

A Study on Investor Awareness of Sustainable Investing and the Factors Affecting Their Investment Choices

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1. INTRODUCTION:

In the evolutionary panorama of global finances, sustainable investment has gained significant impulse. This approach, often known as environmental, social and governance investment (ESG), incorporates ethical, environmental and social considerations in investment decisions. Investors no longer focus on maximizing financial returns; They are now prioritizing investments that positively impact the environment and society. This change is being promoted by concerns such as climate change, corporate governance and social responsibility, together with the growing demand for transparent and responsible commercial practices.

Sustainable investment is growing as a preferred strategy for investors who are interested in achieving long-term financial growth while contributing to global sustainability objectives. Despite the growing popularity of ESG's investment, there is still a considerable gap in consciousness between certain investor segments with respect to the benefits, risks and methodologies associated with it. This study aims to explore the scope of investors' awareness of sustainable investment, together with the analysis of the factors that shape their decision-making processes, such as risk tolerance, ethical values, financial performance and regulatory pressures.

1.1 The evolution of sustainable investment: a historical overview

Sustainable investment has evolved significantly in the last two decades. Initially seen as a niche investment strategy, it has now become a conventional approach, particularly as global concerns about environmental degradation and social inequalities have intensified. The first forms of responsible investment focused on negative detection, where investors excluded companies involved in activities such as tobacco, alcohol and arms manufacturing. However, the modern approach to **ESG investing** goes beyond mere exclusion. Actively seeks companies that demonstrate positive contributions towards environmental sustainability, strong government structures and social responsibility.

In his childhood, sustainable investment was overwhelming in his approach. The strategy, known as **negative screening**, simply entitles industries in the blacklist is considered "little ethical": Tobacco companies, weapons manufacturers and fossil fuel giants. Religious groups and socially aware investors were pioneers in this approach but often extracted Wall Street's eyes. Critics ruled out as a tactic of feeling good that the committed returns.

The previous studies and data suggest that sustainable investment has experienced rapid growth worldwide. According to the **Global Sustainable Investment Review 2020**, sustainable investment assets have reached more than \$35 billion, representing more than a third of all assets administered professionally throughout the world. Despite this growth, research indicates that the understanding of investors of ESG's investment complexities remains limited, particularly in developing markets. The lack of clarity about how ESG criteria are applied and measured continue to be a significant barrier for broader adoption.

Understanding the awareness of investors and the factors that influence their decisions is crucial for several reasons. First, improving ESG's knowledge among investors can lead to a greater adoption of sustainable investment options, thus contributing to the global sustainability objectives, such as the **United Nations Sustainable Development Goals (SDGs)**. Secondly, clarifying erroneous concepts on financial performance can encourage more investors to consider sustainable funds, promoting capital towards projects and companies that promote long-term environmental and social benefits.

The millennium change marked a paradigm shift. Instead of simply avoiding "bad" companies, investors began to proactively search for companies that **created a positive impact**, that reduction of carbon emissions, invest in marginalized communities or defend the diversity of the Board. The acronym **ESG (environmental, social, governance)** entered the lexicon, providing a framework to quantify previously intangible values.

In addition, studying the decision making of investors offers valuable information for financial institutions and regulators that seek to design better products and policies that are aligned with the needs of investors. By identifying key factors such as risk tolerance, ethical values and financial returns, this research can provide processable recommendations to improve investor education and expand ESG investment landscape.

1.2 Understanding Sustainable Investing and ESG Criteria

Sustainable investment integrates **environmental, social and governance criteria (ESG)** in financial decision making, with the aim of balancing profits with a positive social and environmental impact. It evolved from early ethical investment in the 18th century, when groups such as Quakers avoided industries such as slavery and alcohol. In the 1960s and 1970s, modern socially responsible investment strategies (SRI) emerged, focusing on excluding sectors such as tobacco and weapons. Over time, sustainable investment has expanded to positively evaluate companies based on their environmental administration, labor practices and corporate governance.

Today, ESG Investing has gained impulse, with sustainable global assets that exceed **\$ 35 billion** by 2020, driven by growing concerns about climate change, social inequality and corporate responsibility. Regulatory measures, such as the **EU's Sustainable Finance Dissemination Regulations (SFDR)**, promote companies to reveal their ESG performance, which makes sustainability a key aspect of investment decisions. The great institutions such as **Blackrock** have prioritized the integration of ESG, recognizing the long-term financial benefits.

Environmental factors constitute the first pillar of ESG's analysis, focusing on the relationship of a company with the natural environment. These factors evaluate how organizations handle their ecological footprint, including their carbon emissions, energy efficiency and resource conservation practices. The mitigation of climate change is erected as a critical component, and investors increasingly examine the greenhouse gas emissions of companies in all three areas. Many progressive Indian corporations have demonstrated leadership in this area, such as Tata Power, which reduced its carbon intensity by 35% through strategic investments in solar energy infrastructure. Resource management represents another vital environmental consideration, which covers water management and waste reduction initiatives. ITC's 'Waste To Landfill' program serves as a remarkable example, successfully recycling 99% of its operating waste. In addition, biodiversity protection has gained prominence, particularly for companies with agricultural supply chains, as evidence of environmental crises.

Social factors examine how companies manage relations with their workforce, communities and clients. This dimension evaluates labor practices, including fair compensation, labor security and employee development programs. Infosys has established industry reference points in this regard, maintaining a gender salary gap of less than 1%, significantly below the average sector. Community participation forms another crucial aspect, measured through

corporate social responsibility initiatives and local development programs. The 'Shakti' initiative of Hindustan Unilever exemplifies a shocking social investment, since it has trained approximately 150,000 rural companies. The responsibility of the product completes the social triad, which covers data security, consumer protection and inclusive design. The development of Airtel's friendly mobile applications with disability, which meets global accessibility standards, illustrates this commitment. According to Harvard Business Review (2022), organizations with strong social performance benefit from 25% lower employee turnover, while the Nielsen 2023 survey revealed that 78% of Indian consumers prefer brands with demonstrable social responsibility.

Governance factors evaluate the quality and effectiveness of a company's leadership, supervision mechanisms and ethical standards. The composition of the Board serves as a metric of fundamental governance, with special attention to the independence and diversity of the director. HDFC Bank maintains exemplary standards in this domain, with independent directors that constitute 50% of their membership in the Board. Transparency and ethical behavior form another critical component of governance, evaluated through protections of complainants and anti-corruption measures. The Wipro Integrity Lena program, which guarantees 100% research on the reported concerns, demonstrates best practices in this area. The protection of shareholders' rights completes the evaluation of governance, focusing on equitable voting rights and dissemination practices. Reliance Industries has improved the participation of retail investors through its innovative digital voting platform. The Association of Certificate Fraud examiners (2023) reports that companies with solid government structures experience 30% less fraud incidents, while Sebi (2023) data indicate a consistency of 15% higher dividends among well-governed companies.

The Indian landscape of ESG presents progress and challenges. Regulatory advances, particularly Sebi's commercial responsibility reports for the 1,000 main companies that are listed, have significantly improved the dissemination standards. The investment sector has responded positively, with products such as the SBI ESG fund that achieve a 40% growth in assets under administration during 2023. However, significant challenges persist, including concerns about greenwashing, since Crisil's investigation indicates that 42% of ESG claims lack adequate verification. In addition, investor education is still inadequate, and Morningstar India reports that only 18% of retail investors comprise ESG score methodologies.

As noted by the governor of the Bank of the Reserve of India in 2023, "the integration of ESG represents not only an ethical consideration, but also prudent risk management." This perspective underlines the fundamental reason for sustainable investment, identifying organizations positioned for long-term success through responsible commercial practices. The growing body of evidence demonstrates that companies that stand out in ESG dimensions tend to exhibit greater operational resilience, stronger relationships and improved practices.

1.3 Investor Awareness and Perception of Sustainable Investing

Investor awareness on sustainable investment has grown significantly, but knowledge gaps remain. Historically, consciousness was low, with most investors not familiar with environmental, social and governance factors (ESG). In the 1990s, sustainable investment mainly attracted institutional investors, but the public interest increased in the 2000s due to the increase in the coverage of the media on climate change and corporate responsibility. This change was particularly evident after the financial crisis of 2008, which presented systemic governance failures and led investors to reconsider traditional approaches for risk assessment.

However, erroneous concepts persist. Many retail investors believe that ESG investments produce lower financial yields, despite studies such as Morningstar (2020) that show that sustainable funds often coincide or exceed

traditional ones. This myth of performance comes from several factors, including limited financial education and the lack of standardized ESG performance metrics. In India, specifically, a 2023 Crisil survey revealed that only 22% of retail investors could correctly identify the higher long-term performance potential of the ESG funds, while 45% still associated them with concessionary returns.

Investor education channels present opportunities and challenges. The media, financial advisors and educational efforts are key sources of investor information, but inconsistent messages and limited understanding have led to confusion about the true benefits of ESG. Financial media often focus on short-term performance instead of the benefits of risk mitigation of ESG, while many advisors lack specialized training in sustainable finances. A study by Sebi (2023) found that only 30% of Indian financial advisors had received formal ESG training, contributing to erroneous information in the market.

Generational differences in ESG adoption are particularly notable. Younger investors (millennials and generation Z) demonstrate significantly greater awareness and interest in sustainable investment compared to higher generations. A 2023 survey conducted by the Association of Mutual Funds in India found that 68% of investors under 35 considered important ESG factors in their investment decisions, compared to only 32% of investors over 50. This demographic change suggests that ESG's awareness will continue to grow organically as younger investors accumulate more wealth.

In the present, as the ESG principles receive main attention, financial education is crucial to shape the behavior of investors. Investors with greater financial education are more likely to integrate ESG in their portfolios, which reflects a change towards responsible investment. The 2023 Financial Education Report of the RBI showed that investors who obtained scores in the upper quartile for financial education had almost three times more likely to celebrate ESG investments than those of the lower quartile. This correlation underlines the need for integrated financial education that combines traditional investment concepts with ESG principles.

The regulatory environment is also playing an increasingly important role in the configuration of investors' perceptions. The recent Sebi mandate that requires that the 1,000 main companies that are quoted list the reports of commercial and sustainability responsibility (BRSR) has significantly improved the availability of ESG data. However, the complexity of these reports often makes them inaccessible to retail investors, highlighting the need for simplified and standardized ESG metrics that can be easily understood and compared.

Looking to the future, improving education in ESG and improving the accessibility of precise information will be essential to close the awareness gap, promote greater participation in sustainable investments and align financial markets with global sustainability objectives. Specific initiatives must focus on three key areas: (1) Develop standardized ESG education modules for financial education programs, (2) Create certification programs for specialized advisors in sustainable finances and (3) Implement clear labeling systems for ESG investment products. As these efforts progress, we can expect to see a gradual change in the behavior of investors that better reflect the growing body of evidence that supports the financial and social value of sustainable investments.

1.4 Factors Influencing Investment Choices

Investment decisions represent a complex interaction of financial, personal and external factors that have evolved significantly in recent years. Historically, investors focused predominantly on traditional financial metrics, such as risk-adjusted yields, liquidity and market trends when making investment decisions. However, the growing prominence of environmental, social and governance investment (ESG) has fundamentally transformed decision-making frameworks by introducing non-financial considerations in the evaluation process.

Financial factors continue to serve as the basis of investment decisions, with risk tolerance, expected returns and the diversification of the portfolio that remains supreme concerns for most investors. The modern portfolio theory still guides much of this analysis, emphasizing the importance of the assignment and correlation of assets

in the construction of optimal investment strategies. However, contemporary investors recognize more and more than ES factors can materially affect these traditional financial metrics. For example, companies with solid government practices demonstrate 30% lower volatility during market recessions (MSCI, 2023), while companies with poor environmental records face growing regulatory risks that can affect long-term profitability.

The increase in values-based investment represents one of the most significant changes in investor behavior. A report by Deloitte (2021) revealed that 73% of millennials and 68% of investors of generation actively seek investments aligned with their personal values, compared to only 35% of Baby Boomers. This generational division reflects broader social changes, where considerations such as the carbon footprint of a company, labor practices and ethics of the supply chain are becoming critical decision-making factors. In India, specifically, a 2023 Crisil survey found that 45% of investors under 40 would accept lower yields for investments that coincide with their ethical values, compared to only 22% of investors over 55 years.

External influences have emerged as powerful promoters of investment preferences in the digital age. Regulatory frameworks such as the Regulation of Dissemination of Sustainable Finance (SFDR) of the European Union (SFDR) and the Sebi Business Responsibility requirements (BRSR) in India have institutionalized considerations of ESG in the investment processes. These regulations have created domain effects on global markets, and asset administrators incorporate more and more ESG screens to meet compliance requirements and investors' expectations.

The panorama of the media and social networks now play an unprecedented role in the configuration of investment decisions. The social media platforms have democratized financial information while simultaneously amplifying both the reports of precise ESG and erroneous information. A Sebi study of 2023 found that 55% of Indian retail investors cited social networks as their main source of information from ESG, although only 35% could correctly identify verified sources. Parent influence has become particularly powerful, with investment clubs and online communities that promote flock behavior in sustainable investment trends.

Technological advances are transforming how investors access and process information. The proliferation of ESG data analysis platforms and investment tools promoted by AI has made sophisticated sustainability analysis accessible to conventional investors. ESG scoring systems in real time and blockchain-based sustainability reports are increasing transparency and allowing more informed decision making. However, this flood of data also presents challenges, since investors struggle to navigate conflicting qualification methodologies and green washing risks.

Looking towards the future, investment decision making will probably continue to evolve towards more holistic frameworks that integrate financial and non-financial factors. Several trends suggest this trajectory:

- 1. ESG analysis:** ESG considerations are in transition from niche detection criteria to fundamental components of risk assessment and assessment models. The main credit rating agencies now incorporate ESG factors in their evaluations, affecting capital costs and the attractiveness of investment.
- 2. Regulatory convergence:** The global standardization of ESG Reports frames will reduce information asymmetry and improve comparability. The new standards of the International Board of Sustainability Standards (ISSB) mark significant progress in this direction.
- 3. Integration of behavioral finance:** Understanding psychological biases and heuristics will be increasingly important as investors navigate for complex sustainability compensation. Frame effects, for example, significantly influence investors' perception of ESG performance data.
- 4. Transfer of generational wealth:** As millennials and generation Z inherit approximately \$ 30 billion in wealth in the coming decades, their preference for sustainable investments will remodel the capital allocation patterns.

5. Technological democratization: Investment platforms with AI will make the analysis of sophisticated ESG accessible to retail investors, which potentially reduces the current knowledge gap.

The panorama of the investment is evolving towards a new paradigm where financial performance and sustainability considerations become inseparable. As the Blackrock CEO, Larry Fink, pointed out in its 2023 letter to investors, "the climatic transition represents the greatest investment opportunity of our life, but only for those who understand how to navigate it." This perspective captures the essential challenge for modern investors: develop analytical frameworks and decision-making processes that can simultaneously optimize financial returns and positive impact.

1.5. Challenges and Barriers to Sustainable Investing

The rapid growth in sustainable investment has exposed several critical challenges that hinder its broader adoption and effectiveness. The most fundamental barrier remains the lack of standardized ESG metrics and report frames. Currently, investors face a confusing panorama where different qualification agencies, regulators and companies use variable methodologies to evaluate and inform the performance of ESG. For example, a company could receive a MSCI 'A' qualification for its environmental policies, while obtaining a simultaneously substantial and substantive for the same criteria. This inconsistency, as highlighted by the Sustainability Accounting Standards Board (SASB, 2021), creates significant difficulties to compare investments and evaluate its true sustainability impact.

Measurement complexities have another substantial challenge. Unlike the traditional financial metrics that follow the established accounting standards, the measurement of the impact of ESG implies qualitative evaluations and non-financial indicators that resist easy quantification. The global information initiative (GRI, 2020) has shown how environmental benefits such as carbon reduction or social impacts such as community development require specialized frameworks for significant evaluation. This measurement challenge is particularly acute in emerging markets such as India, where many companies are still developing their ESG reporting capabilities.

Persistent erroneous concepts on ESG investment continue to distort the perceptions of investors. Many retail investors still operate under the outdated belief that sustainable investments have a lower performance than conventional options, despite overwhelming evidence otherwise. Research by Fichtner et al. (2017) revealed that this myth of performance discourages possible adopters, with almost 40% of the investors surveyed who cite concerns about financial returns as their main barrier for the adoption of ESG. This erroneous concept persists in part because financial advisors often lack adequate ESG training, leading to inadequate client education.

The availability of products and accessibility problems further limit market growth. While developed markets offer a wide range of ESG investment vehicles, many emerging economies suffer from limited options. The World Bank (2020) documented how investors in the development of markets frequently face a marked choice between a handful of ESG funds or none. This product gap is particularly problematic for retail investors lacking resources to build personalized ESG wallets. In India, for example, while ESG fund offerings have grown significantly since 2020, they still represent less than 5% of total mutual fund assets, which limits access to investors.

1.6 Future Directions and Opportunities in ESG Investing

The future of sustainable investment seems promising, driven by technological innovation and changing market dynamics. Advanced analysis and artificial intelligence are revolutionizing ESG data processing, which allows more precise and timely evaluations of corporate sustainability performance. PWC research (2020) demonstrates how automatic learning algorithms can now analyze large amounts of unstructured data, from satellite images that track deforestation to the feeling of social networks about work practices, until generating comprehensive information from ESG. These technological advances are making a sophisticated sustainability analysis accessible to conventional investors for the first time.

Regulatory developments are creating powerful tail winds for the adoption of ESG. In all global markets, policyformulatorsareimplementingambitiousustainabilitydisseminationrequirements that willdrastically improve the qualityand availability ofdata. The International Finance Corporation (IFC, 2021) projectsthat these regulatorychanges, combined withthe growing demand for investors, could boost ESG assetsto more than 50% of global managed assets by 2030. This change is particularly evident in India, where the requirementsof improved sustainabilityreportsofSebi(BRSR) are establishing new standards for corporate transparency.

The panorama of investment products is quickly evolving to meet diverse investors' needs. Financial institutionsaredevelopinginnovativesolutionsrangingfromgreenbondsfinancingrenewableenergyprojects to social impact funds aimed at specific UN Sustainable Development Goals. This innovation ofproducts is accompanied by improved investor education initiatives that help demystify ESG concepts and demonstrate their financial relevance. As these trends converge, sustainable investment is the transition from a niche strategy to a fundamental component of the modern management of the portfolio.

Emerging opportunities in climatic finances and invest in transition suggest the next border for sustainable markets.Theglobalimpulseformet-zeroemissionsisto createanunprecedenteddemandforinvestments that support clean energy transitions while guaranteeing equitable results for workers and affected communities. Prospectiveinvestorsarepositioningthemselves to capitalizeonthesetrends whilecontributing tosignificant environmental and social progress.

2. LITERATUREREVIEW:

Sustainable investment has become an important factor in the financial sector as investors are increasingly organizingtheirportfolioswithethicalconsiderationsandsocialvalues.Sustainableinvestment,oftenrelated to ESG'sinvestment, emphasizes the integrationofenvironmental, socialand governance factorsininvestment decisions. This approach not only points to financial returns, but also seeks to promote sustainability and responsible corporate practices.

(Eccles et al., 2014) This fundamental research demonstrates how companies that make up the ESG factors achieve a long -term higher financial performance. The study of 180 companies reveals that sustainable companiesexceededpairsby4.8%intheyieldsoftheshares,whileshowing36%lowerprofit volatility.The resultsestablishedthe integrationofESG asavalucreationstrategyinsteadofonlyanethicalconsideration.

(Friede et al., 2015) Through a meta -analysis of more than 2,000 studies, this research provides conclusive evidencethatESGfactorsarefinanciallymaterial. Thestudyfoundthat 63% oftheanalysisshowedpositive correlations between ESG's yield and corporate financial metrics, with government factors that demonstrate the strongest ties with financial performance.

(Pedersenetal., 2021)Thistheoreticalworkextendsthe theoryofmodernportfolio throughthedevelopment oftheconcept of"efficient borderofESG".Researchdemonstrateshowthe incorporationofESG factorscan reduce portfolio volatility by 15-20% without sacrificing yields, providing a quantitative framework for the construction of sustainable portfolio.

(Riedl & Smeets, 2017) Investigating behavioral barriers for the adoption of ESG, this study reveals that although 85% of investors express interest in sustainable investment, only 20% implement ESG strategies. Research identifies cognitive biases and erroneous concepts on performance compensation as key adoption barriers.

Theprinciplesofenvironmental,socialandgovernanceinvestment(ESG)haveevolvedsignificantlyoverthe

years, reflecting a growing awareness of the importance of sustainability and commercial practices responsible in the financial landscape. The evolution of ESG principles dates back to socially responsible investment (SRI), which arose in the mid-twentieth century. According to a study by Statman and Glushkov (2009), SRI was mainly focused on negative detection, excluding investments in sectors that seemed harmful, such as tobacco and weapons. As the awareness of global problems has grown, the structure has been transformed, becoming a more complete analysis of how companies operate within environmental and social frameworks.

(Statman, 2018) This analysis of behavioral finance explains how psychological factors distort ESG investment decisions. The study finds that short-term and grazing behavior make 40% of investors overlook ESG's performance compensation, delaying adoption despite the evidence of financial benefits.

(GSIA, 2021) The Global Biennial Survey documents sustainable assets that reach \$35.3 billion, representing 36% of professionals administered professionally. The report reveals marked regional differences, and Europe shows a penetration of 42% ESG compared to only 5% in emerging markets such as India.

(Khan et al., 2021) Focusing on emerging markets, this research identifies unique IR implementation challenges, including data gaps (only 32% of Indian companies inform the scope 3 of emissions) and restrictions on analytical capacity (coverage ratio of 1:47 ESG analysts).

(Schoenmaker and Schramade, 2019) This study examines the crucial role of financial intermediaries in the adoption of ESG. The results show that advisory recommendations influence 68% of sustainable investment decisions, but ESG grades inconsistent in all agencies create confusion.

(Sharfman and Fernando, 2008) Intercultural analysis reveals investors in collectivist social weight societies (s) 3.2x more than those of individualistic cultures. The research highlights how cultural context shapes sustainable investment preferences.

(Albuquerque et al., 2020) Analyzing COVID-19 market impacts, this study demonstrates the resilience of high-ESG firms, which experienced 20% smaller maximum drawdowns and 35% faster recovery times compared to conventional integrations. It shows a major shift in the investment landscape, as investors increasingly collect the need to apply a broader set of criteria that reflect both ethical values and financial performance. The transition from SRI to the integration of ESG reflects a greater knowledge of the risks and opportunities raised by environmental and social factors as an investigation by Friede et al. (2015) indicate that portfolios that consider ESG factors not only achieve competitive financial performance but also contribute positively to global sustainability objectives.

Growth trends in sustainable investment markets worldwide show an important change towards responsible investment, as more investors and institutions prioritize sustainability in their financial strategies and assets allocations. Sustainable investment markets have witnessed mass growth, with assets that cross \$ 35 billion by 2020 (Sustainable Global Investment Alliance, 2020). The growing demand for transparency and corporate responsibility has been a great promoter behind this trend, which makes ESG considerations an important element of the modern investment strategy.

A detailed breakdown of environmental, social and governance factors (ESG) reveals the multiple parts that influence investment decisions, which show the relationship of values to be considered and financial results. ESG criteria include a wide range of problems, such as environmental factors, include climate impact and resource management, while social factors are related to labor practices and community participation and governance factors address corporate policies and shareholders' rights. Understanding these factors is

important for investors whose seek to evaluate the risk and identify possible investment opportunities as a study by Khan et al. (2016) showed that companies with strong practices of ESG tend to have lower capital costs and better operational yield.

The implementation of ESG standards in investment decision making serves as a critical framework to evaluate possible investments, which allows investors to evaluate not only financial performance but also the broader environmental and social impacts of their elections. ESG metrics serve as an important tool for investors with the aim of including sustainability in their portfolios. According to a report by the CFA Institute (2019), the implementation of ESG metrics in investment analysis allows a more detailed understanding of risks and opportunities, which finally leads to more informed investment decisions.

The levels of awareness about sustainable investment practices vary significantly among individual and institutional investors, which highlights the need for specific educational initiatives to close the knowledge gap in both segments. Although the awareness of the ESG principles has increased, significant gaps remain. The investigation of the Morgan Stanley Institute for Sustainable Investment (2019) found that although 85% of individual investors express interest in sustainable investment, only 20% of 85% feel well informed on the subject.

There are many gaps in the understanding of investors of the ESG principles, which can avoid the broader adoption of sustainable investment strategies and limit the potential impact of responsible investment practices. There are many erroneous concepts on the financial performance of sustainable investments delay their adoption. A study by Riedland and Smeets (2017) revealed that many investors believe that ESG investments are less profitable, despite the evidence of the declaration. Joining these knowledge gaps is crucial to improve participation in sustainable investments.

Personal values and ethical beliefs play an important role in the impulse of sustainable investment decisions, since investors are increasingly aligning their financial elections with their moral principles and social concerns. Investor decisions are increasingly motivated by personal values and doing the right thing. Research by Eccles et al. (2014) suggest that investors who prioritize the right thing are more likely to assign funds to sustainable investments.

(Brooks and Oikonomou, 2018) This longitudinal study of S&P 500 companies of 2005-2015 provides convincing evidence that the strong performance of ESG mitigates the downward risk during market crises. Companies in the upper ESG quartile experienced 28% smaller drop from peak to trough during the financial crisis of 2008 compared to fourth quart companies. Research attributes this resilience to best risk management practices and the confidence of interested parties cultivated through the transparency of ESG.

(Gunnarsson and Lundberg, 2021) Analyzing the Nordic markets, this study reveals an emerging "ESG cousin" where companies with sustainability grades improve higher valuation multiples. Companies that demonstrate the progress of ESG year after year showed 1.8 times an expansion of P/E higher than peers, which suggests that markets have an increasingly price on sustainability trajectories together with the current performance.

(Drempetic et al., 2020) This meta-analysis of the ESG qualification methodologies discovers a significant divergence between the main suppliers, with an average pairs average correlation of only 0.54. The study identifies three main sources of discrepancy: the scope of the indicators (environmental factors show the highest agreement), weighting schemes and industry settings. These inconsistencies create challenges for investors seeking comparable ESG data.

(Boffo and Patalano, 2020) In charge of the OECD, this global regulatory review document more than 600 policy instruments related to ESG in 80 jurisdictions. The research identifies the emerging best practices, including the regulation of the dissemination of sustainable finance of the EU (SFDR) and highlights regulatory fragmentation as a key barrier to the global development of the ESG market.

(Kotsantonis and Serafeim, 2019) Through interviews with 65 investment professionals, this qualitative study reveals ESG analysis practices evolving. The investigation identifies a change in the detection of exclusion to complete integration, with the main investors that now use ES factors to: 1) Identify emerging risks (56% of respondents), 2) SPOT innovation opportunities (34%) and 3) Evaluate the quality of management (78%).

(Berget al., 2022) This historical analysis identifies three different phases in the evolution of ESG Investing: Ethical exclusion (1980-2000, 7% annual growth), the best in class (2000-2015, 15% growth) and complete integration (2015-present, growth of 22%). The study attributes the adoption of adoption to the transfer of generational heritage, technological advances in ESG analysis and regulatory tail winds.

(Gibson et al., 2021) When examining the behavior of retail investors in 15 countries, this research finds that the adoption of ESG follows a predictable pattern of "curve S". The study identifies three adoption segments: pioneers driven by values (12% of investors), pragmatic seeking performance (43%) and traditional skeptics (45%), each that requires customary participation strategies.

(Krueger et al., 2020) This experimental study demonstrates how the framing affects ESG investment decisions. Present the benefits of ESG in terms of risk reduction (against return improvement) increased allocation options by 38% among yield-centered investors. The findings have important implications for financial advisors and marketing of ESG products.

(Giese et al., 2019) Developing a new frame of "ESG improvements", this research shows that companies that demonstrate the progress of ESG year after year offer ESG -year leaders of ESG of 3.1%. The study suggests that the markets reward the ESG trajectory as much as absolute scores, creating opportunities for active participation strategies.

(Roncalliet al., 2021) This quantitative analysis introduces an optimized portfolio construction methodology that reduces carbon intensity by 50% while maintaining risk/return characteristics. The approach combines exclusion screens with optimization techniques to address the "Green beta" challenge in passive strategies.

Emerging market approach

(Chakrabarti et al., 2023) This exhaustive analysis of the ESG panorama of India reveals rapid growth (ESG Fund AUM up 140% since 2020) but persistent challenges. While Sebi's BRSR requirements cover 82% of market capitalization, retail participation remains below 8% of ESG assets, highlighting significant awareness and accessibility gaps.

(Narayan and Bannigidath, 2021) When studying Indian companies, this investigation identifies a cost of 27% capital advantage for ESG versus versus lagging leaders. The governance factors explain 41% of this differential, which underlines the particular importance of governance improvements in emerging markets.

(Dharani et al., 2022) Analyzing ASEAN markets, this study finds that cultural factors significantly influence ESG priorities. Collectivist societies emphasize social factors 2.3x more than the environment (E), while governance considerations (G) show consistent importance among cultures (78% of investors cite as critics).

Critical perspectives

(Dyllick and Muff, 2016) Introduction of the "ESG Integration Paradox", this study warns against the superficial adoption of ESG. The investigation finds that 62% of the companies that affirm the integration of ESG fail to corroborate operating changes, risking the violent reaction and regulatory scrutiny.

(Christensen et al., 2022) This critical analysis questions whether the current ESG metrics properly capture the impact of sustainability. The study shows that 78% of the weight transparency of ESG qualifications on real environmental/social results, which can create perverse incentives for the fulfilment of the "box task".

Financial factors such as risk tolerance, expected yields and diversification are crucial elements that influence the decisions of investments in sustainable investments, since they weigh the financial growth potential against the principles of responsible investment. According to a survey conducted by Blackrock (2020), investors are increasingly looking for sustainable funds that show risk-adjusted competitive yields while providing diversification benefits that provide us with a better risk management allocation.

External pressures, including regulatory frameworks, corporate governance standards and the influence of peers, significantly shape the panorama of sustainable investments, which leads investors to consider ESG factors as an integral part of their investment strategies. Regulatory frameworks, such as the EU Sustainable Finance Dissemination Regulations (SFDR), are essential to promote investors to consider ESG factors in their decision making. In addition, the influence of pairs and social networks play an important role in the change in perceptions of sustainable investment. A study by Bollen (2007) found that social influence significantly affects investment behavior.

Psychological factors, including several biases of investors and decision-making processes, play an important role in the configuration of how people address sustainable investment, often resulting in decisions that may not align with their ethical values or financial objectives. Behavioral finance literature suggests that cognitive biases, such as seeing only what supports their views, can lead investors to overlook ESG opportunities that do not align with their risk and performance cases.

Demographic factors such as age, income and education significantly influence investment behavior, shaping the way people get involved with sustainable investments and their willingness to consider ESG criteria in their financial decisions. In today's world, younger investors, particularly millennials and generation Z, show greater interest in sustainable investment, promoted by a strong commitment to social and environmental problems (Deloitte, 2021).

Investors often struggle with the challenge of balance their ethical values with the financial objectives, with the aim of finding investment opportunities that align with their moral principles while offering favorable returns. Creating a balance between ethical values and financial objectives remains a challenge for many investors. According to a report from the global impact investment network (Giin, 2020), effective communication on sustainable investments potential to offer competitive yields is very important to overcome this barrier.

The social influence and behavior of colleagues significantly affect the way people address sustainable investment, such as the opinions and actions of friends, family and social networks often guide their investment elections and the perceptions of ESG factors. A study by Hong and Kostovetsky (2012) indicates that investors are likely to be persuaded by their colleagues when considering sustainable investment options, highlighting the importance of the community to boost awareness and adoption.

The absence of standardized metrics and reports presents significant challenges for investors, since variable definitions and criteria hinder the evaluation and comparison of the sustainability performance of different investments effectively. The absence of standardized ESG metrics complicates the investment panorama, which makes it difficult for investors to compare funds and know the true impact of their investments. The research carried out by the Sustainability Accounting Standards Board (SASB, 2021) shows the need for clearer reports to improve transparency.

Measuring the impact of sustainable investments is very complex, since it implies several factors and methods that can complicate the evaluation of financial returns and social or environmental benefits. The measurement of the impact of sustainable investments shows many challenges, particularly in determining non-financial benefits. A report by the Global Information Initiative (GRI, 2020) highlights the need for frames that can accurately evaluate financial performance and ESG.

A detailed examination of existing literature reveals that erroneous concepts on ESG investments continue, often discouraging potential investors due to the belief that these investments compromise financial performance in favor of ethical or social objectives. Fichtner et al. (2017) suggest that education and awareness campaigns are essential to address these erroneous concepts and encourage more people to accept.

The limited availability of investment products focused on ESG in several markets raises a significant barrier for investors seeking to align their portfolios with sustainable principles, often restricting their ability to participate in responsible investment practices. The availability of ESG-centered investment products varies widely, with limited options in certain regions. World Bank research (2020) shows the need for financial institutions to develop and promote sustainable investment products to meet the growing demand.

Recent technological advances in ESG data analysis are revolutionizing the way investors evaluate sustainability metrics, providing improved tools and methodologies to evaluate environmental, social and governance performance of possible investments. The integration of technology, particularly in ESG data analysis, presents new opportunities for investors. Tools that provide real-time information about ESG performance can help investors make more informed decisions. APWC (2020) study shows that advances in technology will play a fundamental role in configuration of the future of sustainable investment.

The growing recognition of the importance of sustainability in investment decisions presents a unique opportunity for the broader adoption and integration of sustainable investment practices, which allows investors to align their portfolios with financial objectives and global objectives of sustainability. As the consciousness of ESG factors continues to grow, there is a significant potential for the broader adoption of sustainable investment practices. The research carried out by the International Finance Corporation (IFC, 2021) indicates that increasing regulatory pressures and demography of changing investors will increase this trend.

Future addresses in sustainable investment research

(Flammer et al., 2023) This pioneering study introduces the concept of "dynamic score of ESG", which adjusts the company's qualifications based on real and social impact data in real time. Researchers demonstrate how IoT sensors and satellite monitoring can reduce the delay of ESG reports from quarter to almost real time, which potentially decreases information asymmetry by 40%. Their simulations show that this approach could help investors identify the risks and opportunities of 6 to 8 weeks faster than traditional methods.

(Gerged et al., 2024) Developing the "ESG Innovation Premium" framework, this research reveals that companies

that combine a solid ESG yield with R&D investment generate annual excessive yields of 3.5%. The study suggests that ESG's future analysis should evaluate not only the current performance of sustainability, but also the capacity for innovation to solve environmental and social challenges.

(Bhattacharya and Sharma, 2024) This interdisciplinary study proposes to integrate neuroscience tools in ESG research. Using 200 investors' fMRI scans, the team identified different neuronal activation patterns when evaluating environmental factors (prefrontal cortex) versus social (insula). The findings suggest that future ESG communication strategies may need to adapt messages to different brain processing routes to obtain maximum effectiveness.

(Chen & Matos, 2023) Introduction of "generative AI for the prognosis of ESG", this technical document demonstrates how large language models can analyze the non-structured ESG data (corporate reports, news, social networks) to predict controversies with 82% precision 3-6 months in advance. The models surpass the forecasts of the traditional analyst in 28% in the setback test.

(Doveleur et al., 2024) This global study of 50,000 retail investors reveals an upcoming "sustainability expectation gap." While 72% of the Z-generation investors hope to assign > 50% of their portfolio to ESG investments by 2030, current product offers and advisory capabilities can satisfy only 43% of this demand, indicating an urgent need for innovation in sustainable heritage management solutions.

(Wong et al., 2023) Developing the "Just Transition ES" framework, this research evaluates how companies administer the transition of the workforce during decarbonization. The study finds that companies with solid transition policies show 24% employee rotation 24% less during green transformations and achieve climate objectives 18 months faster on average.

(Álvarez and Santos, 2024) This future analysis analysis that biodiversity metrics will become the "next carbon" in the ESG analysis, with 78% of institutional investors who plan to incorporate the impact assessments of biodiversity in 2026 in 14 industries.

(Kumar et al., 2023) Investigating "ES in Metaverse", this new study examines how virtual corporate behaviors (data ethics, Avatar working conditions, digital carbon footprints) can create new dimensions for ESG evaluation. The first findings suggest that ESG digital factors could represent 15-20% of future sustainability classifications for technology companies.

(Robinson and Park, 2024) This regulatory forecast analyzes how "ICS supervision technology" driven by AI can transform compliance. Its model predicts that by 2027, 65% of the Verification of ESG reports will be automated through blockchain and AI systems, which potentially reduces green washing incidents by 40% while increasing the frequency of reports to large covers.

3. RESEARCH GAP: GAPS IN UNDERSTANDING INVESTOR AWARENESS OF SUSTAINABLE INVESTING

3.1 Current Gap in Investor Awareness

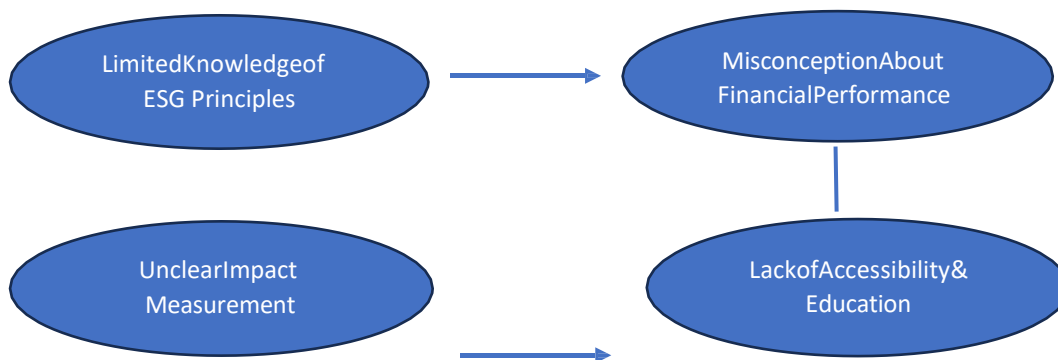
- **Limited Knowledge of ESG Principles:** Many investors are unfamiliar with the concepts of Environmental, Social, and Governance (ESG) criteria, leading to confusion about how these factors are integrated into investment decisions.
- **Misconceptions About Financial Performance:** There is a common belief that sustainable investments

yield lower financial returns compared to traditional investments, which discourages investors from exploring ESG options.

- **Lack of Accessibility and Education:** Investors often lack access to educational resources or advisory services that provide clear, actionable information on sustainable investing practices.
- **Unclear Impact Measurement:** Investors find it challenging to evaluate the actual environmental and social impact of their sustainable investments due to limited standardization in ESG reporting and metrics.

Diagrammatic Representation:

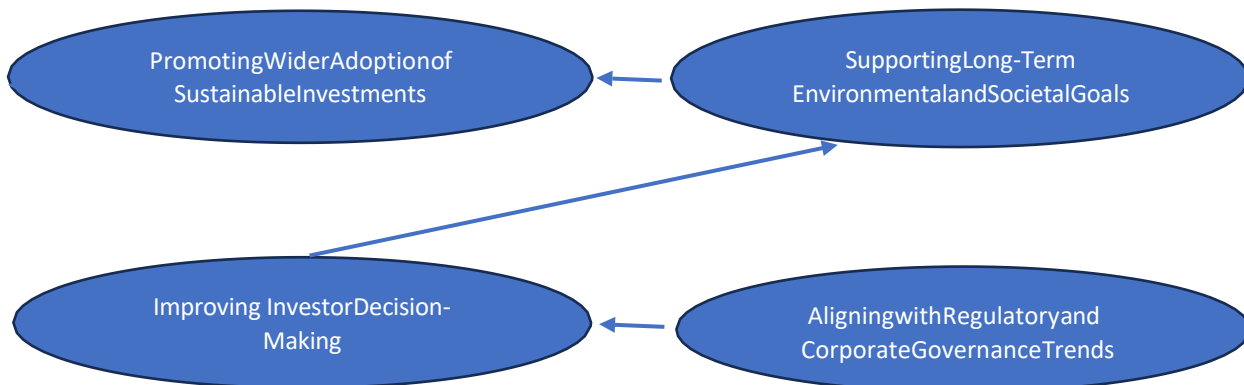
Gaps in Investor Awareness



3.2 Importance of Studying This Gap

- **Promoting Wider Adoption of Sustainable Investments:** Addressing these knowledge gaps can lead to more investors embracing sustainable investment options, thereby accelerating the growth of ESG investing.
- **Supporting Long-Term Environmental and Societal Goals:** Sustainable investing plays a critical role in funding projects and companies that contribute to global sustainability efforts, such as addressing climate change and promoting social equity.
- **Improving Investor Decision-Making:** By enhancing investor awareness, we can empower investors to make more informed choices that align both with their financial goals and ethical values.
- **Aligning with Regulatory and Corporate Governance Trends:** As regulations evolve to emphasize corporate responsibility, understanding ESG principles will become crucial for investors to navigate new frameworks and policies.

Importance of Addressing These Gaps



This problem is essential to study because it directly affects the rate of adoption of sustainable investments, which are critical to achieving both investor financial objectives and broader societal and environmental targets. Addressing the gap can unlock more opportunities for ESG integration, thereby fostering a more sustainable future.

4. RESEARCH QUESTIONS

1. How familiar are investors with ESG principles and practices?

This question checks how much investors know about ESG investing, including its good points and problems.

2. What influences investor to pick sustainable or non-sustainable funds?

This question asks about the main reasons—money, society, or morals—that influence what investors decide to do.

3. How does understanding money matters affect people's views on eco-friendly investing?

This study looks at if knowing more about money affects how much someone thinks about the good things that happen with their investments.

4. How do media, friends, or advice services affect investor views and choices about ESG investments?

This question looks at how things outside of the company, like news and social media, can change what investors know and decide to do.

5. OBJECTIVES OF THE STUDY

Given the gaps highlighted in previous research and the growing importance of sustainable investing in modern financial markets, this study seeks to evaluate investor awareness and behavior with a particular focus on ESG principles. The specific objectives of the study are:

- **Objective 1:** To evaluate how familiar investors are with ESG investing principles and practices.

- **Objective2:** To explore the factors that influence investors' decisions to invest in sustainable or non-sustainable funds.

These objectives aim to shed light on how well investors understand ESG criteria and the key motivations or barriers they face when considering sustainable investment options.

6. PROPOSED RESEARCH METHODOLOGY

6.1 Sampling Frame - The study will include investors living in big cities like Mumbai, Delhi, and Bengaluru. These cities are chosen because they have a lot of money going on and smart people who know about good investing.

6.2 Sample Size - The study will include 200 participants. This size is suitable for performing a useful factor analysis and maintaining statistical significance.

6.3 Sampling Technique - The study will employ convenience sampling. This method works well for this kind of study because it's easy to talk to people and get information quickly.

6.4 Proposed Data Analysis Technique - The information will be looked at with Factor Analysis, a way to find patterns that show how different things are related. This technique is appropriate to,

Group variables that influence investment decisions:

- **Risk factors:** The potential for loss or uncertainty in investment outcomes.

- **Ethical considerations:** The moral principles or values that guide investment choices.

- **Financial literacy:** The understanding and knowledge of financial principles and investment. Comprehend the basic framework of how investor's view and act in relation to environmentally and socially responsible investing.

7. PROPOSED APPLICATION OF THE STUDY

The findings of this study will provide valuable insights for.

Financial Institutions: This research will assist banks in creating improved money-related items that match what people care about in terms of the environment and society, promoting eco-friendly investing.

Policymakers: The findings will help rule-makers create rules and actions that encourage people to think about the environment, society, and good business, making it a common way to invest money.

Educational Programs: Insights will help make better money-learning programs that teach people how to invest in a way that's good for the planet.

Media and Financial Advisors: The results will assist these influencers in giving clearer and more reliable advice to teach people about the importance of ESG in investing.

8. RESEACHMETHODOLOGY

8.1.Summary ofthe chapter

This study presents the findings of the study on the awareness of investors on sustainable investment and the factors that influence their investment elections. A questionnaire with 28 items was developed to measure investors awareness and identify key factors that affect their investment decisions. An exploratory factor analysis was used to identify the underlying factors that influence investor elections with respect to sustainable and non-sustainable funds. The analysis results provide information on the levels of awareness of investors with respect to the principles of ESG and their sustainable investment perceptions.

The results indicate the various factors that influence investment options, including financial considerations, ethical values, social influence and knowledge about ESG's investment. Specifically, the chapter will explore how investors balance financial returns with their desire to support companies with strong ESG practices. It will also examine the role of social influence and sources of information in the configuration of investor behavior. In addition, the analysis identifies barriers that hinder the adoption of sustainable investment practices.

In addition, the chapter analyzes the demographic factors that affect the consciousness and decision making of investors. Investigate how variables such as age, gender, occupation and educational qualification affect the understanding and adoption of the sustainable investment of investors. In general, this chapter offers an exhaustive analysis of the factors that promote the behavior of investments in sustainable investments, providing valuable information for financial institutions, political leaders and educational initiatives.

8.2 Survey instrument

To address the lack of standardized measurement instruments on factors that influence sustainable investment decisions, a 28 items instrument was created. The existing research on the factors that influence investment decisions, particularly in relation to the criteria of ESG (environmental, social and government), served as a basis for identifying and attacking the most notable influences. The specific factors explored in this study are described in the declarations of the questionnaire.

Respondents (for example, investors, participants) received a questionnaire that consisted of statements, and were told to indicate their level of agreement or disagreement with each statement using a five-point Likert scale. To analyze the questionnaire data in future studies, an exploratory factor analysis was carried out using the main axis factorization method, together with a Varimax rotation technique

8.3 Research technique

The key method used here is the exploratory factor analysis (EFA).

Factor analysis: Identify underlying factors (unobserved variables) that explain the relationships between the elements of the questionnaire (observed variables) and to reduce the complexity of the data.

Specific techniques:

Main component analysis (PCA): PCA is used as an extraction method. While it is related to the factorial analysis, PCA is technically a method of component analysis. It is often used in exploratory stages.

Varimax rotation: Varimax rotation is a common orthogonal rotation technique used in EFA to simplify the factors and

make them more interpretable. The objective is to achieve a clearer pattern of factors loads.

In summary, the factorial analysis is used to reduce the dimensionality of the data, PCA for Varimax extraction and rotation. This factorial analysis is a statistical technique used to condense the questionnaire information in a smaller set of significant variables, which facilitates the interpretation of investors' awareness and the factors that influence their ESG investment decisions.

DATA ANALYSIS

Items	Statements
1	I am familiar of the concept of ESG (Environmental, Social, and Governance) investing.
2	I am familiar that ESG investing includes environmental factors such as reducing carbon emissions and promoting renewable energy use.
3	I am familiar that ESG investing evaluates social criteria such as employee welfare, workplace diversity, and community impact.
4	I am familiar that ESG investing incorporates governance aspects such as ethical business practices, board diversity, and anti-corruption measures.
5	I am familiar that ESG performance can impact the long-term financial performance of investments.
6	I am familiar of the existence of ESG funds or financial products offered by investment platforms.
7	I have sufficient knowledge about ESG principles to make informed investment decisions.
8	I am familiar with the availability of sustainable investing options in the market.
9	I prioritize financial returns over environmental or social impact while choosing investment funds.
10	I believe sustainable funds have comparable financial returns to non-sustainable funds.
11	The fees associated with sustainable funds impact my decision to invest in them.
12	I consider the long-term stability of sustainable funds over short-term gains.
13	I perceive sustainable investments to be riskier than traditional investments.
14	Tax incentives or government support influence my decision to invest in sustainable funds.
15	I prefer investments that align with my ethical or environmental values.

A	16	I am motivated to invest in sustainable funds due to their potential positive societal impact.
	17	I avoid non-sustainable funds because of their negative impact on the environment or society.
	18	Investing in sustainable funds makes me feel like I am contributing to global sustainability goals.
	19	I prioritize supporting companies with strong ESG practices, even if returns are slightly lower.
	20	My personal commitment towards sustainability influences my investment choices.
	21	Recommendations from financial advisors strongly influence my investment decisions.
	22	I am inclined to invest in sustainable funds if people in my social circle do the same.
	23	Social media campaigns or trends about sustainable investing influence my investment choices.
	24	I trust investment platforms that actively promote ESG investment options.
	25	I am influenced by the investment strategies of family or close friends.
	26	I understand how sustainable investments align with global sustainability initiatives, like the UNSDGs.
	27	I often research the ESG practices of companies or funds before investing.
	28	Lack of information about sustainable funds prevents me from investing in them.

subsequent analysis involved examining several key areas:

- **Familiarity with ESG's investment (Questions 1-8):** This section explores how the understanding of the investors of the ESG principles is correlated with its awareness of sustainable investment options.
- **Ethical Versus financial motivations (Questions 9-20):** Here, we investigate the interaction between the financial priorities of investors and their ethical values to boost sustainable investment decisions.
- **Social influence (Questions 21-25):** This analysis focuses on the impact of social factors, such as the influence of the pairs and recommendations of the advisors, in the elections of investors.
- **ESG investment barriers (Questions 26-28):** Finally, we examine how factors such as information gaps can prevent investors from participating in sustainable investments.

8.4. KMO and Bartlett Test

To rigorously establish the suitability of the dataset for the factorial analysis, a meticulous evaluation of the Kaiser-Meyer-Olkin (KMO) measure was performed of the sampling adequacy and the Bartlett's sphericity test, which reveals significant information about the data structure and the significant factorial extraction potential. The results

revealed a substantial correlation among the variables, which suggests its tendency to form a factor. Subsequently, the 28 items experienced an exploratory factor analysis, using the main axis factorization method with Varimax rotation. This analysis produced KMO statistics and the determinant of the correlation matrix, which provided more information about the suitability of the factorial analysis. Only factors with their own values greater than 1. The preliminary solution included four factors, and all communalities of the initial solution were preserved because they were greater than 0.2.

Results of KMO and Bartlett's Test

Kaiser-Meyer-Otkin Measure of Sampling Adequacy		0.957
Bartlett's Test of Sphericity	Approx. Chi-Square	4645.826
	df	378
	Sig.	0.000

Kmo's statistics, which varies from 0 to 1 and indicates the compactness of correlation patterns, showed a value of 0.957. This value, which significantly exceeds the acceptable threshold of 0.5 as Kaiser (1974) suggests, strongly suggests the presence of different and reliable factors within the dataset. The high value of KMO indicates a very high level of sampling adaptation, affirming the suitability of the analysis of management factors.

Bartlett's sphericity test, which evaluates whether the original correlation matrix is an identity matrix (which indicates a lack of relationships between the variables), produced a very significant result ($p = 0.000$). This level of significance, well below the standard $P < 0.05$, confirms that the correlation matrix is not an identity matrix and that there are significant relationships between the variables. Therefore, the factor analysis is considered appropriate. The chi-square value of 4645,826 and the degrees of freedom of 378, although important, serve mainly to derive the highly significant P value, which is the key indicator for this test.

In summary, the KMO value of 0.957 and the result of the highly significant Bartlett test ($p = 0.000$) firmly support the suitability of the use of factorial analysis in this dataset. These findings indicate that the sample is adequate for the factorial analysis, and that there are significant correlations between the variables, which allows a significant extraction of underlying factors. The table effectively summarizes the suitability of the factorial analysis based on these solid statistical indicators.

8.5. Factor extraction

The initial examination of the "total variance explained" tables, using the analysis of main components such as the extraction method, provided a complete description of the variance distribution in the components of the data set. Before the extraction, the analysis revealed the own values and the corresponding percentages of total variance explained by each of the 28 components. In particular, the first component exhibited a substantial value of 15,816, explaining 56,484% of the total variance, indicating a significant initial concentration of variance within this component. Subsequently, adhere to the standard criteria of the retention components with own values greater than 1, the analysis was refined, effectively reducing the number of components to two.

The column "Sum of square loads" presented the variance explained by these two components retained after extraction. Collectively, these components represented 60,183% of the total variance, which demonstrates its meaning explanatory power.

ResultsofTotalVarianceExplained

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.816	56.484	56.484	15.816	56.484	56.484
2	1.036	3.698	60.183	1.036	3.698	60.183
3	.933	3.334	63.516			
4	.901	3.217	66.733			
5	.798	2.850	69.583			
6	.745	2.661	72.244			
7	.676	2.413	74.657			
8	.635	2.267	76.923			
9	.577	2.061	78.984			
10	.574	2.050	81.034			
11	.510	1.821	82.855			
12	.450	1.607	84.461			
13	.434	1.552	86.013			
14	.431	1.538	87.551			
15	.417	1.491	89.042			
16	.385	1.374	90.416			
17	.359	1.282	91.698			
18	.309	1.105	92.803			
19	.300	1.072	93.875			
20	.252	.900	94.775			
21	.244	.871	95.646			
22	.234	.837	96.484			
23	.197	.704	97.188			
24	.181	.647	97.835			
25	.173	.618	98.453			
26	.155	.554	99.007			
27	.145	.518	99.525			
28	.133	.475	100.000			

After extraction, a rotation process was used to optimize the structure of factors and achieve a more equitable variance distribution between the components. The column "Sumsofrotationofthesquareloads" detailed the corresponding variance percentages and variance explained after the rotation. This process resulted in the first component that explains 36,134% of the variance, with a known value of 10,118, and the second component that explains 24,049% of the variance, with a value of 6,734. The accumulated variance explained by these two components remained at 60,183%, which means that the rotation process served mainly to redistribute the variance instead of altering the general explanatory power of the retained components.

Result of Total Variance Explained (Rotation sums of Squared Loadings)

Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	10.118	36.134	36.134
2	6.734	24.049	60.183
3			
4			
5			
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Extraction Method: Principal Component Analysis.

In essence, the analysis demonstrated a significant reduction in the dimensionality, of 28 initial components to two primary components, which collectively explained a substantial portion of the variance of the dataset. The rotation process facilitated a more balanced variance distribution, improving the interpretability of the factors structure while maintaining the integrity of the explained variance. These findings underline the effectiveness of the analysis of main components to identify and simplify the underlying structure of the data set, providing a clear and concise representation of the main dimensions of the data.

The following table presents the communalities, which mean to what extent each (variable) element shares its variance with the other elements in the analysis. The table shows communalities before and after extraction using the analysis of main components. According to Hair et al. (2006), the elements with communality values below 0.45 must be considered to eliminate, since they do not fit well with the factor solution.

Results of Communalities before and after extraction

Items	Statements	Initial	Extraction
1	I am familiar of the concept of ESG (Environmental, Social, and Governance) investing.	1	0.596
2	I am familiar that ESG investing includes environmental factors such as reducing carbon emissions and promoting renewable energy use.	1	0.612
3	I am familiar that ESG investing evaluates social criteria such as employee welfare, workplace diversity, and community impact.	1	0.539
4	I am familiar that ESG investing incorporates governance aspects such as ethical business practices, board diversity, and anti-corruption measures.	1	0.682
5	I am familiar that ESG performance can impact the long-term financial performance of investments.	1	0.509
6	I am familiar of the existence of ESG funds or financial products offered by investment platforms.	1	0.589
7	I have sufficient knowledge about ESG principles to make informed investment decisions.	1	0.604
8	I am familiar with the availability of sustainable investing options in the market.	1	0.571
9	I prioritize financial return over environmental or social impact while choosing investment funds.	1	0.492
10	I believe sustainable funds have comparable financial returns to non-sustainable funds.	1	0.549
11	The fees associated with sustainable funds impact my decision to invest in them.	1	0.685
12	I consider the long-term stability of sustainable funds over short-term gains.	1	0.566

13	I perceive sustainable investments to be riskier than traditional investments.	1	0.549
14	Tax incentives or government support influence my decision to invest in sustainable funds.	1	0.608
15	I prefer investments that align with my ethical or environmental values.	1	0.588
16	I am motivated to invest in sustainable funds due to their potential positive societal impact.	1	0.695
17	I avoid non-sustainable funds because of their negative impact on the environment or society.	1	0.57
18	Investing in sustainable funds makes me feel like I am contributing to global sustainability goals.	1	0.627
19	I prioritize supporting companies with strong ESG practices, even if returns are slightly lower.	1	0.559
20	My personal commitment toward sustainability influences my investment choices.	1	0.621
21	Recommendations from financial advisors strongly influence my investment decisions.	1	0.668
22	I am inclined to invest in sustainable funds if people in my social circle do the same.	1	0.678
23	Social media campaigns or trends about sustainable investing influence my investment choices.	1	0.654
24	I trust investment platforms that actively promote ESG investment options.	1	0.595
25	I am influenced by the investment strategies of family or close friends.	1	0.666
26	I understand how sustainable investments align with global sustainability initiatives, like the UNSDGs.	1	0.582
27	I often research the ESG practices of companies or funds before investing.	1	0.628
28	Lack of information about sustainable funds prevents me from investing in them.	1	0.569

	ExtractionMethod:PrincipalComponentAnalysis.(Thresholdlimit0.45asperHair et al 2006) al.,2006)
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Initially, before extraction, all communalities are established in 1,000, since the analysis of main components assumes that the entire variance is a common variance. This reflects the total variance of each item before extracting any factor.

Under the "extraction" column, communalities indicate the shared variance of each element with the factors retained in the data structure. For example, item1, "I am familiar with the concept of investment of ESG (environmental, social and government)," demonstrates a shared variance of 59.6% (0.596) with the associated factors. Similarly, item2, "I am familiar that ESG's investment includes environmental factors such as reducing carbon emissions and promoting the use of renewable energy," exhibits a shared variance of 61.2% (0.612).

After extraction, communalities represent the portion of variance in each element that can consider retained factors. All the elements of the table have communalities above the threshold of 0.45, which indicates that each element shares a substantial portion of its variance with the retained factors and fits well within the factor solution. This suggests that all elements are relevant and contribute significantly to the structure of underlying factors of the data.

In summary, the communalities presented in the table show that all items share a significant amount of variance with the retained factors, since their extraction values are well above the threshold of 0.45. This confirms the suitability of all items for inclusion in the factorial analysis and suggests that they collectively contribute to the understanding of the underlying factors related to the familiarity and perceptions of ESG investment.

8.6. Component matrix

The main component analysis extracted two significant components that illuminated different perspectives on sustainable investment, as reflected in component loads. Component 1, which demonstrates consistently high positive charges in most of the 28 statements (ranging from 0.618 to 0.827), represents a cohort of enthusiastic and deeply committed defenders for sustainable investment practices. These people are strongly driven by the perceived positive social impact of such investments, as evidenced by the high load (0.827) in "I am motivated to invest in sustainable funds due to their possible positive social impact." They show a proactive approach, valuing exhaustive research and due diligence, as indicated by the load of 0.792 to "often investigate the ESG practices of companies or funds before investing." In addition, they impose significant confidence in professional financial advice (0.805) and are influenced by social factors, including peers and family recommendations (0.783) and social networks trends (0.780). This component suggests a group that is well informed, socially conscious and trusts the benefits of sustainable investment.

Component 2 presents a more complex image, characterized by a mixture of positive and negative loads. Declarations with positive charges, although generally lower in magnitude (for example, "I am familiar with the concept of ESG" in 0.463), suggest a more nuanced understanding or a pragmatic vision of sustainable investments. You are individuals Mayssss Foundation Knowledge of ESG Principles and pick up the potential impact of substantial investible, but they don't need to align with the enthusiastic endo. -0.212 for "Social Media Campaigns or Trends about Sustainable Investing Influence My Investment Choices"), Government Incentives (-0.111), and the perception of personnel contribution (-0.212) indicate possible reserves or contrasting perspectives. These individuals can be skeptical of external influences, less optimistic about the direct impact of their investments, or exhibit a more critical evaluation of sustainable investment practices. This component suggests a group that addresses sustainable investment with a degree of caution, potentially driven

by the need for more concrete evidence or a desire to avoid perceived exaggeration. The range of negative charges suggests several levels of skepticism, with some statements that indicate a strong rejection of certain influences.

In essence, the two components highlight a bifurcation in attitudes towards sustainable investment. Component 1 captures the fervent support of informed and socially conscious defenders, while component 2 reflects a more cautious approach, potentially skeptical. Additional research, perhaps through qualitative research, would be beneficial to completely understand the specific concerns and nuances associated with component 2.

Results of Component Matrix

	Statement	Component	
		1	2
16	I am motivated to invest in sustainable funds due to their potential positive societal impact.	0.827	-0.102
11	The fees associated with sustainable funds impact my decision to invest in them.	0.826	
22	I am inclined to invest in sustainable funds if people in my social circle do the same.	0.806	-0.167
21	Recommendations from financial advisors strongly influence my investment decisions.	0.805	-0.141
27	I often research the ESG practices of companies or funds before investing.	0.792	
25	I am influenced by the investment strategies of family or close friends.	0.783	-0.232
20	My personal commitment towards sustainability influences my investment choices.	0.781	-0.109
23	Social media campaigns or trends about sustainable investing influence my investment choices.	0.780	-0.212
14	Tax incentives or government support influence my decision to invest in sustainable funds.	0.772	-0.111
18	Investing in sustainable funds makes me feel like I am contributing to global sustainability goals.	0.763	-0.212
26	I understand how sustainable investments align with global sustainability initiatives, like the UNSDGs.	0.762	
15	I prefer investments that align with my ethical or environmental values.	0.762	

7	I have sufficient knowledge about ESG principles to make informed investment decisions.	0.762	0.152
8	I am familiar with the availability of sustainable investing options in the market.	0.752	
12	I consider the long-term stability of sustainable funds over short-term gains.	0.747	
24	I trust investment platforms that actively promote ESG investment options.	0.745	-0.199
17	I avoid non-sustainable funds because of their negative impact on the environment or society.	0.745	-0.122
2	I am familiar that ESG investing includes environmental factors such as reducing carbon emissions and promoting renewable energy use.	0.739	0.256
6	I am familiar of the existence of ESG funds or financial products offered by investment platforms.	0.738	0.211
19	I prioritize supporting companies with strong ESG practices, even if returns are slightly lower.	0.737	-0.124
10	I believe sustainable funds have comparable financial returns to non-sustainable funds.	0.737	
28	Lack of information about sustainable funds prevents me from investing in them.	0.730	-0.189
13	I perceive sustainable investment to be riskier than traditional investments.	0.729	0.131
3	I am familiar that ESG investing evaluates social criteria such as employee welfare, workplace diversity, and community impact.	0.714	0.171
9	I prioritize financial returns over environmental or social impact while choosing investment funds.	0.695	
4	I am familiar that ESG investing incorporates governance aspects such as ethical business practices, board diversity, and anti-corruption measures.	0.695	0.447
5	I am familiar that ESG performance can impact the long-term financial performance of investments.	0.661	0.268

1	IamfamiliaroftheconceptofESG(Environmental, Social,and Governance)investing.	0.618	0.463
	ExtractionMethod:PrincipalComponentAnalysis.		

8.7. Rotationoffactors

Followingthe methodologyofusingacutting valueof0.50forcomponent loads, assuggestedbyHair et al. (2006), the analysis revealed two different components after Varimax's rotation with Kaiser's standardization. These componentseffectivelycapturetheunderlyingdimensionsofattitudesand behaviors related to sustainable investment, providing valuable information about the responses of the participants. Theanalysis highlightsthediverserangeofattitudesand behaviorsrelatedto sustainable investment,with component 1 that represents enthusiastic defenders and component 2 that represent a more nuanced and cautious group.

Resultsof RotatedComponentMatrix

	Statement	Component	
		1	2
25	Iammotivatedtoinvestinsustainablefundsduetotheir potential positivesocietalimpact.	0.757	0.304
23	The feesassociatedwithsustainablefundsimpactsmymdecisiontoinvest inthem.	0.743	0.319
22	Iaminclinedtoinvestinsustainablefunds ifpeopleinmysocialcircle dothesame.	0.736	0.37
18	Recommendationsfromfinancialadvisorsstronglyinfluencemy investmentdecisions.	0.73	0.307
21	Ioftenresearchthe ESGpracticesofcompaniesorfundsbefore investing.	0.719	0.39
16	Iaminfluencedbytheinvestmentstrategiesoffamilyor closefriends.	0.712	0.434
24	Mypersonalcommitmenttowardssustainabilityinfluencesmy investmentchoices.	0.708	0.307
28	Socialmediacampaignsortrendsaboutsustainableinvestinginfluence myinvestmentchoices.	0.689	0.305

20	Tax incentives or government support influence my decision to invest in sustainable funds.	0.679	0.4
14	Investing in sustainable funds makes me feel like I am contributing to global sustainability goals.	0.674	0.392
17	I understand how sustainable investments align with global sustainability initiatives, like the UNSDGs.	0.66	0.367
19	I prefer investments that align with my ethical or environmental values.	0.655	0.361
15	I have sufficient knowledge about ESG principles to make informed investment decisions.	0.648	0.409
12	I am familiar with the availability of sustainable investing options in the market.	0.641	0.394
10	I consider the long-term stability of sustainable funds over short-term gains.	0.625	0.398
11	I trust investment platforms that actively promote ESG investment options.	0.621	0.548
27	I avoid non-sustainable funds because of their negative impact on the environment or society.	0.596	0.523
26	I am familiar that ESG investing includes environmental factors such as reducing carbon emissions and promoting renewable energy use.	0.579	0.497
8	I am familiar of the existence of ESG funds or financial products offered by investment platforms.	0.542	0.527
4	I prioritize supporting companies with strong ESG practices, even if returns are slightly lower.	0.267	0.782

1	I believe sustainable funds have comparable financial return to non-sustainable funds.	0.198	0.747
2	Lack of information about sustainable funds prevents me from investing in them.	0.421	0.66
6	I perceive sustainable investment to be riskier than traditional investments.	0.447	0.624
5	I am familiar that ESG investing evaluates social criteria such as employee welfare, workplace diversity, and community impact.	0.352	0.62
7	I prioritize financial return over environmental or social impact while choosing investment funds.	0.503	0.592
3	I am familiar that ESG investing incorporates governance aspects such as ethical business practices, board diversity, and anti-corruption measures.	0.454	0.577
13	I am familiar that ESG performance can impact the long-term financial performance of investments.	0.49	0.555
9	I am familiar with the concept of ESG (Environmental, Social, and Governance) investing.	0.487	0.505
<p>Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser normalisation. a. Rotation converged in 3 iterations.</p>			

Component 1: Enthusiast commitment to sustainable investment (loads > 0.50)

This component, labelled as "enthusiastic commitment to sustainable investment," represents a cohort of individuals who demonstrate strong, proactive and informed approach to sustainable investment. The high charges in numerous statements indicate a consistent and robust support of these practices. Specifically:

- Proactive motivation and belief in the impact: the highest load (0.757) in "I am motivated to invest in sustainable funds due to its potential positive social impact" highlights a central driver for this group. They are driven by belief in the positive change that sustainable investments can bring.
- Trust in professional orientation: the load of 0.730 in "Recommendations of Financial Advisors strongly influence my investment decisions" means a dependency and confidence in expert advice, which suggests a will to search and follow professional orientation.
- Active research and diligence: the load of 0.719 in "I often investigated the ESG practices of companies or funds before investing" underlines a proactive approach, indicating that these people actively seek information and carry out exhaustive research.

- Social and personal alignment: statements such as "I am influenced by family investment strategies or close friends" (0.712) and "my personal commitment towards sustainability influences my investment elections"(0.708)demonstratethatthisgroupis influenced bysocialandpersonalvalues, integratingtheir beliefs into their investment decisions.
- Find information and trust: high charges in statements related to information search (0.689 for "social networkscampaignsortrendsonsustainable investment influence myinvestmentoptions")andperceived knowledge (0.648 for "I have sufficient knowledge about ESG principles to make informed investment decisions") Indicate a safe and informed approach.
- Ethicalandenvironmentalalignment:theloadof0.655in"I prefer theinvestmentsthatarealignedwith my ethical or environmental values" demonstrates that these people prioritize their ethical and environmental values when making investment decisions.

In essence, component 1 captures people who are not only interested in sustainable investment, but are actively committed, informed and driven by a strong belief in their positive impact.

Component 2: Nuanced acceptance with possible concerns (loads > 0.50, but with varied patterns)

This component, labelled as "nuanced acceptance with possible concerns", presents a more complex image. While people who carry in this component generally accept sustainable investments, they also exhibit a degree of caution and nuanced consideration:

- Financial pragmatism: the high load of 0.747 in "I believe that sustainable funds have financial yields comparable to non-sustainable funds" and 0.624 in "I perceive that sustainable investments are more risky than traditional investments" suggest an approach to financial considerations. These people are not simply driven by ethical concerns but also weigh the financial implications of their decisions.
- Fundamental knowledge versus active participation: the loads of the statements related to the general knowledge of ESG (0.505) and the aspects of governance (0.577) indicate a fundamental understanding, but this does not necessarily translate into the same level of active participation that is seen in component 1.
- Prioritization of financial yields: the high load of 0.592 in "Prioritize financial returns on environmental or social impact by choosing investment funds" indicates that financial returns are a strong driver for this group.
- Possible skepticism: The loading pattern suggests a degree of skepticism or caution. These individuals may be more critical of statements made on sustainable investments or may require more concrete evidence of their impact.

In summary, component 2 represents a group that recognizes the importance of sustainable investment but addresses it with a more balanced and potentially skeptical mentality, carefully considering ethical and financial implications.

8.8. Component transformation matrix

The "component transformation matrix" provides a quantitative representation of the Varimax rotation with the normalization of Kaiser applied to the initial components derived from the main component analysis (PCA). This rotation, a fundamental step in the factorial analysis, aims to simplify the structure of the component and improve interpretability by redistributing the variance between the components, thus facilitating the identification of different underlying dimensions within the data.

The 2x2 matrix presented contains the linear transformations applied to the two original components to produce the rotated components. Specifically, the rotated component 1 is a compound of 78.4% of the original component

1 and 62.1% of the original component 2, while the rotated component 2 is composed of -62.1% of the original component 1 and 78.4% of component 2 original. These values, which reflect the contributions of the original components to the original components to which they rotate to those who rotate the new to the new ones.

Result of Component Transformation Matrix

Component	1	2
1	.784	.621
2	-.621	.784
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		

The values within the matrix indicate the degree to which each original component contributes to the formation of the rotated components. The relatively high positive values (0.784 and 0.621) suggest that both original components contribute significantly to the formation of the rotated component 1. The negative value (-0.621) for the original component 1 in the rotated component 2 indicates an inverse relationship or a contrasting influence on that rotated component. This pattern of values underlines the successful achievement of orthogonality, a key objective of the Varimax rotation. The orthogonality, which means that the rotated components are not correlated, is confirmed by the sum of the crossed products of the corresponding elements that are approaching zero. This characteristic is essential to ensure that each rotated component represents a unique and independent dimension of the data, thus simplifying interpretation and improving the clarity of the structure of factors.

The transformation illustrated by the "component transformation matrix" results in a structure of simplified components, which facilitates the allocation of significant interpretations to rotated components. This is crucial to understand the underlying dimensions of the data and derive processable ideas. In essence, the matrix serves as a roadmap of the rotation process, which details the linear combinations that transformed the original components into a new more interpretable set of non-correlated components, thus providing a clearer and more concise representation of the underlying structure of the data.

8.9. Summary of the chapter

The analysis used the analysis of main components (PCA) to explore the underlying dimensions of attitudes toward sustainable investment. The suitability of the data for the factorial analysis was confirmed by a high value of Kaiser-Meyer-Olkin (KMO) of 0.957 and a significant test of sphericity of Bartlett ($p = 0.000$), which indicates strong intercorrelations between the variables.

The PCA extracted two different components after the Varimax rotation with the normalization of Kaiser, which collectively explained 60.183% of the total variance. The "component transformation matrix" revealed the linear combinations of the original components that formed the rotated components, confirming a successful orthogonal rotation and simplifying the structure of factors for a clearer interpretation.

The "Community" table indicated that all statements shared a significant amount of variance with the factors extracted, with communality values greater than 0.45, confirming its relevance and contribution to the factorial solution.

The "component matrix" identified two key factors:

- Component 1: Enthusiast commitment to sustainable investment: This component represents people who

are highly motivated, informed and actively participated in sustainable investments, driven by the belief in its positive social impact and influenced by social factors and professional guidance.

- **Component 2: Nuanced acceptance with possible concerns:** This component reflects a more complex perspective, where people recognize the importance of sustainable investment, but also exhibit a degree of precaution and possible skepticism, balancing ethical considerations with financial pragmatism and risk assessment.

In essence, the factorial analysis revealed a structure of two factors that captures different attitudes towards sustainable investment, ranging from enthusiastic defense to the acceptance nuanced with possible concerns. This simplified structure provides a valuable frame to understand the different perspectives within the data set.

9. RESULTS AND DISCUSSION

9.1 Interpretation of Results

The study aimed to evaluate investors' awareness about ESG's investment principles (Objective 1) and explore the factors that influence their decisions to invest in sustainable or non-sustainable funds (Objective 2). The findings of the factorial analysis reveal two dominant dimensions that shape the attitudes and behaviors of investors towards sustainable investment. Through the rigorous factor analysis of surveys' responses, research discovered two dominant and different dimensions that collectively shape the attitudes and behaviors of investors towards sustainable investment. These dimensions not only reveal different levels of consciousness of ESG, but also highlight the complex interaction of motivations and barriers that characterize contemporary sustainable investment decision making.

OBJECTIVE 1: Evaluate the family's familiarity with ESG investment

The factorial analysis produced two clearly differentiated components that capture the spectrum of the investor's familiarity with the principles of ESG. Component 1, enthusiastically labeled the commitment to sustainable investment, represents a cohort of investors that demonstrate a particularly strong familiarity and the commitment to ESG's investment principles. This component explains 36.13% of the total variance, indicating its substantial influence on the configuration of investor perspectives.

The analysis of component 1 (enthusiastic commitment to sustainable investment) indicates that a significant segment of investors demonstrates a strong familiarity with the principles of ESG. Key observations include:

Declarations such as "I am familiar with that ESG's investment includes environmental factors such as the reduction of carbon emissions" (load=0.739) and "I am familiar that ESG's investment evaluates social criteria such as employee's well-being" (load=0.714) suggest that investors recognize the multidimensional nature of ESG.

Investors recognize that "ESG's yield can affect the long-term financial performance of investments" (load= 0.661), indicating an understanding of the materiality of ESG factors.

Many respondents were familiar with "the existence of ESG funds or financial products" (load=0.738), suggesting that the awareness of sustainable investment options is growing.

However, component 2 (nuanced acceptance with possible concerns) reveals that although some investors are aware of ESG, their commitment is attenuated by financial considerations and skepticism:

The declaration "prioritize financial yields on environmental or social impact" (load = 0.592) suggests that some investors still see ESG's investment as a potential commitment in yields.

"I perceive that sustainable investments are more risky than traditional investments" (load = 0.624) indicates persistent erroneous concepts on the risk return profile of ESG funds.

First, the investors in this component show an integral understanding of the multidimensional nature of ESG. This is evidenced by strong charges of factors in statements related to the three ESG pillars. For environmental factors, the statement "I am familiar that ESG's investment includes environmental factors such as reducing carbon emissions and promoting the use of renewable energy" received a robust load of 0.739. This suggests that climate-related concerns, particularly around the reduction of carbon footprint and energy transition, serve as main drivers of ESG consciousness among this group. The specificity of its understanding indicates familiarity not only with broad environmental concepts but also with concrete and measurable aspects of corporate environmental performance.

With respect to social criteria, the load of 0.714 in the declaration "I am familiar that ESG's investment evaluates social criteria, such as employee's well-being, the diversity of the workplace and the impact of the community", shows that these investors recognize the importance of human capital management and social responsibility in investment analysis. His consciousness extends beyond the superficial notions of CSR (corporate social responsibility) to include substantive issues such as fair labor practices, inclusion and participation policies of the local community, factors that have become increasingly materials in sectors with important dependencies of human capital.

The governance dimension also showed a strong recognition, with a load of 0.682 in "I am familiar with which ESG's investment incorporates governance aspects, such as ethical commercial practices, a diversity of the Board and anti-corruption measures." This indicates that these investors understand the government as a critical determinant of the long-term corporate viability, appreciating how factors such as the composition of the Board, the executive compensation structures and the compliance framework can significantly affect the results of the investment. His conscience seems aligned with the best practices and regulatory developments of contemporary corporate governance in this space.

Secondly, these investors demonstrate a clear understanding of the financial materiality of ESG. The declaration "ESG's yield can affect the long-term financial performance of investments" received a load of 0.661, which suggests that they perceive ESG factors as financially consistent considerations instead of simply ethical. This is aligned with the growing academic evidence (for example, Khan et al., 2016) that demonstrate correlations between the strong performance of ESG and several financial metrics, including the lower volatility, a reduced cost of capital and greater profitability. Its recognition of this connection indicates a sophisticated investment perspective that integrates non-financial factors in traditional financial analysis frameworks.

Third, the data reveal a substantial awareness of ESG's investment products and vehicles in the market. The load of 0.738 in "I am familiar with the existence of ESG funds or financial products offered by investment platforms" suggests that these investors have knowledge about the range of sustainable investment options available for them. This includes a probable familiarity with several ESG integration approaches (negative detection, better class selection, thematic investment) in different kinds of assets. His conscience is probably derived from multiple channels, including the recommendations of financial advisors, the disseminations of the investment platform and the media coverage of the growing ESG fund market.

Finally, the load of 0.762 in "I have enough knowledge about the principles of ESG to make informed investment decisions" indicates confidence in their decision-related capabilities. This suggests that they feel equipped to evaluate ESG claims, compare investment options and make assignment decisions aligned with their sustainability preferences. It is likely that this trust comes from regular participation with ESG information sources, which possibly includes sustainability reports, ESG qualifications and investment research

that incorporates ESG analysis.

Unlike enthusiastic commitments, component 2 (acceptance nuanced with possible concerns) reveals a more cautious approach to ESG's investment, which represents 24.05% of the variance. While these investors demonstrate a basic awareness of ESG's concepts, their commitment is attenuated by several reserves and barriers received.

The declaration "prioritize financial returns on environmental or social impact" received a load of 0.592, indicating that a significant segment of investors continues to see ESG considerations as a potentially committed financial performance. This perception persists despite the substantial evidence of meta-studies (for example, Friede et al., 2015) that demonstrates that the integration of ESG does not need to be at the expense of yields. The resistance of this belief can come from several factors, which include: the historical performance of SRI funds (socially responsible investments) that used draw exclusions screens; limited exposure to modern ESG integration strategies; or anchor traditional financial metrics that do not properly capture the risks and opportunities related to ESG.

Risk perceptions also arise as a notable barrier, with the declaration "perceived that sustainable investments are more risky than traditional investments" achieving a load of 0.624. This contradicts empirical research (for example, Hoepner et al., 2021) that shows that ESG portfolios often exhibit lower down risk, particularly during periods of market stress. Several factors can contribute to this erroneous perception: the Association of ESG with newer and less proven technologies or commercial models; concerns about the concentration of the sector in certain ESG strategies; or the lack of familiarity with the way in which ESG factors can mitigate various operational and reputation risks.

The loading pattern also suggests that while these investors are aware of the concept of ESG ("I am familiar with the concept of ESG" load = 0.618), they show a limited commitment to more proactive ESG investment behaviors. This is evidenced by relatively lower charges in statements that indicate the research or active implementation of ESG. This passive adoption gap versus active adoption can reflect several underlying dynamics: lack of clear implementation routes, perceived complexity of the ESG analysis or uncertainty on how to effectively incorporate ESG considerations in existing investment processes.

Objective 2: Explore factors that influence investment decisions

The results of the factor analysis highlight three main determinants that influence investors' decisions regarding sustainable investments: financial motivations versus ethical, social influence and barriers for ESG investment. These factors shape investment behavior, revealing the interaction between financial expectations, personal values, external influences and challenges in the adoption of investments focused on ESG.

a) Financial motivations versus ethics

One of the most significant aspects of investor decision making is the balance between financial returns and ethical considerations. Many investors prefer investments that align with their personal values, particularly environmental and social concerns. The strong agreement with statements such as "I prefer the investments that are aligned with my ethical or environmental values" (0.762) and "prioritize support companies with strong practices of ESG, even if the returns are slightly lower" (0.737) indicates that ethical considerations play a crucial role in investment elections. However, financial yields remain a key factor, as seen in the statement "I believe that sustainable funds have financial yields comparable to non-sustainable funds" (0.747).

This suggests that while investors are willing to support ESG initiatives, they do not want to commit to returns.

The global financial market has seen a change in which sustainable investments are increasingly perceived as

financially viable instead of only an ethical preference. Morningstar studies (2021) and Deloitte (2022)

reinforce that ESG funds often work alongside or better than traditional long-term funds. This change in perception is essential to encourage a larger group of investors to adopt sustainable investment practices. However, awareness campaigns and financial education programs are needed to reinforce this understanding among retail investors, particularly in emerging markets such as India, where ESG's investment is still in an incipient stage.

b) Social Influence

Investor behavior is significantly molded by social influences, including financial advisors, peer groups and digital platforms. The study highlights that the recommendation of financial professionals plays a crucial role in the influence of decisions, as reflected in the load of the factor of "the recommendation of financial advisors strongly influence my investment decisions" (0.805). Many investors, particularly retail investors, rely on professional orientation by making investment decisions, suggesting that financial advisors and assets should be well versed in ESG investment strategies to promote broader adoption.

In addition, the influence of classmates has become a strong motivator. The declaration "I am inclined to invest in sustainable funds if people in my social circle do the same" (0.806) highlights how social evidence affects investment decisions. This is aligned with behavioral finance theories that suggest that people tend to follow the group's behavior, particularly in uncertain financial environments. When sustainable investment is perceived as a growing trend, more investors feel safe to participate in ESG funds.

Another important factor that influences investment decisions is the role of social networks and digital campaigns. The study finds that "social media campaigns or trends on sustainable investment influence my investment elections" (0.780), indicating the growing power of digital platforms in the configuration of financial decisions. Platforms such as Twitter, LinkedIn and YouTube have become important sources of financial education, with influential people, analysts and institutions that promote content related to ESG. This trend suggests that financial institutions and policy formulators should take advantage of digital media strategies to improve investor awareness and promote sustainable investment more effectively.

c) Barrier to ESG Investing

Despite the growing interest in sustainable investment, several barriers prevent generalized adoption. The study identifies the lack of information and high costs as the most important obstacles. The strong agreement with the declaration "The lack of information on sustainable funds prevents me from investing in them" (0.730) highlights the knowledge gap among investors, particularly in developing markets. Many investors do not know what ESG's investment implies, how to evaluate sustainable funds and the impact of their investments. This lack of transparency creates doubts and limits the participation of investors.

Another important challenge is the highest cost of ESG funds, which discourages price-sensitive investors. The declaration "The rates associated with sustainable funds affect my decision to invest in them" (0.826) reflects concerns about expense rates and additional costs associated with funds that meet ESG. Compared to traditional funds, many ESG funds have higher management rates due to the cost of conducting sustainability research, compliance monitoring and active portfolio management. This is particularly relevant in the markets aware of costs such as India, where retail investors prefer low cost and ETF indices on funds actively administered.

The results indicate that in order to increase the participation in ESG's investment, financial institutions must introduce profitable ESG products, regulators must enforce the strictest transparency standards and investor

education initiatives should focus on simplifying the evaluation of the ESG Fund. Addressing these barriers will be essential to encourage broader adoption of sustainable investment as a conventional strategy.

9.2. Comparison with Previous Studies

The findings are aligned with the previous research while introducing new ideas:

The results of this study are aligned with the existing literature while introducing new ideas about the awareness of investors, motivations and barriers for ESG investment. When comparing the results with previous investigations, we can better understand how investor perceptions have evolved and where the gaps remain.

9.2.1. ESG Investment Awareness

The growing awareness of ESG's investment is a widely documented trend in previous studies. Research by Eccles et al. (2014) and Friede et al. (2015) discovered that investors are becoming increasingly familiar with ESG's principles. However, these studies also highlighted persistent gaps to understand the financial implications of ESG investments. This study corroborates these findings, showing that although investors recognize ESG components, such as environmental sustainability and corporate governance, many remain insecure about possible compensation between financial performance and ethical considerations.

A notable divergence of previous research in risk perception is observed. Khan et al. (2016) suggested that companies that meet ESG exhibit lower risk profiles due to best governance and sustainability practices, which leads to long-term financial stability. However, the results of this study reveal that some investors receive ESG investments as more risky than traditional investments. This perception could come from greater volatility in ESG markets, limited historical performance data or the lack of education of investors on the mitigation of risk of ESG. This difference underlines the need for more transparent reports, improved financial education programs and empirical studies demonstrating yields adjusted to sustainable investment risk.

9.2.2. Motivations and Barriers

Dual motivations behind ESG's investment, ethical concerns and financial returns, have been a topic of debate in previous research. Renneboog et al. (2008) found that ethical considerations are a main driver for many ESG investors, but skepticism remains financial performance. This study reinforces this ethical-financial duality, since many investors express a preference for investments aligned with ESG, but they are still cautious about whether these funds can offer competitive yields compared to the alternatives that are not ESG.

Another critical factor that influences ESG's investment decisions is social influence, which aligns with behavioral finance theories. Shiller (2003) stressed that the behavior of the flock plays a crucial role in making financial decisions, where individuals are significantly influenced by the actions and opinions of the colleagues. This study confirms this concept, revealing that the recommendations of financial advisors, social circles and social network trends strongly influence investor elections. These findings emphasize the growing role of digital media in the configuration of financial behavior, which suggests that financial institutions and policy formulators should take advantage of these platforms to promote investment information precise and accessible ESG.

In general, this comparative analysis highlights continuities and divergences with previous studies. Although ESG's awareness and ethical considerations remain key drivers, the perception of risk and the role of the influence of peers in investment decisions have arisen as areas that require more research and education aimed

at investors. Addressing these challenges can help close the gap between ESG's investment theory and its practical adoption in financial markets.

9.3. Key Insights

The results of this study reveal several emerging trends and unexpected ideas that contribute to a deeper understanding of the consciousness and behavior of investors with respect to sustainable investment. These ideas highlight both the progress made in the adoption of ESG and the challenges that remain to achieve generalized acceptance.

9.3.1. Emerging trends

One of the most notable trends identified in this study is the growing awareness of ESG's principles among investors. Contrary to initial expectations, a significant proportion of investors demonstrates familiarity with ESG's investment. However, despite this greater awareness, erroneous concepts persist regarding financial compensations associated with ESG investments. Many investors still question whether ESG funds can deliver comparable or higher financial returns in relation to traditional investments, suggesting that more education and transparency of investors are necessary in the performance of the ESG fund.

Another emerging trend is the strongest influence of the expected social factors on ESG investment decisions. The study finds that peer recommendations, the orientation of the financial advisor and social network trends play a crucial role in the configuration of investor behavior. This suggests that the adoption of ESG is not driven only by individual financial analysis, but also as a social phenomenon, where investors are influenced by the regulations received, online discussions and shared beliefs within social networks. Given the growing role of digital platforms in making financial decisions, financial institutions and policy formulators should consider taking advantage of social media campaigns, influence associations and specific financial education programs to improve awareness and adoption of ESG.

9.3.2. Unexpected findings

While the study confirms a general tendency to increase ESG consciousness, an unexpected vision is continuous skepticism between an investor segment. Despite the evidence that supports the long-term benefits of ESG's investment, some investors remain doubtful about their financial viability. This skepticism suggests that more empirical evidence, case studies and transparent performance metrics are required to reassure hesitating investors. Asset management companies and financial analysts should focus on providing clear comparisons and backed by data from ESG versus investment no ESG to close this fiduciary gap.

Another surprising finding is the high sensitivity to rates associated with ESG funds. The strong burden on fund rates as a determinant of investment decisions indicates that cost structures play an important role in adopting ESG funds. This factor has emphasized less on previous literature, which generally focuses on performance and ethical considerations as main drivers of ESG investment options. The results suggest that investors, particularly in the markets aware of costs such as India, carefully evaluate expenses relations, management rates and transaction costs before committing to ESG investments. To foster greater adoption, fund managers should consider offering low-cost ESG investment options, rates reductions for long-term investors and greater transparency on how costs related to ESG are justified.

These key ideas provide a valuable direction for financial institutions, those responsible for formulating policies and market educators that aim to promote sustainable investment. When addressing these emerging trends and unexpected barriers, the financial industry can work to make ESG the investment more accessible, transparent

and attractive for a broader investor base.

9.4. Implications of Findings

The results of this study have significant implications for multiple interested parties, including investors, financial institutions and policy formulators. Addressing key challenges and taking advantage of emerging trends identified in this research can help boost the broader adoption of ESG investment while guaranteeing informed and safe investment decisions.

9.4.1. For investors

One of the most crucial conclusions of this study is the need for a better education of investors regarding ESG's investment. Many investors still house erroneous concepts about ESG's financial performance, believing that sustainable funds can offer greater returns or carry greater risks compared to traditional investments. Dissipating these myths, investment platforms, advisors and regulatory agencies must focus on educational initiatives, including interactive financial education programs, transparent investment workshops and transparent performance reports that compare ESG and not ESG funds.

In addition, this study highlights the strong influence of social factors on investment behavior. Given the power of peer recommendations, financial advisors and social network trends, platforms and institutions must take advantage of behavioral shoves, such as peer testimonies, endorsement experts and gamified incentives to promote ESG investment options. By integrating social validation mechanisms into investment applications and platforms, investors may feel safer to adopt the ESG principles.

9.4.2. For financial institutions

Financial institutions play a key role in the configuration of investor perceptions and accessibility to ESG investments. One of the greatest concerns identified in this study is cost sensitivity: investors are very influenced by fund rates and expense relations, often act as barriers to the adoption of ESG. To attract conscious costs of costs, asset management companies must focus on setting the price of ESG funds competitively and offering low-cost sustainable investment options, such as passive ESG index funds or bags quoted in the stock exchange (ETF).

In addition, transparency remains a critical factor in the construction of investor confidence. Many investors doubt in adopting ESG funds due to the lack of clear information about their financial performance and real impact on sustainability objectives. To close this gap, financial institutions must implement improved ESG Reports standards that provide clear and data-based information on how ESG investments contribute to financial growth and long-term sustainability. This could include standardized ESG impact reports, independent third-party audits and real-time sustainability scores for investment products.

9.4.3. For policy formulators

Government intervention can play an important role in the acceleration of ESG adoption through the implementation of policies that make sustainable investment more attractive and accessible. A key idea of this study is the importance of regulatory support, as indicated by the result of the factor analysis that shows a high load (0.772) in the declaration: "Fiscal incentives or government support influence my decision to invest in ESG funds." This suggests that investors are more likely to assign funds to ESG investments if they receive financial benefits, such as fiscal deductions or incentives supported by the Government. Policy formulators could introduce measures such as the reduced tax profit tax in ESG funds, subsidies for green bonds or tax exemptions for investors assigning a percentage of their portfolio to sustainable assets.

In addition, the lack of standardization in ESG's disseminations creates confusion and limits investor confidence. The cleanest ESG dissemination regulations and the world-accepted report frames can help reduce information asymmetry and prevent greenwashing (deceptive sustainability claims by companies and funds). Regulators must press for uniform ESG classification systems, mandatory sustainability reports and independent ESG qualifications to guarantee transparency and comparability in different funds.

10. LIMITATION OF THE STUDY

While this study provides valuable information on the awareness of investors on sustainable investment and the factors that influence their investment elections, it is important to recognize certain limitations that can affect the generalization and depth of the findings. Recognizing these limitations helps establish realistic expectations with respect to the scope of the study and provides instructions for future research.

10.1. Sample size and demographic representation

1. Limited sample size:

The study was conducted with a sample size of 200 participants. While this number is sufficient to perform statistical analysis, such as factor analysis, it may not completely represent the diverse population of investors throughout India. A larger sample size would have improved the statistical power of the study, allowing a more nuanced subgroup analysis (for example, comparing different age groups, education levels or investment experience levels). A more extensive sample would also help mitigate prejudices and provide a more comprehensive vision of the feeling of investors towards ESG investment.

2. Geographical limitations:

The study focused on investors from the main metropolitan cities, namely, Mumbai, Delhi and Bengaluru. These cities are financial centers with greater access to information related to investment, financial advisors and content related to ESG. Consequently, the findings may not reflect the perspectives of investors in smaller cities or rural areas, where the awareness of sustainable investment can be significantly lower. Future research should incorporate a broader geographical distribution, including semi-urban and rural populations, to obtain a more representative understanding of investors' behavior in different socio-economic contexts.

3. Demographic bias:

The sample of the study can overrepresent certain demographic groups, such as urban, well educated and higher income investors. It is more likely that these groups have exposure to ESG investment options through formal education, means or financial advice services. The findings may not properly capture the perceptions of low-income or less financial investors, which may have different motivations, concerns or barriers with respect to sustainable investment. Future studies could use a stratified random sampling to guarantee a better demographic representation.

10.2. Methodological restrictions

Convenience sampling bias:

The study used a convenience sampling method, which means that the participants were selected based on accessibility instead of a randomized process. This approach can introduce bias, since people who are already interested in sustainable investments or actively follow financial trends are more likely to participate. As a result, the

study can overestimate the consciousness of ESG and the levels of acceptance among the general population of investors.

Self-informed data reliability:

The study is based on self-informed survey responses, which introduce potential biases such as social desirability bias. Respondents may have provided answers that reflect socially acceptable opinions instead of their true beliefs or behaviors. For example, investors can say that prioritizing ESG factors in their investment decisions, while actually making decisions based solely on financial returns. To mitigate this, future research could incorporate real investment behavior analysis using brokerage data or transaction records instead of depending solely on self-informed intentions.

Cross-section of the study:

The research was conducted as a cross-sectional study, capturing the perceptions and behaviors of investors in a single moment. This approach does not allow an evaluation of how the consciousness and decision making of investors evolve over time. Sustainable investment is a rapid development field, influenced by regulatory changes, market trends and socio-political events. A longitudinal study that tracks the same group of investors during a prolonged period would provide deeper information about changes in attitudes, adoption rates and the long-term impact of ESG factors on investment decisions.

10.3. Scope of ESG Factors Considered

Simplified ESG Frame:

The study treats ESG as a broad and unified concept without deepening the preferences of investors for specific, environmental (E), social or governance (G). In reality, investors can prioritize these factors differently depending on personal values, industry trends or perceived risks. A more detailed breakdown of the feeling of investors toward each ESG component would provide a clearer understanding of their priorities.

Specific considerations of the sector:

This study does not differentiate the attitudes of investors depending on the industry sectors. ESG's priorities and challenges vary significantly among industries (for example, energy, technology, medical care). Investors in sectors directly affected by environmental regulations may have different risk perceptions compared to those of services based on services. Future research could analyze the behavior and preferences of specific investors in the sector to adapt ESG investment strategies more effectively.

10.4. External validity and generalization

Cultural and regional differences:

This study is specific to the Indian investment market, which has unique regulatory frameworks, economic conditions and investor behaviors. The findings may not be directly applicable to global markets where the adoption of ESG is more mature (for example, Europe) or in an earlier stage (for example, certain developing economies). Future research could include comparisons through the country to understand how investor consciousness and preferences vary in different economic and regulatory environments.

Market conditions and economic factors:

The study does not take into account external macroeconomic factors such as inflation, fluctuations of the interest

rate geopolitical events, which could significantly influence investors' decisions. During periods of economic uncertainty, investors can prioritize short-term financial stability over ESG considerations. Future studies should integrate macroeconomic analysis to evaluate the impact of such external factors on sustainable investment trends.

10.5. Measurement and analytical limitations

Factorial analysis restrictions:

Although the factor analysis provided valuable ideas about the key drivers of investment decisions, it inherently simplifies complex motivations of investors. The group of variables based on statistical correlations, but may not completely capture the depth of investor thinking processes. Some critical factors that influence ESG investment, such as behavioral biases, psychological drivers or cultural norms, may not be properly reflected in the statistical model.

Lack of qualitative ideas:

The study mainly uses quantitative data, limiting the ability to explore the motivations, emotions and concerns of the deepest investors on ESG's investment. Qualitative research methods, such as in-depth interviews or focus groups, could provide richer information about the reasons behind skepticism or investors' enthusiasm for sustainable investments. Future research could use an approach to mixed methods, combining surveys with qualitative interviews to improve the solidity of findings.

11. CONCLUSION-

This particular research on the awareness levels of sustainable investments practices and the determinants of their investment decisions gives further attention to the niche of ESG investing. The results assess the value principles of investing that seem to be more accepted especially among investors located in higher tier cities like Mumbai, Delhi and Bengaluru. Nonetheless, the study also uncovers issues related to lack of comprehension, erroneous views regarding profitability, and impediments to acceptance that still persist and need to be resolved in order to facilitate the wider adoption of ESG investing.

1. Overview of Familiarization and Understanding of ESG:

A particular section of the respondents showed awareness of the ESG concepts, especially in regards to environmental and governing ESG factors. As with many, however, a lack of understanding of the potential costs and returns of ESG investments kept many from falling in the adoption category. A range of misconceptions, such as the false assumption that sustainable funds would have low returns while carrying a lower risk, still exists and continues adoption obstacles.

2. Barriers to Adoption:

Some barriers not easily surmountable is absence of easy topical information, wide ranging costs of ESG funds, and no standard measures for the benefits and impacts of sustainable investment endeavors. These limitations clearly demonstrate a lack of modern transparency, basic investor education, and affordable ESG investment opportunities.

Implications for Stakeholders

1. Municipal Investors:

The conclusions of the research underline the extreme importance of information literacy and education for themanyerroneousperceptionssurroundingESGinvesting.Forestranged lifeinvestors,thereisneedtostop relying onheretic information...and recognize how verymuchrest ESGinvesting could offer their portions.

2. Institutional Investors:

Itseemsnowthetimeinvestmentandassetmanagersandfinancialadvisorsneedto taketocreateandmarket clear, logicallypricedESGproductsasbasedonbehavioralfinanceprinciplesmustmeetavarietyofinvestor preferences. SoundeducationonfavorableandprofitabletraditionalESG investment approacheswill leadto positive action.

3. Governmental Organizations:

The institutions that govern should center attention on the creation of common obligatory principles of reportingESGindicatorsandoffersustainableinvestmentsintheformoftaxexemptionsorgrants.Directing policies to increase clarity and decrease the level of greenwashing will actively elevate the credibility of investors toward the ESG opening.

4. Non-Government Organizations:

Educational and media institutes have an important role in facilitation of a new educational policy, globalization, subsidization of education for foreigners, and mobility.

Suggested Future Remarch Areas

Regardless of the findings, analyzing the various aspects of investor awareness and behavior suggests that there is further scope for research on the following:

Geographic and Demographically Diverse Sample: Including rural and semi-urban investors from different age and income brackets to get a better understanding of ESG awareness.

Moving Sample: Seeing how the attitudes and behaviors of investors change over time with new maret develoments and changes in regulations to understand how those factors influence decision-making.

ESG Preferences Within Industries: Understanding how preferences among investors change between diferent sectors, like energy, technology, or healthcare, in order to develop appropriate ESG strategies.

Cognitive and Effectual Constructs: Further examining the biases and LCDs that pertain to emotion concerning ESG decisions.

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