

Socially responsible investment behavior: a study of individual investors from India

A study on socially responsible investment

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Abstract

Purpose – Socially responsible investment (SRI) is a niche and upcoming investment strategy in India. Very few researches have been conducted on SRI in the Indian context. This study identifies the SRI awareness level, attitude towards the importance of environmental, social, and governance (ESG) issues, willingness to invest in SRI avenues and obstacles in SRI investment decision-making by Indian retail investors. The second objective was among the awareness, attitude, willingness, obstacle, and demographic constructs to identify the most significant variables that impact an individual investor's SRI decision in India. .

Design/methodology/approach – Data for the study have been collected through a self-structured questionnaire. Descriptive statistics are used to identify the importance of variables for individual investors. This paper used the theory of planned behavior (TPB) to understand the factors impacting individual investors' SRI behavior. Binary logistics regression analysis is used to recognize the variables that affect an individual investor's SRI decision.

Findings – The descriptive statistics indicate a low level of SRI awareness; the majority of the investors agreed that ESG issues are significant in investing and showed a willingness to invest in SRI avenues. However, the investors were not willing to accept lower returns from SRI. The majority of investors found, lower returns on SRIs, no tax benefit, lack of information about SRIs, and low liquidity as important obstacles in SRI investing. Binary logistics regression results indicated that awareness about SR/ESG indices, awareness about SR/ESG funds, and willingness to invest in SRI avenues significantly impact investors' SRI decisions but demographic variables have no significant impact on SRI decision-making.

Practical implications – This study has implications for the ethical/SR mutual funds managers, policymakers, government, and international asset management companies. The study finds an urgent need for increasing awareness about SRI among individual investors in India. The study suggests that the issuers must provide adequate information about SRI avenues and probable risk and returns involved in these, while the regulators must make efforts to educate investors in India.

Originality/value – The context of the present study is original because hardly any of the earlier studies conducted in India have tried to find out the individual investors' SRI awareness level, investors' willingness towards SRI, investors' attitude towards ESG issues, and obstacles faced by investors in socially responsible investing.

Keywords Socially responsible investment, SRI, Individual investor, ESG issues In investment, Awareness level of individual investors, Attitude towards ESG issues, Obstacles in SRI, India, Theory of planned behavior

Paper type Research paper

Informed consent: A statement of confidentiality was given as an opening paragraph in the questionnaire to obtain informed consent from all responding individuals in the study.

Ethical approval: This study is not an experimental study. Hence does not involve human participants for any biological materials and does not involve any animal participants.

Conflict of interest: The authors declare that they have no conflicts of interest relevant to the content of the submitted article.



1. Introduction

Investors are quite similar in their choices for investment decision-making. Most people invest to appreciate the value of money invested in the market. Earlier risk and return on the money invested were the only criteria for investment decision-making, but now non-financial factors (social, ethical, and environmental factors) are also being considered while making an investment (Sparks, 2002; Michelson *et al.*, 2004; Sandberg *et al.*, 2008; Domini, 2001). These non-financial factors are generally related to social and environmental concerns, and now governance is also being considered as an important part of it. Corporate scandals have increased the importance of work ethics, transparency, and quality of management. If governance is considered filtering criteria for investment, then it can increase the returns for the investors and shareholders' value (Sandberg *et al.*, 2008). This type of investment is termed socially responsible investment (SRI) or ethical investment. This investment practice has gathered a lot of attention from academicians and practitioners.

In 1971, the USA launched the world's first SRI mutual fund titled "PAX World Fund". After five decades, SRI is still at a nascent stage in most of the developing and underdeveloped countries. Sustainability literature doesn't have a significant number of research studies focusing on the SRI and ESG investment in developing countries like India. Sustainability issues have become even more important in these times. As there is an exorbitant increase in carbon emission, toxic waste generation, pollution, as well as depletion of natural resources, all these issues mark a question on environmental sustainability. Companies are the real cause of the environmental crisis. Companies are expected to adopt and follow the triple bottom line approach of people, planet, and profit to make their operations sustainable. Many academic and professional deliberations and legal interventions are being made to make the world more sustainable in every aspect. UN sustainable development goals, Paris agreement, and recent climate change conference COP26 make all the efforts to make the world sustainable for future generations. Hence sustainability cannot be ignored by these developing nations including India, where the population and pollution both are a big concern.

Most of the earlier research work on SRI has been conducted in developed countries, such as the US, UK, Australia, and Europe. SRI practices, their adoption, adaptation, implementations, views, opinions, and strategies are all impacted by the country's cultural, political, and financial environment (Sparkes, 2002). Louche and Lydenberg (2006) conducted a comparative analysis between the US and Europe, to compare the history of SRI, prevailing practices and variations therein, the terminology used, actors participating in the SRI, actor's motivation to participate, and various strategies used in SRI and concluded that SRI practices change according to the culture of the practicing country. The same results were found by Lopez-Arceiz *et al.* (2018) as well who conducted research to study the impact of cultural environment on the investment fund's risk-return ratio. They found that the cultural environment of the fund in which it is issued acts as the moderator for the fund's risk. The same kind of result was reported by Sakuma and Louche (2008) after studying the growth of socially responsible investing in Japan. They concluded that Japan has a very different culture from the US and Europe; hence Japan has adopted features from these two countries' models, and these features are then transformed to suit Japan's culture and societal values. Thus, the cultural environment of a country impacts SRI implementation. This is among one of the motivations to conduct this study on India; being a developing nation, India has a different economic condition and cultural environment. Individual investors in India might perceive SRI differently than western countries' investors and this gave the motivation to undertake this study.

India is among one of the growing emerging economies. Gokoluk and Yap (2021), in their article on Bloomberg, stated that among the developing nations, 98% of information-technology-based companies are from five Asian nations, i.e. China, Hong Kong, India, South

Korea, and Taiwan. Hence in the author's opinion, ESG asset managers are not in a position to ignore this region in their investments, because information technology firms usually have high environmental scores due to their work operations. This high score of IT firms makes the ESG asset managers choose them for investment. As per the McKinsey & Company report (2017) authored by Pandit and Tamhane, "In India impact investments have the potential to grow 20 to 25% a year between now and 2025." Moving towards a sustainable economy can help India achieve SDGs (Sustainable Development Goals) by 2030. India is the second-most populous country, if a SRI is promoted among investors and companies, then it can help in achieving SDGs. Till 2017 there were only two mutual funds and one exchange-traded fund in India focusing on ethical investment. In the last two years, nine ESG funds were launched in India. This shows the growing interest of asset management companies in SRI.

Moreover, SRI has gained momentum in developed countries long back, but it is still in the nascent stage in India. India has collectivist culture, and being an emerging economy people's investment reasons are different from developed countries. This gave another motivation to conduct the current study. In a situation when large companies across the world have started incorporating ESG issues in their investment and other decisions, not much academic literature is available related to emerging economies like India to show if these issues are considered by individual investors while making their investment choices. Hardly any study has investigated the individual investors' level of SRI awareness, and factors impacting individual investors' SRI decision-making. These research gaps were our motivation to undertake the study. Hence, this study is a modest attempt to contribute to the academic literature by filling this research gap by examining Indian individual investors' awareness level about SRI, attitude, willingness, and obstacles factors significant for them in socially responsible investing.

The paper is organized as follows. Section 1 is introductory in nature. Section 2 presents the literature review. Section 3 formulates the hypotheses for the study. Section 4 discusses the theoretical framework applied in the paper. Section 5 gives the methodology used for data collection and analysis. Section 6 presents the research findings and discussion. Section 7 summarizes the results and gives the conclusion. Finally, Section 8 provides research implications, limitations of the current study, and future research perspectives.

2. Literature review

Individual investors invest money in the market either directly through the purchase of equity shares or indirectly through investing in mutual funds or pension funds. Traditionally, financial returns and risk, (associated with the instrument) were the only criteria used to measure investment decisions. But from 1970 onwards, many investors have started considering ethical considerations in investment, and it has been named ethical investment or SRI. Under this type of investment, investors used to apply negative screening and avoid investments in certain companies that were involved in the business of tobacco, alcohol, gambling, weapon manufacturing, pornography, etc. Later on, investors started to consider environmental, social, and governance (ESG) criteria also in investment decisions. ESG framework measures the social impact created by the companies based on ESG factors.

According to US SIF, The Forum for Sustainable and Responsible Investment, "Sustainable, responsible and impact investing (SRI) is an investment discipline that considers environmental, social and corporate governance (ESG) criteria to generate long-term competitive financial returns and positive societal impact." According to European-SRI-2018-Study (2018), "Sustainable and responsible investment ("SRI") is a long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio. It combines fundamental analysis and engagement with an evaluation of ESG factors to better capture long term returns for

investors, and to benefit society by influencing the behavior of companies.” According to PRI (Principles of Responsible Investing), “Responsible investment is a strategy and practice to incorporate environmental, social, and governance (ESG) factors in investment decisions and active ownership.” The definitions mentioned above make a point that socially responsible investing is a broader concept, an approach, and a type of investment; ESG integration is one of a method to adopt and implement SRI into practice. Therefore, to a great extent, ESG is a means to achieve SRI. In SRI, investors try to gain financial returns while implementing the ESG considerations in investment decisions. According to [Revelli \(2016\)](#), the globalization of financial markets and the increasing influence of SRI worldwide have encouraged financial investment corporations to consider ethical angles in their decisions.

The growth of SRI is dependent on the performance of the SRI assets. In the past, several studies were conducted comparing the performance of SRI and conventional investments, which gave varying results. Many research studies supported the notion that SRI tends to outperform their conventional counterparts ([Gil-Bazo et al., 2010](#); [Wimmer, 2013](#); [Statman and Glushkov, 2016](#); [Tripathi and Bhandari, 2015](#); [Sherwood and Pollard, 2018](#)). While an array of research studies concluded that there is no performance difference between SRI and conventional investment ([David Diltz, 1995](#); [Guerard, 1997](#); [Statman, 2000](#); [Kreander et al., 2005](#); [Bauer et al., 2007](#); [Liedekerke et al., 2007](#); [Cortez et al., 2009](#); [Humphrey and Lee, 2011](#); [Wallis and Klein, 2015](#); [Elaut et al., 2015](#)), very few studies concluded underperformance of SRI in comparison to conventional investment (e.g. [Lewis and Mackenzie, 2000a](#); [Renneboog et al., 2008b](#); [Fernandez Sanchez and Luna Sotorrio, 2014](#); [Bodhanwala and Bodhanwala, 2020](#)).

Most of the above-mentioned research studies were conducted in developed countries. In India, SRI is a niche market and at an emerging stage, and few research studies have been conducted to study the SRI, ESG investments, and ESG indices. [Chelawat and Trivedi \(2013\)](#) studied the risk-return performance of a portfolio based on ESG criteria from 2008 to 2012. This study was conducted to analyze the risk-return performance of a portfolio created by using ESG as selection criteria. The authors concluded that the inclusion of ESG criteria in investment decisions resulted in the superior performance of ethical investments in comparison to the benchmark portfolio. [Murthy et al. \(2014\)](#) conducted their research in India to find whether, in terms of returns in the stock market and price discovery, do socially responsible companies are performing better than general companies. The authors concluded that for the whole period of study, socially responsible companies performed better than general companies in terms of price discovery and returns. Similar results were found by [Tripathi and Bhandari \(2015\)](#). They researched India during the period 2009–2014 to compare the performance of general mutual funds with the performance of ethical mutual funds and S&P BSE Shariah 500 Equity Index as the benchmark index. The authors concluded that ethical funds outperformed their counter general mutual funds and their benchmark index too. Investors were well rewarded with higher returns for their ethical investment choices in the Indian market. [Bodhanwala and Bodhanwala \(2018\)](#) researched Indian firms to identify the relationship between corporate sustainability and a company’s profitability. The authors found a significant positive relationship between the two. [Bhattacharyya et al. \(2019\)](#) conducted their study in India on 122 BSE (Bombay Stock Exchange) listed firms to analyze the relationship between their ESG scores and credit ratings (given to them by various rating agencies like CARE, ICRA, and CRISIL). It was also found that credit ratings and ESG disclosure were forming a circular relationship with each other and credit ratings of a firm significantly impacted the overall reporting of ESG and even the extent of ESG component disclosure. [Dalal and Thaker \(2019\)](#) conducted their study on 65 Indian firms listed on the NSE 100 ESG database from 2015–2017 to examine the ESG influence on the financial performance of these listed firms; they concluded that the financial performance of a firm enhanced positively by its good corporate ESG performance. A study conducted by

Vyas *et al.* (2020) focused on retail investors and analyzed the SRI behavior of Indian Investors. They studied the characteristics of individual investors and their non-economic goals. This study was based on individual characteristics like attitude towards the environment, risk tolerance capacity, attitude towards materialism, collectivism, religiosity, and social investing efficiency. Authors found all these characteristics to be significant in SR investment by an individual. Another study conducted on Indian investors by Raut *et al.* (2020) found that investors' intention to invest in SRI was significantly impacted by subjective norms, moral norms, attitude, financial knowledge, and financial performance. Since most of the academic research work has indicated the over-performance of SRI in comparison to conventional investment, the need is felt to identify the underlying factors that influence investors' decision to invest money in SRI. Vyas *et al.* (2020) and Raut *et al.* (2020), are recently conducted studies on the SRI investment behavior of investors in the Indian context. Vyas *et al.* (2020) has extended the work of Iyer and Kashyap (2009) and Raut *et al.* (2020) have tested the theory of reasoned behavior (TRA). In another research, Kaur and Kaushik (2016) find that lack of knowledge about mutual funds is the cause of not investing in mutual funds. Tripathi and Bhandari (2014) highlighted that lack of awareness among investors and lack of required ESG information as the prime cause of the slow growth of SRI in India. Raut *et al.* (2020) highlighted the low number of ethical investment opportunities to be the main cause of the slow development of SRI.

Another motivation to conduct this study is that after passing so many years of Tripathi and Bhandari (2014) highlighting the fact of low SRI awareness in India, the present study tried to examine the SRI awareness level of Indian individual investors. India the second populous country needs to focus more on SRI to achieve sustainable development goals. To increase SRI in India, it is necessary to know investors' attitudes towards ESG issues and obstacles they face in their SRI. Therefore, it is imperative to find out whether the SRI awareness level has increased or not? This study tried to fill this gap by exploring individual investors', SRI awareness level, attitudes towards ESG issues, and the significance of various obstacle factors in their SRI decision-making. The current study adds knowledge to the above-mentioned issue that will help policymakers and asset managers to pace up the growth of SRI in India.

3. Hypothesis development

To achieve the research objective, variables have been grouped into five constructs namely: awareness, attitude, willingness, obstacle, and socio-demographic status. Earlier research studies were used to identify these constructs.

3.1 Awareness construct

Easy access to the information and existing knowledge about any issue, results in an increased awareness level of an individual about that particular topic. Diacon and Ennew (2001) conducted the research to find out the individual's perception towards financial risk and found five dimensions (associated with it) namely, distrust of products and/or providers, adverse consequences, financial return volatility, poor knowledge or information, and regulatory failure. Poor knowledge about investment products was among one of them. In an experimental study, Glac (2012) found a connection between the education level of individuals and their choice of investment frame integration. It was found that access to information was easier for individuals with a higher level of education. Capon *et al.* (1996) conducted a survey analysis in the US on 3386 individual investors of mutual funds and found that just 4% of investors were knowledgeable. Wang (2009) found a high correlation between, investors' risk-taking behavior and their knowledge. Knowledge gives self-confidence to investors which

ultimately increased their information processing and decision-making ability. [Raut et al. \(2020\)](#) found that financial gain and financial knowledge of individuals were two important investment predicting variables. [Tripathi and Bhandari \(2014\)](#) highlighted, lack of awareness and the lack of required information on the ESG issues among the investors as reasons for the slow growth of SRI in India. All the above-mentioned studies were the inspiration for identifying the first construct, i.e. awareness. This construct comprises three variables specific to the awareness level and about investors existing knowledge of SRI. The following hypotheses are formed to analyze the awareness level of investors about SRI, ESG/SR indices, and socially responsible (SR) funds:

- H1a.* Awareness about SRI does not impact the SRI decision of the investors.
- H1b.* Awareness about ESG/SR indices does not impact the SRI decision of the investors.
- H1c.* Awareness about socially responsible (SR) funds does not impact the SRI decision of the investors.

3.2 Attitude construct

Over the past few decades' issues related to climate change, global warming, and carbon dioxide emission have been addressed increasingly by governments. Kyoto protocol and the Paris agreement are steps taken in this direction. International organizations Like Global Reporting Initiative (GRI), Principles of Responsible Investing (PRI), European Federation of Financial Analysts Societies (EFFAS), and CFA Institute are continuously engaged in developing and revising ESG performance indicators. [Rosen et al. \(1991\)](#) found that when investors were asked to define socially responsible corporate behavior, they easily identified environmental issues and labor issues to be part of it. [Schueth \(2003\)](#) also concluded that for making a SRI, financial return should not be the only reason to invest in. It means that there must be other social reasons also to invest in SRI. By adopting negative screens SR investors tend to avoid investing in companies involved in exploiting employees and producing the product, which can be harmful to health ([Renneboog et al., 2008 a](#)). [Nilsson \(2009\)](#) conducted research to study the investment behavior of socially responsible investors and found that "socially responsible and return driven" SR investors, consider social responsibility and financial returns both while making an investment decision. [Williams \(2005\)](#) also found that social criteria are most important for SRI investors in comparison to shareholders' interest and financial criteria. [Dunstan \(2021\)](#) in his blog said that, if an enterprise wants to do value creation, then they must fulfill their responsibility towards respecting human rights. Respecting human rights is one of the important ESG factors and it is the global standard of conduct that should be practiced by all companies and institutional investors.

Keeping these studies as a foundation investors' attitude was analyzed under two categories: (1) attitude towards the importance of broad ESG issues and (2) attitude towards the importance of specific ESG factors in investing. The first category has three sub-variables to judge the investor's attitude towards ESG issues. The second category has eight sub-variables to mark the importance of specific ESG issues in investing. The first eight issues were *Human rights, Environmental impact, Consumer protection, Philanthropy, Employee rights, Community services, Gender equality, and Carbon footprint*. [Williams \(2005\)](#) tested the hypothesis that SRI investors tend to be more religious in comparison to conventional investors but couldn't find any supporting results in the research. Inspired by the [Williams \(2005\)](#) study, one behavioral variable, i.e. *faith-based investment* captures the respondent's behavior towards the importance of faith-based investment in investment decision-making. To check the impact of the above attitude variables on the SRI decision-making following two hypotheses are formulated:

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- H2. Attitude towards broad ESG issues does not impact the SRI decision of the investors.
- H3. Attitude towards the importance of human rights, environmental impact, consumer protection, philanthropy, employee rights, community services, gender equality, carbon dioxide emission, and importance of faith-based investment variables, does not impact the SRI decision of the investors.

3.3 Willingness construct

Due to the application of social criteria and variances in the intensity of the screen applied, the investment cost of investors increases in SRI and it results in lower financial returns for them (Fernandez Sanchez and Luna Sotorrio, 2014). Every investor invests money in a financial instrument to earn a return, but if there is a situation where one has to choose between the financial returns and SRI, then socially responsible investors show willingness towards acceptance of lower returns for the sake of social issues (Beal *et al.*, 2005; Sparkes, 1998; Webley *et al.*, 2001). In another research conducted by Chatzitheodorou *et al.* (2019), authors identified ten types of SRI investors, among which one type was “Environmentally opportunist investors” who used to invest in environmental profit-seeking investment (i.e. renewable energy, water conservation, biodiversity conservation, rainwater harvesting, climate change initiatives, etc.) to exploit the hidden financial opportunities. This type of investor invests in SRI products to earn financial returns. Inspired by the above studies this category of variables measures the willingness of retail investors towards SRI. There are two variables in this construct. First variable analyses the willingness of retail investors to invest in SRI. The second variable analyzes whether investors are willing to accept lower financial returns from SRI schemes in comparison to returns from conventional investment instruments. The following hypothesis checks the impact of willingness variable on the SRI decision-making:

- H4. Willingness variables do not impact the SRI decision of the investors.

3.4 Obstacle construct

Under this fourth construct, eight variables have been included to check important factors that acted as obstacles in SRI. Rosen *et al.* (1991) concluded that investors greatly value the socially responsible behavior of the company they invest in; but at the same time, investors believe that financial returns can't be sacrificed for this social responsibility. It means that investors are greatly concerned about returns from the investment and lower financial return acts as an obstacle for socially responsible investing. Hence, the lower financial return from SRI investment is the first obstacle factor. Lundstrom and Rosberg (2017) used four variables namely: knowledge in finance, knowledge of SRI, access to invest in SRI, and time used for trading. They found that these variables negatively impacted the SRI. Diacon and Ennew (2001) found in their research that when investors had little knowledge about the risk associated with investment instruments (i.e. where information risk is high), investors perceived these investments as having poor returns. Tripathi and Bhandari (2014) in their research on the Indian SRI market, highlighted that lack of awareness and lack of required information on the ESG issues were the two major reasons for the slow growth of SRI among Indian investors. Giddens (2018) in her article in Forbes, highlighted that the lack of available products is one of the growth barriers towards impact investing. Inspired by the above studies, next three obstacle variables, namely few investment avenues, lack of awareness about SRI, and lack of information about the socially responsible nature of the investment avenue are included. Jansson and Biel (2011) conducted their research to find out perceived drivers for and investment style of SRI among portfolio managers of institutional investors. Among various drivers identified they found that tax reduction for private investors was one

of the drivers for SRI. [Sundar et al. \(2000\)](#) conducted their research in the US to study the impact of tax incentives on the investment behavior of individual investors in the US from 1979 to 1993 and found that tax incentives have a significant impact on individual investor's investment behavior and, their investment behavior is based on it. Following the above studies, no tax benefit was identified as one of the obstacle factors for socially responsible investing. During the pilot testing, most of the respondents mentioned lower liquidity and high risk on investment as important obstacles in investment decisions. Considering the respondents' opinion lower liquidity and high risk on investments were included as obstacle factors for research. [Beal et al. \(2005\)](#) mentioned in their results that ethical investors' behavior could not be described with one single motive, rather it is a trade-off among psychic and financial returns expected by them and this trade-off tends to change with the ethical propensity or personal beliefs of investors. [Adam and Shauki \(2014\)](#) conducted a research study to explain the SRI behavior of Malaysian investors and found that investors' moral norms and personal standards significantly impacted their investment intention and behavior to invest in SRI. [Lewis and Mackenzie \(2000a\)](#) concluded in their research that ethical investors are usually middle-aged professionals and they are not cranks or saints, so they simply mix ethical investment with less ethical investments. It means these investors follow their personal ethics and value in investment decisions and mix ethical and less ethical investments. This gave the inspiration to include the last obstacle factor, i.e. not matching with personal ethics and value. If investors do not find enough investment avenues matching their personal values and beliefs, then this acts as an obstacle in investment decisions. After identifying the eight obstacle factors following hypothesis is checked:

- H5.* Obstacle factors i.e. low financial returns, few investment avenues, high risk on investment, lack of awareness about socially responsible investing, lack of information about the socially responsible nature of the investment avenue, no tax benefit, lower liquidity, and not matching with personal ethics and values do not impact the SRI decision of the investors.

3.5 Socio-demographic construct

Socio-demographic variables have an impact on an individual's decision-making process. Some of the earlier research works have also analyzed the impact of socio-demographic variables on SRI decision-making. [Nilsson \(2009\)](#) used five socio-demographic variables, namely: age, gender, income, education, and place of residence. In both research studies, [Williams \(2005, 2007\)](#) used age, gender, income, and education to find determining factors of SRI decision-making. [Owen and Qian \(2008\)](#) studied characteristics of individual investors related to SRI decisions and used demographic variables as control variables for analysis. Apart from [Nilsson \(2009\)](#), earlier studies, like [Rosen et al. \(1991\)](#), [Tippet and Leung \(2001\)](#), and [McLachlan and Gardner \(2004\)](#) have also shown a relation among SRI choices of individuals and demographic variables. Following the footsteps of the above research studies, four demographic variables, i.e. age, gender, educational qualification, and income have been identified to check their impact on Indian investor's SRI decision-making and the following hypothesis is checked:

- H6.* Demographic variables do not impact the SRI decision of the investors.

4. Theoretical framework

Ajzen and Fishbein propounded the theory of reasoned action (TRA) in [1975](#) and according to this theory behavioral intention is based on two variables namely attitude and subjective norms. Attitude is a positive or negative feeling for the product and subjective norms are an

individual perception of social pressure to execute or not to execute a particular behavior (Ajzen, 1991). Raut *et al.* (2020) used the Theory of reasoned action by adding four additional variables to explain investors' SRI behavior. They used environmental concern, moral norms, financial performance, and financial literacy in addition to attitude and subjective norms.

The theory of planned behavior (TPB) is the extension of the theory of reasoned action. The TPB is based on three variables namely attitude, subjective norms, and perceived behavioral control (PCB). According to Ajzen (1991), "perceived behavioral control refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles". Kaur and Kaushik (2016) used the TPB to explain investors' investment behavior for the mutual fund. Apart from attitude and subjective norms, authors considered awareness or knowledge of mutual funds as perceived behavioral control to describe investment behavior towards mutual funds. Awareness or knowledge of mutual funds is an imperative facilitator for investment. The TPB can also be used to describe SRI behavior (Adam and Shauki, 2014; Hofmann *et al.*, 2008). Individual characteristics of the investors such as age, gender, education, and income all impact the choices of an individual as a consumer and as an investor (Kaur and Kaushik, 2016). Kaur and Kaushik (2016) used age, gender, education, and socio-economic status as subjective norms to study the investment behavior of investors towards mutual fund investment. Following the above studies, this study also used the TPB to understand the factors impacting individual investors' SRI behavior. This research study used awareness (the perceived control behavior), attitude towards ESG (the attitude), willingness (the attitude), obstacle (the attitude), and demographics (subjective norms) construct as determinants of SRI behavior (intention) of investors (see Figure 1).

5. Research methodology

This study is exploratory in nature. Data used for the study have been collected using a structured questionnaire prepared by the authors. This questionnaire contains questions related to investigating the awareness level of retail investors about socially responsible investing, their attitude towards the importance of ESG issues, willingness to invest in SRI, and obstacles in their SRI decisions. Demographic information sought in the questionnaire includes age, gender, educational qualification, and gross annual income. Except for demographic data, all other information was collected through 5 points Likert scale. All the demographic data were measured with the help of the self-selecting type of questions. The Likert scale was used to measure behavior, opinions, and perceptions. The SRI being a niche market, it was tried to keep the questionnaire simple for the respondents to understand the

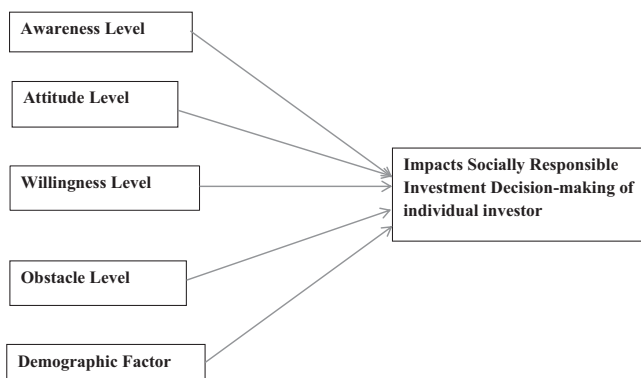


Figure 1.
Pictorial representation of conceptual model compiled by Author

questionnaire easily. Three questions were asked in the questionnaire related to the awareness construct. One question each was asked for awareness of SRI, awareness of ESG/SR indices of investors, and awareness of SRI funds. Similarly, one question each was asked related to all the variables in the attitude construct, willingness construct, and obstacle construct.

Pilot testing of questionnaire was conducted on 50 investors consisting of respondents from all age groups from 20 to 60 years, with different educational qualifications (ranging from graduation to Ph.D.) and incomes (ranging from below 5 lakh to above 20 lakh). Based on feedback received during the pilot study, minor changes were made in the language of the questionnaire, and a few new variables were added to the questionnaire. Due to the COVID-19 lockdown, the data collection process was delayed by three months and was completely changed to the online collection. After settling down of circumstances, data collection was done from July to November 2020. Data were collected through Google forms. Individual investors' list was obtained from an investor house and questionnaires were emailed to them with a request to share the link further with friends who are investors. The questionnaire was also circulated to professionals like chartered accountants, college faculty members, etc. who were also investors. On the safer side, we requested respondents to fill out the questionnaire only if they are investors. Thus, the sampling method used is a blend of snowball sampling and judgmental sampling. The questionnaire was circulated to approximately 4200 individuals. After excluding incomplete responses, 845 fully filled questionnaires were used in the study. The response rate was 20.11%.

To check the constructs' reliability and internal consistency, Cronbach's alpha is calculated (Table 1). For having good internal consistency value of Cronbach's alpha should be above 0.70 and this value represents that the measurement item used in the survey has good reliability (Nunnally, 1978).

For conducting descriptive statistics Likert scale categories were merged and converted into three, in place of five. Descriptive statistics are conducted among demographic variables and the constructs measuring the level of awareness, attitude, willingness, and obstacles faced by Indian retail investors while making SRI decisions.

Out of 845 respondents, 321 indicated that they invest in SR investment avenues along with conventional investments, while the remaining 524 invest only in conventional assets. Thus, 321 respondents have been categorized as socially responsible investors and 524 as conventional investors. The binary logistics regression analysis has been conducted to check the impact of selected (awareness, attitude, willingness, obstacle, and demographic) constructs on SRI decision-making.

The binary logistics regression analysis has been used as a methodology to analyze the collected data because the dependent variable (DV) used in the study is binary. Investment in SRI is used as a dependent variable where investment in SRI is = 1, and not investing in SRI is = 0. Awareness, attitude, willingness, obstacle, and demographic construct (age, gender, education, and annual income) have been used as predictor variables.

Binary logistic regression predicts the probability of dependent variable Y , occurring with given known values of predictor variables X_1 , X_2 , and so on.

$$P(Y) = \frac{1}{1 + e^{-(b_0 + b_1 x_1)}}$$

Where $P(Y)$ is the probability of occurring Y (dependent variable) i.e. investment in SRI,

b_0 is constant;

x_1 is predictor variable and

b_1 is coefficient attached to predictor variable (x_1).

Construct	Cronbach's alpha of construct's
<i>Construct 1: Awareness</i>	0.746
Awareness about SRI	
Awareness about ESG/SR indices	
Awareness about ESG funds	
<i>Construct 2: Attitude (a+b)</i>	0.850
<i>(a) Attitude towards the importance of broad ESG issues</i>	
Environmental issues	
Social issues	
Governance issues	
<i>(b) Attitude towards the importance of specific ESG issues and behavioral variables</i>	
Human rights	
Environmental impact	
Consumer protection	
Philanthropy	
Employee right	
Community services	
Gender equality	
Carbon dioxide emission	
Faith-based investment	
<i>Construct 3: Willingness</i>	0.757
Willing to Invest in SRI	
Willing to accept lower returns from SRI	
<i>Construct 4: Obstacle</i>	0.827
Low financial returns	
Few investment avenues	
High risk on investment	
Lack of awareness about SRI	
Lack of information about SRI avenues	
No tax benefit	
Lower liquidity	
Not matching with personal ethics and values	

Table 1.
Cronbach's alpha value
for the constructs

Total seven binary logistics regression were conducted by using the Forward Wald method. All the identified variables (Table 2) are used in binary logistics regressions for conducting analysis. First binary logistics regression was conducted among the dependent variable, i.e. investment in SRI and three awareness variables. The second and third binary logistics regressions were conducted among investment in SRI (DV) and attitude variables. Fourth binary logistics regression was conducted among investment in SRI (DV) and willingness variables. Fifth binary logistics regression was conducted among investment in SRI (DV) and obstacle factors. Sixth binary logistics regression was conducted among investment in SRI (DV) and demographic variables.

After finding the variables impacting the investors' SRI decision, a final combined binary logistics regression analysis was conducted among dependent variables, i.e. investing in SRI and only significant variables identified earlier with the help of previous regressions equations. This combined regression analysis aims to identify the most significant variables impacting SRI decision-making.

6. Research findings and discussion

This Section presents the findings of the current study.

Constructs	Measurement variable
(1) Awareness	Awareness about SRI Awareness about ESG/SR indices Awareness about ESG funds
(2) Attitude	
a. Attitude towards the importance of broad ESG issues	Environmental issues Social issues Governance issues
b. Attitude towards the importance of specific ESG issues and behavioral variables	Human rights Environmental impact Consumer protection Philanthropy Employee right Community services Gender equality Carbon dioxide emission Faith-based investment
(3) Willingness	Willing to Invest in SRI Willing to accept lower returns from SRI
(4) Obstacle	Low financial returns Few investment avenues High risk on investment Lack of awareness about SRI Lack of information about SRI avenues No tax benefit Lower liquidity Not matching with personal ethics and values
(5) Socio-demographic	Age Gender Education Income

Table 2.
Constructs used in the
present study

6.1 Results of descriptive statistics

The Descriptive statistics of the socio-demographic variables (Table 3) indicated that out of a total of 845 respondents more than two-thirds (43.7%) of the respondents were young with an age of 20–30 years. Whereas the proportion in the age group of 30–40 years is more than 25%, and up to 15% of respondents were in 40–50 years and above 50 years old, respectively. The questionnaire was answered by more male (54.6%) respondents in comparison to females (45.4%). Analysis of education indicated that nearly half of the respondents (47%) were post-graduates, a quarter of the respondents have education up to graduation. Circa 13% of respondents were holding Ph.D. and Professional degree each. The majority of participants were having annual income below 5 lakh (36.4%) and between 5–10 lakhs (29.2%). Income analysis revealed that only 9.6% of respondents were having higher annual income of more than 20 lakhs.

The descriptive statistics of the awareness construct results (Table 4), showed that out of 845 respondents, 40.2% were not at all aware of SRI, while 26.4% were somewhat aware, and 33.4% were aware of the SRI concept. Similar percentages were found for the awareness about ESG indices. Out of the total of 845 respondents, 40% of respondents were not aware of ESG indices, 25.8% were somewhat aware and 34.2% were aware. To check the respondents;

Demographics	Number of respondents (N = 845)	Percentage %
<i>Age</i>		
20–30 years	369	43.7
30–40 years	246	29.1
40–50 years	127	15.0
Above 50 years	103	12.2
<i>Gender</i>		
Male	461	54.6
Female	384	45.4
<i>Education</i>		
Up to Graduation	218	25.8
Post-Graduation	397	47.0
Ph. D.	113	13.4
Professionally Qualified	117	13.8
<i>Annual income</i>		
Below 5 lakhs	308	36.4
5–10 lakhs	247	29.2
10–15 lakhs	136	16.1
15–20 lakhs	73	8.6
More than 20 lakhs	81	9.6

Table 3.
The demographic statistics of the respondents

awareness about SR funds in India; they were given names of 7 SR funds and were asked if they were aware of these. Investors not aware of any SR fund were categorized as “not aware”, investors knowing up to any three SR funds were categorized as “moderately aware”, and investors knowing about more than 4 funds were categorized as “highly aware”. When respondents were asked about awareness of SR funds, then out of 845 respondents 35.4% of respondents were not aware of any SR funds, out of seven fund names given to them. While 57.4% of respondents were aware of at least 3 SR funds, only 7.2% of respondents were aware of the entire seven SR funds. The results indicate a low to moderate level of awareness about SRI among the majority of Indian retail investors. The awareness about SRI funds is at the lowest with more than one-third of the investors showing no awareness at all.

The analysis of attitude towards broad ESG issues based on the sample response of 845 respondents (results shown in Table 4) revealed that among them 86%, 82.8% and 79.8% respondents have found environmental, social and governance issues, respectively, play a very important role in investing decisions. Only 3.1%, 3.9%, and 5.6% of respondents found ESG issues, respectively, as not important in investing. Similar results were obtained for attitude towards specific ESG issues (*Human rights, Environmental impact, Consumer protection, Philanthropy, Employee rights, Community services, Gender equality, Carbon footprint, and Faith-based investment*) variables also. Descriptive statistics results of specific ESG issues revealed that out of 845 respondents, 81.8% of respondents found human rights, 87.5% of respondents marked environmental impact, 85.2% of respondents considered consumer protection, 77.6% of respondents determined employee rights, 70.5% respondents judged community services, 78.6% respondents exhibited gender equality, 77.6% respondents marked carbon dioxide emission, as very important in investing decisions. Except for faith-based investment and philanthropy, investors showed high importance for all other remaining 7 specific ESG issues in their SRI decision-making. Among all specific ESG issues, investors showed their highest concern for the environmental impact with 87.5%.

The descriptive statistics of willingness construct results (Table 4) revealed that out of 845 respondents 41.8% are willing, 35.7% are somewhat willing, and 22.5% are not at all willing,

Particulars	Percentage of respondents		
	Not aware	Somewhat aware	Aware
Awareness about SRI	40.2%	26.4%	33.4%
Awareness about ESG Indices	40.0%	25.8%	34.2%
Awareness about SR Funds	35.4%	57.4%	7.2%

Attitude construct	Not important	Moderately Important	Very Important
<i>(a) Attitude towards the importance of broad ESG issues</i>			
Environmental issues	3.1%	10.9%	86.0%
Social issues	3.9%	13.3%	82.8%
Governance issues	5.6%	14.7%	79.8%
<i>(b) Attitude towards the importance of specific ESG issues and behavioral variables</i>			
Human rights	5.1%	13.1%	81.8%
Environmental impact	2.6%	9.9%	87.5%
Consumer protection	3.3%	11.5%	85.2%
Philanthropy	14.6%	27.7%	57.8%
Employee rights	5.8%	16.6%	77.6%
Community services	8.5%	20.9%	70.5%
Gender equality	7.1%	14.3%	78.6%
Carbon dioxide emission	6.9%	15.5%	77.6%
Faith-based investment	37.2%	25.1%	37.8%

Willingness construct	Not at all willing	Somewhat willing	Willing
Willing to invest in SRI	22.5%	35.7%	41.8%
Willingness to invest in SRI if they give lesser returns than conventional investment	32.1%	33.6%	34.3%

Obstacle construct	Not important	Moderately Important	Very Important
Low financial returns	7.8%	19.4%	72.8%
Few investment avenues	6.3%	25.7%	68.0%
High risk on investment	6.7%	18.1%	75.1%
Lack of awareness SRI	8.0%	21.9%	70.1%
Lack of information about SRI avenues	7.5%	19.2%	73.4%
No tax benefit	12.7%	24.5%	62.8%
Lower liquidity	11.2%	22.8%	65.9%
Not matching personal ethics and values	18.3%	25.2%	56.4%

Table 4.
Descriptive statistics of
SR investment
behavior of responding
investors

to invest in SRI. Willingness to invest in SRI is 34.3%, if these (SRI) investments give a lesser return than conventional investment. In addition to it still, 33.6% of respondents are somewhat willing to invest in SRI if they give lower returns in comparison to conventional investments. Overall willingness to invest in SRI is 41.8% which indicates that Indian investors are willing to consider SRI avenues in investing and 34.3% of investors indicated the willingness to accept lower returns from SRI too. These investors can be termed as ethical investors who are ready to sacrifice their returns for social concerns.

The analysis of perceptions of the responding investors about obstacles in SRI (Table 4) posit that out of the 845 respondents found that 72.8% respondents considers low financial returns, 68% respondents marked few investment avenues, 75.1% respondents determined high risk on investment, 70.1% respondents viewed lack of awareness about SRI, 73.4% respondents indicated lack of information about SRI avenues, 62.8% respondents judged no

tax benefit, and 65.9% respondents found lower liquidity, as very important obstacles in SRI investing decisions. Not matching personal ethics and values is one such variable that only 56.4% of respondents found important in comparison to other obstacle factors. Among the given 8 obstacle factors, high risk on investment, lack of information about SRI avenues, low financial returns, and lack of awareness about SRI were found to be the most important obstacle factors by investors (in descending order of percentage) for SRI decisions.

6.2 Results of binary logistics regression analysis

As mentioned before, out of 845 respondents, 321 (38%) were socially responsible investors and the remaining 524 (62%) were conventional investors. The regression analysis has been done to check the impact of selected variables on the SR investment behavior of the responding retail investors. This section presents the results of the binary logistics regression analysis.

First binary logistic regression was conducted to check the impact of three predictor variables, i.e. awareness about SRI, awareness about ESG indices, and awareness about SR/ESG funds on the SRI decision of retail investors (whether the investor will invest in SRI or not). When all the three predictor variables were taken under the Forward Wald method then two variables, i.e. awareness about indices and awareness about SR/ESG funds were significantly able to predict the probability of SRI by the investors with $\chi^2 = 76.136$, $df = 2$, $N = 845$, $p < 0.000$ (Table 5). The model classified 64.6% of the cases and explained 11.7% (Nagelkerke R^2) variance in SRI investment. Table 6 presents the results of binary logistic regression. Odds ratio predict that the odd of making SRI increases with an increase in awareness about SRI indices and awareness about SR/ESG funds. Among three awareness variables, one variable, i.e. awareness about SRI, doesn't significantly impact the individual investors' SRI decision-making (Table 7). Out of three awareness variables, two awareness variables impacts the SRI decision-making hence we reject the null hypothesis H1b and H1c and only H1a is being accepted that awareness about SRI does not impact the SRI decision of the investors.

The result is in congruence with earlier findings of Kaur and Kaushik (2016) that awareness about mutual funds positively impacts investment intentions. Earlier research conducted by Tripathi and Bhandari (2014) highlighted that awareness about SRI and ESG indices is very low among Indian investors. The results of binary logistics regression also

	Chi-square	df	Significance	Model classification	Nagelkerke R square
Binary Regression 1	76.136	2	0.000	64.6%	0.117
Binary Regression 2	5.616	1	0.018	62%	0.009
Binary Regression 3	11.758	2	0.003	62%	0.019
Binary Regression 4	39.958	2	0.000	62.7%	0.063
Binary Regression 5	5.559	1	0.018	62%	0.009
Combined binary regression	112.684	3	0.000	67.3%	0.170

Table 5. Summary of the result of the Binary logistic regressions

Variable	B	SE	p value	Odds ratio/Exp(B)
Awareness SR/ESGs indices	0.529	0.092	0.000	1.697
Awareness SR/ESG Funds	0.554	0.136	0.000	1.740

Table 6. Binary logistic regression results between SRIs and awareness construct

RBF 15,6	Variables not in the equation			
	Variables	Score	df	Sig.
880	Awareness about SRI	3.213	1	0.073
	Social issues	0.175	1	0.675
	Governance issues	2.464	1	0.116
	Human rights issues	0.166	1	0.683
	Environmental impact	0.293	1	0.588
	Consumer protection	1.920	1	0.166
	Philanthropy	0.741	1	0.389
	Employee rights	0.348	1	0.555
	Community services	0.055	1	0.815
	CO2Emission	0.042	1	0.838
	Lower returns	0.142	1	0.706
	Few investment avenues	0.037	1	0.848
	No SRI awareness	0.016	1	0.899
	No information about SRI avenues	0.002	1	0.966
	No tax benefit	0.456	1	0.500
	Lower liquidity	0.189	1	0.664
	Not matching ethics	0.069	1	0.792

Table 7. Variables not significantly impacting the socially responsible investment decision-making

indicated that SRI investing decision is positively impacted by awareness of SR/ESG indices and awareness of SR/ESG funds, hence fund managers should advertise more about the SR funds. They should advertise more about how SR funds' investment objectives are different from conventional funds. Investors should be educated about the impact created by their investment made through these SR funds. As per the [CFA institute \(2015\)](#), more ESG training and education are required for all those who are interested in ESG based investing.

Second binary logistic regression results among SR investment decision-making and three predictor variables, namely attitude towards environmental issues, social issues, and governance issues, indicated that using a Forward Wald method only one variable, i.e. environmental issues was significantly able to predict the probability of SRI by the investors with $\chi^2 = 5.616$, $df = 1$, $N = 845$, $p < 0.018$ ([Table 5](#)). The model classified 62% of the cases and explained 9% (Nagelkerke R^2) variance. Odds ratio predict that the odd of making SRI increases with an increase in attitude towards environmental issues ([Table 8](#)). Socially responsible investing decisions are not significantly impacted by attitude towards social and governance issues ([Table 7](#)). Hence [hypothesis 2](#) is accepted for social issues and governance issues and rejected for environmental issues. The above results are found to be consistent with findings of earlier studies conducted by [Rosen et al. \(1991\)](#) and [Berry and Junkus \(2013\)](#). Both these studies found that environmental issues were the most important issue among other SRI issues.

To check the impacts of nine predictor variables, namely attitude towards the importance of human rights, environmental impact, consumer protection, philanthropy, employee rights, community services, gender equality, carbon dioxide emission, and faith-based investment in the SRI decision-making by individual investors third binary logistics regression was conducted. Regression results ([Table 9](#)) showed that using the Forward Wald method two

Table 8. Binary logistic regression results between SRIs and attitude towards broad ESG issues

Variable	B	SE	p value	Odds ratio/Exp(B)
Attitude towards environmental issues	0.394	0.172	0.022	1.483

variables, i.e. gender equality and faith-based investment were significantly able to predict the probability of SRI by the individual investors with $\chi^2 = 11.758$, $df = 2$, $N = 845$, $p < 0.003$ (Table 5). The model classified 62% of the cases and explained 1.9% (Nagelkerke R^2) variance in SRI investment. The remaining seven predictor variables do not significantly influence the individual investors' SR investing (Table 7). The odds ratio predicts that the odd of making SRIs increases with an increase in attitude towards gender equality issues and faith-based investments. Hypothesis 3 is rejected for gender equality and faith-based investment and accepted for the remaining seven predictor variables.

Fourth binary logistic regression results (Table 10) between SR investing decision and two willingness predictor variables showed that by using the Forward Wald method both the willingness variable, i.e. willingness to invest in SRI avenues, and willingness to accept lower returns from SRI were able to predict the probability of SRI by the investors with $\chi^2 = 39.958$, $df = 2$, $N = 845$, $p < 0.000$ (Table 5). The model classified 62.7% of the cases and explained a 6.3% (Nagelkerke R^2) variance in SRI investment. Odds ratio predict that the odd of making socially responsible investment increases with an increase in willingness to invest in SRI avenues, and willingness to accept lower returns from SRI. Socially responsible investors are willing to make SRI for social impacts and are ready to invest even when they expect lower returns from these investments. Hence hypothesis 4 is rejected. Similar results were found by Barreda-Tarrazona *et al.* (2011) and they concluded that SR faithful investors are ready to invest in SR funds with highly unfavorable return differential as well.

Significance of eight obstacle predictor variables, namely low financial returns, few investment avenues, high risk on investment, lack of SRI awareness, lack of information about SRI avenues, no tax benefit, lower liquidity, and not matching personal ethics and values were checked with SRI decision-making by conducting fifth binary logistics regression. Regression results (Table 11) using the Forward Wald method indicated that only one variable, i.e. high risk on investment was significantly able to impact the probability of individual investors' SRI decision-making with $\chi^2 = 5.559$, $df = 1$, $N = 845$, $p < 0.018$ (Table 5). The model classified 62% of the cases and explained the variance of 0.9% (Nagelkerke R^2). The odds ratio predicts that the odds of making a SRI are significantly impacted by an increase in high risk on investment. Investors consider high risk on SR investment avenues as a significant obstacle in SR investing decisions. The remaining other obstacle factors didn't significantly impact SR investing decisions (Table 7). Hence,

Table 9. Binary logistic regression results between SRIs and attitude towards ESG issues and behavioral variables

Variable	B	SE	p value	Odds ratio/Exp(B)
Gender equality	0.297	0.132	0.025	1.346.170
Faith-based investment	0.170	0.084	0.044	1.185

Table 10. Binary logistic regression results between SRIs and willingness construct

Variable	B	SE	p value	Odds ratio/Exp(B)
Willingness to invest in SRI avenues	0.398	0.113	0.000	1.489
Willingness to accept lower returns from SRI	0.261	0.106	0.014	1.299

Table 11. Binary logistic regression results between socially responsible and obstacle construct

Variable	B	SE	p value	Odds ratio/Exp(B)
High risk on investment	0.291	0.126	0.021	1.338

[hypothesis 5](#) is rejected only for high risk on investment and accepted for all other obstacle variables. These results are in congruence with the results of the study conducted by Morgan and Stanley on US individual investors (2019), according to this study, 79% of surveyed investors find 'concern about investment performance' to be the most significant barrier in sustainable investing.

Sixth binary logistic regression was conducted to check the impact of four demographic predictor variables, namely age, gender, education, and annual income on the decision whether the investor will invest in SRI or not. When all the four predictor variables were taken under the Forward Wald method, then none of the demographic variables was able to significantly impact the investors' probability of making a SRI. Hence [hypothesis 6](#) is accepted.

Seventh binary logistic regression was conducted to check the impact of seven predictor variables, (found from earlier regression analysis) on the decision whether the investor will invest in SRI or not. Predictor variables used are awareness about SRI indices, awareness about SR/ESG funds, attitude towards environmental issues, attitude towards gender equality issues, the importance of faith-based investment, willingness to invest in SRI avenues, willingness to accept lower returns from SRI, and obstacle factor-high risk on investment. When all the eight predictor variables were taken under the Forward Wald method then three variables, i.e. awareness about SRI indices, awareness about SR/ESG funds, and willingness to invest in SRI avenues were significantly able to predict the probability of SRI by the investors, with $\chi^2 = 122.684$, $df = 3$, $N = 845$, $p < 0.000$ ([Table 5](#)). The model classified 67.3% of the cases and explained 17% (Nagelkerke R^2) variance in SRI investment. Odds ratio results indicated that the odds of making a SRI by individual investors increases with awareness about SRI indices, awareness about SR/ESG funds, willingness to invest in SRI avenues ([Table 12](#)).

7. Results and conclusion

Investors invest in SRI opportunities intending to increase the value of money invested and to make the world a better place to live for future generations. The research objective of this study is to examine Indian individual investors' awareness level about SRI, their attitude, their willingness, and obstacle factors significant for them in socially responsible investing. The result of descriptive statistics indicates a low level of SRI awareness among responding investors; in fact, the majority of the investors agreed that ESG issues are significant in investment decision-making and showed a willingness to invest in SRI avenues. However, they were not willing to accept lower returns from SRI. The majority of investors found; a lower return on SRIs, no tax benefit, lack of information about SRIs, low liquidity, and fewer available SRI investment avenues as important obstacles while making SRI investing decisions.

Regression results indicated that under awareness construct, awareness about SRI indices and SR funds significantly impact the SRI decision-making of individual investors. Under attitude construct, investors found environmental issues, gender equality issues, and faith-based investment to be most important while making the SRI. The possible reason is that in

Table 12.
Binary logistic
regression results
between SRIs and
predictor variables

Variable	B	SE	p Value	Odds ratio/Exp(B)
Awareness about SRI indices	0.457	0.094	0.000	1.579
Awareness about SR/ESG funds	0.305	0.058	0.000	1.357
willingness to invest in SRI avenues	0.471	0.101	0.000	1.602

today's fast-changing world, investors are highly concerned about environmental issues as they directly impact all living beings. Fresh air and pure water are prerequisites for living beings, and investors fully understand this. Investors seem to be conscious while investing, giving considerable importance to environmental issues in socially responsible investing decisions. Giddens M. (2018) also enumerated that millennials and women are willing to consider their environment and social values in their investment decision-making. There are dedicated Gender equality funds in the US that allow investors to consider gender equality issues in investment decisions. Likewise, results of binary regression also indicated that Indian individual investors are concerned about gender equality issues while making SRIs. Descriptive statistics showed that only 37.8% of respondents marked faith-based investment as highly important, but regression results indicated that faith-based investment significantly impacts SRI. These results are in contrast to the findings of [Berry and Junkus \(2013\)](#) who found that religious values are not SRI decision-making criteria for most investors.

Further, data give good evidence that investors are willing to invest in SRIs and even willing to accept lower returns. These results are in congruence with earlier findings of [Beal et al. \(2005\)](#), [Sparkes \(1998\)](#), and [Webley et al. \(2001\)](#). Regression results indicated that among all the obstacle factors, responding investors considered "high risk on investment" to be the most significant obstacle in making SR investments. It may be due to the fact that the investors mostly prefer stable returns from the investments, and lower returns and higher risk are two things that impact the individual investors' decisions the most. Regression results indicated that demographic variables, i.e. age, gender, education, and income, have no significant impact on SRI decision-making.

Combined binary logistics regression results indicated that investors' SRI decisions are significantly influenced by the awareness about SR/ESG indices, awareness about SR/ESG Funds, and willingness to invest in SRI avenues.

No investor is 100% socially responsible investor; one can be a high SRI or low SRI investor in investment choices. As research conducted by [Nilsson \(2009\)](#) also confirmed this point by concluding that it can't be assumed, that all those who invest in socially responsible funds tend to be concerned about social responsibility, sometimes these investors follow profit maximization approaches and invest in these socially responsible funds to achieve higher financial returns. [Revelli and Viavani \(2015\)](#) believed that investors will obviously prefer to invest in SRI instruments if there is no difference in their financial returns compared to conventional investment.

It can be concluded that the SRI decision of an Indian individual investor is significantly impacted by the awareness about SR/ESG indices, awareness about SR/ESG funds, willingness to invest in SRI avenues, and by their perceived importance of gender equality issues. Fund managers should consider these issues more while launching new investment instruments. Indian investors have indicated willingness to invest in SRI and willingness to accept lower returns from SRI too. Investors found high risk on SRI avenues as a significant obstacle to socially responsible investing.

In India, an individual investor's ethics, moral behavior, and investment decisions are found to be different. Indian investors mainly invest money for financial returns. Individual investors are more concerned about risk and returns associated with investment instruments. But over time, it's interesting to note that ethical considerations are now being started to be considered in decision-making by the financial experts, fund managers, and in small amounts by the individual investors too. SRI is still a niche investment strategy in India. Government and SEBI should come forward to increase the knowledge and awareness level of individual investors. [Cowton and Sandberg \(2012\)](#) also suggested that political intervention is required to make SRIs successful. This political intervention will pressurize mainstream or conventional investors to adopt ethical aspects in investment decisions.

8. Implications, limitations, and further research

This study has implications for ethical and SR mutual funds managers, policymakers, government, and international asset management companies. This study analyzed the variables that affect the SRI decision of an Indian retail investor. Keeping these factors in mind, Indian and international fund managers can launch new funds by targeting retail investors' SR choices. This study gives important information regarding SRI awareness level, the importance of broad and specific ESG issues, and significant obstacle factors in individual investors' SR investment decisions. This knowledge can be used to improve the financial system towards more sustainability. This is a point to ponder upon by the mutual fund companies and SEBI too. Issuers of SR funds must invest their time and money to educate the retail investor about the SR fund's specific objectives. These initiatives will surely help in the growth of SRI among Indian retail investors.

The biggest limitation of the study was the online collection of data. Online circulation of questionnaires stopped the process of physical presence and connection with respondents. Respondents understood the question as per one's perception level. Online collection of data is less time-consuming but at the same time, most of the time respondents ignore such questionnaire emails, sometimes mark them as spam too.

This study was conducted for Indian retail investors, similar cross-country research can be undertaken in the future. Future research can be conducted on marketing strategies of SR/Ethical/ESG funds in India. Another research can be conducted to check the difference between the attitude and investment behavior of conventional and SR investors.

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