elements are one of the aspects of corporate governance. These criteria may provide the investors with a guide they may use to assess the ethical consequences of their investments besides the sustainability of their investments (Ziegler et al. , 2010).

### **1.1.3 Growth of ESG Investing**

Sustainable investing has grown incredibly popular in the past decade or so. GSIA also expect that by the year 2020, sustainable investment was worth \$35. 3 trillion, which is 36% of professionally managed assets (Thangavelu et al. , 2013). There are

several factors that are contributing to this increase, which include the rising legal standards, the investor's request for sustainable products, and the lessons learnt that indicate that ESG factors can significantly affect the financial performance (Krueger et al. , 2020).

#### **1.1.4 The Drivers of Sustainable Investment**

##### **1) Regulatory and Policy Frameworks**

More and more governments and regulatory authorities around the world are gradually experiencing the importance of financial sustainability. On the national and the global level, there is legislation and other measures being adopted with the purpose of achieving sustainable financial system. The most comprehensive examples are the Sustainable Finance Disclosure Regulation (SFDR) and the Taxonomy Regulation of the European Union. These regulations help to introduce such values as openness and accountability in the sphere of sustainable investments (Thamotheram et al. , 2007).

##### **2) Demand from Investors**

The trend of investors is shifting towards the projects that are sustainable in the natural resources. The population of the individual and institutional investors interested in the link between their portfolios and personal values as well as the goals of the society is growing (Hoepner et al. , 2018). Thus, due to their higher level of conscience concerning the social and environmental problems, the representatives of Generation Z and Millennials will be more willing to pay more attention to the issues of sustainability when choosing their investments. Also, this generational change is putting pressure on asset managers and financial institutions to develop investment products with less adverse impacts on the environment.

##### **3) Financial Performance**

Multiple studies show that companies with high levels of ESG scores have a tendency of outcompeting their counterparts in terms of financial returns. As suggested by many studies, ESG factors have the ability to enhance risk, operations, and reputation management. For example, companies that have sound environmental policies are least likely to be dragged to court and meet fines and other related costs (Menz, 2010). On the other hand, businesses with good social practices are characterized by higher workforce productivity levels. In the same regard, implementation of good governance practices helps to reduce the risk of fraud, cheat, and make wrong decisions.

### **1.1.5 Sustainability and its Inclusion into Investment Management**

#### **a) Screening and Exclusions**

Screening and exclusions are two of the most important approaches that may be used in order to introduce the concept of sustainability into the currently used investment management strategies. Negative screening is the process of eliminating certain industries or companies that are involved in activities that are deemed undesirable or are against specific environmental, social and governance (ESG) criteria such as the manufacture of weapons, cigarettes or fossil fuels (Thamotheram et al., 2007). Positive screening is the procedure of selecting the companies which are performing well in some certain ESG categories, like social impact or renewables. In this way, investors can achieve a higher level of congruence between their beliefs concerning portfolio and exclude the industries that are potentially hazardous to environment, society, and governance (Park et al., 2019).

#### **b) Combining ESG Factors**

Incorporating environmental, social, and governance (ESG) considerations into financial analysis and decision-making processes is what is meant by "ESG integration." This strategy takes into account environmental, social, and governance (ESG) risks and possibilities in addition to standard financial measures in order to provide a more holistic

evaluation of the potential of an investment. An investment analyst might, for instance, study a company's carbon footprint, labour policies, and governance structure in order to determine the company's capacity for long-term sustainability and resilience (Tang et al., 2020).

### **c) Investing in Thematic Areas**

An investment strategy known as thematic investing concentrates on particular topics or industries that are anticipated to profit from long-term sustainability trends. There are many examples, such as clean technology, renewable energy, healthcare, and education. The objective of thematic investors is to make the most of opportunities that arise as a result of the implementation of a more sustainable economic system. Investing in businesses that are working to create technologies for renewable energy sources, for instance, might provide exposure to the growing need for clean energy solutions (Lourenço et al., 2013).

### **3) Impact Investing**

In addition to focussing on financial returns, impact investing specifically seeks to achieve beneficial social and environmental consequences. This goes beyond the traditional ESG integration approach. Impact investors are typically interested in investments that aim to address certain social or environmental concerns, such as the provision of affordable housing, education, healthcare, and the mitigation of climate change. With this method, one of the most important components is the measurement and reporting of the impact that these investments have had.

#### **1.1.6 Measuring and Reporting on Sustainability**

**1) ESG Reporting Standards:** There is a need to have standard ESG reporting frameworks so that investors can have the ability to evaluate and compare ESG performance of various organizations. The GRI, the SASB, and the TCFD are some of

the organisations that provide guidelines and frameworks for environmental, social and governance (ESG) disclosure. These frameworks make sure that the ESG disclosures are accurate, comprehensive, and easily comparable (Scholtens, 2014).

**2) Analytical Data:** ESG information and its quality have significantly improved over the last few years due to enhancements in the use of technology and data analysis. In the case of ESG data, to collect, analyze, and interpret the data, financial institutions and data suppliers are building sophisticated tools and platforms. It is due to these tools that investors can make informed decisions when it comes to ESG risks and opportunities (Zyphur et al. , 2020).

**3) The Metrics of Performance:** Since the aim is to determine the impact that sustainability has on the financial performance of the company, it becomes essential to apply the right measurements. Such examples are carbon footprint, energy intensity, water intensity, labour, diversity and inclusion, and governance indices (Widyawati, 2020). Such measures enable investors to gauge the ESG returns on their investment and how they align with sustainability objectives (Sullivan et al. , 2017).

### **1.1.7 Sustainability and Its Effect on Investment Performance**

**1) Risk Management:** Sustainability can be integrated into investment decisions to come up with a better risk management strategy. Thus, the ESG variables can be expected to significantly influence the financial performance and stability of the firm. For instance, companies that practice negative environmental impacts can be penalized by the law, have legal obligations, and suffer from image issues. On the same note, organizations that have poor social responsiveness can face labour issues, low workers' performance, and low public perception. ESG risks allow investors to enhance the understanding of possible threats and minimize their effect on investment outcomes (Sievänen et al. , 2013).

**2) Long Term Efficiency:** It is possible to notice that sustainable investments are often connected with long-term results and performance as well as with the ability to withstand certain challenges. Companies that are serious about ESG issues are likely to have business models that are more progressive and less detrimental to the environment. This places them in a better standing to take advantage of new opportunities and to deal with issues in a more efficient manner. From the studies, it was established that organizations with good sustainability practices have better ESG scores and have better chances of realizing long-term growth, better stakeholder relations, and better ability to attract and retain talents.

**3) Availability of Financial Resources:** Sustainability issues can sometimes have an influence on a company's ability to obtain financing. Businesses that have high ESG scores are likely to be favored by sustainable investors, and they get the ability to access capital at lower costs. On the other hand, firms with low environmental, social and governance scores may face higher borrowing costs and restricted funding. From the perspective of sustainability in the context of investment flows and capital allocation, the described dynamic underlines the importance of sustainability (Atz et al., 2021).

## **1.2 Evolution of Sustainable Finance**

### **1.2.1 Historical Background of Sustainable Finance**

Sustainable finance is also commonly referred to as responsible finance or ethical finance and it basically involves the integration of ESG factors into financial services with the aim of achieving sustainable economic development and social justice as well as environmental conservation. It has been received a significant evolution during several decades, which is an indication of the changes of the society values, the legal framework and the market trends (Busch et al. , 2016).

### **1.2.2 Beginnings of Developments**

Based on the literature, it is possible to argue that sustainable finance dates back to the socially responsible investing (SRI) activities observed in the 1960s and Seventies. First of all, these movements had social and political purposes – the struggle for civil rights, protest against the war, the struggle for women’s rights, etc. There was a change of attitude among the investors to avoid investing in any business or sector that was considered unethical or a nuisance to society. This comprised companies and industries that were in the production of tobacco products, manufacturing of weapons and arms, and South Africa during the apartheid rule (Sharfman et al. , 2008).

In this period, the emphasis was made on negative screening, which amounted to excluding specific companies or industries from investment portfolios based on ethical considerations. Religious organizations especially from the United State of America played a big role in the push for SRI or what is commonly referred to as socially responsible investing. These organisations supported the spending that was consistent with the moral standard that they espoused (Clark et al., 2010).

### **1.2.3 During the 1980s and the 1990s**

Sustainable finance went through a phase of growth in the 1980s and the 1990s. Over time investors began to discover that the incorporation of ESG factors might actually enhance returns by identifying risks and opportunities missed by conventional financial analysis. It was during this time that the more active approach to sustainable investing emerged including shareholder activism and more favorable screening of investment opportunities. Selective acquisition is the process of identifying and choosing businesses for investment based on the environmental, social and governance (ESG) metrics with an aim of promoting corporate conduct that supports the sustainable development goals. On the other hand, shareholder advocacy allows the investors to

engage with the businesses through communication and vote in the shareholder resolutions in the bid to control the operations of the companies (Carney, 2015).

In 1990, the Domini 400 Social Index, which is now known as the MSCI KLD 400 Social Index, was one of the first sustainability indices to be created. This index served as a benchmark for evaluating the effectiveness of sustainable investments. The financial viability of sustainable investing was validated with the help of these indices, which also succeeded in attracting more mainstream interest.

#### **1.2.4 The decade of the 2000s**

A big shift occurred at the turn of the millennium, when sustainable finance started to acquire favour among the general public. There are a number of variables that contributed to this development:

**a) Scandals in the Corporate World and Financial Crises:** High-profile corporate scandals, such as Enron and WorldCom, brought to light the significance of governance issues, while the financial crisis that occurred in 2008 brought to light the necessity of a more sustainable financial system. As a result of these occurrences, regulatory scrutiny was strengthened, and there was a greater realisation of the interconnection of hazards to the environment, society, and the economy (Derwall et al., 2011).

**b) Awareness of Climate Change:** The scientific community's agreement on climate change and the consequences it could have on the economy sparked an interest in environmental sustainability. Having been adopted in 1997 and entering into force in 2005, the Kyoto Protocol was a landmark international agreement that was aimed at lowering emissions of greenhouse gases. This agreement further emphasised the significance of including environmental factors into the process of making financial planning decisions (Dorfleitner et al., 2015).

**c) Interventions of the United Nations:** As part of its efforts to advance sustainable finance, the United Nations (UN) has initiated a number of initiatives, such as the Principles for Responsible Investment (PRI) in 2006 and the Sustainable Development Goals (SDGs) in 2015. Additionally, the PRI offered a global framework that institutional investors could use to incorporate environmental, social, and governance (ESG) considerations into their investing operations (Dorfleitner et al., 2015).

**d) An Increase in Green Bonds:** Within the realm of sustainable finance, the year 2007 marked the beginning of a new era with the European Investment Bank's issuing of the very first green bond. To raise cash for projects that have positive effects on the environment, such as renewable energy, energy efficiency, and sustainable agriculture, green bonds are fixed-income instruments that are designed to raise capital. During this time period, the market for green bonds has experienced exponential growth, which has attracted a wide variety of issuers and investors (Atz, 2021).

### **1.2.5 Recent Developments in Regulation**

A growing number of governments and regulatory agencies all over the world are beginning to acknowledge the significance of sustainable finance in the process of accomplishing broader policy objectives, such as the reduction of climate change and the promotion of social empowerment. For instance, the Sustainable Finance Action Plan of the European Union, which was introduced in 2018, has the objectives of refocusing capital flows on sustainable investments, managing the financial risks that are a result of climate change, and fostering openness and long-termism in the financial markets (De La Cuesta-González et al., 2006).

### **1.2.6 Demand from Investors**

The continued demand from investors for environmentally responsible investment products is being driven by a variety of factors, including the following:

**a) Managing Risk:** Investors are becoming more conscious that environmental, social, and governance (ESG) problems can have a substantial impact on a company's financial success. An example of this would be the fact that climate change provides a physical risk to assets, yet poor governance can result in scandals within corporations and financial losses.

**b) Value Alignment:** A significant number of investors, particularly younger generations, are interested in aligning their investments with their values and supporting businesses that contribute to improving the social and environmental results of their operations (Scholtens, 2011).

Several studies have demonstrated that sustainable investments can perform just as well as traditional investments over the course of a lengthy period of time, and in certain cases, even better than traditional investments. Because of this, the notion that there is a trade-off between financial gains and sustainability has been helped to be exposed and dispelled (Eccles et al., 2020).

### **1.2.7 Progress in technological innovation**

Big data, artificial intelligence, and blockchain are just some of the technological breakthroughs that are playing a significant part in the development of sustainable finance. These technological advancements make it possible to conduct more in-depth analyses of environmental, social, and governance (ESG) data, improve transparency, and make it easier to develop novel financial products like impact investing and loans related to sustainability programs.

### **1.2.8 The Practice of Sustainable Finance in the Context of India**

As one of the economies that is expanding at the quickest rate in the world, India is confronted with a distinct set of difficulties and opportunities in the field of sustainable finance. There are substantial social and environmental problems that have arisen as a

result of the rapid economic expansion of the country. These problems include pollution, the depletion of resources, and social inequality. As a consequence of this, sustainable finance has become an increasingly significant factor in the context of India (Rajesh et al., 2017).

### **1.2.9 Beginnings of Developments**

The origins of sustainable finance in India may be traced back to the early 2000s, when the idea of corporate social responsibility (also known as CSR) started to gain hold. Under the Indian Companies Act of 2013, certain businesses were required to devote at least two percent of their average net earnings to corporate social responsibility (CSR) programs. A huge step forward was taken by this piece of legislation, which encouraged businesses to participate in activities that were beneficial to both society and the environment (Fatemi et al., 2013).

In the years following the initial issue of green bonds by Yes Bank in 2015, the market for green bonds in India has witnessed tremendous expansion. A wide variety of initiatives, such as those involving renewable energy, energy efficiency, and sustainable transportation, have been financed through the use of green bonds. In addition, the Indian government has been instrumental in providing support, as evidenced by the fact that organisations such as the Securities and Exchange Board of India (SEBI) have issued rules for green bond issuances in order to guarantee credibility and transparency (Plimmer et al., 2015).

### **1.3 Opportunities & Obstacles to Overcome**

In spite of the progress that has been accomplished, there are still a number of obstacles to overcome in order to build sustainable finance in India:

**a. Understanding and Education:** There is a need for investors, entrepreneurs, and policymakers to have a higher understanding of the benefits and opportunities involved in sustainable finance, as well as education on these benefits and opportunities (Nagy et al., 2016).

**b. Information and Explanation:** Investors continue to have challenges in evaluating and contrasting the sustainability performance of different companies due to the limited availability and quality of environmental, social, and governance (ESG) data (Global Sustainable Investment Alliance, 2020).

**c. Regulatory Framework:** Although there have been some encouraging developments, there is a continuing need for a regulatory framework that is both more comprehensive and uniform in order to facilitate the expansion of sustainable financing.

### **1.3.1 The following are some of the big opportunities that exist:**

**a. Renewable Energy:** India possesses a significant amount of untapped potential for renewable energy, particularly solar and wind power. In order to fulfil the lofty renewable energy targets set by the country, sustainable finance has the potential to play a crucial role in the process of mobilising the necessary money (Park et al., 2019).

**b. Impact Investing:** India is home to a thriving social enterprise sector, and more and more people are becoming interested in impact investing as a means of financing firms that provide positive social and environmental benefits (Giese et al., 2019).

**c. Technology and Innovation:** Leveraging technology and innovation can improve the efficiency and effect of sustainable finance in a variety of ways, including the development of new financial products and the improvement of ESG data analysis.

To summarise, the development of sustainable finance is a reflection of a larger shift towards incorporating sustainability into the fundamental aspects of financial

decision-making. The growing momentum in sustainable finance gives enormous opportunity for investors, firms, and policymakers to contribute to an economy that is more sustainable and inclusive. Despite the fact that problems still exist, these opportunities are worth considering. Within the context of India, sustainable finance is becoming an increasingly crucial component in solving the one-of-a-kind social and environmental concerns that the country faces while also supporting the country's economic growth and development (Liang et al., 2017).

### **1.3.2 Current Trends in Sustainable Investment**

Over the last decade, the trend of sustainable investing has emerged which is defined as the integration of ESG factors into investment management and decision-making (Whelan et al. , 2021). The purpose of this strategy is to obtain sustainable financial profits and, at the same time, to have a positive influence on the entire society. The shift in investors' demands, legal frameworks' evolution, technological advancements, and better understanding of sustainable concerns are all the factors that are shaping sustainable investment environment that is dynamic. In this section, the current trends in sustainable investing will be discussed for the emerging industries and the most frequently used strategies, with special focus on the Indian context (Haigh et al. , 2004).

### **1.3.3 Trends of Sustainable Investment in Different Countries**

ESG integration has become perhaps the most prominent development in sustainable investing due to its wide appeal. This technique aims at recognizing threats and opportunities that may affect the long-term value of investment, and involves the process of integrating ESG factors into the investment analysis process. Due to its implementation by almost all asset managers and institutional investors all over the world, ESG integration has moved from being a niche practice to a standard practice

(Mohr et al. , 2005). Such as a rise in the scale of green bonds and bonds associated with sustainability. Green bonds are debt instruments that are used to fund projects that are considered to have a beneficial impact on the environment. Such projects are the use of renewable energy, energy conservation, and water resource management. On the other hand, actual sustainability targets that the issuer wants to achieve, like reducing carbon emissions or improving energy efficiency, are a condition for SSBs issuance. These instruments allow the investors to invest in environment-friendly projects while at the same time he or she will be earning some returns (El Ghoual et al. , 2011).

**1) The evolution of the impact investing:** There is another type of investment approaches called impact investments and the purpose of such approach is the generation of positive social and environmental effects along with the growth of financial returns. This method is different from the ESG integration and goes beyond the ESG integration as it is based on the investments that are directly aimed at the solving of some social or environmental issue, for example, the affordable housing, the renewable energy, or the education. Due to the massive expansion of the impact investing industry, a broad range of investors including foundations, family offices, and institutions have grown quite interested in it (Landau et al. , 2020).

**2) Concentrate on the problem of climate change:** Climate change has now become one of the most important issues that investors with an interest in sustainability are now facing. This category embraces expenditure in renewable energy, energy efficiency and low carbon technologies. Moreover, attempts are made to assess and manage climate-related risks in the investment portfolios. The TCFD is only one of the initiatives that has called for a higher level of reporting the climate risks and opportunities (Friede et al. , 2015).

**3) The latest trends in the use of Environmental, Social, and Governance (ESG) data and analysis:** Technological advancements have enhanced the ESG data and analytics information available in the market nowadays. The advancements in information technology including big data, artificial intelligence, and machine learning allow investors to make informed decisions because of the large volumes of information on ESG factors. The new ESG indices, ratings and benchmarks that are being created due to better data and analytics are also enabling a better assessment and comparison of sustainable investments (Meyer et al. , 2010).

#### **1.3.4 Regulatory Changes and Developments**

What is evident is that governments and regulatory authorities are now beginning to understand the importance of sustainable finance and are implementing policies and regulations that would aid the growth of the concept. For instance, the EU's Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy Regulation are intended to increase transparency and harmonise sustainability information. Such legislative actions are increasing accountability and parity in sustainable investment management, which is a good thing (Hoepner et al. , 2009).

#### **1.3.5 Sustainable Investment Markets for Emerging Markets**

**a) Renewable Energy:** The area of renewable energy has remained as one of the most active areas in sustainable investment capital. Thus, combating climate change and minimizing the emission of greenhouse gases requires the global shift to clean energy sources. Such sources include solar and wind energy as well as hydroelectric energy. Renewable energy projects give one a chance to earn a lot of money by investing in the same while at the same time conserving the environment. Tremendous capital has flowed into renewable energy industry in India due to the government's objectives and policies that are friendly to the sector (Wu et al., 2017).

**b) Sustainable agriculture and food systems:** Nowadays, the subjects of sustainable agriculture and food systems are gradually gaining popularity as the sectors that need investments. These investments are aimed at the promotion of effective and environmentally friendly practices in agriculture and the improvement of food security and the environmental impact of the food produced. Some of the major areas of interest for investors in sustainable food systems include technology like the Organic farming, Precision farming, and sustainability of the supply chain (Humphrey et al., 2012).

**c) Electric cars and other forms of green transport:** Another emerging trend of sustainable investing includes the transport sector especially the electric vehicles and other environmentally friendly vehicles. Governments and consumers are now opting to invest in manufacturing electric vehicles, charging facilities and other related technologies so that to reduce their dependence on fossils and their emission of carbon. Due to the government of India initiatives in electric mobility, this sector has been given favourable climate for investment in the country (Goss et al. , 2011). An example of such activity includes the FAME plan for the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (Leins, 2020).

**d) Sustainable real estate and environmentally friendly building:** Green buildings and sustainable real estate are becoming increasingly popular investment targets due to the fact that they have the ability to cut energy consumption, minimise operating costs, and improve the well-being of occupants. Increasing amounts of money are being put into green certifications, energy-efficient structures, and sustainable building materials. Some examples of green certifications include LEED and BREEAM. In India, there is a growing need for environmentally responsible urban development and smart cities, which give considerable prospects for investment in environmentally conscious real estate developments (Rochlin et al., 2015).

**e) The Administration of Water and Waste:** When it comes to water and waste management, investments are very necessary in order to address environmental sustainability and maximise resource efficiency. Investments in technologies and infrastructure for water purification, wastewater treatment, recycling, and waste-to-energy solutions are included in this category. The government of India has launched a number of initiatives, such as the Swachh Bharat Mission and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), with the objective of enhancing sanitation and waste management, hence generating opportunities for sustainable investment.

**f) Well-being and health concern:** As a result of the COVID-19 epidemic, the importance of health and well-being has been brought to light, which has led to an increased interest in investments that promote social sustainability. Investments in affordable housing, healthcare infrastructure, and technologies that improve public health and safety are all included in this category. The objectives of sustainable investment are aligned with the approach that is being taken in India, which is to improve the accessibility and quality of healthcare while also developing projects that provide cheap housing (Serafeim, 2020).

### **1.3.6 India Needs Long-Term Investment**

#### **1) Policies and programs made by the government**

For the purpose of promoting long-term investments, there are certain programs and rules in India formulated by the government. Some important projects are:

**a) National Action Plan on Climate Change (NAPCC):** To address climate change through eight national missions including the National Mission for Enhanced Energy Efficiency and the National Mission for Solar Energy. The purpose of these missions is to help develop sustainable economy, energy intensity and renewable energy.

**b) Goals for Renewable Energy:** India has ambitious targets for renewable energy, for instance, the target of 175 GW of power from renewable sources by 2022 and 450 GW by 2030. Due to these goals, a lot of money has been invested into solar, wind and other green energy avenues (Cheng et al. , 2014).

**c) Green Finance Initiatives:** Some of the green finance programmes include; the Indian government has allowed both public and private schools to issue green bonds. SEBI has also provided regulations for issuing green bonds to ensure they are genuine and not a scam.

**d) Swachh Bharat Mission:** The motive of Swachh Bharat Mission is to clean India and make it more efficient in handling garbage. This project has created opportunities to fund technologies and systems for waste management (Robinson et al. , 2011).

## **2) Private Sector Participation**

India's private industry is gradually waking up to the fact that it cannot afford to make only short term investments anymore. Today, some of the large companies in India are adopting ESG practices and integrating sustainability into their business strategies. Tata Sustainability Group and Mahindra Sustainability are some of the corporate sustainability programs that are improving the living standard of the world.

**a) To place ESG factors into financial institutions:** Banks, asset managers and insurance companies in India are also considering the ESG factors while deciding the place to invest or make loans. For instance, SBI has an ESG framework for its financing operations in the country. Moreover, several Indian asset managers provide mutual fund and financial solutions related to ESG concerns (Eccles et al. , 2014).

**b) Social businesses and impact investing:** India has a very healthy impact investing market, where more and more investors and funds are investing in social

business and projects related to environmental and social issues. The NIIF and the IIC are among the groups that are raising impact investment cash in a big way.

**c) Challenges and chances:** Even though there has been success, there are still some problems that need to be solved before India can have sustainable investment: Even though there has been success, there are still some problems that need to be solved before India can have sustainable investment.

Thus, for investors, companies, and policymakers, it is crucial to know more about sustainable investment and be more aware of it.

**1) Data and Disclosure:** We do not have much good quality ESG data at the moment and unfortunately for buyers there is not a lot that they can use to compare and assess how well companies are doing on the sustainability front.

**2) Regulatory structure:** There has been some improvement in the previous years, but for the sustainable investment to expand, there is a requirement of a more comprehensive and coherent regulatory framework (Fatemi et al. , 2018).

**3) Renewable Energy:** India is a blessed country when it comes to renewable energy especially solar and wind energy and as such there are good opportunities for long term investments.

**4) Impact Investing:** Thus, the sphere of impact investing is expanding, and there are more opportunities to finance social enterprises and initiatives to save the environment.

**5) Technology and Innovation:** Application of technology and new ideas means that sustainable investment can be done in a more efficient way and can affect more. For example, it can help to analyze the ESG data and create new financial products more efficiently.

In conclusion, sustainable investment is an area of activity that is not constant (Clark et al., 2015). This is because investors' preferences are never constant, rules are never constant, technology is always improving, and people are learning more about the sustainability issues. Sustainable finance is the newest concept and trends in this area are an extension of the concept of integrating sustainability into all financial choices. Sustainable business is gradually gaining importance in India as a tool to address the country's specific social and environmental issues and to support its economic growth and development. Thus, the dynamics of the sustainable investments' world means great opportunities for investors, companies, and policymakers to contribute to the making of the economy more sustainable and fair for all the people (Riedl et al., 2017).

#### **1.4 Research Problem**

India has become very concerned about sustainable financial management. This is part of a worldwide trend to include environmental, social, and governance (ESG) factors in financial decisions. India has made a lot of progress in economic growth and development, but the country still has a long way to go before its financial systems are truly sustainable. This part talks about the problems that are happening now with sustainable spending in India and explains how this study plans to fix them (Clark et al., 2015).

##### **1.4.1 Current Problems in India with Long-Term Financing**

**1. Not enough knowledge and understanding:** One of the biggest problems with sustainable financial management in India is that stakeholders like companies, financial institutions, and investors don't know much about or understand ESG principles. Even though more and more people are becoming aware of how important sustainability is, a lot of businesses still don't fully understand how to incorporate these ideas into their

financial plans. This lack of understanding makes it harder for sustainable practices to be widely used, which in turn limits the effectiveness of sustainable financing programs (Gillan et al., 2021).

**2. Gaps in regulations and policies:** The Indian government and governing bodies have put in place a number of guidelines and policies to encourage sustainable finance, but there are still big problems with how they are being used and enforced. The National Action Plan on Climate Change (NAPCC) and the Securities and Exchange Board of India's (SEBI) recommendations on Business Responsibility and Sustainability Reporting (BRSR) are both good ideas. But there isn't a consistent regulatory system, and policies aren't always followed. This causes a lot of problems. These gaps make things less clear and make businesses less likely to use environmentally friendly methods (Yoon et al., 2011).

**3. Financial products and instruments that don't work well:** India does not have a lot of financial goods and instruments that can be used for sustainable financing. Green bonds, social bonds, and loans with sustainability links are becoming more popular, but they still don't have as much of a market share as other financial goods. To some extent, this is because the Indian market for sustainable finance is still very new, and investors don't trust these products very much. There aren't enough different types of sustainable financial goods, which makes it harder for investors to make sustainable investments.

**4. Problems with Measuring and Reporting on Sustainability:** Another important problem in India's sustainable financial management is how to measure and report on sustainability performance. It's not easy to compare how well businesses do in terms of environmental, social, and governance issues (ESG). This lack of consistency makes it hard for investors and other important people to correctly judge the

sustainability credentials of businesses. Also, the way reports are made now isn't always clear or reliable, which makes the review process even harder (Gillan et al., 2021).

**5. Access to Finance for Small and Medium-Sized Businesses (SMEs):** SMEs are very important to India's economy, but they have a hard time getting long-term financing. A lot of small businesses don't have the money or knowledge to start using environmentally friendly methods, and it can be hard for them to meet the strict requirements needed to get green financing. This exclusion makes it harder for businesses across all types of industries to adopt sustainable practices. This slows down the general progress towards sustainable development.

#### **1.4.2 Contribution of the Current Study**

This study's goal is to deal with these problems by giving a full look at India's sustainable financial management practices. The study's contributions can be summed up like this:

**1. Raising Awareness and Knowledge:** The study aims to raise awareness and knowledge of ESG principles among different parties by doing a deep analysis of sustainable financial management. Businesses, financial institutions, and lawmakers will find the results and suggestions useful. They will help them understand and use sustainable practices better (Gelb et al., 2021).

**2. Evaluating Regulatory Frameworks:** The study will take a close look at India's current policies and regulatory frameworks for sustainable banking. The study's goal is to give lawmakers useful suggestions for making the regulatory environment more cohesive and effective by finding the gaps and inconsistencies. This evaluation will help make rules easier to understand and make sure they are followed correctly.

**3. Looking at Financial goods and Instruments:** The study will look at the current state of India's sustainable financial goods and instruments. The study's goal is to

make sustainable financial tools more available and appealing by looking at the things that stop people from using them and suggesting ways to get around these problems. This will make investors and companies more likely to take part in sustainable finance (Capelle-Blancard et al., 2014).

**4. Making standardised reporting frameworks:** The study will suggest standardised metrics and frameworks for ESG assessment to help with the problems that come up when trying to measure and report on sustainability. The goal of these frameworks is to make sustainability reports more clear, dependable, and comparable, which will help investors and other parties make better decisions.

**5. Making it easier for small businesses to get access to sustainable finance:** The study will look at the unique problems small businesses have getting access to sustainable finance and come up with custom ways to solve these problems. By finding the best practices and successful case studies, the study will help small and medium-sized businesses (SMEs) adopt sustainable practices and get green financing (Gelb et al., 2021).

In conclusion, this study wants to make a big difference in the field of India's healthy financial management. The study's goal is to make the country's financial system more stable and long-lasting by looking at the problems that are already there and giving suggestions that can be put into action. In turn, this will help India reach its larger goals of healthy development and growth for all (Friede et al., 2015).

## **1.5 Aims & Objectives**

The main goal of this study is to find out how buyers feel about sustainable financial management and what makes them choose which investments to make in terms of sustainability. This knowledge is very important for filling in the holes and

encouraging the use of long-lasting methods in money management. In order to reach this goal, the study is led by the following specific goals:

**Goal 1:** To find out how much investors know about sustainable financial management and how that knowledge affects their choice. Being aware of healthy financial management is a must before it can be used. The goal of this aim is to find out how much investors know about the ideas and methods of sustainable financial management. The study wants to find out if investors know how important it is to include environmental, social, and governance (ESG) factors in their business plans by looking at how aware they are of these issues. This goal also looks into how their knowledge (or lack of it) affects how they make decisions.

**1. Evaluation of Levels of Knowledge:** Investors will be surveyed as part of the study to find out how much they know and understand about the ideas behind sustainable financial management. Knowing about ESG criteria, sustainable financial goods (like green bonds and social bonds), and sustainability-related rules set by the government are all part of this (Lins et al., 2017).

**2. How it affects making decisions:** The study will find out how investors' choices are affected by their knowledge of sustainable financial management by linking levels of awareness with investing decisions. This includes choices about how to build a portfolio, what kinds of financial tools to use, and how to work with companies that have good sustainability practices.

**Goal 2:** To find out what investors think about risk management and sustainable finance management. How investors feel about sustainable finance management has a big impact on how they spend and what they do. The point of this goal is to find out how buyers see the connection between risk management and sustainability. Understanding

these views will help you understand why investors are interested in sustainable investments and what worries them.

**1. Perceived Benefits and Risks:** The study will look at how investors feel about the benefits of incorporating sustainability into financial management, such as better long-term financial performance, lower risk, and being in line with ethical ideals. On the other hand, it will also look into risks that people think might happen, like possible trade-offs between sustainability and financial gains, as well as the unknowns that come with changes to regulations (Humphrey et al., 2012).

**2. Integration into Risk Management:** The study will look at how investors think sustainability fits into the process of controlling financial risks. This means finding out if buyers see sustainability as a way to lower the risks that come from social and environmental issues, as well as how they use ESG criteria in their risk assessment systems.

**Goal 3:** To find out what makes investors choose one investment over another when it comes to sustainability.

There are many things that affect investors' choices, especially when it comes to sustainability. This goal is to find and study these factors so that we can figure out what helps or hurts decisions about sustainable investments.

**1. Motivating Factors:** The study will find the main factors that motivate people to make sustainable purchases. This includes things like moral concerns, long-term financial success, incentives from the government, and pressure from society (Glaeser et al., 2022).

**2. Barriers to Adoption:** At the same time, the study will look at the things that make buyers not want to use sustainable financial management. Some of these barriers are a lack of accurate data, the belief that sustainable investments will cost more, the fact

that there aren't many sustainable financial goods available, and doubts about their ability to make money.

**3. Effects of Outside Factors:** The study will also look at how outside factors like rules and regulations, market trends, and new technologies affect buyers' choices. If you understand these factors, you'll have a full picture of the business landscape and the outside forces and chances that affect how investors act.

## **1.6 Pros & Cons of sustainable financial management**

To get more people to use sustainable finance management, it's important to look closely at both its pros and cons. Focus of this goal is to look at the pros and cons that investors and financial companies face when they try to use sustainable practices.

**1. Analysis of Benefits:** The study will talk about the benefits of healthy financial management that can be seen and felt. Better financial performance, lower risk, and access to new markets and investment possibilities are all real benefits. Some examples of intangible benefits are a better company image, more trust from stakeholders, and helping to reach bigger social goals.

**2. Problems and Solutions:** The study will look into the problems owners face when they try to use sustainable financial management, such as following the rules, the extra costs, and adding ESG factors to standard financial models. It will also suggest possible ways to deal with these problems, giving investors and lawmakers suggestions they can follow (Jones et al., 2018).

**3. Case Studies and Best Practices:** To help with the research, the study will include examples of how sustainable finance management has been used successfully in the past. As examples for other businesses and financial institutions, these case studies will show the best ways to do things and new ideas that have worked in the past.

In short, the study's goal is to give a full picture of how investors in India think about sustainable financial management, including the factors, benefits, and problems that come with it. By reaching these goals, the study hopes to provide useful information that can help make more effective and inclusive sustainable finance plans. This will eventually lead to a more stable and long-lasting financial system in the country.

### **1.7 Research Questions And Hypothesis**

**RQ1:** How does the investor's level of awareness pertaining to Sustainable Financial Management vary and what impact it has on their Decision Making?

**RQ2:** What are the perceptions of the investors regarding Sustainable Finance Management and Risk Management?

**RQ3:** What are the factors that impact investors' investment decisions in the context of Sustainability?

**RQ4:** What are the benefits and challenges pertaining to Sustainable Finance Management?

**Hypothesis 1:** Sustainable financing enhances long run financial performance more than conventional financing techniques. This hypothesis is based on the unfolding literature that shows how ESG factors impact credit risk-adjusted ex ante required returns and that these factors improve risk management, create new markets and boost stakeholders' confidence. The research will examine if sustainable investments underperform or outperform traditional investments over a long period (Friede et al., 2015).

**Hypothesis 2:** The research evidence established that firms who implemented ESG factors into the actual financial models receive more initiatives from various parties of interest, as well as identified more often as preferred vendors by their customers. The

rationale for this hypothesis is to stake the claims that firms with superior ESG scores possess superior capabilities in terms of developing and sustaining the trust of the stakeholders, be it investors, customers, or the employees. The study will examine the link between ESG integration and key stakeholders' engagement benchmarks like, customer loyalty, employee satisfaction, and investors' attention (Gregory, 2014).

**Hypothesis 3:** Cross sectional analysis reveals significant and positive effects of sustainable financing on financial performance. This hypothesis responds to the existing literature and the lack of research towards the sector and regional divergences in ESG integration. The evaluation will also analyse if some industries like the technological or farming sector benefits from sustainable funding more than others do. Furthermore, it will analyze how different from developed countries, ESG aspects are incorporated into emerging economies (Broadstock et al., 2021).

**Hypothesis 4:** ESG metrics will increasingly be aligned to international standards making the sustainability of finance more comparable. proxy, this hypothesis considers the requirement for greater standardised and general application of ESG scores in order to enhance the evaluation of sustainable investment. Through the research, the study will aim to find out whether use of standard reporting frameworks results in increased disclosure and comparability of ESG performance to aid in investment decisions, (Chatterji et al., 2016).

**Hypothesis 5:** Another way that sustainable finance is superior to conventional finance is that it has proven to be less vulnerable to market perturbations and general economic problems. Extending from the view that firms with better ESG scores are less vulnerable to various forms of external pressures including the downturn in the economy or disasters, among others. Stakeholders will use the research to compare sustainable

finance portfolios with the traditional investment portfolio in relation to volatility and returns in unsettled markets (Gibson et al., 2019).

### **1.8 Significance of the Study**

This study on sustainable financial management in India is important because it adds to both the real and theoretical fields. In the real world, this study talks about how important it is to quickly incorporate sustainability into financial practices in order to protect and strengthen the economy in the long run (Goss et al., 2011). The study looks at how investors think about sustainable finance, how aware they are of it, and what makes them make choices. It then gives financial institutions, policymakers, and businesses useful information that they can use to make and use more effective sustainable finance strategies. These strategies can get investors more involved, help with risk management, and encourage the creation of long-lasting financial goods, which will fill in the gaps in the market.

The study's results can also help lawmakers figure out what changes need to be made to regulations and rules to encourage sustainable financial practices. The study finds the problems and obstacles that investors, especially small and medium-sized businesses (SMEs), face and then makes specific suggestions to make it easier for them to get access to sustainable finance. All parts of the economy can add to and benefit from sustainable development projects, which can lead to more inclusive economic growth (Khan et al., 2016).

Theoretically, this study adds to what is known about sustainable financial management by looking at the Indian situation in great detail. It fills in the gaps in the research about the unique problems and chances in the Indian finance system. This study opens the door for more academic and real-world research on sustainable finance by

adding to the theory discussion on the topic (Kim et al., 2015). As a result, it makes researchers want to learn more about how sustainability and financial success are connected. This helps us understand how sustainable finance can help the economy and society grow. Additionally, this study is important because it has the ability to make a real difference in both practice and theory, which will help India move towards a more stable and fair financial system.

## CHAPTER II: REVIEW OF LITERATURE

Sustainable finance is a term used to describe the idea where financial performance and ESG goals can be achieved simultaneously, or in other words is the utilization of the finance theory in the consideration of the triple bottom line. It has recently become one of the most essential models in the world economy because of looming problems such as climate change, dwindling resources and inequality. This theoretical background of the concept of sustainable finance is based on several fundamental theories of economic, financial, and environmental sciences, which reveal how financial systems can contribute to sustainable development.

It is one of the most popular theories in finance and forms the basis of most of the investment decisions made to this day. It's entitled – The Modern Portfolio Theory – MPT was propounded by Markowitz in the year 1952. According to MPT, investors are capable of attaining the highest expected returns for a given risk through the process of diversification across the investment classes. In particular, this paper builds on the work of the influential MPT model, which deals with the financial risks and returns, although in the context of sustainable finance the concept has been expanded to address the ESG factors.

ESG integration into MPT is carried out on the assumption that factors include ESG risks, including climate change and social unrest, which may impact the performance of companies, and consequently, should be taken into account in portfolio management. ie Companies with bad environmental practices may suffer penalties in the form of fines and liability lawsuits or the loss of reputation all of which may cost the company's stocks . While firms with higher levels of ESG risk may underperform peer firms in the long run because they are exposed to these risks (Khan et al., 2016).

A number of the empirical research works have extended the contention of adding ESG factors into portfolio management mostly to improve its resulting financial performance. For instance, Friede et al. (2015) conducted a meta-analysis on more than 2,000 papers, based on which they identified that most of the research evidenced the association between ESG integration and financial performance reliably positive.

The Efficient Market Hypothesis (EMH) commonly known as a theory by Fama (1970), goes ahead to argue that markets are efficient, that is, prices contain all data that could be obtainable. From the efficient market hypothesis, it is mechanically implausible to beat the market since any data is immediately assimilated into share prices. Nonetheless, via analysing the evidence respecting EMH and integrating ESG information in sustainable finance, the validity has been in debate.

One factor is that most ESG information is not exhaustive or standardized, hence they lack sufficient data by which they can judge the stability of an organization. To overcome this, there are a number of programs and frameworks like Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB for ESG reporting). These initiatives have therefore been directed towards helping common ESG information in an effort to promote efficiency in the market as well as assist investors make a better decision (Eccles, Krzus & Serafeim, 2011).

Behavioral finance disproves the theories which form the basis of efficient market hypothesis theory and modern portfolio theory by asserting that people are not rational when making economic decisions.

The first reason could be proximity bias whereby investors overemphasize on short term gains to the detriment of the firm's sustainability. This is usually due to market self-interest, where it is influenced by the market forces such as the quarterly returns and

performance standards that compel investors to focus on the current short-term gains at the expense of long-term gains (Hoepner et al., 2021).

Using concepts of behavioral finance also helps in explaining the increasing trend towards sustainable investment products. For instance, the “warm-glow” effect provides a clear indication that investors get joy out of investing their money in organizations they like, for example, environmentally friendly organizations or those supporting causes they hold dear. This influence has led to the creation of impact investment in which the investor aims at achieving financial value together with social or environmental value (Bollen, 2007).

The second approach, institutional theory, focuses the external environment and how it affects organizations through serving as a source of rules by which the organization can be guided. In assessing sustainable finance, institutional theory underscores the use of regulation as an instrument of encouraging the management of financial institutions into the dimensions of ESG factors into their decision-making apparatus.

Supervisory and fiscal measures of the governments as well as the regulatory authorities are sine qua non in enhancing sustainable finance by raising awareness of the guidelines and standards that require or promote the integration of the ESG factors. For instance, while the European Union’s Sustainable Finance Disclosure Regulation (SFDR) expects asset managers and financial advisors to report on how they incorporate sustainability risks into their governance structures. Similarly, India’s SEBI has made ESG disclosures compulsory for 1000 largest firms of India using the Business Responsibility and Sustainability Report framework (SEBI, 2021).

Informal blueprint also has significant effects on the shape of financial institutions apart from formal rules and regulations; the Principles for Responsible Investment (PRI)

and the United Nations-supported Sustainable Development Goals (SDGs). These initiatives have played the role of increasing consciousness of sustainable finance practices and have acted as guidelines to investors looking to integrate portfolios with objectives of sustainable development (Sullivan et al., 2017).

As applied to the concept of sustainable finance, the idea of a theory of change is of great interest to those investors who are in pursuit of positive impact alongside profitable returns. There are tools available that investors can use to know how much impact they are creating, they include the impact management project (IMP) and the global impact investing network (GIIN) (Bugg-Levine & Emerson, 2011).

The conceptual underpinning of sustainable finance incorporates elements of mainstream theories and models which fall under finance, environmental economics and behavioral psychology. These theories form the basis for the analysis of how different financial institutions can incorporate ESG dimensions with investment decisions and support the sustainable economy. It can be stated that the reflections discussed in this paper indicate a way for financial institutions to not only monitor risks more efficiently but also contribute to the implementation of the global sustainability goals in their investment processes.

## **2.1 Theoretical Framework of Sustainable Finance**

The concept refers to the integration of financial practices with Environmental, Social, and Governance (ESG) goals to create long-term value. At its core, sustainable finance is about striking a balance between economic growth and the need for responsible resource management, recognizing that financial systems can play a crucial role in promoting sustainability (Fiorini, 2021).

### **2.1.1 The Triple Bottom Line (TBL) Approach**

The foundation of sustainable finance lies in the triple bottom line (TBL) approach, which extends traditional financial performance metrics by including environmental and social factors. Introduced by John Elkington in 1994, the TBL model emphasizes three key dimensions: people, planet, and profit. This framework suggests that businesses and investors should not focus solely on financial gain but should also consider their impact on society and the environment (Elkington, 2022).

The TBL approach has shaped the evolution of sustainable finance, providing a lens through which companies and investors evaluate their activities. Financial returns are still a priority, but sustainable finance demands that these returns do not come at the expense of environmental degradation or societal harm. By integrating ESG factors into investment decisions, sustainable finance enables organizations to mitigate long-term risks and capitalize on emerging opportunities related to sustainability (Hahn & Preuss, 2020).

### **2.1.2 Stakeholder Theory and Sustainable Finance**

One of the most important theoretical underpinnings of sustainable finance is stakeholder theory, which contrasts with traditional shareholder-focused financial models. Developed by R. Edward Freeman in the 1980s, stakeholder theory posits that organizations should create value not only for their shareholders but also for a broader range of stakeholders, including employees, customers, suppliers, communities, and the environment (Freeman et al., 2021).

This shift away from short-term profit maximization to long-term sustainability reflects a growing recognition that the well-being of all stakeholders is interconnected (Kumar & Singh, 2021). Companies that prioritize ESG factors tend to build stronger reputations, foster loyalty among customers and employees, and reduce operational risks, all of which contribute to long-term financial success.

### **2.1.3 Efficient Market Hypothesis and Sustainable Finance**

The efficient market hypothesis (EMH), a fundamental theory in finance, suggests that financial markets are capable of efficiently processing information to reflect the true value of assets. However, traditional EMH primarily focuses on financial data and ignores ESG factors. In the context of sustainable finance, a new interpretation of EMH emerges, which asserts that markets can efficiently incorporate ESG information into asset prices (Gibson et al., 2020).

By considering these risks, sustainable finance encourages investors to make more informed decisions, thereby reducing potential market inefficiencies and promoting long-term value creation (Baker & O’Kane, 2022).

### **2.1.4 Portfolio Theory**

Markowitz’s Modern Portfolio Theory (MPT), introduced in 1952, emphasizes diversification to optimize the risk-return profile of a portfolio. Sustainable finance has adapted MPT to include ESG factors in portfolio construction. Investors no longer view ESG factors as separate from financial performance but as integral components that can enhance portfolio resilience (Sullivan & Mackenzie, 2020).

By incorporating ESG criteria into portfolio management, investors can reduce exposure to companies that are vulnerable to sustainability-related risks, such as those heavily reliant on fossil fuels or prone to social controversies.

### **2.1.5 Corporate Social Responsibility**

Corporate Social Responsibility (CSR) has played a crucial role in shaping the sustainable finance landscape. CSR refers to the voluntary efforts made by companies to contribute positively to society and the environment (Brammer & Pavelin, 2021).

Sustainable finance and CSR are closely linked, as both aim to align financial objectives with broader societal goals.

CSR frameworks have evolved to include ESG criteria in business operations and investment strategies.. Companies with strong CSR practices tend to attract more investment, as they are seen as less likely to face regulatory fines, public backlash, or operational disruptions due to sustainability issues (Chong et al., 2021).

### **2.1.6 Impact Investing and the Rise of ESG**

It refers to investments made with the intention of generating measurable social or environmental benefits alongside financial returns. This contrasts with traditional investing, which focuses solely on financial performance (Jackson & Harji, 2020). Impact investors actively seek opportunities where their capital can be used to address pressing global challenges, such as renewable energy, affordable housing, and healthcare access.

The rise of impact investing has been fueled by the growing recognition that financial markets can be powerful tools for achieving positive change. As more investors prioritize sustainability, ESG metrics have become an essential part of financial analysis (Bannister et al., 2022).

This approach reflects a broader shift in the financial world, where investors and companies are increasingly recognizing the importance of sustainability in driving future growth and resilience.

## **2.2 Key Principles of Sustainable Development**

Economic development, Social inclusion, and Environmental sustainability. These pillars are often referred to as the “three Ps”: people, planet, and profit. For development to be truly sustainable, all three must be considered equally and integrated into decision-making processes across sectors.

**i. Economic Sustainability:** Economic sustainability involves creating systems that support continuous economic growth without exhausting natural resources or causing

harm to the environment or society. It requires fostering innovation, creating job opportunities, and promoting efficient use of resources, while also ensuring that economic activities remain resilient in the face of challenges such as climate change and resource depletion (Miller & Spoolman, 2021). It encourages businesses and governments to consider the environmental and social impacts of their financial decisions, ensuring that economic activities contribute to the well-being of both present and future generations (Smith & Whelan, 2021).

**ii. Social Sustainability:** Social sustainability focuses on improving quality of life, reducing inequality, and ensuring access to basic resources and opportunities for all people. Social sustainability also promotes inclusive communities where all individuals can participate and benefit from development processes (Bertels et al., 2021). In the context of sustainable development, the goal is to create a society where growth and progress do not come at the expense of marginalized or vulnerable groups. This requires policies and actions that address disparities in wealth, health, and opportunity. Social sustainability is particularly important in a globalized world where economic activities in one region can have far-reaching impacts on communities elsewhere (Rees, 2021).

**iii. Environmental Sustainability:** Environmental sustainability is the backbone of sustainable development. This includes mitigating the impacts of human activities on biodiversity, water, air quality, and climate, while promoting the use of renewable resources and reducing waste and pollution (Rockström et al., 2021). The challenge of environmental sustainability has become increasingly urgent in the face of climate change, which threatens not only ecosystems but also economies and human societies. Achieving environmental sustainability requires adopting practices that reduce greenhouse gas emissions, minimize resource consumption, and protect habitats and species from degradation (IPCC, 2021). Sustainable finance helps drive this by steering

investments toward environmentally responsible projects, such as renewable energy, energy-efficient technologies, and sustainable agriculture.

In the financial world, the principle of intergenerational equity has led to the development of strategies that prioritize long-term value creation. This includes not only mitigating the negative impacts of financial activities but also fostering positive outcomes through impact investing and ESG integration (Doherty et al., 2022).

**a. The Role of the Brundtland Report:** The Brundtland Report played a transformative role in shaping global perspectives on development and sustainability. Its release marked a turning point, as it framed sustainable development as a global priority requiring collective action. The report recognized that development was essential to meeting the needs of people worldwide, particularly in developing countries, but that it could not come at the expense of the planet's ability to support life in the future (World Commission on Environment and Development, 1987).

**b. Sustainable Development in Practice:** Sustainable development requires coordinated efforts across governments, businesses, and civil society. Policies, regulations, and incentives must be designed to encourage sustainable practices and investments. In practice, this means shifting away from traditional models of development that prioritize short-term economic gains over long-term sustainability. Sustainable finance is one way to operationalize sustainable development. By integrating ESG criteria into investment decisions, financial markets can channel capital toward projects and companies that contribute to sustainable development goals. Examples of such projects include investments in renewable energy infrastructure, energy-efficient buildings, sustainable agriculture, and inclusive social programs (Zhang et al., 2021).

### **2.3 Perception of Investors on Sustainable Financial Management**

SFM has become one of the most critical issues for investors, especially in developing nations like India, whose economic growth and security are increasingly linked to environmental sustainability. Investors' perception of SFM is considered instrumental in developing their investment preference or behavior. Several studies depict that there is a rising consciousness among the investors about the inclusion of sustainability into financial practices.

This awareness can be culled from the growing demand for sustainable investment products, including green bonds and ESG-themed mutual funds. Today, investors look at SFM not just as an ethical commitment but as a strategic tool for enhancing portfolio performance. Verma (2021) cited studies that many investors believe that companies that lead in sustainable practices are likely to outperform their peers in the long term since they tend to be good at managing risks and seizing new opportunities related to sustainability.

Perceptions of SFM among investors in India are not homogeneous, a segment of the investor population is skeptical and often looks at sustainability initiatives as marketing. Eye-catching jargon rather than substantive pledges for change. This skepticism relates to the damping of the growth of SFM, whereby investors may opt to abstain from investing in sustainable capital in case they are not that confident with the integrity of claims made by a company.

Other factors that influence perceptions of SFM are the demographic profiles of investors. Younger investors-exemplified mainly by millennials and Gen Z-tend to attach far greater priority to the aspect of sustainability than prior generations (Gupta & Agarwal, 2022). In fact, several researches have indeed identified that the young generation tends to be more actively connecting with companies whose values seem in tune and which seem serious about sustainability (Sharma, 2023).

Moreover, social media and digital platforms cannot be underestimated in driving investor mass psychology. Companies highly communicative about their sustainable initiatives through transparency in reporting and stakeholder engagement often enjoy heightened investor trust and loyalty.

Despite the encouraging trend, challenges still exist. Investors still have a very incomplete notion of SFM and, therefore, hold several misconceptions about its implications for their returns. Patel (2023) claims that some investors wrongly perceive that a sustainable investment yields lower returns than traditional investments, while research is increasingly growing to refute this notion.

Fundamentally, in India alone, investors view sustainable financial management as something that is constantly changing. As the landscape continues to shift, investor perceptions will interact with sustainable financial management to ensure sustainable practices across the Indian financial ecosystem.

## **2.4 Awareness of Investors Regarding**

The awareness of investors regarding sustainable financial management (SFM) in India is a critical factor influencing the adoption and success of sustainable investing practices. In recent years, various studies have sought to evaluate the level of awareness and knowledge that investors possess about SFM, revealing a mixed landscape characterized by both progress and significant gaps. Overall, while there has been a notable increase in awareness regarding sustainability issues, many investors still lack a deep understanding of how these issues relate to financial management and investment decisions (Kumar & Sharma, 2022).

Research indicates that awareness of sustainability issues has grown among Indian investors, largely driven by increasing public discourse on climate change, social

responsibility, and corporate governance (Singh et al., 2023). The rise of digital media and social networks has facilitated the dissemination of information regarding sustainable practices and the importance of ESG factors in investment. Many investors now recognize that sustainability is not just a trend but a fundamental component of long-term financial performance (Reddy, 2021).

Studies suggest that these younger demographics are more likely to prioritize ethical considerations in their investment choices, seeking to align their portfolios with their values. Nevertheless, while younger investors are more engaged, they still require education on the specific mechanisms of SFM, such as how to evaluate sustainability metrics and incorporate ESG factors into their investment strategies (Bansal & Verma, 2022).

On the other hand, older investors tend to have a more traditional view of investing, often focusing primarily on financial returns rather than the broader implications of sustainability (Desai & Rani, 2021). Research indicates that many of these investors lack awareness of the potential risks and opportunities associated with ignoring ESG factors. This gap in understanding underscores the necessity for targeted educational initiatives aimed at enhancing the awareness of sustainable financial management among all investor demographics, particularly those who may be more resistant to change (Sinha, 2022).

Moreover, the role of financial institutions in raising awareness cannot be overstated. These initiatives often include workshops, webinars, and informative content that elucidate the financial implications of SFM (Chopra, 2023). However, the effectiveness of these efforts is contingent upon how well they resonate with investors. A significant challenge remains in overcoming misconceptions about sustainable investing,

particularly the notion that it may sacrifice financial returns in favor of ethical considerations (Mehta & Jain, 2023).

Additionally, the regulatory environment is evolving to support sustainable financial management practices, with various initiatives aimed at increasing transparency and accountability among companies. The introduction of guidelines for ESG disclosures and sustainability reporting is a crucial step toward enhancing investor awareness (Singh, 2022). When companies are required to provide clear and comprehensive information about their sustainability practices, investors can make more informed decisions. However, the variability in reporting standards can lead to confusion and uncertainty among investors, highlighting the need for consistent and comparable metrics (Rao, 2021).

Surveys conducted among investors have revealed that a significant portion of the population is still unaware of the existence of sustainable investment products, such as green bonds and ESG mutual funds (Kumar et al., 2023). Moreover, without a clear understanding of these products, many investors may continue to favor traditional investment avenues, inadvertently perpetuating unsustainable business practices and limiting capital flow into sustainable initiatives (Sethi, 2022).

Financial institutions, asset managers, and regulatory bodies must collaborate to create targeted campaigns that not only educate investors but also engage them through relatable narratives and success stories (Verma, 2023).

In conclusion, while there is a growing awareness of sustainable financial management among investors in India, substantial gaps remain. Financial institutions, regulatory bodies, and educational organizations must work collaboratively to enhance investor knowledge and understanding of sustainable financial management practices, India can move toward a more resilient and responsible financial ecosystem (Patel, 2023).

## 2.5 Factors Affecting Sustainable Investment Decisions

Sustainability investment decisions are based on a complex interrelationship of the several economic, social, and environmental factors that ought to be understood by the investors, asset managers, and even policy makers in the financial ecosystem. The following section discusses various factors affecting an investor's decision to invest in sustainability investments and explains clearly their relevance and interconnectedness.

**i. Economic Factors:** Among the key drivers that affect sustainable investment decisions, economic considerations remain paramount. Most of the investors are in search of higher returns with minimal risks, while perception about their financial performance would play a major role in decision-making. Hence, while on economic reasons sustainability investments are largely favorable in the long term, the possible barriers to adopting sustainable practices might be created by the short-term focus of many investors.

**ii. Social Factors:** Social considerations have an increasing share in the decision-making processes in sustainable investing, as investors realize more and more the importance of rallying investments around ideals and their social messages. According to Mehta & Gupta (2023), this is a change in mindset which has led to closer scrutiny of companies' social practices, with firms being forced into more responsible policies in a bid to gain investment.

As the conversation around sustainability gains traction, it creates a supportive environment that encourages more investors to consider sustainability in their decision-making processes (Singh et al., 2023).

**iii. Environmental Factors:** With increased awareness of environmental challenges like climate change, resource depletion, and biodiversity loss, investors are becoming more sensitive. Thus, this influences them in keeping a lookout for

opportunities that facilitate environmental sustainability. Similarly, regulatory risks, including carbon pricing and environment-related regulations, affect firms that do not conform in time to a more sustainable business model.

The extent of reporting through expanded reporting standards and frameworks, like the GRI and the TCFD, has provided investors with the tools that allow them to measure the environmental performance of a company. As Patel (2023) observed, this transparency is essential for giving trust and confidence to investors to commit capital for sustainable initiatives.

**iv. Regulatory and Policy Factors:** Regulatory and policy frameworks are key in determining how such one-way traffic of investment related to sustainability is flowing. Governments and regulatory bodies, therefore, increasingly recognize the importance of sustainability in financial markets and develop policies to favor responsible investing. For instance, the Securities and Exchange Board of India introduced guidelines on ESG disclosures in India, hence putting increased pressure on companies to be more transparent about their sustainability practices. In addition, international agreements and frameworks, such as the Paris Agreement on climate change, are also drivers of investment decisions.

**v. Technological Factors:** Technological development has been playing an increasingly important role in sustainable investment decisions through innovative solutions that help improve transparency, efficiency, and performance. Increased utilization of both fintech and digital platforms has facilitated access to sustainable investment products, allowing investors to explore more options. Technology also plays a crucial role in improving the availability and quality of data on issues concerning ESG, enabling investors to make better choices.

For example, the development of artificial intelligence and machine learning algorithms improves big data analysis and, thereby, helps investors to arrive at a much more informed assessment of the sustainability performance of companies.

**vi. Psychological Factors:** The mental factors cannot be ruled out in the decision-making process of sustainable investment. Studies of behavioral finance show that the emotional factors, biases, and cognitive dissonance may drive investors to choose investments.

Further, framing of information on sustainable investments tends to have an impact on decision-making. Since the framing of information is either in the form of potential risks or positive outcomes that one may go through, it influences investors' perceptions and their eventual decision to invest or not (Rao, 2021).

## **2.6 Influence of Sustainable Finance on Risk Management**

Sustainable finance has attracted a lot of attention in recent years due to the fact that more and more personnel in the financial industry realize that sustainable finance can influence risk management. This review presents sustainable finance which entails the consideration of environment, social, and governance factors to investment decisions in order to foster sustainable, economic, environmental, and social development (Friede et al., 2015). It is important to have in mind that this shift to sustainability is not only a matter concern of ethics but also profitability since it help minimize risks of the investment portfolios.

### **2.6.1 Environmental & Climate Through readily available products**

Global warming has rapidly evolved into a key concern for many shareholders most especially in sectors that are sensitive to climate factors for example agriculture, energy, and transport (Kempf & Osthoff, 2007). Sustainable finance also entails

investors' paying attention to climate change risks; legal (elective) risks; physical and reformation risks at the assessment phase (TCFD, 2017).

For instance, to integrate the ESG information into an investment portfolio, the portfolio avoids industries that can be most severely affected by climate risk, for instance, energy products with fossil base (Amel-Zadeh & Serafeim, 2018). Consequently, sustainable finance not only controls environmental threats, but also enables investors to exclude assets which can become worthless as a result of regulatory, market, or technological changes linked to transition towards a low carbon economy (Caldecott et al., 2016).

### **2.6.2 Other Sociopolitical and Governance Related Risks**

Inadequate corporate governance features may create opportunities for reducing transparency, management oversight, or ethical violations and ultimately — investors' losses. Likewise, portfolio performances of investment portfolios are likely to be negatively impacted by social issues which include labour relation issues, human rights implications and community opposition (Bauer & Hann, 2010)..

Investment research shows that analyzing the ESG performance metrics, firms with high scores demonstrate less financial risks and are less vulnerable to major negative shocks, for example, punitive measures, or boycotts (Eccles et al., 2014).

### **2.6.3 Financial Performance and Portfolio Resilience**

In earlier studies, positive associations between sustainable finance and performance were considered to be negative; however, research evidencing the use of ESG inclusion to enhance portfolio robustness. Friede et al. (2015) conducted a meta-analysis of over 2,000 empirical studies and noted that the largest respective majority of the studies records a positive link between ESG factors and CF.

Consequently, it is scientifically found that investment portfolios that integrate ESG factors tend to outperform during market and economic shocks. As an example, ESG investing was shown to perform and exhibit less drawdown than regular funds during the pandemic (Ding et al., 2020).

#### **2.6.4 Regulatory and Market Pressures**

The increasingly popular topic of sustainable finance is also caused by regulation and market demands, which also affect risk management. Many countries today have put in place standards that compel organizations to integrate sustainability factors into their operations and, among them are the EU's Sustainable Finance Disclosure Regulation (SFDR) and India's Business Responsibility and Sustainability Reporting (BRSR) standards (European Commission, 2021).

#### **2.6.5 The Use of Technology and Self Development**

There is an increasing reliance on technology and innovation in order to support sustainable finance and improve the management of risks. Technological progress in big data in combination with AI is helping investors to improve the evaluation of ESG factors (Kotsantonis & Serafeim, 2019). For instance, ESG rating and data services powered by artificial intelligence helps investors track live ESG performance and investors to make better investment choices.

### **2.7 Barriers to Adopting Sustainable Financial Management**

Sustainable financial management is known as the interconnection and use of environmental, social, governance factors in the management of business and financial resources. However, even as more organisations incorporate such strategies, there are challenges that have slowed the take-off to sustainable financial management among

investors and institutions. Such challenges include: absence of standardization and accurate data; short-term oriented profit; and ambiguous legislations.

### **1. Challenges**

The following part provides an overview of the major challenges that investors are experiencing in integrating sustainable FM. The problem of preeminent implementation of sustainable financial management is that it is not very regulated and lacks definite rules. Companies' investors and financial institutions face the problem of discrepancies in frameworks and methods of reporting across different geographical locations and industries (Boffo & Patalano, 2020). In addition, the information relating to the ESG performance is limited by the fact that common standards for evaluating this performance have not been established, which hampers the credibility of the reported figures. There is still a lack of strict norms and to some extent their implementation; many holders refuse to adopt pursue and commendable sustainable policies fully.

### **2. Data Availability and Quality**

One of the issues highly related to standardization is data availability and quality. In other words, information that investors receive is crucial for it helps to assess the duration as well as profitability of their investment. However, there is a usual absence of rich, similar, and up-to-date ESG information, particularly, in the emerging economies (Clark et al., 2018). Furthermore, even when the data are available and can be accessed it is often difficult to trust the validity of the numbers since there is no quality check or independent appraisal (Serafeim & Gompers, 2021).

### **3. Short-Term Profit Focus**

The first one is the fixed attention span that is characteristic of financial yards is a weakness inherent to the financial industry. One challenge which is associated with quarterly earnings and profits is that most managers make decisions that do not consider

the ESG issues mainly because their impacts are long-term oriented (Busch et al., 2018). Thus, investors are likely not to embrace sustainable financial management strategies that may yield sustained value and profits but at the same time, may reduce quarter on-quarter profits.

#### **4. Regulatory Uncertainty**

One of the major factors they noted as being an obstacle to the implementation of sustainable financial management is regulatory ambivalence. However, some areas of the world remain slow in adopting clear legal requirements for sustainable investment, including the EU's Sustainable Finance Disclosure Regulation (SFDR) (Kölbel et al., 2020). However, a rapidly changing regulation in some fields leads to unpredictable conditions where investors may fail to determine future regulatory matters adequately.

#### **5. Trade-Off between Sustainability and Profitability According to Perception**

Over the years one has been able to observe that the greatest misunderstanding that investors have is relativism between sustainability and profit making. There it is equally argued that the disclosure of ESG factors in financial management will lead to lower returns or higher costs and thus opposition to the implementation (Friede et al., 2015). This perception is still there although there is some research suggesting that sustainable investments may be more lucrative than traditional investments in the long-run because they help manage risk linked to an environmental or social angle (Eccles & Klimenko, 2019).

#### **6. Organizational Culture and Leadership**

The study also identifies internal organizational enablers for adopting sustainable financial management. Top management support and organizational culture are key determinants of organisations' ability to support sustainable mindedness. This is the case because many chief executive officers and other senior managers of the firm may not

consider some sustainability issues as relevant to financial performance and therefore will oppose change of strategies towards embracing ESG, as highlighted by Giamporcaro et al. (2020). Third, it is potentially a problem that internal specialists in the implementation of sustainable finance have not yet sufficiently developed.

### **7. Greenwashing Concerns**

Greenwashing, where companies or investment products with the intent of duping the public into buying green products are another major challenge. Some disclaimers began to lose their trust in organization's sustainability report since they believed that the firm's sustainability report is not disclosing its true intention and just using it as a marketing tool to promote the sustainable image of their products (Lyon and Montgomery, 2015). The anxiety of investing in such products labeled as green hampers confidence in sustainable financial planning and discourages investors from developing ESG-based investment strategies.

### **8. Cost of Transition**

Another challenge that should not be overlooked relates to the cost which arises when implementing sustainable financial management. Investing in financial processes and many investors and institutions express further ESG needs significant investment into various technologies, staff training and compliance systems according to Campbell & Slack (2011).

However, the factors which remain challenging are: organizational culture, the cost of clearing transition hurdles, and unsophisticated investors. To overcome these barriers, regulators, financial institutions, and investors should substantially contribute and design a new more transparent, less ambiguous and conducive environment for sustainable finance.

## **2.8 Benefits of Sustainable Financing**

Green finance has become an innovative strategy to mitigate negative impacts on the environment, society, and governance structure of the financial market. While advancing this argument, this section dwells on several growth advantages of sustainable financing for investors as well as the financial system.

### **2.8.1. Long-term value creation**

Sustainable finance helps investors focus on generating value over long periods by incorporating the ESG parameters into decisions about the portfolio. While traditional financial models reflect short-term economic benefits, sustainable financing takes into account long-term liabilities and possibilities with regard to climate change, material and energy scarcity, social injustice, and corporate management problems. This shift makes certain that organizations are able to reduce their risks and vulnerabilities to operating within the global environment that may help to improve investors' confidence and portfolio performance (Kölbel et al., 2020).

### **2.8.2 Enhanced Risk Management**

ESG investing helps in avoiding firms with unfavorable environmental and social conditions. For instance, risks which relate to natural calamities, continued changes in climate conditions, increase in sea level and fluctuating government regulations affect the commercial returns of a company. Organizations that embrace sustainable actions are more capable of avoiding these risks and hence leading to more stability in returns (Gibson et al., 2019).

### **2.8.3 New Market Opportunities to Be Accessed**

Sustainable finance creates new markets for investors when undertaking investment in renewable energy equipment, green bonds, and social investment. The green bond market has rapidly developed, and global issuance reached over \$200 billion

within the recent years (Climate Bonds Initiative, 2021). This is in response to the increase in investors' interest in sustainable assets that can support the global challenges such as climate change as well as poverty.

#### **2.8.4 Intangible Gains that Include; Reputational Rewards and Stakeholder's Confidence**

Another benefit of sustainable financing is that firms that utilize sustainable financing policies are perceived as more ethical and responsible and thus enjoy the reputation among consumers, regulators and shareholders. This can result in customer allegiance, better communication and relationship with the company's clients, and better retention rates of its employees. Furthermore, firms that achieve a better level of ESG are regarded as best in their field, which also gives them competitive advantages (Friede, Busch & Bassen, 2015).

#### **2.8.5 A Favourable Impact On Social and Natural Environment**

In addition to profitable returns, sustainable financing results in social and environmental benefits. Proceeds from ventures in green infrastructure, energy, and social and health infrastructure can uplift living quality, achieve reforms in distribution of wealth, and encourage propitious environmentalism.

#### **2.8.6 Financial Performance**

These studies suggest that sustainable investments are capable of generating competitive financial performances. A review of 2044 papers also reveals that 90 out of 100 papers had no negative correlation between ESG and financial performance and research showed that sustainable investments perform at par with or better than traditional investments. Insofar as investors gain more knowledge on these advantages, the market for sustainable financial assets will continue to expand.

## **2.9 Research Gap**

However, there are still some research gaps to be filled within the context of sustainable financing, despite the increasing number of writings on the topic. Although several papers investigate the efficiency of ESG investments and their contribution to the return on investment, the papers measuring the distinct sector and regional perspective concerning decision making on ESG rates remain scarce. Moreover, literature on the analysis of sustainable financing among initially smaller companies and emerging markets also remains saturated (Broadstock et al., 2021).

### **2.9.1 The Roles & Responsibilities for Sector-Specific ESG Integration**

Most past studies have focused on large MNCs especially those operating in the advanced countries. However, this paper identifies that sustainable finance in SMEs, technology start-ups, and the agricultural sector has not been widely discussed. Implementing sustainable financing is a complex issue that is difficult for these sectors and requires further examination (Crifo & Forget, 2015).

### **2.9.2 Emerging Markets**

Second, the issue of sustainable finance particularly in emerging markets is another area that has not attracted much scholarly attention. While the literature on ESG implementation is burgeoning, most of this research extends to developed countries within the North American and European territories and with little consideration for other continents, including Africa, Latin America, and even some parts of Asia. Focusing on an under-explored area of research, Emerging Markets (EM) have different environmental, social, and governance (ESG) challenges as compared with Developed Markets (DM). These issues must be taken up in future research (Amel-Zadeh & Serafeim, 2018).

### **2.9.3 Strategies for Standardisation and Measurement of ESG Metrics**

One of the persistent problems related to sustainable financing is the absence of the unified ESG indicators. Currently, evaluating ESG risks and opportunities are a major challenge since such risks differ across sectors, and companies report these metrics inconsistently. This has become a problem because the change prevents a direct comparison that would allow one to determine the relationship between ESG factors and financial performance. It is suggested that there should be more comprehensive and globally comparable ESG reporting frameworks, thanks to, among others, Chatterji et al. (2016).

#### **2.9.4 Long-term and Short-term ESG impact**

One area that has remained relatively unexamined is the perspective of length of ESG effects on firm performance. Although it is postulated that sustainable finance provides long-term paybacks, few research have focused on the first-year financial consequences of ESG incorporation. There is potential for additional studies to increase its specificity as to how the ESG considerations affect performance at various horizons (Giese et al., 2019).

#### **2.9.5 Effects of Policy Shift on Sustainable Finance**

While many governments are implementing sustainable finance policies, the effect of these policies on investors' behaviour and market performance is still a research gap. These variables channel policy via specified regulations such as carbon pricing or green tax incentives to investment decisions and development of sustainable finance (Busch et al., 2016).

## CHAPTER III: METHODOLOGY

### **3.1 Overview of the Research Problem**

Sustainable finance thus provides a new framework of financial reporting, analyzing and interpreting the financial information for resource allocation decisions by considering the environmental, social, and governance aspects. The significance of sustainability is further magnified in development economics like India where the essence of economic development gives way to more financial gains leading to the creation of a paradigm that measures sustainability against monetary gains. India has yet to embrace sustainable finance, mainly due to low awareness fully, immature legislative environments protecting green agencies and products, and poor institutionalization in financial processes.

In the domain of sustainability in financial management, India is relatively new and has not matured yet; the majority of the investors and financial institutions have not been very prudent toward the sustainability concept as most of them work with short-term performance gains without a thought to sustainable goals and objectives of a company (Al Muhairi and Nobanee, 2019). The RBI has put in place some regulations as a way of enhancing priority-sector lending and responsible investing. However, these efforts continue to prove inadequate to cater for escalating financial requirements of sustainability-focused initiatives especially in the energy, waste and social business initiatives (UNEP, 2016).

The lack of awareness of investors regarding the possibility of sustainable finance among the investors remains one of the significant challenges. A lot of Indian investors continue to make their investment decisions based on risk, returns and ease of investment without much regard for the social impacts that their decisions would have on the

environment (Cunha et al., 2021). In addition, it is possible to note that there are no standardized reporting practices for ESG effects as well as key performance indicators indicating the successfulness of sustainable finance practices (Ziolo & Spoz, 2022). Thus, we have a significant degree of divergence between what is seen as the best practice for sustainability-linked financing globally and what is done in India.

The lack of research in this area is fulfilled by this study with the help of exploring the perception and awareness related to sustainable financial management among Indian investors. This paper discusses how such perceptions affect investment decisions and outlines the challenges and prospects of sustainable finance. As a qualitative study, this paper aims to offer practical recommendations for policymakers, financial actors, and investors to better incorporate sustainability in the Indian financial market.

### **3.2 Operationalization of Theoretical Constructs**

Thus theoretical concepts are useful in developing the parameters of sustainable financial management and directing the research to positive results. In the following analysis, this research defines and measures several factors originating from the theoretical preconditions to understand the multi-faceted dynamics of sustainable financial management in India.

**1. Awareness of Sustainable Financial Management Sustainable financial management knowledge Awareness of sustainable Financial Management:** This construct captures the level of knowledge that the investors have concerning sustainable management of financial resources. According to cognitive theory, supposes that awareness leads to action, impacting the probability of investors entering ESG factors into their Eq – awareness (Martin & Moser, 2016). To measure this construct, survey

questions will include questions regarding the participant's awareness of certain ideas and products namely; green bonds, socially responsible investment (SRI), and ESG compliance.

**2. Risk-taking and risk-reward ratio:** Following the theories of behavioral finance, this construct measures how investors view the risk and returns of all sustainability efforts. Prior studies have noted that investors lack an accurate understanding of the potential returns as well as the risks of sustainable investments which limits their use of sustainable investment practices (Kölbel et al., 2020). These perceptions will be measured with Likert-scale questions that we will pose, as well as with the help of qualitative interviews.

**3. Decision-Making in Sustainable Investments:** The decision-making construct benchmarks the ideas that guide an investor when seeking sustainability in financial securities. According to Ajzen (1991) the theory of planned behavior points to the fact that attitude, subjective norms and perceived behavior control are factors that influence investment decisions. This work will discuss how these factors combine in the Indian situation concerning ethical issues, peers' influence, and available sustainable information.

**4. Limitations to the Study Based on institutional theory:** Organizations experience systematic and structural limitations that disapprove the implementation of sustainable financial measures. These gaps in the Indian context are regulatory barriers, the absence of comparable ESG metrics, and restricted indexes and instruments in sustainable investment (Chien et al., 2021). Specific issues that investors and institutions experienced will be determined from qualitative interviews with financial specialists and policymakers regarding this construct.

**5. Advantages of Sustainable Financial Management** Sustainable finance has **the following benefits:** Increased creditworthiness, Increased sustainability, Reduced risk, Improved reliable and quality information, Increased corporate governance, Increased shareholders' value, Improved position of corporations, Better risk management, Improved market position. This construct assesses the economic utility of an organization's commitment to sustainability with an analytical foundation stemming from stakeholder theory. It will be measured through case studies and a few quantitative data through interviews which will focus on successful implementation and practices of benchmarking in India.

**6. ESG integration and reporting as key aspects of sustainable financial management:** Using a TBL model, whereby performance is measured in terms of economic, social, and environmental factors the study will analyze how Indian investors factor ESG metrics in their assessment. This construct will also analyze the part that reporting standards and data transparency play in the integration process.

**7. Ethical Cultural influences:** The prospects of investments are influenced by cultural and ethical factors. According to the social exchange theory propounded by Homans (1958), investors are likely to practice sustainability, where the practice of such practices conforms with the social expectancies of a society. This construct will be measured by examining the manner that which cultural predispositions and ethical concerns impact the preferences of Indian investors towards green products in the financial markets.

**8. On Risk Management Different environmental:** Social risks have been observed to be managed by sustainable financial management which helps in mitigating them. This construct to be based on risk management theory will assess how ESG elements are incorporated into portfolio risk evaluation. It will also try to determine the

level of investors' and institutions' usage of such methods as the use of scenario-based planning and other advanced techniques of risk management.

### **3.2.1 Measurement and Analysis Each construct will be measured using a combination of quantitative and qualitative methods**

**a) Surveys:** A quantitative section in structured questionnaires in terms of the Likert scale will be used in measuring awareness, perceptions and factors influencing decision-making.

**b) Interviews:** Face-to-face interviews, using closed and open-ended questions, will be conducted with key players, such as investors, financial managers and policymakers, to underpin the qualitative results of the research with information from key industry players.

**c) Case Studies:** Actual case studies of ensuring sustainable financial behaviours in India will support the ideas' application to practice.

The use of these constructs in an operational form guarantees the capturing of sustainable financial management in India in its entirety theoretical concepts and practical observations, the impact of this study is to come up with implementable solutions for enabling a sustainable financial system in India.

### **3.3 Research Purpose and Questions**

The objective of this research is to establish and analyze the relevance and application of sustainable financial management in the setting of investments in the Indian financial system. This study seeks to establish the state of awareness and attitude that investors have towards the application of sustainable financial management and practices in their line of investment to establish factors that influence investment behavior. In light of this, the study aims to contribute towards the understanding of the

above aspects to offer evidence for the improvement of the application of ESG factors into financial decision-making in India. In addition, it is to raise awareness of the opportunities and some risks of implementing sustainable financial strategies and their consequences to risk management and sustainable profitability.

The current study fills the existing knowledge gap by exploring how Indian investors construct their attitudes and behaviors in practicing sustainable financial management. Studying India, this work would present a regional approach as to how sustainable reporting should be incorporated into the financial systems and will possibly suggest helpful ideas and guidelines for the government, financial organizations, and common investors in this country.

**Research Objectives:**

**1) To assess investor awareness:** Assess the level of knowledge investors have regarding sustainable financial management as well as the interactions of investor decisions with sustainable financial management.

**2) To examine investor perceptions:** Discover how the investors see the link connecting sustainable financing, risk management, and investment returns.

**3) To identify influencing factors:** Examine the drivers that underpin the economic, social and environmental forces influencing funders' sustainable financing behaviors.

**4) To evaluate benefits and challenges:** Exploring the self-reported advantages and disadvantages of implementing sustainable financial management to India's environment for financial management.

These objectives are designed to help offer a clear picture of the dynamics of sustainable financial management and its implications on Indian investment.

### **Research Questions:**

The study addresses the following key research questions:

#### **1. In what way does investor awareness affect sustainable financial decision-making?**

This allows the following question to investigate to what levels of knowledge of sustainable financial practices extend investor willingness and ability to implement ESG principles. This is premised on findings that indicate that awareness influences sustainable investment actions (Cunha et al., 2021).

#### **2. What are the investor perceptions of sustainable finance and its risk management counterparts?**

This question examines how investors think about sustainability and profitability, interests that complement previous findings when it comes to how perceptions influence investment choices (Martin & Moser, 2016).

#### **3. What factors explain investors' decisions to undertake sustainable financial management?**

This is essentially a question about how different antecedents such as economic factors, institutional policies, and cultural impulses for or against sustainable investment decisions work together (Kölbel et al., 2020).

The advantages and disadvantages of practicing sustainable financial management in India? This question aims to know the benefits like risk management strategy and corporate image and costs of sustainability in finance, including the lack of standard reporting formats for sustainability and legal restrictions (Ziolo & Spoz, 2022).

### **Alignment with Research Gap**

This study relates directly to the identified research gap in the literature by examining the nature of investor's perceptions and attitudes toward sustainable financial

management in India. Even though extensive research focuses on analyzing ESG integration in developed countries, it provides limited attention to the emergence of an economy like India where sustainability is considered an extra and not prime, goal of enterprise. This research therefore seeks to fill the above gap and contribute to an understanding of how sustainability can be made mainstream within the Indian financial environment.

### **3.4 Research Design**

#### **3.4.1 Design Aspects**

Research design can be defined as how different aspects of the study are coordinated to provide coherent and efficient handling of the problem under question. Research designs can be broadly categorized into three types: The types of qualitative research include exploratory, descriptive and explanatory research (Al Muhairi & Nobanee, 2019).

This type of design is used when the research seeks to study areas for which little is known about them. Descriptive designs on their part aim at systematically describing a phenomenon or an object of study. Last but not least; explanatory research seeks to establish the impacts that a given variable has on the other one.

Therefore, for this study on sustainable financial management in India, the descriptive research design has been adopted. These two approaches enable the researcher to evaluate the awareness, perception and factors that may influence the sustainable finance decisions of Indian investors. A descriptive design is appropriate because it captures the essence of the current state of affairs about knowledge deficits and practices, and allows for recommendations based on data collected to be made on how they can be of use in solving various real-world problems.

Furthermore, descriptive research is complementary to mixed-methods research incorporating both surveys and interviews. This combination ensures that there is increased coverage of the factors that drive sustainable finance.

### **3.4.2 Research Paradigm**

A research paradigm therefore can be defined as a system of principles because it provides prescriptions on how to research any given phenomena. There are two primary paradigms: The positivist paradigm and the interpretivist paradigm.

The positivist paradigm is associated with positivism and underscores the concern with the construction of empirical evidence to test hypotheses and confirm facts. It is best described as a paradigm that relies on numerical data; and aims for generality as well as carrying out statistical tests. This paradigm is appropriate for research seeking to establish cause and effect and or to forecast emergent phenomena (Friede et al., 2015).

On the other hand, the interpretive research paradigm is concerned with explaining the realization of people's actions or sentiments. It focuses on qualitative techniques particularly to provide an understanding of how people give meaning and sense to things in a particular environment. It concentrates on the quality of knowledge acquired rather than on the range (Homans, 1958).

To solve these objectives, this study employs a majoritarian positivist epistemology strategy. And the quantitative surveys carried out in the research spotlight investors' behaviour and awareness profiles.

### **3.4.3 Research Approach**

The research approach explains the procedure followed while undertaking the study. Two main classifications are the qualitative one and the quantitative one. All of them play separate roles in scientific research (Chien et al., 2021).

**1) Quantitative Approach:** This approach is based on the accumulation of data that is in the form of numbers. It is usually linked to the positivist paradigm and comprises hypothesis testing, variable measurement, and research in quest of association or traits. Quantitative methods are appropriate in research that needs statistical analysis and the ability to generalize the results. For example, Likert scale questionnaires assess investor awareness, perception, and attitude to sustainable finance in this study.

**2) Qualitative Approach:** This approach focuses on providing rich descriptions of phenomena, and studies them using interviews, focus groups and cases. It has to do with the interpretivist paradigm and is helpful where ‘soft’ data is used, and the subject matter cannot be easily broken down into mathematical equations. In this present study, the assessment of barriers and opportunities in the context of sustainable finance is achieved with the help of qualitative research techniques with the policymakers and financial specialists involved.

**3) Mixed-Methods Approach:** The two types of research methods are used, quantitative and qualitative, to take the best of both methods. This research utilizes a mixed-method approach to gain an understanding of sustainable financial management.

#### **3.4.4 The adoption of a quantitative approach as the primary research method in this study is justified for several reasons**

**a) Objective Measurement:** Quantitative surveys enable the evaluation of the level of investors’ awareness and their attitudes in which generalizations can be made (Ziolo and Spoz, 2022).

**b) Statistical Rigor:** As a result, the reliance on quantitative research means that the results obtained are statistically valid and can guide argued proofs.

**c) Complementary Insights:** Hence when used in conjunction with qualitative methods the quantitative approach avails a wider perspective to the research analysis process.

Therefore, the research design used in this study incorporates the descriptive research method in tandem with the dual-paradigm approach as well as the mixed-methods research design.

### **3.5 Population and Sample**

Population and sample are the core components of any research study because they help to make sure that the data collected is a true reflection of the group under study. The population of the study is described in this section, then the different types of sampling techniques are presented, along with the justification of why these methods were chosen to suit the purpose of this research due to the challenges posed by the research objectives.

#### **1) Defining the Population**

The population for this study consists of groups and people who have a greater influence on the sustainable management of financial services in India. Such groups consist of institutional users that include pension funds, mutual fund users, individual investors, financial advisors, and policymakers who engage in ESG compliance and investment management. The study focuses on participants located in India's economic cities including Mumbai, Delhi Bangalore and Hyderabad where most of the investment actions and policy-making institutions are situated.

The criteria for including population involve knowledge of sustainable financial practices based on experience. The participants should have served in an organization for at least two years in making decisions on investment or policy and know ESG goals.

## **2) Sampling Techniques**

Sampling is a fundamental component of the methodological plan of investigation and comprises the selection of a portion of the populace to be taken as a whole. In this research, the method of data collection involves using both quantitative as well as qualitative data. For the quantitative part, the sampling technique used is the stratified random sampling. Comparative analysis is possible based on stratified random sampling, which makes it possible to accommodate all the population subclasses equitably (Taherdoost, 2016). For instance, in this study, 300 participants are conveniently divided into three strata: 100 institutional investors, 150 individual investors, and 50 policymakers.

In conducting the survey for the qualitative component, purposive sampling is used. In this research, 20 participants are selected with considering professional backgrounds such as financial regulators, ESG analysts and senior fund managers. The current approach guarantees data collection from experts and participants with high levels of knowledge about sustainable finance. In purposive sampling, Patton (2015) asserted that it is most suitable for use in qualitative research as it involves the identification of sample participants with rich information to impact on a given subject of study.

Furthermore, snowball sampling is utilized as the backup method for raising the number of qualified participants that might be difficult to access like key policymakers or specific investors focused on sustainable finance.

## **3) Rationale of the Selected Techniques**

Employing stratified random sampling alongside purposive sampling is considered appropriate for the goal and scope of the study as well as the breadth and depth objectives of data collection.

Regarding the choice of the snowball sampling option the practical issues associated with the inclusion of participants belonging to specific narrow categories are solved. For instance, senior policymakers and ESG analysts may not be contacted easily using random sampling. Snowball sampling helps to get to such people so that their opinions are considered when carrying out the study. This approach is consistent with the suggestion made by Etikan, Musa, and Alkassim (2016: 361) that the use of snowball sampling is valid in exploratory studies.

#### **4) Sample Size Determination**

Cochran's formula of 300 is used while taking a confidence level of 95% and a margin of error of 5%. Taking the evaluation of data saturation, the MDA of 20 for the qualitative part will ensure that any further data collected will not bring new information. It has been mentioned by Guest, Bunce and Johnson (2006) that data saturation is a commonly used marker in qualitative research.

#### **5) Challenges in Sampling**

First, it might be challenging to get in touch with senior policymakers and ESG analysts. Second, it could be quite difficult to maintain the representativeness of the created sample. Stratified random sampling solves this problem by making a certain effort to keep all relevant subgroups proportional to one another. Third, it is implicit that due to practicality issues in organizing data collection, time and financing may put a boundary on the amount and sort of data that may be assembled.

### **3.6 Participant Selection**

Sampling is an important process through which the quality, accuracy, and applicability of study results depend. Based on the needs of the research where the effectiveness of sustainable financial management in India will be explored, the selection

of participants was carried out carefully to include the participants with diverse experience in financial management, investment, and policy-making.

### **3.6.1 Target Population**

The key participants of this study are professionals involved in sustainable finance or fields related to the Indian sustainable finance industry. Given the term used by Yin (2018), defining a target population facilitates the exclusion of other unrelated participants and only includes participants whom the researcher believes would only provide informative responses about the research questions.

**a. Geographic Scope:** The study identifies the participants mainly in financial city centers like Mumbai, Delhi, Bangalore and Hyderabad.

**b. Professional Diversity:** The subject matter experts include fund managers, ESG analysts, corporate financial advisors, and regulators, among others.

### **3.6.2 Inclusion Criteria**

**a. Experience:** Any person involved as a participant must have a minimum of two years of working experience in the decisions, investments, or policies based on ESG factors. This criterion helps to guarantee that the participants of the research are Nightingale enough to offer knowledgeable discussions (Saunders et al., 2019).

**b. Knowledge of ESG Principles:** Anyone who has either engaged or adopted ESG initiatives into their operations is included for this purpose. This is in line with previous work which shows the value of specialty accuracy among the cadres currently engaging in the research with participants.

**c. Engagement in Sustainable Initiatives:** Observers with stakes in sustainability-linked finance activities – including green bonds and sustainable investments – are targeted.

### **3.6.3 Exclusion Criteria**

**a. Lack of Experience:** Those with less than two years of experience are also removed because their ideas will be irrelevant and not well developed.

**b. Peripheral Roles:** The analysis excludes those participants who do not have a direct influence on financial decision-making

### **3.6.4 Recruitment Strategies**

Participants in the study were recruited through purposive sampling, snowball sampling, and the use of professional contacts.

**a. Purposive Sampling:** In purposive sampling, participants are chosen because of their specific roles and their ability to contribute to the target research. In subjects that involve experience from experts, this method is influential in delivering robust data (Patton, 2015).

**b. Snowball Sampling:** Snowball sampling uses referrals from some of the participants to gain access to other equally qualified participants. This method is appropriate when seeking select audiences such as the higher-levelers or those who have a specialty in ESG since they are not easy to come across within the current world of recruitment (Etikan et al., 2016).

**c. Professional Networks:** For recruitment, company portals such as LinkedIn and membership-based organizations such as the Association of Mutual Funds in India (AMFI) were used.

**d. Conference and Seminar Participation:** Other related shows conducted to amount ESG protracted sustainable finance formed the other source of identifying participants.

### **3.6.5 Sample Size and Composition**

**a. Quantitative Component:** For the survey phase, a total of 300 participants were targeted for the survey. This sample size has been estimated using the Cochran formula to afford a valid statistical estimate at a 95 percent confidence level with a 5 percent margin of error. Purposive sampling was used, with roughly equal target numbers of 100 institutional investors, 150 self-directed investors, and 50 policymakers within each stratum of the study.

**b. Qualitative Component:** In the qualitative phase, two sets of participants, 20 in total, were chosen for the interview. This number of participants corresponds to the concept of data saturation whereby data collection continues to elicit new information (Guest et al., 2006).

### **3.6.6 Ethical Considerations**

It becomes crucial to include ethical considerations in the process of participant selection and to focus on the rights, especially concerning the integrity of the participant, as well as their well-being. The following measures were implemented:

**i. Informed Consent:** Participants received written and verbal descriptions of the research aim, procedures, and their interests and rights. In addition, the participant's consent was sought before participation as required by the APA (2020).

**ii. Confidentiality:** Information that related to personal and professional experiences as participants was anonymized to ensure individual identities were not revealed.

**iii. Voluntary Participation:** Accompanying this consent, participants were told that their participation was purely on a voluntary basis and they could drop out at will and without any repercussions. This does not go against ethical research practices as Spiedlar and Bryman (2016) defined.

**iv. Avoidance of Coercion:** No participants were recruited through coercion and other pressure techniques; all the participants joined the study of their own volition.

### **3.6.7 Major issues persist when selecting participants in a research study**

The respondents could not be easily accessed because they are busy senior policymakers and ESG analysts. This barrier was addressed using snowball sampling; referrals were used to find and include such participants (Naderifar et al., 2017).

## **3.7 Instrumentation**

To gather quantitative data, the following questionnaire was constructed. The current instrument was developed to capture ESG knowledge, sustainable finance perceptions, as well as choices made among participants. The questions were substantively closed-ended, and the type of Likert scale was used in most of the questions. The qualitative data collection method used was interviews and for these, a semi-structured interview schedule was used.

A small sample was used to fine-tune the process because participants have diverse professions and are from different countries, the language employed in the instruments was made simpler. These instruments were used systematically to enhance the reliability of data collection activities. The structured questionnaire was administered to the participants through an online self-complete format using Google Forms and Qualtrics.

The interviews were conducted online using technologies such as Zoom and Microsoft Teams. The average interview time was between half an hour to forty-five minutes per participant. The following steps were observed to improve the validity and reliability of the instruments. Content validity was assured by enlisting help from experts. Construct validity was attained by grounding the questions on the theoretical frameworks

and existing studies. For reliability, a pilot study was carried out where the questionnaire, which includes a range of Likert-scale questions, was completed by a small sample of participants and Cronbach's alpha coefficient was used to measure the internal reliability of the questions.

### **3.8 Data Collection Procedures**

#### **a) Overview of Data Collection**

The collection of data is important in any research study, and the choice of an approach will either make the data reliable and valid or vice versa. The current research employed both qualitative and quantitative research paradigms to assess the volume and kind of research being done in the subject of sustainable financial management in India sufficiently.

#### **b) Quantitative Data Collection**

A standard questionnaire was used to collect quantitative data as a major data collection technique. Employing a survey, variables – Investors' awareness, Sustainable finance perception, and factors for sustainable adoption were captured on the Likert scale. The questionnaire included questions like:

- 1) Knowledgeability of green bonds, ESG or sustainability factors, and sustainable investments (Cunha et al., 2021).
- 2) Risk and reward as perceived in sustainable finance (Kölbel et al., 2020).
- 3) The criteria for deciding when to include sustainable aspects in investments (Martin & Moser, 2016).

The survey questionnaire was aimed mainly towards institutional and individual Investment houses; and selected policymakers present in the major financial centers of the country namely Mumbai, Delhi, Bangalore and Hyderabad. The participants were

reached out via email and professional platforms including LinkedIn and the survey was conducted through methods including Google Forms.

### **c) Qualitative Data Collection**

For the qualitative part of the study, interviews were conducted with participants fund managers, ESG analysts and policymakers. Questions addressed:

- i. An exploration of the sustainable finance endeavor.
- ii. The difficulties that arise when attempting to follow ESG performance.
- iii. Suggestions for improving the sustainability of the financial systems.

The conversations were audibly videotaped with the participants' permission and then written down word for word before being analyzed based on themes while sticking to the methodology of Creswell and Creswell (2018).

### **d) Pilot Testing**

To ensure that the resulting scores are accurate the instruments were pretested among a small sample of participants. Some changes, therefore, were made depending on the response of the participants for instance where questions were not very clear they had to be made more clear and where the options given for Likert scale options were not well aligned they were put in more order as recommended by Bolarinwa (2015).

## **3.9 Data Analysis**

### **3.9.1 Quantitative Data Analysis**

Surveys collected quantitative data which was then fed into statistical tools such as SPSS to determine trends, correlation and significant factors towards sustainable finance adoption in India. Indices such as mean, median, and standard deviation gave a summary of the awareness, and attitude of the investors toward sustainable finance (Ziolo & Spoz, 2022).

**a. Correlation Analysis:** Investigated the correlations between variables including ESG awareness and investment decisions (Martin & Moser, 2016).

**b. Regression Analysis:** Investigated how processes concerning the independent variables such as risk perception and cultural norms can affect sustainable finance decisions.

**c. Factor Analysis:** Applied to gain insights on abstract factors affecting sustainable financial management, including compliance Measurement of regulatory Decision-making.

### **3.9.2 Qualitative Data Analysis**

The interview data were analyzed qualitatively and thematically, using the help of the computer-aided data analysis tool called NVivo.

#### **1) Coding Process:**

**a. Open Coding:** They have come up with initial categories of barriers to the adoption of ESG and perceptions of sustainability.

**b. Axial Coding:** How are the correlations between the categories for instance the impact of culture on ESG compliance; They were developed (Homans, 1958).

**c. Theme Development:** Barriers-Some factors that could explain such disparities include; regulatory constraints, absence of comparable ESG indicators, and little investor knowledge (Chien et al., 2021). Opportunities-Better risk management, better corporate governance, and higher shareholders' value (Cunha et al., 2021).

#### **2) Mixed-Methods Integration:**

The mixed-methods approach allowed for triangulation, enhancing the validity of findings. Quantitative details pointed at general realizations, for example, the lack of awareness of ESG principles by investors. Some of them gave us context, for instance, the cultural taboo of incorporating sustainability into the financial perspective.

### **3) Quantitative Analysis and Analysis Packages**

**i. SPSS:** For describing the data and for making inferences from the data that are at hand.

**ii. NVivo:** For converting qualitative data into codes and thus identifying themes.

**iii. Microsoft Excel:** For storing initial data and creating a primary view of data graphics.

### **4) Outcome: Data Reliability and Validity**

**a) Reliability:** The reliability of the items in the survey was conducted using Cronbach's alpha, and all the reliability coefficients were above the necessary 0.7 measures for social research (Bolarinwa, 2015).

**b) Validity:** Content validity was established by seeking the opinion of experts while construct validity was based on various theories such as stakeholder theory, behavioral Finance by Ajzen ( 1991).

### **3.10 Research Design Limitations**

The method used in this study is a mixed-method research design that involves both quantitative and qualitative data collection tools.

#### **1) Generalizability of Findings**

A major weakness lies in the inability to examine the external validity of the studies under review. The lack of only 20 participants for the qualitative interviews may make the researchers fail to interview other stakeholders with useful information to offer.

#### **2) Self-reported data as the sole data source**

Another weakness is that most of the data are collected by surveys and interviews and, therefore, are subjective. In biometric data measurement, participants may have one

or more of the following biases; social desirability bias whereby participants provide answers they feel are positive rather than completely truthful (Bolarinwa, 2015).

### **3) Mixed-method approach complexity**

Even the design of the mixed-methods poses some problems in synthesis as well as analysis of both the quantitative and the qualitative data. To integrate the study findings, eminent analytical frameworks are needed and any gap in coherence between various data sources will pose interpretational challenges (Creswell & Creswell, 2018).

### **4) Geographical and Occupational Distribution**

Mechanisms that are important for analyzing and validating the study, thus ignoring potential differences in rural / semi-urban entities where the level of financial literacy and sustainable investments might be displayed considerably.

### **5) Cross-sectional data**

The first area of underemphasis is the restricted use of longitudinal forms of data.

The study collects data only once and therefore it does not capture a dynamic picture over time concerning sustainable financial management practices. Possibly, more longitudinal investigations would give further riches to the appreciation of the effectiveness of ESG concerns (Friede et al., 2015).

### **6) Difficulties**

Of the five data collection methods used, interviews with senior policymakers and ESG analysts turned out to be logistically challenging as they were not easily accessible. Although snowball sampling lessened this issue, the dependency on recommenders may lead to a lack of diverse participant opinions due to participants choosing similar like-minded persons (Naderifar et al., 2017).

### **3.11 Conclusion**

This chapter explains the sampling method that has been adopted in the study of sustainable financial management in India. It described the methodological approach of the study; data collection tools and techniques; survey and semi-structured interviewing methods. Some of the survey questions focused on measuring other factors such as investor awareness, perception, decision-making on particular ESG factors and benefits and risks of adopting ESG integration.

The chosen approach provides a great level of quantitiveness alongside a rich focus on the context. Although the proposed research design is strong, there are still issues of liability, selectivity of generalization, use of unique data, and geographic bias. These limitations suggest directions for improvement in future research: enlarging area coverage, increasing the subject selection, and using the long-term approach.

In sum, this chapter sets up a framework necessary for responding to the research objectives and questions and provides useful input into the discussion on effective FM for sustainable development of India.

## CHAPTER IV:

### RESULTS

#### **4.1 Research Question One**

##### **4.1.1 Demographic analysis**

The data and information collected for completing the study were obtained through a questionnaire and other sources. Considering the age as one of the demographic aspects, the majority of respondents, i.e., 49.5% who are between 36–45 years old, followed by 21.2% in the 46–60 age group. Focusing on the gender of respondents, the majority of respondents, i.e., 56.9%, were male, and females were 42.9%. This indicated that males actively participated in the survey. The educational level of respondents highlighted that the majority of respondents, i.e., 58.7%, completed their bachelor's degree. 29.5% of respondents completed their master's degree, and a small percentage of respondents completed their Doctorate (1.8%) or professional certification (1.2%). This highlighted an educated sample, with a significant portion having advanced educational qualifications. Considering their occupation, the majority of respondents were employed in the private sector, i.e., 33.5%, followed by 30.5% who worked in business, owner, or entrepreneur. While the minimal percentage is retired, students, or in other categories, indicating predominantly an active population.

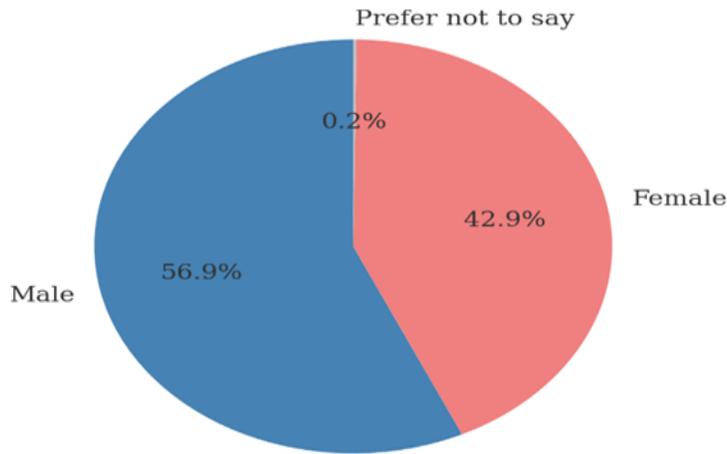


Figure 4.1 Gender Distribution of Respondents

Source: Author

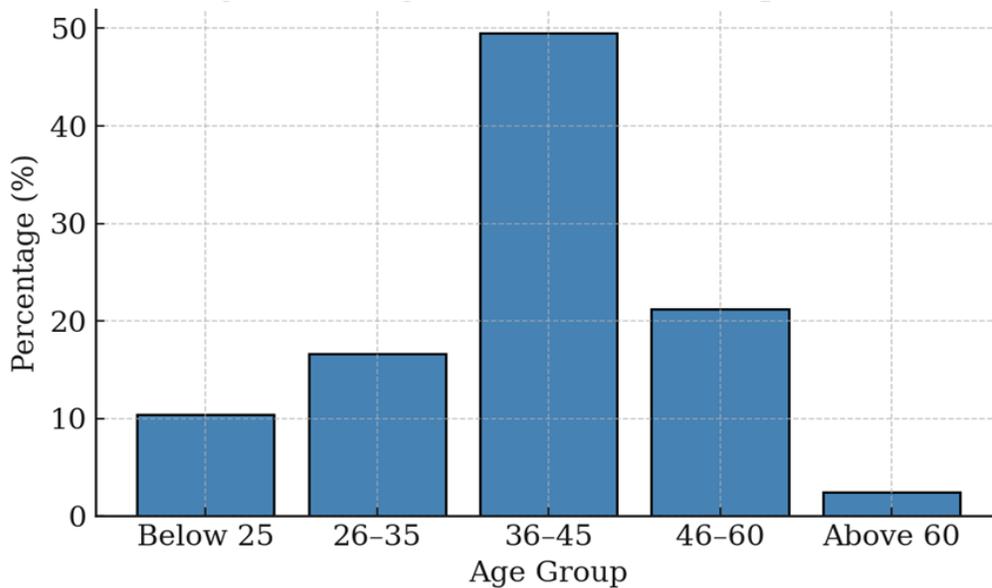


Figure 4.2 Age Distribution of Respondents

Source: Author

Furthermore, considering the income of respondent's majority of respondents, i.e., 43.5% having income between 5, 00,001-10, 00,000, followed by 34.7% of respondents with income between 10,00,001-20,00,000. It is evaluated that only a small proportion of respondents earned more than 20, 00,000, i.e., 3.6%. Focusing experience of respondent's

majority of respondents, i.e., 35.3%, have experience of 1–3 years. The goal of most respondents is wealth accumulation, i.e., 43.7%, followed by sustainable and socially responsible investments (19.4%). This depicts the interest of respondents in long-term financial growth and sustainability. Considering marital status, the majority of respondents, i.e., 74.1%, were married, followed by single (22.6%). Emphasizing awareness of sustainable investments among respondents, most respondents, i.e, 40.9%, were aware but not currently investing in sustainable options. 29.9% were fully aware and actively investing in sustainable options.

#### 4.1.2 Reliability analysis

A reliability test was performed using SPSS to assess the dependability of the measurement instrument. The Cronbach's alpha value from this test reflects the level of internal consistency within the raw data. This analysis is particularly valuable for questionnaires with multiple Likert scale questions, aiming to evaluate the reliability of the scales used in the study. The sample size for this test was 501.

*Table 4.1 Investor's level of awareness about Sustainable Financial Management*

*Source: Author*

<b>Item-Total Statistics</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
I am quite familiar with the concept of sustainable financial management.	13.97	14.429	.805	.869

I am aware of the impact that my investment choices can have on the environment and society.	14.15	12.902	.755	.878
I actively seek information about companies' ESG practices before making investment decisions.	14.17	14.380	.678	.893
In my opinion, sustainable financial management contributes to long-term economic stability.	14.07	13.571	.760	.875
I can differentiate between traditional investment products and sustainable investment options.	13.98	13.644	.780	.871

Table 4.2 Reliability Statistics

Source: Author

Cronbach's Alpha	No. of Items
.899	5

The construct “Investor’s Level of Awareness Pertaining to Sustainable Financial Management” has with value of Cronbach’s Alpha is 0.899, considering the five items. The value of Cronbach's Alpha ranged between 0 and 1, and a value higher than this indicates higher internal consistency. A value above 0.7 is mainly accepted, and in the present case, the value is above 0.8 highlights good reliability. This depicted the alpha value as 0.899, with excellent internal consistency, indicating that the items are highly correlated and measure the underlying construct efficiently. This high value suggests excellent internal consistency among the items measuring investors' familiarity with sustainable financial management, awareness of the impact of investment choices, active seeking of ESG information, perception of sustainable financial management's contribution to economic stability, and the ability to differentiate between traditional and sustainable investment options. In Table 4.1, corrected item total correlations ranged from 0.678 to 0.805, highlighting that all items were positively correlated with the overall scale. The Cronbach's alpha values if each item were deleted were consistently high, confirming that no single item significantly lowered the reliability.

Table 4.3 Investor decision making

Source: Author

<b>Item-Total Statistics</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
My investment decisions are affected by the environmental performance of an organization.	13.93	13.051	.737	.842
I consider governance practices (e.g., transparency and board diversity) when making investment decisions.	14.19	12.420	.586	.887
I am more likely to invest in companies with a clear and measurable commitment to sustainability.	13.81	12.948	.758	.838
In my opinion, integrating sustainability factors reduces investment risks, influencing my decision-making.	13.90	12.769	.733	.842

I prefer investing in sectors that actively contribute to sustainable development (e.g., renewable energy and healthcare).	13.82	12.778	.759	.837
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*Table 4.4 Reliability Statistics*

*Source: Author*

<b>Cronbach's Alpha</b>	<b>No. of Items</b>
.876	5

The reconciled construct called "Investor Decision-Making" had good internal consistency, with a Cronbach's alpha value of 0.876 with 5 items. In general, high internal consistency indicates that the items comprising the scale measure a common underlying construct: how investors make decisions when sustainability factors are present. The interpretative guidelines for Cronbach's alpha suggest that a value above 0.8 is good, and a value approaching 0.9 indicates excellent reliability. The value of 0.876 thus indicates the descriptiveness and conformance of the scale to represent investor preferences and motivations about sustainability influences. This scale's five items involved establishing an investor's consideration of various factors (a) environmental performance of a firm, (b) corporate governing practices of an organization, (c) an organization's commitment to sustainability, (d) generally, how an organization can lessen risk using a sustainable model and (e) an investor's preference for investing in sectors that value sustainability. Collectively, these dimensions define a contemporary investment strategy guided by environmentally and socially responsible governance

(ESG) principles that are influencing capital flows globally. The rectified item-total correlations ranged from 0.586 to 0.759, lending further support to the strength of the scale. The values indicate a moderate to strong relationship between each item and total scale score, therefore showing that all the items have genuine value to the construct of 'investor decision-making'. Moreover, the Cronbach's alpha values if an item was deleted were all considerably above 0.837, which implies that none of the items are lessening the reliability of the scale. Which means, all items have value, not just in isolation, but in that they add value to the other items, informing the investor's decision-making process from a sustainability perspective.

*Table 4.5 Investor Perception Regarding Sustainable Finance Management and Risk Management Sustainable Finance Management*

*Source: Author*

<b>Item-Total Statistics</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
In my opinion, sustainable finance management is necessary for addressing environmental and social challenges.	10.49	7.906	.755	.848

Organisations that practice sustainable finance management are more likely to have stable financial performance.	10.57	6.886	.749	.850
The integration of ESG principles into financial management aligns with my investment goals.	10.56	7.678	.707	.863
Incorporating sustainability factors into financial management enhances overall corporate accountability.	10.59	7.169	.781	.835

*Table 4.6 Reliability Statistics*

*Source: Author*

<b>Cronbach's Alpha</b>	<b>No. of Items</b>
.882	4

The construct Sustainable Finance Management in the overall "Investor Perception Related to Sustainable Finance Management and Risk Management", demonstrated adequate internal consistency with a Cronbach's alpha of 0.882 with four items. This is well above the commonly cited benchmark of 0.70 and provides very clear evidence of a high level of reliability and internal consistency of the items, indicating that

the items are measuring, with consistency, an underlying construct that is consistent with investors' perception of sustainable finance. Each of the four items dealt with a different but related dimension of sustainable finance: (1) its necessity for addressing environmental and social issues, (2) its role in long-term financial stability, (3) its fit with investors' strategic financial objectives and (4) its support for increased transparency and corporate accountability. Together, these dimensions suggest the current investor concerns about how sustainability can be integrated into the financial decision-making process. The fixed item-total correlations were between 0.707 and 0.781, which are strong; certainly, that is much higher than the traditionally accepted minimum threshold of 0.30. These values indicate there is a fair amount of relationship going on between the items and the (total) score for the scale, therefore providing additional support for the usefulness of each item being in the construct assessment. In summary, the analysis indicates that the items designed to measure Sustainable Finance Management are both valid and reliable measures. The Cronbach's alpha was strong, there were good item-total correlations, and no items seemed truly indispensable for removal. Collectively, these implications suggest that this scale is a reliable measure of investor perceptions of sustainable finance.

*Table 4.7 Risk Management*

*Source: Author*

<b>Item-Total Statistics</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>

In my experience, sustainable investments are less susceptible to long-term risks compared to traditional investments.	10.63	7.912	.771	.862
I believe that companies with sustainable finance practices are better prepared for economic uncertainties.	10.74	6.848	.769	.865
I perceive investments in sustainable sectors as a hedge against climate change-related risks.	10.61	7.943	.729	.876
Sustainable finance management reduces exposure to industry-specific risks such as energy sector volatility.	10.70	7.216	.806	.846

*Table 4.8 Reliability Statistics*

*Source: Author*

<b>Cronbach's Alpha</b>	<b>No. of Items</b>
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.893	4
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The risk management sub-construct displayed Cronbach's alpha construct reliability for the four measurement items of .893, indicating excellent internal consistency and reliability of the scale employed. This high alpha demonstrates that the four measurement items consistently identified some underlying concept of risk management, which applied to sustainable investments as its operational referencing context. The measurement items that respondents were presented with were developed to examine perceptions about four aspect dimensions of risk management, which were: 1) susceptibility to risk of sustainable investments; 2) preparedness for economic risks; 3) hedging for climate risks; 4) capacity to manage sector-specific variability. The corrected item-total correlations (i.e., 0.729 and 0.806) indicate a strong positive relationship between each item and the total score of the subscale; thus, reasonably assume all items represented a significant contribution to the overall construct. Notably, all correlation values accounted for exceeded 0.3, which is a cut-off that is often suggested when demonstrating a strong degree of convergent validity. Similarly, the "Cronbach's alpha if item deleted" values ranged from all above 0.846, which indicates that eliminating one item will have no substantial improvement effect on the reliability of the scale. This further shows that all items meaningfully contribute and were constructed appropriately to build on measuring a construct. In all cases, the reliability indicators show that this scale should measure the risk management dimensions reliably in sustainable finance decision-making situations.

*Table 4.9 Factors that impact investors investment decisions in the context of sustainability*

*Source: Author*

<b>Item-Total Statistics</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
The environmental impact of a company's operations affects my investment decisions.	14.33	13.489	.777	.893
My investment decisions are affected by a company's commitment to social welfare and employee well-being.	14.44	11.883	.776	.893
Transparency and accountability in a company's governance structure affect my investment decisions.	14.29	12.756	.781	.890
The long-term profitability of sustainable	14.39	12.583	.769	.893

investments influences my investment decision-making.				
I am willing to compromise on short-term returns for sustainable long-term gains.	14.25	12.683	.789	.888

Table 4.10 Reliability Statistics

Source: Author

Cronbach's Alpha	No. of Items
.911	5

For "Factors that Influence Investors' Investment Decisions in the Context of Sustainability", a Cronbach's alpha of 0.911 was attained for the five items. This is a very high Cronbach's alpha and suggests there is excellent internal consistency and likely demonstrates that all items are measuring important factors that influence investing decisions, such as environmental impact, commitment to social welfare, commitment to the transparency of governance, long term profitability, and willingness to forgo short-term returns in favor of sustainable returns. The corrected item-total correlations of each item were from 0.769 to 0.789, suggesting a strong relationship between each item and the total scale. The Cronbach's alpha if an item was deleted also provided high values, which indicates the importance of each of the 5 items for a reliable score.

Table 4.11 Benefits of sustainable finance management

Source: Author

		<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
I believe that sustainable finance management helps in achieving long-term financial stability.		10.66	7.859	.771	.869
Sustainable finance management fosters better risk management by addressing environmental, social, and governance (ESG) issues.		10.73	6.360	.784	.865
Companies practising sustainable finance management are		10.70	7.423	.739	.876

more resilient to market fluctuations.					
Sustainable finance management encourages innovation in business practices and product development.		10.76	6.971	.809	.850

*Table 4.12 Reliability Statistics*

*Source: Author*

<b>Cronbach's Alpha</b>	<b>No. of Items</b>
.895	4

The Cronbach's alpha values at 0.895 across four items for "Benefits of Sustainable Finance Management" show a high level of internal consistency. The four items were geared at assessing beliefs about long-term financial health, ability to manage risk, resilience to market variation, or that sustainable finance management would facilitate innovation. The corrected item-total correlations ranged from 0.739 to 0.809, indicating a strong relationship between each of the items and the total scale. All reliability would remain high with any of the four items deleted, where Cronbach's alpha values remained greater than 0.850.

Table 4.13 Challenges of sustainable finance management

Source: Author

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
I believe that the lack of standardised frameworks for ESG reporting makes it difficult to evaluate sustainable finance options.	10.65	7.517	.783	.857
Sustainable financial products are often perceived as having lower returns compared to traditional investments.	10.75	6.710	.749	.871
I believe that there is insufficient awareness and understanding of sustainable finance among investors and financial institutions.	10.59	7.410	.745	.868

Companies face difficulties in balancing profitability and sustainability goals.	10.77	7.126	.791	.851
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*Table 4.14 Reliability Statistics*

*Source: Author*

<b>Cronbach's Alpha</b>	<b>No. of Items</b>
.893	4

For "Challenges of Sustainable Finance Management", Cronbach's alpha was 0.893 (with four items), demonstrating good internal consistency. The items were based on challenges such as a lack of standards for ESG reporting, a perception of lower returns, a lack of awareness, and an inability to reconcile profit-making objectives with sustainability objectives. The corrected item-total correlations ranged from 0.745 to 0.791, all of which suggested that the items were all strongly associated with the other items on the scale. The Cronbach's alpha if an item is deleted was also very high and explored. This also suggests that all the items represented relevant items to the reliability of the construct.

*Table 4.15 Reliability Statistics*

*Source: Author*

<b>Cronbach's Alpha</b>	<b>No. of Items</b>
.983	31

Overall, the reliability statistics demonstrate that all constructs have high Cronbach's alpha values, indicating excellent internal consistency across the measurement scales. This suggests that the questionnaire items are dependable in measuring the respective constructs related to sustainable financial management and investor decision-making.

**a) Validity testing**

Validity testing ensures that a measurement instrument accurately measures the construct it is intended to assess. In this study, validity testing was conducted using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. These tests help determine whether the data is suitable for factor analysis, which is essential for evaluating construct validity. The KMO test assesses the adequacy of sample size, while Bartlett's Test of Sphericity examines whether the variables are sufficiently correlated to justify factor analysis.

*Table 4.16 KMO and Bartlett's Test*

*Source: Author*

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>.975</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	17314.023
	df	465
	Sig.	.000

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy value obtained was 0.975, which is considered excellent as it is well above the recommended threshold of 0.70. A high KMO value indicates that the patterns of correlations are compact, suggesting that factor analysis is appropriate for the data set. This value demonstrates that the sample size is adequate and that the variables share a significant amount of common

variance, making them suitable for structure detection. Bartlett's Test of Sphericity yielded an approximate Chi-Square value of 17314.023 with 465 degrees of freedom and a significance level (Sig.) of 0.000. The significance value being less than 0.05 indicates that the correlation matrix is not an identity matrix, confirming that there are significant correlations among the variables. This supports the suitability of the data for factor analysis, as it shows that the variables are sufficiently related to each other. Together, the high KMO value and the significant result of Bartlett's Test confirm the appropriateness of performing factor analysis, thereby supporting the validity of the constructs measured in this study.

#### **b) Normality Testing**

The Kolmogorov-Smirnov and Shapiro-Wilk tests both show significant p-values ( $p < 0.05$ ) for all items, indicating that the data deviates from a normal distribution. This test is important to choose between parametric and non-parametric analysis. For all 30 items examined, both the K-S test and the Shapiro-Wilk test showed p-values (Sig.) = 0.000. This finding was consistent for all variables examined, including attitudes, awareness, behavior, and risk perception towards sustainable financial management, ESG (Environmental, Social, and Governance) incorporation, and sustainable investing.

High K-S and low S-W values highlight deviation from normality: - The K-S value ranges from 0.173 to 0.364, and the Shapiro-Wilk Statistic ranges from 0.787 to 0.897, considering all items. These values differ from what has been expected through normal distribution, which mainly indicates the S-W value closer to 1.0. The deviation has been seen in statements such as:

“The environmental impact of a company’s operations affects my investment decisions” (K-S=0.362, S-W=0.790). “I believe that sustainable finance management helps in achieving long-term financial stability” (K-S = .364, S-W = .787). “I believe that

the lack of standardized frameworks for ESG reporting makes it difficult to evaluate sustainable finance options" (K-S = .355, S-W = .801). These items reflected polarized opinions or highly skewed response patterns, which mainly varied due to the level of awareness and understanding of sustainable finance among respondents. The deviation from normality could also show heterogeneity in a sample population to include: (e.g., different levels of financial literacy, different levels of investing experience, different levels of values toward sustainability). For example, the item "I am quite familiar with the concept of sustainable financial management" received one of the lowest values in Shapiro-Wilk (S-W = 0.832), which may show unequal exposure [or education] on the subject for the respondents.

The findings of the Kolmogorov-Smirnov and Shapiro-Wilk tests show that the data violate the normality assumption; researchers should be careful and use non-parametric methods for additional analyses. In addition, the non-normality of responses across all items suggests there is a need for investor education efforts to improve understanding and comprehension of sustainable finance topics. This finding is also an important indicator for financial institutions to have tailored communication strategies when trying to market ESG-compliant investment products.

**c) Inferential Statistics**

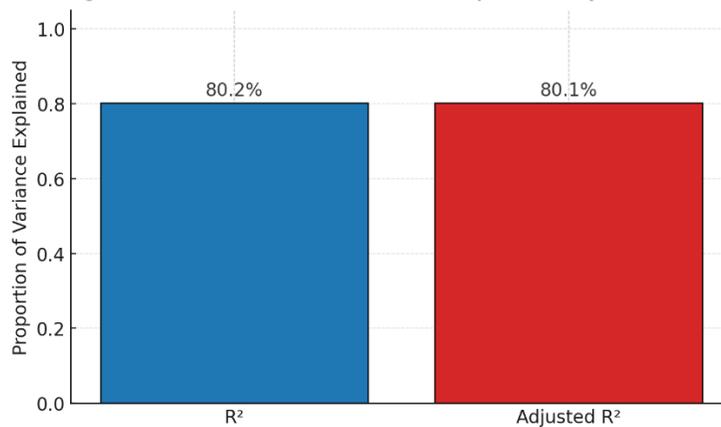
**RO1: To determine the investor’s level of awareness pertaining to Sustainable Financial Management and its impact on their decision-making.**

*Table 4.17 Model Summary*

*Source: Author*

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
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1	.895 <sup>a</sup>	.802	.801	.39236
a. Predictors: (Constant), Investor's level of awareness pertaining to Sustainable Financial Management				



Note: Values taken from Table 4.17 ( $R^2 = 0.802$ ; Adjusted  $R^2 = 0.801$ ). Sample size  $N = 501$ .

Figure 4.3 Model Fit – Variance Explained by Awareness

Source: Author

The model summary presents the output of an analysis of linear regression to discover a relationship between one independent variable Investor's level of awareness on Sustainable Financial Management, and the dependent variable, which reflects the person's sustainability in decision-making, engagement, or another example of sustainable investment behavior. The correlation coefficient ( $R$ ) is 0.895, which indicates that there is a very strong, positive linear relationship between the investor's awareness of sustainable financial management and the dependent variable. In other words, when awareness increases, the dependent variable will very likely increase. The value of R Square ( $R^2$ ) is 0.802, indicating that the investor's perception of sustainable financial management explains 80.2% of the variability of the dependent variable. Given how high this percentage level is, we can say the model has relatively strong explanatory power of

the dependent variable. The remaining 19.8% is constituted of other explanations not included in the model.

The Adjusted R Square, which adjusts the  $R^2$  by assumed predictors and sample size, is .801. This is very close to  $R^2$ , which indicates that the model is a good fit, and the predictor is highly significant in the outcome variable, which is not going to be sensitive or subject to overfitting or sample bias. The Standard Error of the Estimate is 0.39236. This number indicates the average distance between the values observed, and the values predicted by the model. The smaller the standard error, the more accurate your model, and the more likely this model is to be close to the actual data. Thus, the results indicated that sustainability awareness and understanding of sustainable financial management, is a meaningful predictors of the dependent variable. Therefore, it seems that raising investor education and awareness is a significant component of encouraging sustainable investing behavior and investment-related financial decision-making in the execution of the investment process.

*Table 4.18 ANOVA analysis*

*Source: Author*

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
	Regression	310.914	1	310.914	2019.659	.000 <sup>b</sup>
	Residual	76.818	499	.154		
	Total	387.732	500			
a. Dependent Variable: Investor Decision Making						
b. Predictors: (Constant), Investor's level of awareness pertaining to Sustainable Financial Management						

The ANOVA analysis highlighted the overall significance of the regression model, analyzing the effect of the investor's level of awareness on sustainable financial management on investor decision-making. The regression sum of squares is 310.914, the residual (error) sum of squares is 76.818, so consequently, the total sum of squares is 387.732. Therefore, there is quite a lot of variance in investors' decision-making behavior identified in the model. In this case, the degrees of freedom (df) for the regression is 1 (1 predictor), and for the residuals it is 499, ( $n - k - 1$ , then  $n = 501$ ,  $k = 1$ ). The mean square of the regression component is 310.914, and the mean square of the residual is 0.154. These mean square values were used in the F-ratio (in this case, the F-value is very large at 2019.659). A large F-value indicates that the model explains a much larger proportion of the variance of the dependent variable error than it does of the unexplained error from the model.

The most straightforward or basic piece of information to interpret from the output is the significance level of 0.000. This is below the established alpha level of .05 and is statistically significant. Therefore, reject the null hypothesis (that the independent variable does not affect the dependent variable). In summary, the ANOVA results indicated that investor awareness of sustainable financial management has a statistically significant impact on decision-making for the investor. The model accounted for a large part of the variation of decision-making behavior; therefore, it is a valuable model to use when trying to understand how awareness of sustainability impacts investment decision-making. This study adds to the body of evidence supporting the value of investor education and awareness on sustainable finance principles to drive changes to investor behavior.

Table 4.19 Coefficients

Source: Author

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.457	.070		6.571	.000
	Investor's level of awareness pertaining to Sustainable Financial Management	.860	.019	.895	44.941	.000
a. Dependent Variable: Investor Decision Making						

The above table provides knowledge related to the relationship between the independent variable investor's level of awareness of sustainable financial management, and the dependent variable as investor decision making. The value of the constant is 0.457 highlights that if the awareness level of the investor is zero, the baseline score for investor decision-making would be 0.457. This value did not have practical significance and involved a reference point for analysing the influence of the independent variable. The unstandardized coefficient (B = 0.860) for the predictor variable indicates that for each one-unit increase in the investor's awareness level toward sustainable financial management, the score of investor decision-making increases by 0.860 units, assuming all other variables remain constant. The positive coefficient is large, which would imply that there is a positive linear relationship between awareness and decision-making behavior.

The beta coefficient (Beta = 0.895) reinforces the high level of the relationship. A standard deviation increase in investor awareness brings with it a 0.895 standard deviation increase in quality of decision-making behavior. This is a notably high beta coefficient, reflecting the dominant influence of awareness as a predictor for investors regarding their decision-making behaviors towards sustainability. In addition, the t-value of 44.941 and the significant value (p-value) of 0.0001 show that this relation is statistically significant at the 0.01 level, and is, in addition, evidence that investor awareness affects decision-making separate from chance. It is clear from the findings that the level of awareness of an investor about sustainable financial management has a very significant and strong positive effect on investment decision-making. Higher education and awareness of investors can thus be a prime policy choice for promoting sustainable and responsible investor practices. This is of great policy implication to policy-makers, financial experts, and institutions interested in driving environmentally and socially responsible investor practices.

#### 4.2 Research Question Two

**RO2: To comprehend the perceptions of the investors regarding Sustainable Finance Management and Risk Management.**

*Table 4.20 Correlation analysis*

*Source: Author*

		<b>Sustainable Finance Management</b>	<b>Risk Management</b>
Sustainable Finance Management	Pearson Correlation	1	.903**

	Sig. (2-tailed)		.000
	N	501	501
Risk Management	Pearson	.903**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	501	501
**. Correlation is significant at the 0.01 level (2-tailed).			

The above correlation matrix shows a statistical analysis of the relationship between two constructs, such as Risk Management and Sustainable Finance Management. The correlation coefficient considering these variables is 0.903, which is mainly high and statistically significant at the 0.01 level. This implies a strong positive relationship between risk management and sustainable finance management practices among respondents, considering a sample of 501 individuals. A Pearson correlation coefficient (r) of -1 to +1, in which a +1 represents a perfect positive relationship, a -1 represents a perfect negative relationship, and 0 represents no linear relationship. Since  $r = 0.903$  indicates that as perceptions or practices on managing sustainable finance rise, there is a tendency that risk management capacities or practices would also increase significantly and vice versa. The p-value (Sig. 2-tailed = 0.000) indicates that the correlation is statistically significant and not random.

This close association highlights the mutual dependence between sustainable finance and risk management practices. Firms that embrace sustainable finance practices like integrating environmental, social, and governance (ESG) factors into investment choices are likely to also embrace strong risk management practices. This is so because sustainable finance naturally takes into account long-term risks like climate change, regulatory developments, reputational risks, and scarcity of resources, which are also the

primary focus areas for risk management. The results imply that encouraging sustainable finance practice can have the direct effect of increasing an organization's risk identification, assessment, and prevention capability, and making its financial and operational performance stronger. Moreover, synchronization of the financial strategy with sustainability objectives may help firms be anticipatory of emerging risks and respond accordingly.

From a policy and management perspective, this linkage signals the need for the harmonization of sustainability-oriented financial practices into the overall risk management strategy. Through such an integrated move, such action can make compliance with changing legislation and stakeholder expectations, as well as achieve long-term value and competitive robustness for companies. To summarize, the significant and high correlation between risk management and sustainable finance management is indicative of a synergetic relationship in which enhanced activity in one direction corresponds strongly with increased activity in the other. This suggests that decision-makers should consider sustainable finance not as an independent initiative but as a fundamental building block of a comprehensive risk management process.

### **4.3 Research Question Three**

**RO3: To identify the factors that impact investors' investment decisions in the context of Sustainability.**

*Table 4.21 Correlation analysis*

*Source: Author*

			The environmental impact of a company's operations affects my investment decisions.	My investment decisions are affected by a company's commitment to social welfare and employee well-being.	Transparency and accountability in a company's governance structure affect my investment decisions.	The long-term profitability of sustainable investments influences my investment decision-making.	I am willing to compromise on short-term returns for sustainable long-term gains.
Spearman's rho	The environmental impact of a company's operations	Correlation Coefficient	1.000	.569**	.722**	.572**	.713**
		Sig. (2-tailed)	.	.000	.000	.000	.000

affects my investment decisions.	N	501	501	501	501	501
My investment decisions are affected by a company's commitment to social welfare and employee well-being.	Correlation Coefficient	.569**	1.000	.542**	.803**	.604**
	Sig. (2-tailed)	.000	.	.000	.000	.000
	N	501	501	501	501	501
Transparency and accountability in a company's governance structure affect my investment decisions.	Correlation Coefficient	.722**	.542**	1.000	.547**	.711**
	Sig. (2-tailed)	.000	.000	.	.000	.000
	N	501	501	501	501	501

	The long-term profitability of sustainable investments influences my investment decision-making.	Correlation Coefficient	.572**	.803**	.547**	1.000	.546*
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	501	501	501	501	501
	I am willing to compromise on short-term returns for sustainable long-term gains.	Correlation Coefficient	.713**	.604**	.711**	.546**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	501	501	501	501	501
**. Correlation is significant at the 0.01 level (2-tailed).							

The above correlation analysis determine the relationship among different dimensions affecting sustainable investment decision-making among investors. The analysis comprises five variables, such as the environmental influence of a company's operations, commitment to social welfare and employee well-being, transparency and

accountability in governance, long-term profitability of sustainable investments, and the willingness to compromise on short-term returns for long-term sustainable gains. It is determined that all correlations among the five variables are statistically significant at the 0.01 level (2-tailed), signifying strong and positive associations. These factors are interrelated and affect each other in the context of investor decision-making, emphasized on sustainability.

The most significant correlation is noted between "My investment choices are influenced by a company's social welfare and employee well-being" and "The long-term financial returns of sustainable investments guide my investment choice-making" ( $\rho = 0.803, p < 0.01$ ). This intense correlation points to the fact that investors who are concerned about a company's social responsibility also care about the long-term financial returns of sustainable investments. This reflects a twofold focus in investor behavior, where social concern goes along with economic caution. A very high correlation is also found to exist between "Transparency and accountability in a company's governance structure" and "I am willing to compromise on short-term returns for sustainable long-term gains" ( $\rho = 0.711, p < 0.01$ ), and between "The environmental impact of a company's operations" and "I am willing to compromise on short-term returns for sustainable long-term gains" ( $\rho = 0.713, p < 0.01$ ). These associations indicate that investors who value corporate transparency and environmental performance are likely to embrace deferred returns in exchange for sustainability. This reveals the shifting investor psychology that places greater emphasis on ethics and ecological responsibility in exchange for long-term gains.

Besides, "The environmental impact of a company's operations" has a high correspondence with "Transparency and accountability in governance" ( $\rho = 0.722, p < 0.01$ ), which suggests that investors are likely to perceive environmentally friendly

companies as companies practicing transparent and accountable governance. It is consistent with the idea that good governance and environmental sustainability are two sides of the same coin. The same moderate to high levels of correlation are also true for other pairs, i.e., between environmental footprint and social welfare commitment ( $\rho = 0.569$ ), and between compromise on returns and social welfare ( $\rho = 0.604$ ). The implications of these results are that investor values are not segmented; rather, they are multi-dimensional with interdependencies between social, environmental, governance (ESG), and financial factors. The analysis reveals the comprehensive nature of investor mentality towards sustainable investment norms. Investors who are attracted to a part of sustainability (e.g., environmental consciousness) are interested in other parts as well (e.g., governance transparency, social return, or long-term yield), and this gives rise to a broad, comprehensive trend in their selection process. The consequences are of extreme importance to companies in search of long-term investment because they highlight the requirement to adopt wholesome ESG methods to attract and retain investors.

#### 4.4 Research Question Four

**RO4: To analyze the benefits and challenges of Sustainable Finance Management.**

*Table 4.22 Correlation analysis*

*Source: Author*

	<p><b>Benefits of Sustainable Finance Management</b></p>	<p><b>Challenges of Sustainable Finance Management</b></p>
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Benefits of Sustainable Finance Management	Pearson Correlation	1	.919**
	Sig. (2-tailed)		.000
	N	501	501
Challenges of Sustainable Finance Management	Pearson Correlation	.919**	1
	Sig. (2-tailed)	.000	
	N	501	501
**. Correlation is significant at the 0.01 level (2-tailed).			

The Correlations table shows a very strong positive correlation between the Benefits of Sustainable Finance Management and the Challenges of Sustainable Finance Management ( $r = 0.919$ ). The correlation is significant at the 0.01 level, indicating that as one factor increases, the other tends to increase as well. The strong correlation suggests that the benefits and challenges associated with sustainable finance management are closely related. This could imply that as the understanding and adoption of sustainable finance practices grow, the challenges associated with their implementation may also increase. The results underscore the complexity of sustainable finance, where the benefits and challenges are intertwined, and addressing one may help mitigate the other.

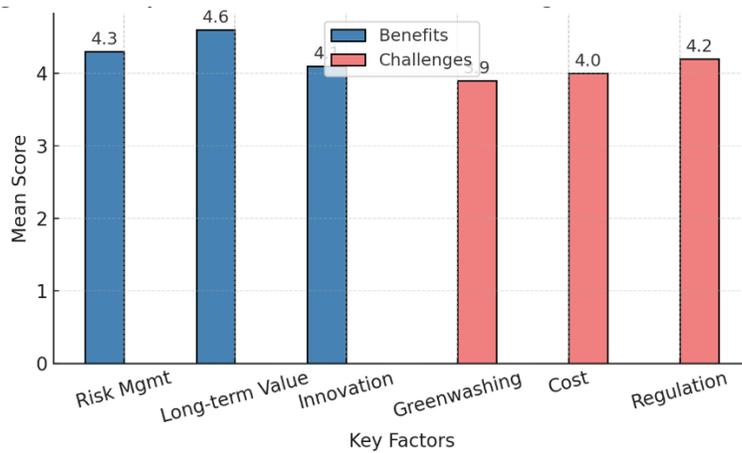


Figure 4.4 Comparative View of Benefits and Challenges of Sustainable Finance

Source: Author

Table 4.23 Demographic Frequency Table

Source: Author

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 25 years	52	10.4	10.4	10.4
	26 - 35 years	83	16.6	16.6	26.9
	36 - 45 years	248	49.5	49.5	76.4
	46 - 60 years	106	21.2	21.2	97.6
	Above 60 years	12	2.4	2.4	100.0
	Total	501	100.0	100.0	

The age distribution shows that nearly half of the respondents (49.5%) are between 36 and 45 years old, followed by 21.2% in the 46-60 age group. Only 2.4% are above 60, indicating a predominantly middle-aged sample.

Table 4.24 Gender Distribution

Source: Author

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	285	56.9	56.9	56.9
	Female	215	42.9	42.9	99.8
	Prefer not to say	1	.2	.2	100.0
	Total	501	100.0	100.0	

The gender distribution shows that a majority of respondents are male (56.9%), while females account for 42.9% of the sample. Only a small fraction (0.2%) chose not to disclose their gender. This indicates a relatively balanced representation of both genders, with a slight male dominance.

Table 4.25 Education frequency

Source: Author

Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below High School	5	1.0	1.0	1.0
	High School/Diploma	39	7.8	7.8	8.8
	Bachelor's Degree	294	58.7	58.7	67.5
	Master's Degree	148	29.5	29.5	97.0
	Doctorate	9	1.8	1.8	98.8

	Professional Certification	6	1.2	1.2	100.0
	Total	501	100.0	100.0	

The education table reveals that the majority of respondents hold a Bachelor's degree (58.7%), followed by Master's degree holders (29.5%). Only a small percentage have attained a Doctorate (1.8%) or Professional Certification (1.2%). This indicates a well-educated sample with a significant portion having advanced educational qualifications.

*Table 4.26 Occupation Frequency*

*Source: Author*

<b>Occupation</b>		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Salaried (Private Sector)	168	33.5	33.5	33.5
	Salaried (Public Sector)	90	18.0	18.0	51.5
	Business Owner/Entrepreneur	153	30.5	30.5	82.0
	Self-employed/Freelancer	58	11.6	11.6	93.6
	Retired	7	1.4	1.4	95.0
	Student	18	3.6	3.6	98.6
	Others	7	1.4	1.4	100.0
	Total	501	100.0	100.0	

The occupation data indicates that the largest group of respondents is employed in the private sector (33.5%), followed by business owners/entrepreneurs (30.5%). Public sector employees make up 18%, while self-employed individuals constitute 11.6%. A minimal percentage are retired, students, or in other categories, reflecting a predominantly economically active population.

*Table 4.27 Income Frequency*

*Source: Author*

Income		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 5,00,000	91	18.2	18.2	18.2
	5,00,001–10,00,000	218	43.5	43.5	61.7
	10,00,001–20,00,000	174	34.7	34.7	96.4
	Above 20,00,000	18	3.6	3.6	100.0
	Total	501	100.0	100.0	

### **Qualitative analysis**

#### **1. In your opinion, what are the long-term strategic benefits of incorporating sustainability into financial management practices?**

One of the respondents stated that by integrating environmental, social, and governance (ESG) in the organization, support in the reduction of financial risks.

Businesses can reduce their vulnerability to these risks, and guarantee long-term financial stability by using sustainability in financial management. Another respondent indicated that businesses that adopted financial management practices are seen favorably by stakeholders, including staff and customers. The third interviewee stated that accessibility to financing for a business is enhanced by incorporating sustainability into financial management practices. Businesses can access funding at lower costs and draw in an increased number of investors by integrating sustainability in their financial management practices into the way they operate. Further, it is determined that businesses adopted sustainability within the financial management practices, enhanced their position to meet regulations in the future, and also provided them with a competitive edge. One respondent stated that enhancing operational efficiency, customer attraction and retention, boosting market share, improving risk management, and providing consistent value to stakeholders provide long-term benefits. The three primary objectives of incorporating sustainability into a business's long-term strategy are to create long-term financial viability, generate value through environmental stewardship, and generate value through the framework of corporate social responsibility. It is determined that sustainable investments are also linked to long-term achievement and results, in addition to the capacity to overcome specific obstacles. The adoption of ESG-integrated investment portfolios does better during market and economic downturns.

## **2. How does integrating sustainability principles into financial management drive innovation in financial products, services, and investment strategies?**

One of the respondents stated that the adoption of green financial instruments such as ESG funds and green bonds is facilitated by sustainability. Respondents highlighted that impact investment which links monetary gains with favorable social and environmental consequences encouraged through sustainability. It is indicated that

technological innovation is linked to environmentally friendly fintech solutions driven by sustainability. Respondents highlighted that sustainability integrated through creating green financial products such as sustainable bonds and ESG investments. Respondents indicated that financing through the issuance of green bonds and loans, as well as equity finance through IPOs aimed at environmentally conscious endeavors, reached \$540.6 billion in 2021, a rise of one hundredfold since 2012.

**3. What are the key opportunities sustainability sustainability-focused financial practices present for enhancing competitive advantage?**

Respondents stated that ESG compliance enhances differentiation in brand and support for emerging investors such as Gen Z and millennials. It is evaluated that companies with a sustainability focus frequently aim to lower the use of energy, waste, and ecological footprint. Companies can demonstrate their dedication to ESG and responsible investment to customers who place a high value on these concerns by following this sustainability in financial management reporting. Developing long-term success of business in the market requires a competitive edge. It is determined that businesses attracting devoted customers, involving younger generations growing more concerned related to sustainability, match values.

**4. What are the observed or potential benefits of sustainability-focused financial practices in improving financial performance and profitability?**

Improved availability of financing at more favorable rates might arise from building a reputation and trust with financiers and customers. Increased avenues for financing can help businesses finance sustainable activities and undertakings, further enhancing their reputation and brand image as ethical and sustainable businesses. The benefits are that businesses with strong ESG scores typically outperform their rivals.

Effective governance systems in place lower the likelihood of fraud, dishonesty, and poor decision-making.

**5. How does incorporating sustainability into financial management streamline compliance with environmental, social, and governance (ESG) regulations and foster innovation?**

Respondent indicated that sustainability practices support companies staying ahead of regulatory changes, mainly with global and local ESG mandates. This enhances transparency in culture, facilitating reporting compliance and driving innovation in reporting and business models. Initiatives such as GRI, PRI, and UN shape corporate behaviors toward sustainability. It is determined that businesses may create resistance against the financial hazards associated with environmental concerns, open up fresh possibilities and encourage innovation by coordinating financial aims with sustainability goals. Organizations can benefit from sustainable financial practices not just because they can reduce environmental hazards but also because they can open up new avenues for innovation and growth. Sustainable finance strategies can help companies not just by lowering environmental risks, but also by creating new opportunities for innovation and expansion.

**6. What impact does integrating sustainability into financial practices have on the reputation and brand value of financial institutions?**

Sustainability is becoming more and more important to investors, who view adherence to ESG standards as a sign of an organization's long-term stability as well as the capacity to cope with risk. It is determined that sustainable finance is a practical economic decision in addition to being an ethical one. Financial institutions can enhance their reputation, generate substantial financial gains, and help create an environmentally friendly and just society by executing green projects. Financial institutions and other

financial firms adopt sustainability into financial practices, satisfying customer demands and supporting the addressing of some of the biggest global issues, including climate change and social injustice.

**7. How significant are the financial and resource-related challenges associated with adopting sustainability-focused practices in financial management?**

Respondent stated that sustainability calls for a large upfront expenditure in technological advances, legal compliance, and infrastructure. Organizations, mainly small and medium-sized businesses, are frequently deterred from completely adhering to sustainable practices by this cost strain. Management of information and collecting is considered a significant issue. A lack of choices slows the shift to a more accountable financial ecosystem by limiting capital flow into sustainability ventures. Data availability and quality are two of the most important challenges concerning standardization. Rising inequality, diminishing resources, and changing climates are just a few of the urgent environmental and social issues that have made sustainability-focused practices in financial management an essential part of the worldwide economic strategy. Investors currently have a very limited understanding of sustainable financial management, which leads to many misconceptions about how it will affect the returns they receive.

**8. In what manner do the conflicting priorities among stakeholders pose challenges to adopting sustainability in financial management?**

Short-term investing mentality among certain stakeholders is one of the issues to sustainability in financial management. Conflicts may arise when different stakeholders, including governments, corporations, investors, and civil society, have different agendas and objectives.

## **9. What challenges do you encounter in quantifying the impact of sustainability initiatives on financial performance and broader organisational goals?**

One of the key barriers to sustainability in financial management is an absence of a widely accepted structure for ESG (Environmental, Social, and Governance) monitoring. One major obstacle regarding sustainability in financial management is the lack of a generally recognized structure for ESG (Environmental, Social, and Governance) monitoring. Absence of widely accepted framework for ESG assessment is also considered as a significant barrier to sustainability in financial management. One issue is that ESG performance reporting and measurement methods are not standardized.

### **4.5 Summary of Findings**

The results of the quantitative analysis and the qualitative analysis were well presented in this chapter. These statistical results based on descriptive, reliability, and inferential analyses provided useful understanding in the dynamics of Sustainable Financial Management (SFM) between Indian investors. The results have shown that the majority of investors have a significant amount of awareness on the topic of sustainability and the effect that their financial decision-making has on both environmental and social consequences. The values of Cronbach Alpha of all the constructs turned out to be bigger than the acceptable threshold, which guaranteed high internal consistency and reliability of the scales of measurement.

Regression and correlation studies showed that investors awareness of SFM, decision-making behavior, and risk management perceptions had significant relationships. These results revealed that the increasing level of awareness has a direct impact on responsible investment practices, which makes investors focus their financial

choices on sustainability principles. Moreover, the findings indicated that sustainable finance and risk-management are closely related, which means that the aspect of ESG should be included in the financial management of a particular organization to increase the financial resilience and long-term value-creation.

The qualitative analysis also supported the statistical material, showing how the concept of sustainability integration in the financial management enhances innovation, competitiveness, and access to responsible investment opportunities. Respondents stressed the significance of adoption of ESGs to keep credibility, meet the regulatory requirements, and build long-term trust with investors and stakeholders. Combined, these results offered an integrated insight into investor attitudes, investor behavior, and issues around sustainable finance in India, which forms a strong basis of the interpretative discussion in Chapter 5.

#### **4.6 Conclusion**

To sum up, this chapter highlighted the fact that Sustainable Financial Management is becoming one of the most important elements in determining the nature of investor behavior and decision-making in the Indian financial ecosystem. The empirical data proved that the more aware investors of the sustainability principles are, the more they make responsible and informed decisions when investing. It was also found that the connection between sustainable finance and risk management are mutually reaffirming where the implementation of ESG principles not only reduce long-term financial risks, but also increase corporate responsibility and stakeholder trust.

The findings also showed that the level of awareness and perception is improving but there are still difficulties in the implementation of ESG reporting which include data standardization, inconsistent ESG reporting frameworks, and short-term profit

orientation. However, these difficulties are offset by the fact that sustainable finance offers several benefits that include such benefits as better corporate image, better financial stability in a company and long-term profitability.

In general, the results prove the first four research objectives of the study due to the empirical capacity to illustrate the concerted influence of awareness, perception, and decision-making factors and perceived benefits on the investor attitudes towards sustainable financial management. The knowledge gained in this chapter gives the second chapter a good empirical foundation as it explains how the findings were interpreted within the context of the existing literature, gives theoretical implications, and also offers future research and practice opportunities.

## CHAPTER V: DISCUSSION

### **5.1 Discussion on Research Question One: Investor Awareness**

This chapter discuss the findings presented in the chapter 4 with refrence to each Research Questions and existing literature. The findings indicated that investors are aware and familiar with sustainable financial management. They have an awareness of the impact of investment choices, actively seek ESG information, a perception of sustainable financial management's contribution to economic stability, and the ability to differentiate between traditional and sustainable investment options. These findings align with prior studies that, it has been evaluated that SFM is considered one of the critical issues for investors, mainly in developing nations like India, where economic growth and security are linked to environmental sustainability. Investors' perception of SFM is considered instrumental in developing their investment preferences or behavior. It has been identified that there is a growing awareness among investors regarding the inclusion of sustainability in financial practices. It is determined perception of investors related to SFM is not homogeneous, as some investors are skeptical and some are looking at sustainability initiatives. Investors believe that companies that adopt sustainable practices are likely to outperform their peers in the long term (Verma, 2021). Furthermore, it is evaluated that digital platforms and social media cannot be underestimated in driving investor mass psychology. Various investors use social media to achieve sustainability in their business, and this tends to raise the stakes for communicating sustainability performance. It is identified that investors still have an incomplete notion of SFM and also have misconceptions about its implications for their returns (Patel, 2023).

Considering the investor decision-making aspect, the values have a moderate to strong relationship between items. Consistent with earlier research, it has been evaluated

that sustainability investment decisions are based on a complex interrelationship of several factors, such as economic, social, and environmental. Investor decisions are affected by economic factors, as among the key drivers that in fact affect sustainable investment decisions, economic considerations remain paramount. Investors are in search of higher returns with minimum risks, and their perception of their financial performance plays a major role in decision-making. A sustainable firm is in an attractive position because investors are realizing more and more that it will be robust when economies decline (Sharma, 2023). Some investors stick to classic investments that can yield quick financial returns because they have a demand for instant profits. Therefore, even while sustainability investments are generally beneficial in the long run from an economic standpoint, many investors' short-term concentration may create obstacles to adopting sustainable practices. Social factors also influence the decision-making of investors, as social considerations have an increasing share in the decision-making process in sustainable investing, as investors realize more and more the relevance of rallying investment around ideals and their social messages (Mehta & Gupta, 2023).

## **5.2 Discussion on Research Question Two: Perception & Risk Management**

Investor Perception Regarding Sustainable Finance Management and Risk Management highlighted the present investor concerns linked to how sustainability can be integrated into the financial management decision-making process. Compared with the literature, it is identified that for investors, SFM is considered an issue, especially in developing nations like India. Investors' perception of SFM is considered instrumental in developing their investment preferences or behavior. Studies indicated that there is increasing consciousness among investors related to the inclusion of sustainability into financial practices. Furthermore, the perception of SFM among investors in India is not

homogeneous. They are skeptical, and this is considered a damping of the growth of SFM, in which investors may opt to abstain from investing in sustainable capital in case they are not that confident in the integrity of claims made by a company. The stakes for communicating sustainability performance are likely to rise as more investors turn to social media for information about a company's sustainability. Businesses that engage stakeholders and disclose transparently about their sustainability efforts frequently see an increase in investor loyalty and trust.

Moreover, considering that risk management has a strong positive relationship with each item and the total score of the subscale. These findings align with prior studies that, it is determined that sustainable finance has attracted a lot of attention in recent years because more and more personnel in the financial industry realize that sustainable finance can affect risk management. This review presents sustainable finance, which entails consideration of social, environmental, and governance factors in investment decisions to enhance economic, environmental, and sustainable social development. Risk related to the environment and climate through readily available products, infrastructure, and knowledge or information. Many shareholders now have serious concerns about global warming, particularly those in industries like agriculture, energy, and transportation that are vulnerable to climate change (Kempf & Osthoff, 2007). It is determined that sustainable finance also entails investors paying attention to climate change risks, legal risks, and physical and reformation risks at the assessment phase. The following is one of the hazards related to regulations: Examples of risks associated with governance include corporate fraud, such as the Enron scandal or the Wirecard books case. Investors should prevent excessive exposure to governance concerns by using sustainable finance, as companies with weak structures are more likely to face these risks (Gibson et al., 2019). Corporate frauds, such as the Enron or the Wirecard books case, are

examples of governance-related risk. Sustainable finance enables investors to avoid overexposure to governance factors since firms with poor structure are prone to such risks.

### **5.3 Discussion on Research Question Three: Factors Affecting Decisions**

Factors that impact investors' investment decisions in the context of Sustainability stated a strong relationship between each item. Compared with the literature, it is evaluated that environmental factors are the ones related to the change in climate, depletion of resources, and biodiversity loss; investors are becoming more sensitive. Companies are viewed as being concerned with reducing their carbon footprint, effectively managing waste, and conserving natural resources. The extreme weather that disrupts operations and supply chains and results in financial losses is one of the physical dangers. In a similar vein, companies that fail to transition to a more sustainable business model promptly are subject to regulatory risks, such as carbon pricing and environmental restrictions (Bansal, 2023). Regulatory and policy factors are key in determining how the one-way traffic of investment related to sustainability is flowing. Regulatory bodies and the government are increasingly recognizing the relevance of sustainability in financial markets and are developing policies to favor responsible investing. Further, technological factors associated with technological development have been playing an increasingly crucial role in sustainable investment decisions through innovative solutions that help enhance efficiency, transparency, and performance. Technology played an important role in enhancing the quality and availability of data on issues concerning ESG, enabling investors to make better choices. Technology also creates avenues for a firm to execute more sustainable finance practices that could garner investment. Increased technological innovation within firms shall, on the one hand, enhance sustainable business practices,

while on the other, investors are likely to increasingly support those efforts where growth and profitability are possible (Rao & Mehta, 2023).

#### **5.4 Discussion on Research Question Four: Benefits & Challenges**

The benefits of sustainable finance management highlighted a strong relationship between each of the items and the total scale. Consistent with earlier research, it is evaluated that green finance has become an innovative strategy to deal with the negative effects on the environment, society, and governance structure of the financial market. The benefits are long-term value creation, enhanced risk management, new market opportunities to be accessed, and intangible gains that include reputational rewards and stakeholder's confidence, financial performance, and favorable impact on social and natural environment. Sustainable finance supports investors who emphasize generating value over the long term by incorporating the ESG parameters into decisions about the portfolio. The traditional financial models reflect short-term economic benefits, sustainable financing takes into account long-term liabilities, and possibilities concerning change in climate, social injustice, and corporate management problems (Kölbel et al., 2020). In addition to this, ESG investing supports avoiding firms with unfavorable environmental and social conditions. Risks relate to natural calamities, continued changes in climate conditions, an increase in sea level, and fluctuating government regulations to influence the commercial returns of a company. Organizations that embrace sustainable actions are capable of avoiding these risks and leading to stability in returns. Another advantage of sustainable financing is that companies that use sustainable financing practices are seen as more moral and accountable, which enhances their standing with shareholders, regulators, and customers. Customer loyalty, improved client connections and communication, and higher employee retention rates are all possible outcomes of

this. Additionally, companies with higher ESG scores are seen as industry leaders, which offers them a competitive edge (Friede et al., 2015).

On the other side, the challenges of sustainable finance management highlighted items strongly associated with the other items on the scale. These findings align with literature, it is determined that issues are linked to data availability and quality, short-term profit focus, regulatory uncertainty, trade-off between sustainability and profitability according to perception, organizational culture, and leadership, greenwashing concerns, and cost of transition. The issue highly related to standardization is data availability and quality. Information that investors receive is important because it supports assessing the duration as well as the profitability of their investment. Investors' sustainable financial management practices are inadequate, and the policy environment is uncertain when there is a lack of reliable data. Furthermore, because there is no independent evaluation or quality control, it is frequently impossible to trust the accuracy of the numbers, even when they are accessible and available (Amel-Zadeh & Serafeim, 2018). The majority of financial institutions and investors do not consider investments from a sustainable perspective. One problem with quarterly earnings and profits is that most managers don't take ESG concerns into account when making choices, mostly because of their long-term effects (Busch et al., 2018).

Another significant issue is greenwashing, which is the practice of businesses or investment products attempting to deceive the public into purchasing products under the guise of being environmentally friendly. Some disclaimers started to lose faith in the company's sustainability report because they thought it was only being used as a marketing tool to highlight the sustainable image of their products, rather than revealing the company's genuine intentions (Lyon & Montgomery, 2015). Implementing sustainable financial management comes with costs, which is another issue that shouldn't

be disregarded. Investing in financial procedures: Many investors and organizations indicate that ESG requires a substantial investment in a range of technology, employee education, and compliance systems (Campbell & Slack, 2011).

Respondents highlighted three primary objectives of incorporating sustainability into a business's long-term strategy to create long-term financial viability, generate value through environmental stewardship, and generate value through the framework of corporate social responsibility. This observation corroborates previous findings, it is evaluated that sustainable finance creates new markets for investors when undertaking investment in renewable energy equipment, green bonds, and social investment. The increasing interest of investors in sustainable assets can support global issues such as climate change, as well as poverty (Friede et al., 2015). Another benefit of sustainable financing is that firms that adopt sustainable financing policies are perceived as more ethical and responsible and thus enjoy a reputation among consumers, shareholders, and regulators. This also helps in improving the financial performance of the company. The studies indicated that sustainable investments are capable of generating competitive financial performance.

The respondent emphasized how the development of green financial instruments, including sustainable bonds and ESG investments, integrates sustainability. Building on previous research, it is analyzed that economic development, social inclusion, and environmental sustainability are the key principles of sustainable development. Economic sustainability is associated with creating systems that support continuous growth in the economy without exhausting natural resources or causing harm to the environment or society. Financial systems that put long-term benefits ahead of immediate profits are intimately related to economic sustainability. It ensures that economic activities contribute to the well-being of both current and future generations by encouraging

governments and corporations to take into account the social and environmental effects of their financial actions (Smith & Whelan, 2021). In addition to this, social sustainability emphasizes improving the quality of life, reducing inequality, and ensuring access to basic resources and opportunities for all people. Further, environmental sustainability is considered the backbone of sustainable development. This involves mitigating the impacts of human activities on biodiversity, water, air quality, and climate while promoting the use of renewable resources and reducing waste and pollution (Rockström et al., 2021).

Businesses can show consumers who respect these issues that they are committed to ESG and responsible investing by using this sustainability in financial management reporting. Unlike prior work, it is determined that green finance has become an innovative strategy to deal with the negative effects on society, the environment, and the governance structure of the financial market. It is analyzed that sustainable finance supports investors, emphasizing the generation of value by adopting parameters of ESG into decisions related to the portfolio. The financial models reflected short-term economic benefits, but sustainable financing takes into account long-term possibilities and liabilities concerning changes in climate, social injustice, and corporate management problems (Kölbel et al., 2020).

More funding options can assist companies in funding environmentally friendly projects and activities, boosting their standing and brand image as morally and environmentally conscious companies. The literature stated that adopting sustainable financing policies is perceived as more ethical and responsible and thus enjoys a reputation among consumers, regulators and shareholders. Firms that achieve a better level of ESG are regarded as the best in their field, which also gives them a competitive advantage.

Sustainability strategies help businesses remain ahead of legislative developments, namely concerning local and international ESG requirements, according to the respondent. The evidence here offers a unique contribution, it is determined that sustainable development requires coordinated efforts across governments, businesses, and civil society. Incentives, rules, and policies must be created to promote sustainable investments and activities. In actuality, this entails moving away from conventional development paradigms that put immediate financial gain ahead of sustainability over the long run. One approach to operationalizing sustainable development is through sustainable finance. Financial markets can direct funds toward initiatives and businesses that support sustainable development goals by incorporating ESG factors into investment decisions (Zhang et al., 2021).

Implementing green projects can help financial institutions build a more equitable and environmentally sustainable society, improve their brand, and earn significant financial rewards. The literature stated that sustainable finance is associated with financial performance and ESG goals, which can be achieved simultaneously by utilizing finance theory in the consideration of the triple bottom line. Sustainable finance incorporates elements of mainstream aspects, further supporting involvement in decisions linked to investment.

The cost burden often discourages organizations, mostly small and medium-sized enterprises, from fully embracing sustainable practices. Information management and collection are seen as a major concern. Compared with the literature, it is identified that standardization of data availability and quality is considered an issue. Information that investors receive is important because it helps to assess the duration as well as the profitability of their investment. The majority of financial institutions and investors do not consider investments from a sustainable perspective. One problem with quarterly

earnings and profits is that most managers don't take ESG concerns into account when making choices, mostly because of their long-term effects (Busch et al., 2018).

One of the problems with sustainability in financial management is the short-term investing mindset of some stakeholders. When viewed alongside earlier research, it is analyzed that Regulatory reluctance is one of the main things they identified as a barrier to the adoption of sustainable financial management. International investors' effective attempts to achieve sustainable financial policies and practices are hampered by the fact that some of these restrictions differ between jurisdictions.

The absence of a widely accepted framework for ESG (Environmental, Social, and Governance) monitoring is a significant barrier to sustainability in financial management. Insufficient recognition of its significance, coupled with a lack of public education and understanding regarding sustainable financial management, contributes to its gradual adoption. It can be an issue that internal experts in sustainable finance implementation haven't fully evolved yet.

## **5.5 Conclusion**

The first objective of the study is to determine the investor's level of awareness pertaining to Sustainable Financial Management and its impact on their decision-making. It is analyzed that the awareness of investors regarding sustainable financial management in India is a critical factor affecting the adoption and success of sustainable investing practices. There has been an increase in awareness related to sustainability issues, and many investors also lack a deep understanding of how these issues are related to financial management and investment decisions. It is observed that the issue related to awareness of sustainability among investors has increased among Indian investors. The growth of social media and digital media has made it easier to spread knowledge about sustainable

business practices and the significance of ESG considerations when making investments. Sustainability is now widely acknowledged by investors as a key element of long-term financial performance, not just an environmental movement. Older investors typically have a more conventional perspective on investing, frequently emphasizing money gains above the wider implications of sustainability. On the other hand, it is evaluated that many investors also lack awareness of the potential risks and opportunities linked with ignoring ESG factors. In India, many banks and investment businesses are starting to provide tools and instructional materials to help investors comprehend the advantages of sustainable investing. These programs frequently consist of webinars, workshops, and educational materials that clarify the financial ramifications of SFM.

The second objective is to comprehend the perceptions of the investors regarding Sustainable Finance Management and Risk Management. It is evaluated that The way that investors view SFM is thought to play a key role in determining their investing preferences and behavior. According to a number of studies, investors are becoming more aware of the importance of incorporating sustainability into financial operations. This knowledge frequently results from broader changes in how society views sustainability-related concerns and from legislative frameworks that support ethical investing. It is shown that Indian investors increasingly recognize the long-term risks of considering ESG factors. SFM is viewed by investors as a strategic instrument for improving portfolio performance in addition to an ethical commitment. The stakes for communicating sustainability performance are likely to rise as more investors turn to social media for information about a company's sustainability. Businesses that engage stakeholders and disclose transparently about their sustainability efforts frequently see an increase in investor loyalty and trust. Some investors mistakenly believe that sustainable investments provide poorer returns than conventional ones, yet there is mounting

evidence to the contrary. Companies with good sustainability practices do, in fact, typically outperform their rivals because of risk management, innovation, and brand loyalty, according to numerous studies.

Further, the third objective is to identify the factors that impact investors' investment decisions in the context of Sustainability. It is determined that the economic factor is one influence on sustainable investment decisions. The majority of investors seek greater returns with lower risks, and their view of their financial performance is a key factor in their decision-making. A sustainable firm is in an attractive position because investors are realizing more and more that it will be robust when economies decline. Social factors are associated with an increasing share of the decision-making processes in sustainable investing, as investors realize more and more the importance of rallying investments around ideals and their social messages. Growing awareness of ethical consumption and demands for corporate transparency are examples of social trends. These societal trends are influencing investor expectations, since younger investors in particular are looking for businesses that have the potential to produce both beneficial social effects and financial returns.

Lastly, the fourth objective is to analyze the benefits and challenges of Sustainable Finance Management. The challenges that investors are experiencing in integrating sustainable finance management are data availability and quality, short-term profit focus, regulatory uncertainty, trade-off between sustainability and profitability according to perception, organizational culture, and leadership, greenwashing concerns, and the cost of transition. Investors' sustainable financial management practices are inadequate, and the policy environment is uncertain when there is a lack of reliable data. The fact that most managers make decisions without taking ESG concerns into account, primarily because their effects are long-term focused, is one issue related to quarterly

earnings and profits. Pressure from shareholders, market competitiveness, and multiple performance reviews that emphasize the immediate advantages all contribute to this short-term profit orientation. The benefits of sustainable financing are long-term value creation. By taking ESG factors into account when making portfolio selections, sustainable finance assists investors in concentrating on creating value over extended periods of time.

Sustainable financing considers long-term obligations and opportunities about climate change, material and energy scarcity, social injustice, and business management issues, whereas standard financial models primarily focus on short-term economic gains. Avoiding companies with adverse environmental and social conditions is made easier with ESG investment. For example, risks associated with natural disasters, ongoing climate change, sea level rise, and shifting governmental restrictions all have an impact on a company's financial results. When investing in green bonds, social impact investments, and renewable energy equipment, sustainable finance opens up new opportunities for investors. Sustainable investments are also capable of generating competitive financial performance. Social and environmental advantages are the outcome of sustainable funding. The money generated from investments in energy, social, and health infrastructure, as well as green infrastructure, can enhance living standards, alter the distribution of wealth, and foster positive environmentalism. Governments and regulators around the world are still implementing frameworks and operational rules for sustainable finance. Businesses that adopt sustainable practices are better equipped to steer clear of these hazards, which increases return stability.

## CHAPTER VI: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

### **6.1 Summary**

This paper has analyzed the concept of Sustainable Financial Management (SFM) and especially the awareness, perception, decision making and benefits and the challenges of embracing sustainable finance practices in India by the investors. The study combined both quantitative and qualitative research based on a study sample of 501 respondents and conducted interviews with professional people and experienced investors in the financial sector. The observations led to an insight into the extent to which the principles of sustainable finance are rooted in the dimensions of Environmental, Social and Governance (ESG) and influence the way of investment activity and development of responsible finance in the new markets.

The quantitative analysis proved the high level of awareness and familiarity with SFM through the possibility of the investors to distinguish between the traditional and sustainable investment products. The reliability and validity test proved the stability of all the measurement constructs and Cronbach alpha of all scales was more than 0.8, which proves the strength of the questionnaire. The regression and correlation analysis showed that there is a strong positive interdependence between the investor awareness and making investment decision ( $R = 0.895$ ,  $p < 0.001$ ) thus the hypothesis that higher awareness can significantly increase sustainable investment behavior was true. In addition, sustainable finance management and risk management were also closely related to each other ( $r = 0.903$ ), which implied that the sustainability-based investment practices have a direct impact on the efficiency of the risk mitigation.

These results were supplemented by the qualitative findings which provided a more in-depth understanding of the perception of investors with regards to the strategic value of addressing sustainability in financial management. The respondents stressed that sustainability-driven investments lead to financial stability in the long term, a better brand reputation, and increased stakeholder trust. Another limitation recognized by them was the data standardization, short-term profit orientation and regulatory ambiguity. Nevertheless, the responses responded to collectively gave strength to the idea that SFM is increasingly becoming less an ethical program, but a strategic financial strategy, which balances profitability with social and environmental responsibility.

In general, the research proved that sustainable finance is picking up in India because of the gradual rise in awareness, regulatory support and the use of technology. Nevertheless, the shift is not even because of the misconceptions, lack of knowledge and unequal ESG reporting standards. The findings all enhance the theoretical and practical knowledge on how sustainable finance may assist in inclusive economic growth, risk management and long term value creation.

## **6.2 Implications**

This study has threefold implications, which are theoretical, managerial, and policy-oriented.

**1. Theoretical Implications:** The study contributes to the existing literature on sustainable finance by confirming empirically the existence of relationship between investor awareness, perception and decision making behavior in the Indian context. Sustainability in financial models lends credence to the following theories, the Triple Bottom Line (TBL), Stakeholder Theory and Modern Portfolio Theory (MPT), because it reveals how ESG aspects enhance portfolio resilience. The research also brings additional

value to scholarly discussion by showing how ethics, environment, and social consciousness are all influencing the choices that investors make based not only on expected returns but also ethical issues. Therefore, it helps to fill the gap separating conventional financial performance models and the new sustainability-based models.

**2. Managerial Implications:** To financial institutions and investment managers, the insights point to the need to integrate ESG tenets in the financial strategy and communication. Portfolio managers and financial advisors have to improve the level of transparency and incorporate the indicators of sustainability in the investment products to respond to emerging expectations of investors. In addition, corporate leaders have been advised to use standardized ESG reporting models to develop a trustworthy image and entice responsible investors. The paper also emphasizes the use of digital awareness campaigns, investor education programs, and data analytics in providing and engaging investors with sustainable options. When profitability is aligned to sustainability, organizations are able to gain competitive advantage, reduce reputational risk, as well as strengthen relationships with stakeholders.

**3. Policy Implications:** Regulation-wise, the research notes that the main issue is the necessity to harmonize and standardize the use of ESG metrics. The policymakers must also advocate uniform disclosure standards using the systems like the BRSR of the SEBI and harmonize them with the international standards like the EU Taxonomy and the UN Principles of Responsible Investment (UNPRI). The findings indicate that awareness campaigns run by the government, fiscal stimulus, and sustainability-linked bonds can accelerate the adoption. Enhancing investor protection, ESG audit systems, and a partnership between the public and the private will increase accountability and confidence in the sustainable financial system.

### 6.3 Future Research Recommendations

Although the research offers some useful information, there are a number of areas that can be explored in future:

**1) Broader Sampling Scope:** Further research may involve use of a higher and more heterogeneous sample size across geographical locations and classes of investors (i.e. institutional investors, mutual funds managers, and retail investors) to enhance generalizability.

**2) Longitudinal Analysis:** Longitudinal studies would also be beneficial to determine the change in investor awareness and behavior in response to the introduction of sustainable finance regulations and products in India.

**3) International Studies Comparative:** A comparative study conducted on developing and developed economies would help point out how the dissimilar regulatory framework and lagging market maturity determine the ESG integration and investment patterns.

**4) Behavioral and Psychological Aspects:** The future studies can use behavioral finance models to learn about cognitive and emotional aspects of sustainable investment preferences.

**5) Sector-Specific ESG Evaluation:** The researchers of the future could investigate differences in the sectoral adoption of sustainable finance (i.e. manufacturing and technology and services) to establish where the integration of ESG brings the most beneficial results.

**6) The use of sophisticated analytical methods:** Sentimental analysis using AI or machine learning models or qualitative mapping using NVivo will be valuable to further understand the patterns of recognition of sustainability-related perceptions and stories.

## **6.4 Conclusion**

This paper has concluded that Sustainable Financial Management (SFM) is a revolutionary tool of combining economic growth, environmental and social responsibility. The findings proved that there is a positive relationship between investor awareness, perception and decision-making, which validates that informed investors will tend to invest in sustainable investment behavior. The convergence of the management of sustainable finance and risk management supports the fact that sustainability is not an additional factor but main determinant of financial stability and competitiveness.

Although the challenge of inconsistent ESG information, regulatory ambiguity, and high costs of transition remain prominent barriers to a broad adoption, the trend towards sustainability is evident and unstoppable. With the growing understanding and maturity of institutional frameworks, sustainable finance is poised to redefine the concept of investment by harmonizing profitability with ethical and ecological stewardship.

In the end, the research will offer evidence-based premise to the development of sustainable finance discourse and practice in such emerging economies as India, where the financial growth and sustainability will develop together to shape a resilient future.

APPENDIX A  
SURVEY COVER LETTER

This questionnaire is developed to collect relevant information from bank managers, professionals in the field of sustainable financial management, financial market experts and related stakeholders to analyse their perceptions regarding the opportunities, benefits and challenges of integrating the aspect of sustainability in financial management. The Questionnaire given below is a tool chosen for collecting data for the research project titled “**Sustainable Financial Management in India**”. The participants are requested to respond attentively to all of the questions mentioned below. The respondents are assured that the information they provide will be used for research purposes only and will be kept confidential and un-identifiable to an individual or organisation.

**Part A: Demographic Information**

Please select one appropriate option for the questions mentioned below.

Age:

18 - 25 years

26 - 35 years

36 - 45 years

46 - 60 years

Above 60 years

2. Gender

Male

Female

Non-binary

Prefer not to say

### 3. Education Level

High School Diploma

Bachelor's Degree

Master's Degree

Doctorate

Professional Certification

Other

### 4. Current Role

Bank manager,

Professionals in the field of sustainable financial management,

Financial market expert

Financial Analyst

Risk Manager

Investment Advisor

Other related stakeholder

### 5. Sector of Employment.

Banking

Insurance

Financial Technology (FinTech)

Regulatory Authority

Other

## 6. Years of Professional Experience

Less than 1 year

1–3 years

4–6 years

7–10 years

More than 10 years

## 7. Organisational Size (Number of Employees

Less than 50

51–200

201–500

501–1,000

More than 1,000

## 8. Type of Organisation

Commercial Bank

Investment Bank

Non-Banking Financial Institution (NBFI)

Regulatory Body

NGO/Non-Profit Organization

Consulting Firm

Other

## 9. Familiarity with Sustainable Financial Management

Expert

Proficient

Moderate

Basic

None

### **Part B: Qualitative Questions**

- 1) In your opinion, what are the long-term strategic benefits of incorporating sustainability into financial management practices?
- 2) How does integrating sustainability principles into financial management drive innovation in financial products, services, and investment strategies?
- 3) What are the key opportunities sustainability-focused financial practices present for enhancing competitive advantage?
- 4) What are the observed or potential benefits of sustainability-focused financial practices in improving financial performance and profitability?
- 5) How does incorporating sustainability into financial management streamline compliance with environmental, social, and governance (ESG) regulations and foster innovation?
- 6) What impact does integrating sustainability into financial practices have on the reputation and brand value of financial institutions?
- 7) How significant are the financial and resource-related challenges associated with adopting sustainability-focused practices in financial management?
- 8) In what manner do the conflicting priorities among stakeholders pose challenges to adopting sustainability in financial management?

9) What challenges do you encounter in quantifying the impact of sustainability initiatives on financial performance and broader organisational goals?

APPENDIX B  
INFORMED CONSENT

**Informed Consent Form – Doctoral  
Research Survey on Sustainable  
Financial Management in India**

Dear Participant,

You are invited to participate in a **doctoral research study** titled “*Sustainable Financial Management in India.*”

The purpose of this research is to explore investors’ awareness, perceptions, and decision-making patterns toward sustainability-oriented financial practices.

Your participation in this study is **entirely voluntary**, and you may choose to stop or skip any question at any time. The survey will take approximately **15–20 minutes** to complete.

No personally identifiable information will be collected, and your responses will remain **strictly confidential**. The data will be used solely for academic purposes.

By participating, you confirm that

1. You understand the nature and purpose of the study
2. You voluntarily agree to participate.
3. You can withdraw at any time before submitting the form without penalty.
4. You consent to your anonymous responses being analyzed for academic publication.

If you agree to take part, please provide your consent below and proceed to the next section.

Thank you for your valuable time and contribution to this research.

Warm regards,

**Sivanraj Sakasnamam**

Doctoral Researcher

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