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- [1] Ms. Anushree Ganatra, & Dr. Amit Rajdev. (2023). Achieving Financial Success By Pursuing Sustainable Development Goals: A Systematic Review Of Sustainable Investment Approaches. In *Anvesak Journal* ISSN: 0378-4568 (Vol-53 Issue-05, No. 1, 2023) Pg. No. 31 to 42

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ACHIEVING FINANCIAL SUCCESS BY PURSUING SUSTAINABLE DEVELOPMENT GOALS :A SYSTEMATIC REVIEW OF SUSTAINABLE INVESTMENT APPROACHES

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Abstract

The paper investigated three commonly used approaches to sustainable investing, namely Socially Responsible Investing (SRI), Environmental, Social, and Governance (ESG), and impact investing. Despite their widespread adoption, these approaches suffer from institutional gaps, inconsistent terminology, and varying returns. To address the discrepancies in academic research on sustainable investing, the study conducted a comprehensive review of relevant literature to compare, contrast, and unify these sustainable investment approaches. The analysis found significant overlap in the conceptual frameworks of SRI, ESG, and impact investing. Therefore, the paper suggests establishing a consistent and unified conceptual framework for sustainable investing.

Keywords: sustainable investments, literature review, ESG investing, socially responsible investing, impact investing

1.0 Introduction and Background

The idea of a social economy has been in existence worldwide for many years. However, it is only recently that a specific finance market segment has emerged, with a focus on generating both societal and environmental benefits (Nicholls, 2021). This has led to sustainable investing disrupting the traditional value chain and ecosystem of the financial industry, by questioning the central principle of finance, which is wealth maximization. Sustainable finance introduces novel concepts like "shared value" and "blended value propositions" (Dyllick & Muff, 2016), which combine financial decision-making with ESG considerations. These innovations generate both financial returns and societal benefits (Yue, Han, Teresiene, Merkyte, & Liu, 2020), and they align closely with the goal of sustainable development. Sustainable development implies meeting the current generation's needs while safeguarding the interests of future generations (Talan & Sharma, 2019).

The concept of sustainable development has brought about a shift in capital allocation towards achieving environmental and societal objectives. Various international agreements, including the UNEP Financial Initiative, the MDGs, the UNPRI, the Paris Agreement, and the COP 26 Pact, have accepted and incorporated sustainable development principles into their public policy agendas (Claringbould, Koch, & Owen, 2019).

These agreements urge the financial industry to bridge the financing gap for sustainable development by playing an intermediary role in the economy (Peeters, 2005). Furthermore, these public initiatives demand that the financial industry collaborates with the public sector, NGOs, and society to address societal and environmental challenges like climate change, poverty, and inequality. These concepts and frameworks have influenced investment management strategies like SRI, impact investing, and ESG investing, which have gained traction in developed markets but remain less common in emerging and frontier markets. The adoption of these strategies is limited by ESG-related issues like corruption, political instability, and regulatory oversight gaps in these markets (Claringbould et al., 2019). Studies by Talan and Sharma (2019) and Ferreira, Sobreiro, and Barboza (2016) identify the lack of consistency and clarity in terminology, concepts, and theoretical frameworks as gaps in the literature on sustainable investments. However, it is worth noting that these studies used a single database to collect relevant articles.

The performance of sustainable investment approaches has been evaluated through empirical studies, but the results have been mixed, posing a challenge (Blankenberg & Gottschalk, 2018). However, most of these studies are limited by their small sample sizes, and the sample period has been identified as a crucial factor in determining the financial performance of these sustainable investment strategies (Pokorna, 2017). Despite this, Cornel (2021)

and Cappucci (2018) highlight the societal benefits of these investment strategies, noting a potential trade-off between societal and financial returns using traditional financial theories and concepts. More recent studies like Bernal, Hudon, and Ledru (2021), however, argue that conventional financial models are insufficient to explain the financial performance of sustainable investment strategies.

The literature on sustainable investing approaches has significant gaps regarding terminology and characterization, hindering the growth of the sustainable finance industry. These issues have implications for the risks, returns and valuation of sustainable investments. This study builds on the work of Talan and Sharma (2019) and Ferreira et al. (2016) by collating, codifying and systematizing knowledge on sustainable investment approaches using multiple sources from academic research and industry experts. Through a systematic review of the literature, this study aims to compare, contrast and consolidate the conceptual frameworks and empirical evidence of sustainable investment approaches.

1.1 Research Objective

The objective of this study is to consolidate and compare the existing literature on Socially Responsible Investing (SRI), Environmental, Social and Governance (ESG) and Impact Investing. Through this process, any research gaps will be identified.

To achieve the objective of this paper, a systematic literature review is conducted, following the methodology of Talan and Sharma (2019). This research approach is preferred as it provides a systematic framework to identify, select, and evaluate relevant studies (Rother, 2007). The study examines sustainable investment literature from various sources, including the United Nations (UN), Global Impact Investing Network (GIIN), Organization for Economic Co-operation and Development (OECD), Taylor & Francis Group, Science Direct, and Springer Link. The paper is structured as follows: the first section provides an introduction and background on SRI. The following section discusses relevant theoretical frameworks, followed by a description of the methodology. The paper concludes with a discussion of the results, conclusions, and implications.

2. Literature Review

Sustainable investing has its roots in the ethical approach to investing advocated by the Methodist Church in the 1700s (Caplan, Griswold, & Jarvis, 2013). This approach involved a negative screening process that excluded companies engaged in the slave trade, gambling, and selling tobacco and alcohol. This socially responsible investing strategy evolved over time to address the needs of the changing social climate. In the 20th century, sustainable investing focused on supporting reconstruction efforts after the Second World War, implementing negative screening strategies towards companies that did not support the Civil Rights Movement, and excluding companies that supported the Vietnam War and the Apartheid Regime (Jinga, 2021; Townsend, 2020). The global financial crisis of 2008 emphasized the need for effective corporate governance and risk management and popularized corporate governance principles (Hull, 2012; Townsend, 2020). Finally, global warming and climate change pose a significant threat to humanity due to the emission of greenhouse gases (Claringbould et al., 2019). These events have shaped investor preferences and reflect the shift towards more progressive societal values that defined the Twentieth Century.

The literature on sustainable finance is based on a Corporate Social Responsibility (CSR) approach to the theory of the firm, which integrates ESG factors into management decision-making and financial performance (Liang & Renneboog, 2020). Therefore, CSR principles are the foundation for sustainable development principles. These studies highlight the role of businesses in catalysing social change (Carroll, 1999). Moir (2001) traces the origins of these CSR principles to the post-World War II era, where the relationships between businesses, society, and government were closely scrutinised, emphasising the role of firms in meeting the needs and wants of the community. This implies the existence of a social contract between firms and society. Similarly, Ibanga (2018) defines the corporate social contract as an implicit or explicit agreement between firms and society that outlines the shared benefits. Moir (2001) views society as a set of contracts between members of society and society itself, which can be applied to concepts such as CSR and sustainable finance to understand how society expects firms

to operate.

However, the finance literature is based on the Efficient Market Hypothesis (EMH), which proposes that investors are rational, pursue their self-interests, and have access to all available information when making investment decisions (Ceren&Akkaya, 2013). The EMH also assumes the economic principle of rational self-interest, which applies to finance through the expected utility model, where optimal investment decisions aim to maximize the expected satisfaction or utility over an investment horizon (Mehran & Muhammad, 2009). Furthermore, concepts from Modern Portfolio Theory (MPT), such as the Capital Asset Pricing Model (CAPM), describe the risk-return trade-off, risk optimization to generate returns, and the implications on investment decisions (Sharpe, 1964). In the firm's context, investment decisions should aim to maximize shareholder wealth or the present value of a shareholder's lifetime consumption (Copeland, Weston, & Shastri, 2005).

Sustainable investing represents a departure from traditional financial theories that prioritize rational self-interest and wealth maximization over societal and environmental concerns (Claringbould et al., 2019). Instead, sustainable investing seeks to achieve both financial returns and societal objectives. Investors have become more aware of qualitative sustainability concerns such as water use, carbon dioxide emissions, labour relations, and supply chain management, and how they affect the valuation, cost savings, and risk management of companies (Chouinard, Ellison, & Ridgeway, 2011).

Table 1 by Schoenmaker and Schramade (2018) presents a comprehensive typology for sustainable finance, outlining the progression from traditional finance's philosophy of maximizing shareholder value to prioritizing environmental and societal impact over financial returns. The typology includes three phases: Sustainable Finance 1.0, which involves exclusionary screening processes to manage ESG risks and enhance shareholder value; Sustainable Finance 2.0, which integrates ESG factors into financial analysis and decision-making to create an integrated shareholder value proposition similar to the Triple or Double Bottom Line approach; and Sustainable Finance 3.0, which focuses on addressing ESG externalities to create a positive social impact (Dyllick& Muff, 2016).

Table 1 presents the progression of Sustainable Finance terminology in the context of financial market segments, instruments, and socially responsible investing strategies by Schoenmaker&Schramade(2018).

Table 1. Sustainable finance typology

Sustainable Finance Typology	Equity	Bonds	Banking	Insurance
Sustainable Finance 1.0			Exclusion	
Sustainable Finance 2.0			ESG integration	
Sustainable Finance 3.0	Impact investing	Green bonds Social bonds	Impact lending Microfinance	Microinsurance

Source: Adapted from Schoenmaker and Schramade (2018).

Numerous terms and definitions are used to describe sustainable finance, including SRI, ESG investing, development finance, green finance, impact investing, and ethical finance (Höchstädter& Scheck, 2015). Despite their variations in specificity and scope, they all share a common element of incorporating ESG factors into financial decision-making and analysis (Yue et al., 2020). However, the lack of clarity in terminology is attributed to the nascent state of the field and the absence of research, legal and regulatory frameworks. To address these challenges, stakeholders such as the UN, the EU, and the GIIN have developed relevant terminologies, infrastructures, and regulations to foster the growth of sustainable finance initiatives (Pokorna, 2017).

According to the UNPRI, Responsible Investment (RI) is an investment strategy that incorporates ESG factors into financial decision-making, active ownership, and sustainable finance (Yue et al., 2020). The UNPRI characterizes Responsible Investment into five primary categories: exclusionary screening, ESG integration, positive screening, impact investing, and active ownership (UNEP and UN Global Compact, 2021). Similarly, the EU defines sustainable finance as considering ESG factors in financial decision-making in the financial sector

to support economic growth and reduce pressure on the environment. The EU emphasizes transparency regarding ESG risks and efforts made to mitigate these risks through effective corporate governance structures (Claringbould et al., 2019).

The integration of ESG factors into the investment management process, facilitated by ESG ratings and research, has gained traction due to the significant impact of ESG concerns on valuation and financial performance, which helps to reduce risks (Schramade, 2016). Capital markets have increasingly embraced ESG indices, such as DJSI, MSCI KLD 400, and Stoxx Global ESG Leaders, as well as sustainable financial instruments like green equities, green bonds, SIBs, and social stocks, which contribute to climate change mitigation and sustainable development (Albuquerque et al., 2020; Roy, 2015). ESG ratings, which act as quantifiable indicators to measure non-quantifiable ESG performance and risks, have been adopted by capital markets as a result of their potential for providing a systematic evaluation of the "ESG quality" of securities, firms, and mutual funds, according to the UNPRI's sustainability principles (Escrig-Olmedo et al., 2019). ESG rating agencies, such as Thomson Reuters Refinitiv, MSCI, Sustainalytics, and S&P Global, collect, aggregate, and quantify publicly available information from data sources, sustainability disclosures, company websites, company filings, and NGOs and disseminate this data systematically (Li & Polychronopoulos, 2020). However, ESG rating methodologies vary between vendors, and ongoing research is being conducted to establish a unified ESG reporting framework that includes mandatory investment grade metrics and disclosures covering ESG issues (Esty & Cort, 2020).

Similarly, impact investing was defined by the GIIN to differentiate the investment strategy from comparable investments like venture capital or private equity (Agrawal & Hockerts, 2021). The term "impact investing" was first used in 2007 at a conference on philanthropy and development finance hosted by the Rockefeller Foundation (OECD, 2015). Impact investing refers to investments in companies that aim to generate financial returns while achieving social and environmental outcomes, offering a blended value proposition (Bernal et al., 2021). However, empirical studies on sustainable investments have yielded mixed results. While earlier studies like those by Kempf and Osthoff (2007) and Statman and Glushkov (2009) found positive results regarding the effects of a constrained portfolio, most later studies, such as those by Pedersen et al. (2021) and Auer and Schuhmacher (2016), mainly found negative results. Interestingly, studies by Naffa and Hain (2018) and Blankenberg and Gottschalk (2018) reported a no-effect hypothesis.

3.0 Methodology

This paper adopts an inductive research paradigm based on Talan and Sharma's (2019) methodology. The objective of the study is to observe phenomena, identify patterns, and generate general propositions based on the results obtained. To achieve this, the paper follows a series of steps which include conducting a literature review on SRI, ESG, and impact investing, developing a classification framework to categorize the papers analyzed, analyzing the reviewed literature, and identifying research gaps and overlapping frameworks.

- Perform a literature review of research pertaining to SRI, ESG and impact investing
- Develop a classification framework to codify papers analysed
- Analysis of literature reviewed
- Identifying research gaps and overlapping frameworks.

3.1 Selection Process of Relevant Papers

Policy documents and articles regarding sustainable investment will be selected from the following sources:

- UN
- GIIN
- International Finance Corporation (IFC)
- OECD
- ScienceDirect

- SSRN
- TaylorFrancisGroup
- SpringerLink

To conduct this research, the authors selected multiple databases such as Springer Link, SSRN, Taylor Francis Group, Science Direct, and SSRN to cover a wide range of scientific journals, articles, and books. The aim was to access credible traditional financial journal publications that contained articles on sustainable finance. Unlike previous studies that focused on a single database, the authors used multiple databases and also included policy documents, articles, and empirical studies from key industry stakeholders such as the UN, IFC, OECD, and GIIN. The authors used the following keywords: sustainable investing, sustainable finance, SRI, ESG investing, and impact investing to select relevant articles published between 2010-2022, a period when academic interest in socially responsible investing peaked after the global financial crisis. A total of 40 articles were selected after eliminating duplicates and evaluating their relevance to the paper.

3.2 Classification of Articles

The classification framework used in this paper is based on Talan and Sharma's (2019) and Jabbour's (2013) framework, which is summarized in Table 2. The articles were categorized into four main topics and assigned letters A to D codes. The table presents the classification scheme that was utilized to categorize the articles..

Table 2. Classification of Articles

Category	Significance	Code	Significance
1	Approach to sustainable Investing	<ul style="list-style-type: none"> • A • B • C 	<ul style="list-style-type: none"> • SRI • ESG investing • Impact investing
2	Geographical Focus	<ul style="list-style-type: none"> • A • B • C • D 	<ul style="list-style-type: none"> • Developed Markets • Emerging Markets • Global • N/A
3	Methodology	<ul style="list-style-type: none"> • A • B • C 	<ul style="list-style-type: none"> • Empirical studies • Review Paper • Policy paper
4	Findings	<ul style="list-style-type: none"> • A • B • C 	<ul style="list-style-type: none"> • New Perspectives • Divergent perspective • Consistent with literature

Source: Adapted from Talan and Sharma (2019).

The articles were classified according to the criteria presented in Table 2, which aimed to classify the sustainable investing approaches used in the literature. The first classification focused on three distinct investment approaches: SRI, ESG investing, and impact investing. SRI involves a values-based approach based on the investor's beliefs and typically employs a negative screening process. ESG investing integrates ESG factors and sustainability data into investment management decisions, while impact investing generates a positive social impact beyond a financial return. These investment approaches were coded as (A to C).

The second classification categorised the articles based on their geographic focus, including developed or emerging markets, global or Not Applicable (N/A), coded as (A to D). The third classification focused on the methodologies utilised in the articles selected, enabling the paper to gain deeper insights into sustainable investment approaches prevalent in the literature. The methodologies used in the articles were also classified using codes (A to C).

This paper aimed to benefit from divergent views, methodologies, and findings regarding sustainable investing.

Therefore, divergent methodologies were categorised using codes (A to C). The last classification focused on the articles' findings and whether they provide new and divergent perspectives or are consistent with the literature, classified as (A to C).

4.0 Results and Discussion

4.1 Descriptive Analysis

The articles were selected, classified, and coded according to the criterion presented in Table 2. Table 3 depicts the descriptive analysis followed by the interpretation of the results.

Table 3. Descriptive analysis of the papers

Code	Sustainable Investing Approach	Geographic Focus	Methodology	Findings
A	11	16	26	9
B	14	2	10	7
C	15	16	4	21
D	N/A	6	N/A	3
Total	40	40	40	40

Source: Author's Own.

4.2 Sustainable Investment Approach

It is true that there is a significant overlap in the frameworks, terminology, and subject matter of articles related to impact investing, ESG, and SRI. However, there are also some differences between these sustainable investment strategies.

SRI is often associated with negative screening and a best-in-class approach, which involves excluding companies engaged in questionable business practices and selecting the best operators within a given sector or industry based on ESG standards. The aim is to align the portfolio with an investor's ethics, beliefs, and values while mitigating ESG risks.

In contrast, ESG investing is characterized by integrating ESG factors into investment decisions, with popular variations including ESG momentum and ESG tilting. ESG momentum involves selecting firms that have increased their ESG quality in recent periods, while ESG tilting involves overweighting a portfolio with securities with high ESG ratings. The focus is on investing in companies that are best suited to tackle sustainable development challenges while balancing the interests of shareholders.

Despite their differences, SRI and ESG investing share significant overlap in their conceptual frameworks, as they both aim to integrate ESG factors into investment decisions and promote sustainable development. However, Cappucci (2018) suggests a progression from values-based ethical investing to SRI with more sophisticated ethical screens before evolving to ESG integration. This view aligns with Schoenmaker and Schramade's (2018) classification of sustainable investment strategies, which highlights the advancements made in exclusion, ESG integration, and contribution to sustainable development.

Most studies agree on the nature of impact investing and its typology as proposed by GIIN, as well as the trade-off between societal returns and financial returns (Barber et al., 2021; Bernal et al., 2021). Furthermore, these studies agree that impact investments are a subset of SRI. However, the broad spectrum of impact capital inclusive of for-profit businesses, development banks, and grant organizations poses a dilemma in characterizing impact investing, leading to this capital being denoted as philanthropy, venture capital, or microfinance (Agrawal & Hockerts, 2021; Schoenmaker & Schramade, 2018).

Despite this, there is a degree of overlap in the framework of sustainable thematic investing and impact investing. Thematic investing aims to identify key themes that play a more significant role in explaining the risk-return characteristics of investments, such as demographic shifts and societal changes and attitudes. These themes are

often structured around achieving the UN's Sustainable Development Goals, with common themes including water, security, clean energy, and nutrition (Morrow & Vezér, 2020). Thematic investing is commonly implemented with impact investing and represents a new building block within institutional investors' portfolios, which has implications for traditional asset allocation (Swiss Sustainable Finance, 2017).

4.3 Geographic Focus

Table 3 shows that the majority of SRI, ESG, and impact investment studies are focused on developed markets or have a global scope. However, even in global studies, the emphasis tends to be on developed markets like Europe and the USA, with most capital allocated to those regions. This trend is due to the more transparent and supportive market infrastructure and regulatory environment in developed markets compared to emerging markets. Research by Alshehhi, Nobanee, and Khare (2018) and Claringbould et al. (2019) confirms this observation. Talan and Sharma (2019) argue that the sustainable investing market in emerging markets is significantly smaller than in developed markets, which limits the development of related literature. While there are some studies examining emerging markets, such as Sherwood and Pollard (2018) and Chen and Yang (2020), they are in the minority. In contrast, global impact investment studies like those conducted by Kollenda (2022) and Rizzi et al. (2018) focus on the flow of intermittent capital from developed markets to emerging markets, with the aim of addressing societal and environmental challenges directly.

4.4 Methodology

Table 3 shows that the majority of SRI studies are quantitative and empirical, focusing on whether these investments generate risk-adjusted returns and how they compare with traditional markets. Common financial models, such as EMH, CAPM, and Fama and French, are used to evaluate the performance of ESG and SRI investments. However, the lack of available data limits the analysis of private impact funds using PME. While ESG studies primarily examine the effects of ESG ratings on financial performance, some studies construct Pure Factor Portfolios to isolate the signal associated with ESG investments. New frameworks, such as the Willingness-To-Pay, have been applied to impact investments, and studies analyzing the volume of social impact transactions through peer-to-peer lending platforms have emerged.

In contrast, quantitative studies dominated the sustainable investment literature, as shown in Table 3, with fewer qualitative studies present. These qualitative studies provided divergent perspectives on sustainable investment approaches. Some SRI studies (such as Oh, Park, & Ghauri, 2013; Dam & Scholtens 2015) focused on linking CSR, SRI, and ESG investing to provide a definitive theoretical framework grounded in CSR. Others (such as Schoemaker and Schramade, 2018; Dyllick and Muff, 2016) presented a theoretical base, typology, and justification for sustainable finance based on the long-standing tradition of value-based investing in CSR, ESG integration, and impact investing. Meanwhile, other studies (such as Cornell, 2021; Cappucci, 2018; Nicholls, 2021) provided a discourse on SRI and ESG investing while offering an overview of the sustainable finance landscape. Policy documents like the UNPRI aimed to consolidate and characterize SRI and provide a taxonomy of related activities and approaches (UNEP and UN Global Compact, 2021). In impact investing literature, studies (such as Agrawal & Hockerts, 2021; OECD, 2015; GIIN, 2021) differentiated impact investing from other forms of SRI, venture capital, and philanthropy. These studies also discussed the qualitative and quantitative methods of Social Return on Investment (SROI), Theory of Change, scorecards, and Cost Benefit Analyses as the frameworks to measure societal performance (Agrawal & Hockerts, 2021; GIIN, 2021; Reeder & Colantonio, 2013).

4.5 Results

The findings of studies on SRI, ESG and impact investing align with previous literature, as demonstrated in Table 3. While SRI investments may restrict investment options, they offer diversification benefits compared to traditional markets, although their return performance is mixed (Blankenberg & Gottschalk, 2018; Yue et al., 2020; Winegarden, 2019). Moreover, SRI, ESG and impact investments have been linked to lower return performance than traditional companies (Pedersen, Fitzgibbons, & Pomorski, 2021; Auer & Schuhmacher, 2016; Bernal et al., 2021; Jeffers et al., 2021). The overreaction hypothesis regarding ESG investments, particularly in

relation to climate change, has been suggested by studies such as those by Pedersen et al. (2021) and Chen & Yang (2020). However, ESG investments are associated with better corporate governance structures, leading to a lower cost of capital and higher firm value reflected in accounting-based performance (Fulton, Kahn, & Sharples, 2012; Auer & Schuhmacher, 2016). Some authors argue that proponents of ESG investments often overstate their benefits, conflating them with higher expected returns (Cornel, 2021; Naffa & Fain, 2022).

ESG ratings, which can affect the valuations of sustainable investments, require more consistency and transparency, as highlighted by Escrig-Olmedo et al. (2019). Impact investments show a wide dispersion of returns, influenced by factors such as asymmetrical information, manager selection, and inconsistent investor objectives (Mudaliar & Bass, 2017; Jeffers et al., 2021; Bernal et al., 2021). Studies by Blankenberg & Gottschalk (2018) and Fain & Naffa (2019) suggest a no-effect hypothesis between ESG and financial return performance, while Gardenier, Lac, and Ashfaq (2021) and Giese et al. (2019) found a positive relationship, although the latter is relatively rare in recent times. Dam and Scholtens (2015) proposed a theoretical model for SRI based on CSR using accounting ratios, such as price to book and return on assets, which showed positive results regarding CSR and financial performance. Recent contributions are mainly related to impact investments, such as Kollenda (2022) and Barber et al. (2021), which examined peer-to-peer platforms and implemented utility functions such as WTP, further enhancing the evidence base for impact investments. Theoretical frameworks and terminology related to the emerging discipline of investment management are consolidated by studies such as Rizzi et al. (2018), Agrawal & Hockerts (2021), GIIN (2020), and Reeder & Colantonio (2013).

4.6 Thematic Discussion

The purpose of this paper is to analyze the different approaches to sustainable investing and identify any gaps in the literature. Despite some overlapping frameworks within the field of sustainable investing, most studies agree on the importance of incorporating environmental, social, and governance (ESG) factors into investment management. However, there is a lack of consensus on the terminology used to describe this practice, with some studies using terms such as sustainable finance, responsible investing (RI), or impact investing to describe sustainable investing strategies. Impact investing, in particular, is often seen as a subset of sustainable investing that focuses on achieving positive societal and environmental outcomes. However, there are still ongoing debates about the definition of impact investing, with different researchers using varying terminology.

One of the challenges facing sustainable investing is the relatively novel nature of the field, which has limited its mainstream adoption. Moreover, while sustainable investing principles have been mainly adopted in developed markets, emerging markets face significant challenges such as poverty, urbanization, pollution, and corruption that pose risks for sustainable investments. However, these challenges also present an opportunity for emerging markets to benefit from sustainable economic growth and profitability.

Most studies on sustainable investing adopt a quantitative methodology rooted in traditional financial theories, such as the Capital Asset Pricing Model (CAPM), Fama and French, and the Efficient Market Hypothesis (EMH). However, traditional financial theories may not be effective in explaining the returns of socially responsible investment strategies, which could be one reason for the negative performance of sustainable investments. Another explanation could be the trade-off between societal performance and financial returns. There is a need for more research into quantitative models that incorporate societal and environmental factors, such as the willingness-to-pay (WTP) and preference for public goods (PPFs).

In contrast, qualitative literature generally supports sustainable investment strategies, considering the prevailing socio-economic climate. Some critics of sustainable investing argue that ESG screening constrains portfolio performance, while others agree that Corporate Social Responsibility (CSR) is a crucial theoretical component of sustainable investing. Nonetheless, policy documents by the United Nations Principles for Responsible Investment (UNPRI) and the Global Impact Investing Network (GIIN) consolidate sustainable investing approaches in the literature.

5.0 Conclusions and Recommendations

In summary, addressing the societal and environmental challenges of today necessitates collective efforts to

achieve sustainable development. Sustainable investment strategies, including SRI, ESG, and impact investing, have been identified by the UNPRI as crucial tools for directing capital towards sustainable development goals. This paper conducted a systematic literature review of 40 articles from various sources and found overlapping frameworks in the approaches to sustainable investing, particularly in ESG and SRI. The integration of ESG ideals is also skewed towards developed markets due to existing market infrastructure, but emerging markets could benefit from sustainable investing given their social and economic challenges.

The paper further highlights that the methodologies used to examine sustainable investing approaches primarily stem from financial theory, which does not sufficiently explain the returns of these investments. While CSR provides a theoretical basis for SRI, there is still a lack of a unified theoretical framework for sustainable investing. Quantitative studies often examine the risk-return performance of sustainable investing, while qualitative studies advocate for the societal and environmental benefits of these approaches.

Some studies opposing sustainable investing argue that these approaches lead to a more limited investment portfolio compared to traditional capital markets. There is also a trade-off between societal and financial returns that could explain the negative performance of sustainable investments. Therefore, the paper recommends the development of consistent terminology, theoretical frameworks, and taxonomies to characterize the field of SRI, which could aid in developing sustainability standards to measure societal performance. Additionally, further research is needed to explore ESG integration in traditional models or develop multi-utility functions to explain the returns of sustainable investment strategies.

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SOCIALLY RESPONSIBLE INVESTMENT INTENTION OF INDIVIDUAL INVESTORS: A CROSS-SECTIONAL ANALYSIS

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Abstract:

SRI, or socially responsible investment, is a relatively new concept used to describe an investment that considers social, ethical, and environmental concerns. The purpose of this study is to investigate if collectivism, concern for the environment, financial performance, and awareness of SRI influence an individual's propensity to invest in socially responsible investments (SRI). Secondly, the study evaluates the influence of the TPB (Theory of Planned Behavior) model constructs, attitude, subjective norms, and perceived behavioral control on the SRI investment intention of individual investors. A structured questionnaire was used to collect data on 449 individual investors for this cross-sectional investigation. The data were then analyzed further with a two-step structural equation modeling technique performed in Smart PLS 3.2.9. The PLS-SEM analysis found that collectivism, environmental concerns, financial performance, and awareness of SRI all had significant positive effects on attitudes toward SRI, which, in turn, resulted in SRI investment intention. Further, subjective norms and perceived behavioral control had a significant impact on individuals' intentions regarding SRI.

Keywords: socially responsible investments (SRI); investment intention; collectivism; environmental concern; attitude; SRI awareness

1. Introduction

Fundamentally, socially responsible investments (SRI), also known as “ethical investing”, “green investing”, “values-based investing”, “sustainable investing”, and more recently simply “responsible investing,” and “ESG investing” refers to the notion of investing that considers social, ethical, governance, and environmental issues [1,2]. SRI has piqued the curiosity of market participants worldwide [3–6]. Every reasonable investor has always been concerned with choosing the best investment portfolio for their hard-earned cash. Investment behavior is influenced by elements, including fund safety, current and capital returns, and liquidity.

Furthermore, as awareness of sustainability has expanded, investors have begun to emphasize businesses that have a social and environmental footprint through their products and services. There has been a rise in investors' integration of social, environmental, and ethical considerations into their investment decisions [7–9].

SRI is an investing strategy that seeks to maximize both social impact and financial returns for investors. SRI is a type of investment that takes into account both the value of a company's larger influence on the world and its prospective monetary gains.

The popularity of SRI has increased substantially, and eighty percent of institutional investors include ESG factors in their investing strategies [10]. Assuming 15% growth, ESG assets under management may account for more than the predicted \$140.5 trillion global total by 2025 [11]. Additionally, the performance of SRI funds during times of crisis is better than that of conventional funds [12]. As



discovered during the 2002 technology (ICT) bubble bust and the 2008 global financial crisis, SRI funds outperformed conventional funds in the USA.

The economic and social effects of environmental, societal, and governance concerns were once again brought into sharp focus by the COVID-19 catastrophe. The crisis has also shown that SRI adoption is not some far-off ideal but rather something that can be performed right now to make communities and businesses more resilient [13]. During the pandemic, investors' increasing interest in ESG elements of corporations, implies they perceive sustainability as a need [14]. During the COVID-19 pandemic shutdown, ESG stocks also protected investors against losses [15].

Funds that allocate investor money according to ESG issues held \$357 billion at the end of 2021 [16]. In India, SRI funds have been gaining momentum in recent years, and there has been a rise in interest in ESG investing. Companies, governments, market regulators, and others have stepped up to establish ESG indices and funds in order to educate and entice the country's investors with the concept of sustainable investing.

Under the category of sustainability, the S&P BSE exchange comprises three indices: "S&P BSE GREENEX", "S&P BSE CARBONEX", and "S&P BSE 100 ESG Index" and the NSE index includes the "NIFTY100 ESG Index", "NIFTY100 Enhanced ESG Index", and "Nifty100 ESG Sector Leader" [17]. The AUM of ESG Funds in India is now at \$1839 million as of 31 March 2022, and increasing AMCs are aiming to adopt an ESG strategy [18]. Incorporating social and environmental concerns into investment decision-making processes, sustainable investing aims at ensuring the development of a green economy and has become an increasingly important component of business social responsibility [19].

As per the Theory of Planned Behavior (TPB) [20], a person's attitude determines their purpose to engage in certain behavior. Based on the preceding facts, it is easy to deduce what drives the rational investor, who considers both financial performance and ethics while making investment decisions. One probable explanation is a person's attitude, which is the result of his or her moral and ethical beliefs that may affect investment decisions [21–23]. Personal values, such as collectivism, and environmental attitudes impact investors' desires for non-financial outcomes [24].

The understanding of SRI gives information on how to better explain the requirements and motives of investors. The knowledge can help the investors to lead to a positive attitude and helps in developing the intention for SRI [25,26]. As the relevance of sustainable investing is growing with time and more such funds are becoming available [27,28], social groups are also influencing intentions towards SRI [29] with perceived behavioral control [30] in addition to attitudinal beliefs.

The focus of SRI over the past decade has been on determining how these investments stack up against more conventional ones [31,32]. Although researchers have addressed investors' financial circumstances when making investment decisions, Nga and Yien [33] argued that the inclination of investors to invest in environmentally accountable companies has been largely overlooked by previous studies.

This study is novel in the sense that, from the outset, we attempted to investigate if collectivism, environmental concerns, financial performance, and awareness about SRI have an impact on attitude for investing in SRI; and second, we examined the impact of attitude, subjective norms, and perceived behavioral control on the investment intention of the investors.

Using structural equation modeling, this research attempts to address the question of how much variance in the desire to invest in SRI, is explained by the factors under study. This study's research, which is woven into the threads of TPB theory, gives insight into the behavioral traits of investors who are



interested in SRI. The added constructs in the TPB model contribute to the theory of sustainable investments with the paradigm shifts in the global financial markets. This comprehension will provide information on how the needs and goals of investors might be better communicated to the key stakeholders. With this information, fund managers may be able to provide a more relevant selection of financial avenues and a more efficient marketing strategy, thereby, improving their ability to service their investors.

The findings of the study have significant implications for policymakers as well, who might apply this knowledge to help promote a capital market that is favorable to SRI. The structure of this study is as described below. The investigation commences with a discussion of the theoretical foundation, followed by the creation of hypotheses and the specification of a model. The section then continues to the research methodology followed by a discussion of the data analysis and study findings. The paper's conclusion emphasizes the implications, limitations, and scope for further study.

2. Theoretical Background

2.1. Theory of Planned Behavior (TPB)

Extensive research revealed that a variety of psychological factors have a significant influence on the field of behavioral finance. For more than two decades, the TPB model has been used in various empirical and descriptive research studies investigating the factors of human behavioral intention [34]. The theory is an expansion of the Theory of Reasoned Action-TRA [35], which is based on the expectancy-value formulation [35,36]. The TPB describes three significant precursors of human behavior: attitude, subjective norms, and perceived behavioral control.

The component of behavioral intention further mediates this association. According to Ajzen [14], an attitudinal belief is referred to as an ATT, whereas a nominal belief is referred to as SN, and a control belief is referred to as PBC. The TPB model has also been applied in various financial decisions and the adoption of financial products. The current study adopted the TPB model to understand the factors affecting SRI investments in India.

In the present research, attitude is defined as the investor's evaluation of the objectives of investment in SRI. Investors' favorable attitudes are likely to promote SRI behaviors, according to a comprehensible rationale. Attitude has long been demonstrated to alter behavioral intention [35]. Moreover, the attitude toward SRI can be formed based on the underlying aspects that are responsible for shaping the attitude toward SRI. In this study, the items that can influence one's perspective on SRI are taken to be collectivism, concern for the environment, financial performance, and awareness of SRI. The association has been experimentally validated by studies in this field [3,37].

An extension of the TPB, subjective norms posit that an individual's behavior is impacted by their perceptions about the approval of their significant others. Individuals or groups with opinions on how one should act in this situation are considered "significant others." It is supposed that subjective norms can evaluate the social constraints exerted on people to engage in or refrain from a given behavior. In this study, subjective norms simulated investors' perceptions of the extent to which their social networks endorse, support, or adopt the practice of investing in SRI (i.e., friends, relatives, and financial planners). A perceived behavior control is their degree of influence over whether or not a person performs an action, as opposed to the expectations regarding the consequences of that conduct [32]. A person can only take action if he believes he has some degree of control over the situation (i.e., the availability of useful tools and options) [20].

Earlier studies have applied the TPB model to measure the SRI intention of investors [25,38,39] and concluded that attitude, subjective norms, and perceived behavioral control have a positive impact on



the investors' intention for SRI. In this study, key resources include investors' opinions of SRI and the ease with which SRI assets may be traded.

2.2. Hypotheses Development

Some of the studies on the use of the TPB indicate that the theory can forecast the behavior of investors concerning SRI [3]. According to the TPB theory, the most important predictor of behavior is one's intention, because one's actions are controlled by one's intentions [40,41]. Behavioral intents are motivating elements that have a significant impact on a person's willingness to perform an activity [20]. The TPB was utilized as a framework for this study, together with other components, to analyze the factors influencing Indian investors' behavior toward SRI. A key section of the research is determining whether investors' stated intentions to make SRI contribute to better explanations of their stated attitudes, subjective norms, and perceived behavioral control for making SRI decisions.

2.3. Collectivism to Attitude

Collectivism is the idea that the community is more important than the person, as stated by [42]. Indian culture, according to Hofstede [43], is collectivistic in nature. A broader definition of collectivism was discussed by Seo [44] and encompasses various facets, including workgroup orientation [43,45–47], willingness to serve for the greater good [46,48,49], and the willingness to perform ethical objectives [45,46]. There is the existence of cultural conglomerates at the regional and national levels that influence the behavior of societies and organizations as a whole and persist for extremely long stretches of time. Collective cultures include people from birth into strong, cohesive communities that give lifetime security in exchange for loyalty [50]. Collectivist cultures encourage their members to develop interdependence; individuals view themselves as inextricably tied to others around them, and their behavior places a priority on preserving mutual trust over pursuing individual goals. Research shows that collectivism is a value system that makes people more attentive to environmental and social concerns [51,52]. This leads us to hypothesize the following:

H1 (a): Collectivism will positively affect the attitude toward SRI.

2.4. Environmental Concerns and Attitudes

Decades ago, environmental conservation became more important [53]. With time, customers have become more knowledgeable and now value environmentally safe products and fair decision-making [54]. Rising environmental awareness influences customer behavior [55] and financial decisions [56,57]. It was found that environmental degradation issues, such as pollution, greenhouse gas emissions, ozone depletion, and climate change, affect investment decisions [58] and adding to that, it was found that investing in environmentally conscious mutual funds shows environmental sensitivity [24].

Asset management businesses have created ESG and green funds and environmental mindsets influence the procurement of environmentally friendly products and SRIs [59,60]. Companies have also issued "green bonds," which have become popular amongst investors because, in addition to being environmentally friendly, they provide greater long-term returns [60].

There is also the potential for green finance to play a significant role in assisting businesses with environmentally responsible initiatives [61], resulting in individuals who may act on their environmental concerns by investing in ecologically friendly investment options [24]. Environmentalists also prioritize ethics; thus, they invest in socially responsible companies [29,57]. This leads to the following hypothesize:

H1 (b): Environmental Concerns will positively affect the attitude toward SRI.

2.5. Financial Performance to Attitude



Financial return and risk are crucial decision-making elements in every investment choice. These considerations are also likely to affect SRI given that the ultimate goal of any investment is financial gain [4]. In academic research, some researchers have indicated that SRI performs equally with normal investments [62]. However, the financial performance of SRI-managed funds is seen in different ways by investors [63]. Ethical or socially conscious investors do not make investment decisions based on potential financial gain [64]. Although investors consider SRI funds to be riskier due to their early stage, a positive correlation was discovered between investment behavior and the investor's inclination to pursue non-financial investing goals [65]. As a result, the following hypothesis is developed.

H1 (c): Financial performance of SRI will positively affect the attitude towards SRI.

2.6. SRI Awareness of Attitude

Research is scarce in the finance domain regarding the effects of knowledge and understanding of investment avenues and the attitudes about it. However, the effect of knowledge and understanding of the concept on attitude is efficiently researched in other areas, such as agriculture, food, beverages, and medical science. For example, the attitude toward self-medication is impacted by awareness of self-medication [66], and knowledge aids in forming and shifting attitudes toward genetically modified foods [67]. Financial awareness is the ability to make sound financial decisions [68]. SRI's financial and non-financial goals require a high level of information and awareness, and purchase choices are highly influenced by consumer awareness [69]. If an investor is aware of an SRI, they can give thought to investing in that, and a lack of investor information or unawareness hinders SRI growth [19]. Since SRI involves both monetary and non-monetary motivations, SRI will need substantial financial knowledge. Along with awareness, understanding is also important as customer understanding affects their propensity to buy green/sustainable products [70]. Several studies have shown that the importance of financial advisers' expertise in sustainable funds affects the attitude of investors toward SRI [71–73]. It was also suggested that SRI and ethical fund information influence risk perception [74]. Consequently, comprehension of social responsibility measures encourages sustainable investment. Thus, we propose: H1 (d): SRI awareness will positively affect the attitude toward SRI.

2.7. Attitude to SRI Intention

According to Ajzen and Fishbein [35], an individual's attitude (favorable/unfavorable) influences their desire to commit a particular behavior. Attitude is the degree of emphasis people place on doing a specific behavior [73]. It is the most important variables for an investment decision are attitude and personal interest [75]. An investor's attitude toward moral, environmental, and societal concerns determines the choice of SRI [4,31,76]. Individuals now are concerned about their social image and are observant of market trends, which reinforces their willingness to participate in SRI [77]. Attitude is positively linked with behavioral intentions to invest in the stock exchange [78] and online trading intentions [79]. Investing in a sustainable way is an important consideration for each investor [80]. There is a link between green attitudes and sustainable investing behavior [81]. Additionally, it was found that customers' views about purchasing green items adequately predict the decision to purchase ecological products [82]. As a result, the proposed hypothesis is as follows:

H2: Attitude toward SRI will positively influence SRI investment intention.

2.8. Subjective Norms to SRI Intention

Subjective norm is an assessment of others' opinions about the acceptance of a certain behavior [35]. Subjective norms include peer or group perceptions of behavior and encouragement to conform to these beliefs. Subjective norms are the motivating force and burden that a person faces from society as a result of the behavior [20]. The subjective norms variable suggests

that an individual’s behavior is highly influenced by the reference group. It proposed that the opinions of friends and family have a substantial impact on an investor’s inclination to invest in stocks [40]. It was studied by Adam and Shauki [25] how individual behavior is impacted by someone’s important view about whether a given behavior should be performed or not. People who can anticipate supportive subjective standards are more likely to invest than people who do not have to deal with any kind of social pressure [83,84]. In the same vein, consider the proposed hypothesis:

H3: Subjective norms will positively influence SRI investment intention.

2.9. Perceived Behavioral Control to SRI Intention

Perceived behavioral control over a subject comprises the availability of suitable re- sources and opportunities [20]. Behavioral control is linked to an individual’s conviction in the resource’s ability— their talents and capacities. One of the main aspects determining intention is perceived behavior control, which refers to an individual’s response to something as a behavioral control, which relates to the ease or difficulty of performing an activity. This aspect is connected to investors’ capacities and prospects in SRI [78,85,86]. In this vein, the following hypothesis is proposed:

H4: Perceived behavioral control will positively influence SRI investment intention.

3. Materials and Methods

Based on the theoretical model and the hypotheses discussed in the above section, the proposed model is summarized in Figure 1. The constructs, such as collectivism, environmental concerns, the financial performance of SRI, and SRI awareness, are proposed to have a positive impact on the attitude towards SRI, which is one of the constructs of TPB. Attitude with subjective norms and perceived behavioral control have a direct positive impact on SRI investment intention.

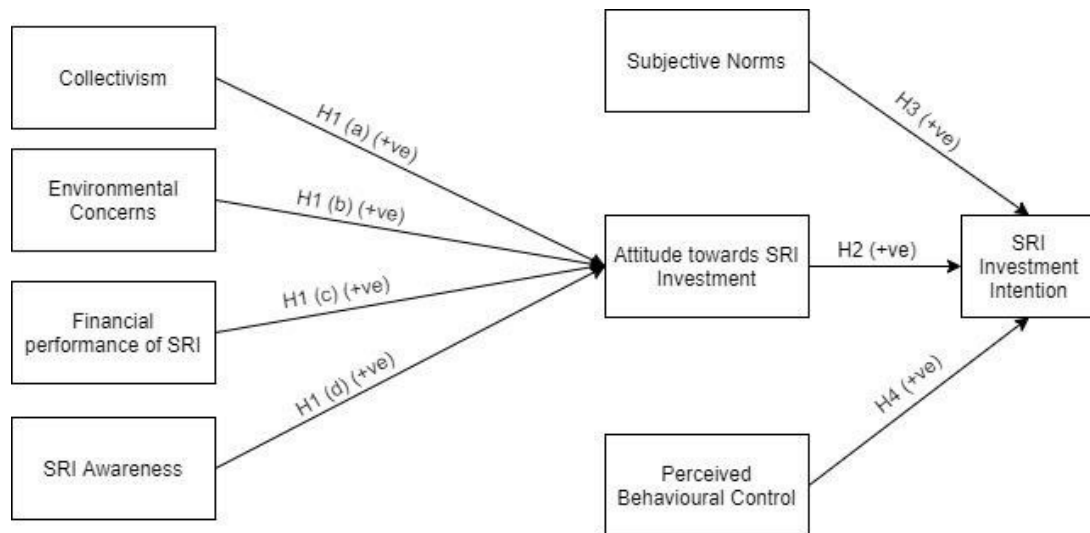


Figure 1. Conceptual model

A quantitative approach to research is one that uses numerical data and other quantifiable variables to systematically explore a phenomenon and its relationships [87]. It is employed to explain, predict, and exert command over a phenomenon by providing answers to questions based on correlations between variables.

3.1. Measurement Scales

The information for the study was gathered by the use of a structured questionnaire. There were three parts to the instrument, the first of which covered the respondents’ demographic data, such as age,

gender, marital status, education level, occupation, and yearly income. In the second part of the questionnaire, respondents were questioned to assess the impact of various factors that might affect their intention of making SRI, such as collectivism, environmental concerns, the financial performance of SRI, SRI awareness, attitude towards SRI, subjective norms and perceived behavioral control. The final segment included Likert-scale questions designed to assess respondents' willingness to invest in SRI. The statements were rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree), with each statement receiving a score between 1 and 5.

The TPB developed by Ajzen [20] measure was used in the study to assess the intention of respondents for SRI. This includes (i) items related to the convenience of SRI (three items) to measure the attitude of the investors; (ii) scale based on the referent group and their concern about SRI to measure the subjective norms (three items); and (iii) perceived behavioral control, which states the controlling factors including investor's skills to invest in SRI (three items).

The scale for collectivism adapted from Singh et al. [52] includes statements (five items) related to the belief regarding community welfare. The environmental concerns scale (five items) was developed by Singh et al. [52] and measures the environmental attitude towards SRI. The financial performance of SRI was adopted from Luong and Ha [88] including statements (three items) of return expectations from SRI and awareness of SRI is taken from Ansu-Mensah et al. [89] and has statements (five items) related to basic understanding and knowledge of SRI.

3.2. Sample

This cross-sectional descriptive research used a convenient sampling method to gather the required data. Investors in India above the age of 18 participated in the survey. To reach Indian investors, researchers networked with individuals at various brokerage houses in the country, who, in turn, shared the survey link with their clientele. Information was gathered from 557 investors from 15 February 2022, until 6 April 2022. Furthermore, 108 of the 557 replies were discarded because they were incomplete. As a result, 449 responses were processed for additional data analysis (see Table 1).

3.3. Data Analysis Tool

Smart PLS 3.2.9 software was used to test the reliability, validity, theory, and hypothesis. PLS is a variance-based structural equation modeling (SEM) employing the partial least squares path modeling technique. It is a two-stage model: first, it is evaluated for the quality of the measurements (Measurement Model), and then for the interdependence of the variables (Structural Model). PLS' ability to test the theory development [90], the complex linear models with high reliability [91], and the applicability in non-normal and small-to-medium samples [92,93] makes it appropriate for use in the current study.

The measurement model was checked for reliability and validity using "Cronbach's alpha" (CA), the "composite reliability" (CR), the "Average Variance Extracted" (AVE), the "Fornell-Larcker criterion", and the "Hetero Trait Mono Trait ratio" (HTMT) [95]. Second, the Variance inflated factors (VIF), 'coefficient of determination (R²)', "Standardized Root Mean Square Residual" (SRMR)', and "Normed Fit Index (NFI)" were considered to check the validity and fit of the structural model. The detailed results are presented in the following section.

Table 1. The sample characteristics.

Variables	Category	Frequency	Percent
Gender	Male	265	59.02
	Female	184	40.98
Age	18-25	77	17.15
	26-35	167	37.19

	36-45	122	27.17
	46-55	56	12.47
	56-65	27	6.01
Marital status	Married	284	63.25
	Unmarried	165	36.75
Education Qualification	Undergraduate	28	6.24
	Graduate	168	37.42
	Postgraduate/professional	223	49.67
	Doctorate	22	4.9
	Other	8	1.78
Employment	Student	22	4.9
	Salaried-Government sector employee	123	27.39
	Salaried-private sector employee	193	42.98
	Self-employed	49	10.91
	Business	62	13.81
Annual Income	Below \$3125	22	4.9
	Between \$3125 and \$5000	99	22.05
	Between \$5000 and \$8125	158	35.19
	Between \$8125 and \$10,000	63	14.03
	Between \$10,000 and \$12,500	44	9.8
	Above \$12,500	63	14.03

3.4. Common Method Bias

“Common Method Bias” (CMB) occurs when differences throughout answers are caused by the tool instead of due to the real bias of the respondents, which is what the instrument is attempting to reveal [96]. This might be owing to the respondent’s social desirability tendencies, dispositional mood states, or impulses to submit or respond in a mild, moderate, or extreme manner [97]. CMB also occurs when data is collected through a single instrument for both dependent and independent variables from the same respondent [96]. The presence of CMB in the data can influence the reliability and validity of the instrument.

These might lead to erroneous conclusions regarding the reliability and convergent validity of a scale [98]. Additionally, CMB also inflates the path coefficients in structural modeling [99]. In short, the presence of CMB in data may lead to incorrect research findings, and hence, before starting with the analysis, it must be assured that the data is free from CMB. To investigate the CMB in PLS-SEM, Kock [99] recommends using the full Collinearity assessment (Variance inflated factors, VIF) test, and VIF values below 3.3 nullify the presence of the CMB. All the constructs successfully passed the test as the VIF values are well below 3.3. Hence, it can be concluded that the data is free from CMB.

3.5. Results and Discussion

As the scales used here have been previously tested for their reliability and validity in prior research, CFA was performed to evaluate the reliability and validity of the measure. At the initial screening, two items had a factor loading of below 0.7 (see footnote of Table 2); thus, they were removed from the analysis, and the model was run again to check for reliability and validity. Internal consistency/reliability was measured using CA and CR tests [95]. The CA and CR values of all the variables are higher than 0.7 (see Table 2) and suggest good internal consistency [95].

Table 2. Reliability and validity.

Constructs	Standardized Factor Loading	CA	CR	AVE
Collectivism (COLL)		0.706	0.814	0.524
COLL_1	0.747			
COLL_3	0.76			
COLL_4	0.76			
COLL_5	0.724			
Environmental Concerns (EC)		0.796	0.869	0.627
EC_1	0.865			
EC_2	0.853			
EC_3	0.775			
EC_5	0.756			
Financial Performance (FP)		0.75	0.856	0.667
FP_1	0.823			
FP_2	0.887			
FP_3	0.733			
Awareness about SRI(SRIA)		0.815	0.872	0.582
SRIA_1	0.791			
SRIA_2	0.883			
SRIA_3	0.79			
SRIA_4	0.721			
SRIA_5	0.783			
Attitude (ATT)		0.8	0.884	0.719
ATT_1	0.754			
ATT_2	0.89			
ATT_3	0.891			
Perceived Behavioral Control (PBC)		0.827	0.897	0.743
PBC_1	0.871			
PBC_2	0.866			
PBC_3	0.849			
Subjective Norms (SN)		0.826	0.896	0.741
SN_1	0.868			
SN_2	0.853			

SN_3	0.862			
Investment Intention (II)		0.845	0.897	0.685
II_1	0.869			
II_2	0.846			
II_3	0.853			
II_4	0.737			
(COLL_2 loading 0.526 and EC_4 loading 0.321) (Source: authors' calculation using Smart PLS 3.2.9).				

The convergent validity of the model was confirmed using outer loading, Average Variance Extracted (AVE), and CR [95]. Table 2 indicates that the outer loading of all the indicators is greater than 0.7 (at initial screening, two items were removed), the AVE of all the latent variables is above the minimum prescribed level of 0.5, and the composite reliabilities of all the latent variables were higher than 0.7 [95]. Hence, the measurement model's convergent validity is good.

Three methods have been suggested for accessing discriminant validity; the cross-loading test, the "Fornell-Larcker criterion", and "Hetero Trait-Mono Trait ratio" (HTMT) [95]. It has been advocated that the HTMT ratio should be preferred over the other criteria for confirming the discriminant validity [95]. "Fornell-Larcker criterion", and "Hetero Trait-Mono Trait ratio" (HTMT) tests were used here to confirm the discriminant validity.

As per Fornell-Larcker criterion "the square root of the AVE of each construct should be higher than the construct's highest correlation with any other construct in the model." Table 3 shows that the square root of the AVE of each construct is higher than the construct's highest correlation with any other construct (diagonal values in bold). As per the HTMT criterion, the constructs' HTMT values should not exceed 0.85 [95]. Table 4 shows that all values are well below 0.85; this reconfirms the discriminant validity [100].

Table 3. Fornell-Larcker criterion.

	ATT	COLL	EC	FP	II	PBC	SN	SRIA
ATT	0.848							
COLL	0.275	0.724						
EC	0.432	0.157	0.792					
FP	0.495	0.018	0.343	0.817				
II	0.487	-0.030	0.346	0.441	0.828			
PBC	0.306	0.022	0.209	0.235	0.577	0.862		
SN	0.318	-0.035	0.198	0.255	0.696	0.555	0.861	
SRIA	0.532	0.17	0.501	0.291	0.362	0.318	0.34	0.763

Table 4. Hetero Trait-Mono Trait Ratio (HTMT)

	ATT	COLL	EC	FP	II	PBC	SN	SRIA
ATT								
COLL	0.334							
EC	0.542	0.2						

FP	0.63	0.081	0.44					
II	0.594	0.067	0.424	0.551				
PBC	0.377	0.08	0.258	0.299	0.69			
SN	0.393	0.064	0.245	0.328	0.83	0.673		
SRIA	0.649	0.214	0.608	0.357	0.431	0.388	0.406	

The assessment of VIF is the prerequisite for the assessment of the structural model [95]. The Collinearity issue in the construct is fixed with the VIF values less than 5. It can be seen from Table 5 that all the constructs have VIF values well below 5. After a successful assessment of Collinearity, the structural model was tested using the bootstrapping method with a sample of 5000.

Table:5 Model fit estimate.

Saturated Model	
R square(R2)	0.598
SRMR	0.072
NFI	0.833
Q Square(Q2)	0.4

The predictive relevance of the model was accessed by deriving Q2 values by performing a blindfolding procedure. Q2 values greater than 0 suggest that the model has predictive relevance for the [101] and values greater than 0.02, 0.15, and 0.35 indicate the small, medium, and large predictive relevance of an independent variable to a dependent variable. The current model has Q2 values of 0.400 (see Table 6) indicating that the model has a large predictive relevance. The SRMR value is 0.072, which is less than 0.08 [95]. The NFI value is 0.83, which is closer to 1 [102]. Overall, the ‘model fit’ indices show that the model is a ‘good fit’ (see Table 5).

4. Results and Discussion

Path coefficients were calculated using the bootstrap run in PLS-SEM. This study found a positive effect of collectivism on attitude towards SRI ($\beta = 0.193, p < 0.05$), and these findings are in line with [51,52]. Therefore, we conclude that SRI is based on the value system specifically in the countries, such as India, with high cultural values and beliefs. There is a positive impact of environment concerns on attitude towards SRI ($\beta = 0.109, p < 0.05$), which is supported by the studies [29,57,58,103]. This confirms that economic aspirations are also a driving force for leading to SRI intention.

Thus, a rational and cultured society is likely to strengthen its efforts to ensure sustainable human well-being as individuals become more conscious of the importance of the environment and its long-term impact on society. The financial performance of SRI also has a positive impact on attitude towards SRI ($\beta = 0.354, p < 0.05$), and the results are similar to [4,29]. Although SRI carries non-monetary goals, if they generate lucrative financial returns, even investors with weaker SRI values would also become attracted to such funds.

The awareness of SRI positively affected the attitude towards SRI ($\beta = 0.342, p < 0.05$), and the results are supported by [71,72,73]. The financial products are complex to understand so literacy and awareness of such financial products will enhance their investments specifically in emerging countries, such as India. The construct of the TPB model—as with attitude—has a positive impact on the SRI investment

intention ($\beta = 0.263, p < 0.05$) and supports the studies [81,82]. As a result, it is envisaged that investors who have a favorable attitude toward SRI would have a strong desire to invest in SRI.

Perceived behavioral control on SRI investment intention has a positive impact on SRI investment intention ($\beta = 0.487, p < 0.05$), which is similar to [78,85,86]. This depicts that perceived behavioral control is a factor in investing ethically. The final hypothesis was to analyze the impact of subjective norms positively affecting the SRI investment intention ($\beta = 0.227, p < 0.05$), similar to the studies [25,84,104]. It depicts that, in terms of sustainable investment, peer-group expectations and behavior had a substantial influence on decision-making.

Financial performance was the most significant variable followed by SRI awareness, which influences investors' attitudes regarding SRI. Perceived behavioral control was the most significant variable influencing the investment intention in SRI followed by attitude and subjective norms (see Table 7 Standardized regression weight (β) values).

Table 6. Results & Hypothesis

Hypothesis		Impact	Standardized Regression Weigh (β)	p-Value	Conclusion
H1 (a)	COLL -> ATT	+ ve	0.193	0	supported
H1 (b)	EC -> ATT	+ ve	0.109	0.017	supported
H1 (c)	FP -> ATT	+ ve	0.354	0	supported
H1 (d)	SRIA -> ATT	+ ve	0.342	0	supported
H2	ATT -> II	+ ve	0.263	0	supported
H3	PBC -> II	+ ve	0.227	0	supported
H4	SN -> II	+ ve	0.487	0	Supported

The study's findings propose valuable contributions toward policy development for various stakeholders, such as the government, regulatory authorities, and fund managers. The findings of the study are significant, as collectivism and environmental concerns not only affect the attitudes of investors but also the investment intentions of investors. A balanced approach should be adopted for designing and offering these funds. The study has significant results showing that investment intentions are highly influenced by subjective norms i.e., peer-group influence. These results reaffirm that investors are less confident in their investment decisions and more likely to follow the advice of their friends, family, co-workers, and acquaintances.

Finance companies and financial advisors can utilize the results to increase the penetration of SRI. We recommend that financial advisers take a more progressive and practical perspective by looking at more than simply demographics and instead paying attention to characteristics, such as attitude, subjective



norms, and perceived behavioral control beliefs. Regulatory authorities, fund managers, and the MF companies dealing with SRI funds can market these investment products by considering the findings of the study. They can develop seminars to educate and enlighten investors about SRI investments. To preserve the investors' individual beliefs on the topic of sustainability, businesses can focus on making the appropriate social and environmental disclosures in their reporting methods, which may also help the investors to make informed investment decisions.

5. Conclusions

Investments have always been centered on making a profit, and this has been true for centuries. The focus of traditional investment decisions has been almost exclusively on this one factor, at the expense of social and environmental considerations. However, the COVID-19 predicament highlighted once again how governance, social, and environmental problems may have significant effects on the economy and society. The crisis also indicated that adopting SRI is not some hazy long-term ideal but something that can quickly boost the agility of our society and enterprises. In this vein, it is important to study the factors that can further accelerate the growth of SRI investments.

In the present study, we concluded that collectivism, environmental concerns, financial performance, and awareness about SRI have significant positive effects on attitudes toward SRI, which, in turn, resulted in SRI investment intention. Intention toward SRI investment was also highly influenced by subjective norms and perceived behavioral control. According to the findings, the subjective norm was the most significant predictor of SRI investment intention, and peer relatives' perspectives were important in directing sustainable investments.

This indirectly emphasizes that there is a lack of literacy about SRI products amongst investors, and hence investors attempt to mimic the behavior of their friends and peers. In response to this need, financial institutions and mutual fund companies may launch educational initiatives to help savers and prospective investors learn more about socially responsible investing (SRI). In addition, they may provide in-depth training on SRI investing to financial planners and advisers, who can then serve as advocates for the cause.

There are a few caveats to the study's findings. First, it was done at a certain period in time (a cross-sectional study). Extending the time frame of the investigation is a necessary next step in this field's study. Changes in investors' intentions may be tracked over time by collecting (and evaluating) data at regular intervals. Second, although this study's sample size is sufficient for doing structural equation modeling [105], future research should explore a larger sample to account for sampling mistakes.

Third, this research focused on SRI and found that the attitude and intention toward these investments are influenced by collectivism, which is influenced by each culture, and thus the finding cannot be extended to all cultures. Fourth, the study was conducted adopting the TPB model. In the future, other studies will include the Stimulus–Organism–Response (SOR) model for adoption intention. Lastly, the current study focused on four factors: collectivism, environmental concerns, financial performance, and SRI awareness towards attitude toward SRI, whereas there are many other factors related to the investor personality or moral values that were not considered and can be included in future research.

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