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## **Exploring the Dynamics of Socially Responsible Investment Behavior among the Pension Funds Managers in Pakistan**

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### **Abstract**

Socially accountable investment (SRI) is an investment strategy that considers both economic returns and social, environmental, and moral (SEE) affects. While the expansion of SRI is developing, there's constrained expertise of the elements influencing funding behavior in emerging markets like Pakistan, specifically amongst pension fund managers. A quantitative approach utilized using structural equation modeling (SEM) to evaluate the relationships among the determinants of SRI behavior. Data collected through a survey administered to pension fund managers and Financial Firms registered with the Securities and Exchange Commission of Pakistan. The sample covered 199 respondents, and the questionnaire measured variables along with mind-set, aim, subjective norms, PBC, ethical norms, and training and education. The effects display that the intention to spend money on socially responsible funds is notably motivated by means of attitudes, subjective norms, and PBC, regular with the Theory of Planned Behavior. Moral norms were also located to have a direct impact on both goal and conduct, highlighting their important function in moral investment selections. Additionally, education and training had been shown to definitely have an effect on each intention and behavior. The findings offer sensible insights for fund managers, policymakers, and academic institutions. By understanding the behavioral drivers of SRI, stakeholders can better promote socially responsible funding strategies that align with moral and sustainable development. This research advances the knowledge of socially responsible funding behavior within the context of developing market. It confirms the applicability of the Theory of Planned Behavior to SRI



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selections and underscores the significance of moral norms, education and training in shaping behavior.

Keywords: Social Responsible Investment, Pension Funds Managers, Theory of Planned Behavior

### Introduction

Socially responsible investment is an investment technique that focuses to promote favorable effect on environment and society in addition to producing income. Socially Responsible Investment (SRI) has acquired growing attention from country wide and global markets. Although each researchers and practitioners have shown interest within the subject, it's miles widely mentioned that there is no conclusive proof or theoretical historical past regarding the elements that effect the behavior of investors towards SRI. Therefore, further study is needed to address this gap in knowledge (Williams, 2007; Nilsson, 2008; Glac, 2009).

The financial goals as well as social, environmental, and ethical (SEE) goals of investors have an impact on their decision-making behavior in relation to SRI (Nilsson, 2008, 2009; Glac, 2009). Nevertheless, a more in-depth analysis is needed to understand how these objectives are implemented in terms of investment practices related to SRI (Hofmann et al., 2008; Glac, 2009). Different studies (Fishbein and Ajzen, 1975, Manstead 2000) revealed attitude greatly affects behavior through intention. Researches of East (1993) and Hofman (2008) concluded that only attitude doesn't affect behavior, but other elements including subjective norms, moral standards and PBC also influence the decision making behavior. But, the results of the impact of these elements provide mix results. Studies revealed that behavior is more affected by subjective norms than attitude through intention. However, the researchers including Godin et al. (2005), and Ravis et al. (2009) recommended additional investigation.

Investors are confronted with a social dilemma when their pursuit of higher returns or profit, may result in ethically immoral investments. Social dilemmas occur when everyone has a plan that maximizes profit, which is similar to ideas covered in the earlier work of Dawes (1980). It means the situation where each member of a group receives a greater benefit from behaving selfishly rather than cooperatively (Rutte and Wilke, 1985). Additionally, in a social dilemma, when the collective choice favors dominant strategies, the overall outcome is unsatisfactory. Investors may benefit financially by disregarding social responsibility; therefore ideal scenario of socially responsible investing may be threatened by investors who act selfishly and irresponsibly. The study will not prioritize examining social dilemma situations but will instead address them in future research.

This research utilizes Theory of Planned Behavior (TpB) given by Ajzen in 1991 to investigate how Pakistani investors make decisions on SRI. Until now, there has been a lack of published data that comprehensively analyzes investor behaviours in relation to socially responsible investing (SRI) utilizing the theoretical structure put up by TpB. Instruments that are consistent with Shariah principles, which are according to the rules of the Holy Quran are being comparable to socially responsible investment (Ghoul and Karam, 2007; Pitluck, 2008). According to Islamic law, investment in instruments those are



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related to non-Islamic practices including gambling, betting, alcohol and other sectors where the activities are not in line with the Islamic rules are considered forbidden. According to socially responsible investment (SRI), investments which are deemed forbidden (haram) in Islam are regarded as having a harmful impact and these type of investments should be avoided in all circumstances (Hofmann et al., 2008). We can conclude that Islamic law and SRI about investment shared common characteristics as the principles of Islam about investment and SRI are closely related with each other. The results of this study are derived from SRI decision making behavior of investors in Pakistan's Islamic financial system.

Investments those are in line with SRI or investments those are not in line with SRI both aims to obtain profits. Consistent with portfolio idea of Markowitz (1952), and Michelson et al., (2004), taking social, environmental and ethical (SEE) troubles under consideration might either growth the level of risk or lessen the profitability of a portfolio. Because of this socially responsible investing (SRI) might provide low profit than non-socially responsible investments. (Elton et al., 1993; Carhart, 1997; Cox et al., 2004).

The focus of this research is to use structural equation modeling (SEM) for assessing the extent to which the characteristics of the Theory of Planned Behavior, TpB (intention, attitude, PBC, and subjective norms) together with moral norms and training and education can predict the behavior of pension funds managers in the context of SRI in Pakistan. The causal relationship between the constructs of the Theory of Planned Behavior TpB as established by Ajzen (1991) and Fishbein and Ajzen (2008) is examined. Additionally, the research seeks to determine the mediating role of intention. For data collection, field surveys was conducted with Pakistani pension fund managers, agents, financial experts, and individual investors registered with the Securities and Exchange Commission of Pakistan. East (1993) study, which uses TPB to describe investor behavior and decision -making relations, is repeated in this study. With a special attention to the contribution of the present study pre -(1993) and Hoffman et al, the investors' decision -making behavior expands on the previous investigation on the TPB. (2008). In addition, this study integrates research done by Godin et al. (2005) and Revis et al. (2009), as well as other relevant studies have examined the moral norms. This research also attempts to determine that the investor's intention and behavior in relation to socially responsible investment (SRI) is shaped by training and education about SRI. The study intended to address the research questions like how the factors of Theory of Planned Behavior, in addition of moral norms, affect the decision-making behavior of the pension fund managers in Pakistan towards SRI? Is the relationship between the attributes of the TpB and the decision-making behavior of Pakistani pension fund managers be strengthened by adding intention as a mediating variable? Do moral norms influence the intention and behavior of an investor towards SRI? Does training and education about SRI influences the intention and behavior of an investor towards SRI?

This goal of the study is "Examining the Dynamics of Socially Responsible Investment Behavior among Pension Funds Managers in Pakistan," goals to improve the literature through assessing the key factors influencing decision-making behavior of pension fund managers in relation to socially responsible



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investments. Although some studies briefly discuss the significance of ethical considerations in investment decisions, still there is a huge gap on key factors including intention, training and education, norms and standards of investors. Brown et al. (2019) argue that the current body of research does not thoroughly examine the specific psychological and normative influences on the investment choices made by fund managers in relation to social responsibility. Training and education of socially responsible investment seems to be one of the important and significant factor that could have effect on intention and behavior about socially responsible investment. So the current study will find the result about the effect of training and education of SRI on the intention and behavior of pension funds managers.

Most of the current research on socially responsible investing focuses mostly on high class economies and societies. However, the studies that investigate dynamics of emerging economies, such as Pakistan are rare. According to Wang and Chen (2020), the lack of research in emerging countries hampers our comprehension of how cultural, institutional, and economic issues specifically impact the decision-making process of pension fund managers regarding socially responsible investments.

### **Background of SRI**

The name of ethical investment (EI) has been traditionally used to indicate a funding approach that takes into consideration social, ethical, and environmental issues (SEE) (Simon et al., 1972; Domini, 1984). In modern-day instances, the concept is frequently known as socially responsible investment (SRI). In the existing frame of literature, many designations for SRI were placed out by a number of researchers which include Frankel (1984) Hylton (1992). A multitude of academic inquiries have examined the conduct of proponents of socially responsible investing (SRI), with a particular focus on their motivations, mindset, and decision-making processes. However, more clarification is necessary since these studies have just provided descriptive data. Among the studies that have been conducted are those by Rosen (1991), Anand and Cowton (1992), and Glac (2009).

Moreover, a comparative analysis has been undertaken to examine the characteristics of SRI and non-SRI investors. Notable research in this field include those undertaken by Lewis (2001), Tippet (2001), McLachlan, and Gardner (2004). Although several theoretical frameworks have been created to elucidate the behaviors of SRI investors (Nilsson, 2008; Glac, 2009), the inquiry into the specific variables that drive investors towards SRI is still unresolved. Investigations have shown that options made by investors about SRIs are particularly affected by their perspectives on social, moral and environmental concerns related to their point of view (Bollen, 2007; Nilson, 2008; Glack, 2009). However, more research is necessary to determine the practical implementation of these principles in empirical investment practices of socially responsible investment (SRI) within an authentic market environment highlighted by Hofman et al. (2008) and Glack (2009).

#### 2.2. The behavior of investors towards SRI

Many approaches have been used to gain intensive knowledge of variables that affect investors' behavior about their investment decisions. The TPB model proposed by Ajzen (1991) is widely recognized as a major structure to



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investigate human behavior. This can be seen as an extended recurrence of the principle of logical action, first proposed by Ajzen and Fishbein in 1980.

The principle of planned behavior (TPB) has been the subject of many studies to acquire integral knowledge of behavior and make predictions about it in many contexts (Ajzen, 1991; Yasafzai et al., 2010). The model has been criticized to exclude individual moral standards, even if it agrees that TPB may predict behavior (Masted, 2000). Ajzen (1991, 2002) stated that integration of moral principles in TPB can provide beneficial results,

Moral norms are the personal assessment made by an individual about right or wrong of a specific action. In their study, Conner and Armitage (1998) propose that moral norms have a substantial impact on behaviour and should be used in parallel with other attributes of TpB.

Many studies support the significant impact of moral norms on intention (Manstead, 2000). A study conducted by Kurland (1995) established a significant positive correlation between moral principles and intention. The emergence of a conflict between a person's self-interest and the interests of others highlights the increased importance of moral considerations (Kaiser and Scheuthle, 2003). It is possible that moral norms are the reason why some investors adhere to SRI while others do not.

In 1993, East was one of the first researchers to use the Theory of Planned Behavior for individuals making investments. He focused on two main issues to comprehend investing behavior. The study examines the potential effect of self-reported properties on the decision of the general public to apply for shares. It also verifies TpB as a suitable conceptual framework for elucidating and predicting behavior of investors. The measurement of intention in East's (1991) study included the consideration of investors' prior experience (E) and personal norms (PN). However, they were unable to uncover any empirical evidence for either PN or PE, even if attitude was an adequate explanation for the intention-behavior link.

A personal norm (PN) is an individual's own benchmark for participating in a certain behaviour East (1993). The literature defines moral standards as personal ideas about one's actions' morality. It also considers people's personal beliefs about their obligation to follow or reject certain actions (Ajzen, 1991; Manstead, 2000; Sparkes & Cowton, 2004).

In contrast, Godin et al. (2005) used the TpB within an alternative context to investigate health-related matters such as driving behaviours, smoking habits, adherence to universal precautions, and engagement in physical exercise. Their findings indicated that intentions associated with moral standards outperformed intentions associated with beliefs as predictive capacity for action. Godin et al. (2005) found that the moral norms are a more accurate indication of intention among persons who shared comparable moral values, refuting Schwartz's (1977) claim that people sometimes behave in line with expectations and personal norms. Godin et al. (2005) generated data that contradicted the findings established by East (1993), even though they based their conclusions on undergraduate students.

A study of Ravis et al. (2009) assesses the predictive accuracy of expected consequences and the moral norms in TpB. The findings show a substantial impact of moral standardss and predicted impact of expected consequences on intentions, with a 5% increase seen for the predicted impact and a 3% increase



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observed for the moral standards. Ravis et al. (2009) claimed that the influence of both factors on behaviour was modified by intention.

Hofmann et al. (2008) undertook a comparative analysis of the Theory of Planned Behavior (TpB), Multiple Attribute Utility Theory (MAUT), and the Model of Ethical Decision-Making in Organizations within the domain of SRI. The research enhances comprehension of the decision-making processes of SRI investors. To comprehend investors' growing interest in SRI, the study used survey data. A market for automatic share trading was selected, with 141 students participating from Vienna University. By use of electronic correspondence and interpersonal networks, these students were recruited for a study. Taking into account the company's financial success and moral commitment, the setting examined how people's moral standards influenced their choices to purchase and sell stocks. After looking at the results of the study, we can say that Jones's single variable, moral strength ( $b = 1.37$ ,  $p = .0039$ ), has a big impact on explaining how SRI investors behave. Despite the fact that morality is not a variable in MAUT, the conclusions derived from TpB evaluations are unclear when compared to the findings of East's (1993) research. Apart from PBC, only the measures of attitude and subjective norms showed statistical significance and good reliability. Attitude and subjective standards have a stronger correlation with intention than PBC. But the author's examination concerning the TpB is incomplete since it misses belief components.

Yet, the findings of the author are consistent with that of East(1993), claiming that intention affects behaviour. The concept of intention was clarified by examining attitude and subjective standards. However, the assertion made by East (1993) about the impact of PBC on investors' intentions was rejected. The research was conducted in a lab, not in a real market, and the findings strongly supported the TpB. Undoubtedly, these inconclusive findings emphasise the need for more inquiry. By integrating input from actual investors within a relevant study domain, it is quite likely that a more accurate understanding and practical application of Theory of Planned Behavior (TpB) may be achieved.

The author did not come to any findings on the role of intention as a mediator in the framework of TpB. Further elaboration is necessary to address this absence of conclusion. A connection between the determinants of intention and behaviour has been shown to include intention as a mediator. Shim et al. (2001) studies indicate that the objective before digital shows a significant impact on the association between using online data to purchase many other aspects, including the objectives, alleged control and experience before manufacturing models.

### **SRI in Pakistan**

The increasing prevalence of socially responsible investment (SRI) in Pakistan can be attributed to the increasing recognition among investors of the importance of aligning financial objectives with social and environmentally friendly principles. Socially responsible investment (SRI) is making a significant impact in many domains in Pakistan, including corporate administration, renewable sources, green economy and energy from education. The impact and mechanism of SRI has been studied by many researchers in



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Pakistan. A comprehensive examination also was done by Ahmed (2019), who also noted the limit of investor strategies and solutions.

A research was carried out by Pasha (2018) to have a look at the implementation of SRI in the education quarter of Pakistan. Different studies were conducted in order to investigate the capability for investments in schooling-focused organizations to lessen the success disparity and enhance the social justice. In his work, Shah (2017) examined the correlation among socially accountable investment in Pakistan and corporate governance. The studies showed the importance of responsibility, transparency, and responsible decision-making as key determinants for promoting sustainable practices. Furthermore, these researches provide contribution to literature in Pakistan on SRI by way of presenting treasured analysis on the results of this practice on nature, society, and enterprise operations.

### 2.4. Development of Hypotheses

This study employs the theoretical structure of the principle of behavior (TPB) to assess the variable responsible for the specific behavior of Pakistani fund managers in relation to SRI and integrate moral standards and training and education.

### **SRI factors affecting investor behavior**

According to a recent research by Hoffman et al. (2008), Investor behavior in relation to socially responsible investment (SRI) can be accurately predicted by TPB. According to TPB, intention is the main prophet of behavior, which believes that individuals usually behave in line with their intentions (East, 1993; Ravis et al., 2009). Intentions are strong drivers of behavior, and they significantly affect the possibility of people being engaged in a particular activity (Ajzen, 1991). Research examined the justification behind the selection of Sharia-based Funds and Products to get more information on their views on Islamic portfolio and SRI.

Investors perceptions of risk involved in SRI products and simplicity in understanding of SRI goods trade are among the relevant resources investigated in this study. PBC is a solution to how easily a person feels that they can complete a certain activity if they choose (ajzen1991). Ajzen (1991) also argued that behavior could be predicted by intentions in situations with low regulation.

Consequently, the word PBC in this research refers to the investors' subjective perceptions of the level of easiness and difficulty to engage in SRI. Ajzen (1991) and East (1993) have proposed that PBC may be seen as having a dual function inside TpB. Primarily, when examined in conjunction with attitude and subjective standards, it serves as a co-determinant of an individual's intention. Moreover, it performs a co-determinant role in behavior in addition to its primary role. Therefore, the argument is made that PBC is associated with the tangible actions that the human participant takes. Moreover, a recent research investigating the behavior of investors in SRI revealed that the aforementioned explanations were unequivocally unsupported. Hofmann et al. (2008) claims that the construct known as perceived behavioral control (PBC) has a restricted level of importance in explaining investor behavior. The primary hypothesis of this research is that the intention and PBC of SRI investors would influence their behavior in terms of behavior determination.



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Thus, the current research proposes the following hypotheses:

H 1a: The intention of investors has an impact on their behavior towards SRI.

H1b: The perceived behavioral control of investors influences their behavior towards SRI.

### **Determinants impacting investors' willingness for engaging in SRI**

Subjective norms (SN), perceived behavioural control (PBC), and attitude (At) are the three main components that are thought to impact intention, according to Theory of Planned Behaviour (TpB) of Ajzen. Attitude refers to how an investor assesses the goals of investing in (SRI) funds. The adoption of socially responsible investment decisions founded in rational reasoning is anticipated to be facilitated by the positive viewpoints held by investors. The role of intention in influencing behaviour has been supported by multiple studies. Research conducted by Williams (2007) and Hofmann et al. (2008) has produced empirical data that supports the link that has been noticed in this area. The determinants of attitude comprise outcome beliefs, which function as indicators of the anticipated values that emerge from a certain action. While evaluating (e) the result after the action occurs is what constitutes quantification of value, outcome belief quantification requires calculating (b) the likelihood that the outcome will materialise when the action is carried out. According to Ajzen (1991), the expectancy-value approach is used to provide a quantitative measure of intention by calculating the sum of anticipated values (Pbiei).

In accordance with the Theory of Planned behavior (TpB), subjective norms (SN) propose that the behavior of an individual is influenced by his beliefs of the expectations that other people have of them about their participation in that activity. This study uses the idea of social norms (SN) to evaluate the influence of social circumstances on individuals' decisions to engage in or abstain from a certain behaviour. Normative perspectives are the primary factor that influences social norms. They are the perceptions of individuals regarding the expectations for their participation in or abstention from specific behaviour.

The goal of this research is to determine how much subjective norms (SN) reflect investors' opinions on the acceptance, promotion, and implementation of SRI fund investments among their friends, family, and business associates. The appraisal of the probability that a person's significant others share their viewpoint and their inclination to adopt these viewpoints are integral parts of the assessment of normative belief. Consequently, the cumulative value of normative belief (Pnimi) is the last aspect that defines subjective norms (SN). Studies showed that social norms (SN) significantly influences behavioral intentions regarding socially responsible investment (SRI) (East, 1993; Hofmann et al., 2008). The conclusions of the study show that assessing intention using PBC, At, and SN approaches may provide more insightful information.

H2: The intentions of investors towards SRI are influenced by their attitudes, subjective norms, and perceived behavioral control.

### **The influence of moral norms on individuals' intentions and behaviour towards SRI**





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Apart from their worldview, a person's moral standards are their own unique criteria by which they assess whether a certain behavior is acceptable or wrong. While the latter is mostly focused on assessing the possibility of specific results resulting from the action, the former deals with an individual's own standards of behavior (Godin et al., 2005). Even after accounting for attributes including attitude, subjective norms, and perceived behavioral control, a growing corpus of research indicates that moral standards still have a major impact on intention prediction (Manstead, 2000). Numerous studies (Godin et al., 2005; Ravis et al., 2009) have shown how important it is to examine moral norms within the framework of TpB. Based on the findings of East (1993), Godin et al. (2005), and Ravis et al. (2009), there is a lack of empirical evidence to substantiate the hypothesis. The idea that moral standards influence behavior via intention as a mediator, has not yet been tested by published research. Thus the hypotheses are:

H3a: The moral norms of investors exert an impact on their intention towards engaging in SRI.

Hypothesis 3b: The moral norms of investors have an impact on their behavior in relation to SRI.

### **The Function of Intention as an intermediary in Shaping Behaviour.**

Ajzen (1991) claims that behaviour is governed by the combined influence of two factors: intention and perceived behavioural control (PBC). Attitude, subjective norms, and perceived behavioural control are important factors in determining decision-making intention. An individual's attitude, subjective norm, and perceived behavioural control together influence their behaviour, with intention serving as a mediating factor in this association. The TpB model can provide insight into how investors make decisions, according to earlier research that has examined investment behaviour using the TpB. This research focusses particularly on the behaviour of socially responsible investors (SRIs), like Hofmann et al. (2008). However, none of the studies examined the role of intentions in mediating behaviour. The empirical data supports the notion that the link between the factors influencing behaviour and intention may be comprehended by considering the viewpoint of intention (Shim et al., 2001). Hence, the present research posits, in conjunction with moral norms, that:

H4: The behaviour of investors is impacted by their attitude, subjective norms, perceived behavioural control, moral standards, and training and education, with their intention towards SRI serving as a mediating factor.

### **The influence of training and education on individuals' intentions and behaviours about SRI**

It is widely claimed that education and training have the potential to influence both intentions and behaviours. Research has shown that personal development factors, such as educational opportunities and training programs focused on socially responsible investing, have a substantial influence on individuals' intentions and behaviours. The Social Learning Theory, as proposed by Bandura (1977), posits that behavioural outcomes are directly influenced by environmental factors. The current body of literature lacks sufficient empirical data about the influence of education and training on behaviour, specifically in relation to the decision-making process of SRI, with



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intention serving as a mediating factor. Hence, the analysis indicates that:

Hypothesis 5a: The training and education of investors exert influence on their intention towards engaging in SRI.

Hypothesis 5b: The training and education of investors exert influence on their behavioural tendencies concerning SRI.

### **Research design**

This quantitative study used descriptive analysis to get a deeper understanding of the demographic features of the sample and the determinants that impact their inclination towards participating in SRI in Pakistan. The operationalisation of the expanded TpB model was assessed using a sample survey conducted among decision-makers in Pakistan's SRI sector.

### **Variables Definition**

Prior to addressing operational variable difficulties, it is essential to prioritise the design of the data collection equipment (Davis and Cosenza, 1993). The operationalization of the perception included an exam of its behavioral dimensions, capabilities, or traits (Sekaran and Bougie, 2010). Attitude, subjective norms, perceived behavioral control, moral norms, education and training, are the various primary elements beneath research. Given their inherent difficulty in unique quantification, operationalisation is used as a way to quantify these entities. For measurement their values are converted into quantifiable factors to generate an index (Sekaran and Bougie, 2010). Behavior (B) is inspired by intentions (I), perceived behavioral control (PBC), and moral norms (MN) regarding socially responsible investment (SRI). This resembles with TpB and former investigations (East, 1993; Manstead, 2000; Hofmann et al., 2008). These five additives, which includes investors' attitude (Ab), subjective norms (SN), perceived behavioural control (PBC), education and training (TE), and moral norms (MN), together influence their behavioural intention (I).

### **Instrumentation, Measurement, and Sampling**

The instrument used for data collection consisted of a structured questionnaire that assessed belief components, attitude, subjective norms, perceived behavioural control, training and education, moral norms, intention, and behaviour. This was succeeded by a demographic assessment consisting of five questions and an informational document regarding the research. As per the guidelines provided in an informational leaflet detailing the study, the instrument was disseminated via purposive sampling. Through the completion and submission of the anonymous questionnaire, the participants implicitly accepted the voluntary nature of their participation in the study. Based on the formulation proposed by East (1993), the measurements of the model are derived. Multiple scholarly sources have suggested the use of a minimum of two distinct questions in order to assess subjective norms, perceived behavioural control, moral standards, intention, and conduct (East, 1993; Ajzen, I. 2006; Ajzen, I. 2008; Fishbein, M. 2008; Hofmann et al., 2008). The evaluation of all the factors was accessed by using a number of questions for each factor in different ways. To comprehensively assess all aspects of the concept and minimise the potential for inaccuracies, a set of measurements



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was used (East, 1993).

### 3.3.1. Instrument design and scaling

Participants' responses to each item were evaluated on a five-point Likert scale. The numerical values assigned to the scale are as follows: 1, which represents strong disagreement, 2, which represents disagreement, 3, which represents normality, 4, which represents agreement, and 5, which represents strong agreement.

Survey questions 1 to 5 pertained to the demographic attributes of the participants, so furnishing data for a descriptive analysis and investor profiling objective. Items 6 to 11 pertain to enquiries on the assessment of a participant's intention towards engaging in SRI. Questions 12 to 21 pertain to the investigation of the correlation between an investor's views and their engagement in SRI. The assertions posed in questions 22 to 27 were designed to investigate the correlation between subjective norms and SRI. Questions 28 to 33 pertained to the examination of the correlation between PBC and SRI. Questions 34 to 43 focused to assess the correlation between moral norms and SRI. Questions 44 to 53 specifically addressed the assessment of decision-making behavior concerning SRI. The questions 54 to 63 measured schooling and training as a moderators within the association among investor intentions toward socially responsible investing (SRI) and investor decision-making behavior.

### 3.3.2. Sampling design

The goal of this sampling method is to draw conclusions about the socially responsible investment (SRI) behavior of Pakistani investors with the aid of intentionally selecting positive functions within a populace as the focal point of investigation. Several variables had been taken into consideration at the same time as deciding on the pattern layout, inclusive of (1) price-effectiveness; (2) progressed accuracy of findings; (3) expanded data series; and (4) accessibility to population components (Cooper and Schindler, 2008). The target populace is identified, sampling strategies are chosen, and pattern length is calculated as part of the sampling layout manner.

### 3.6.3: Sampling Methodology

For finest reliability, it is vital to apply purposive sampling in this studies (Cooper and Schindler, 2008; Sekaran and Bougie, 2010). The sampling approach used in this look at is deemed very appropriate because it places awareness on gathering answers from folks who own sure skills and expertise. This ensures a representative pattern of SRI buyers (Dillon et al., 1993; Saunders et al., 2009).

### 3.6.4: Sample size

The sample for this study consisted of persons who had roles as fund managers. According to Bryman (2008), these subjects show uniformity. The minimization of variance in a homogenous sample requires a limited amount of samples (Bryman, 2008). The proposed method for data analysis in this work is structural equation modeling (SEM). Structural Equation Modeling (SEM) is highly responsive to the size of the sample and requires an adequate number of samples to provide sufficient statistical ability for hypothesis testing (MacCallum et al., 1996). It is typically advised that the minimum sample size for each parameter be around 5 occurrences, based on the body of academic research that has already been done (Bentler and Chou, 1987).



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According to Mitchell (1993) and Hair et al. (2010), every measured indication should match 15 to 20 instances. For optimal sample size determination, experts recommend taking into account the greatest cases-per-variable ratio to minimize the risk of overfitting the data (Hair et al., 2010).

### 3.4 Data collection

To reach the target demographic of funds managers and investors, 250 questionnaires were distributed using a purposive selection approach. The target audiences for this study included fund managers, dealers' representatives, as well as other professionals operating within the financial planning, investing, and foreign currency sectors.

### Data Analysis

Both confirmatory and exploratory factor analyses were used in the data analysis process. A confirmatory factor analysis was conducted using Smart PLS to evaluate the factor loading of the measured items and the validity and reliability of the factors. Path coefficients and total effect analysis are also performed in the study.

### Response and sample size:

A response rate of 92.8% was achieved, as a total of 232 questionnaires were effectively completed from 250 surveys. Due to the identical responses to all enquiries, twenty-one cases were rejected, which rendered them insufficient and unclear. Missing responses were detected in 12 instances (5.1%) collectively.

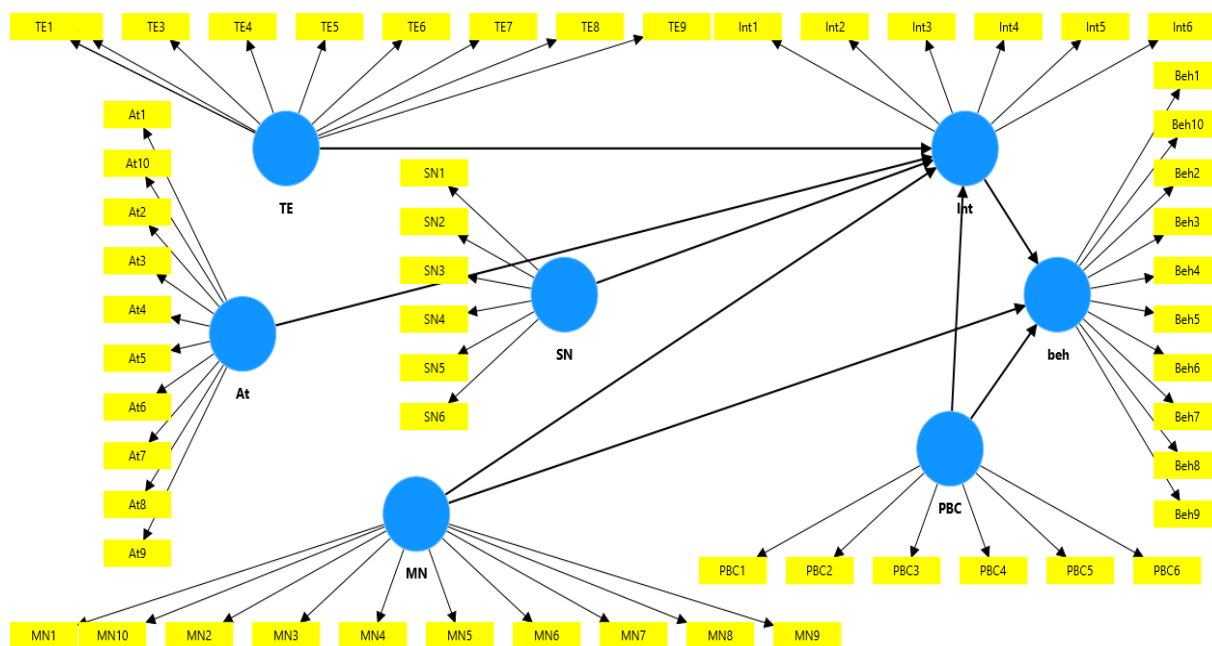


Figure: 1

### Treatment of Missing values

Responses with a response rate of less than 95% were declared to have more than 5% of missing data, and hence were excluded from the analysis. The missing value rate of the ten replies that were examined was less than 5%. As a



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result, 199 valid answers in all have been gathered for analysis. The missing responses were replaced with the mean value of the concerned variables to solve the problem of missing data in the research. In situations when the percentage of missing data is restricted to 5% and demonstrates a random distribution, it is recommended to use mean replacement.

### Treatment of Outliers

Comparative analysis was conducted on the z-scores for each example, using the descriptions given by SPSS. The z-score of every single instance in point was less than 3.29 ( $p < 0.001$ ). The results of the z-score show that there is no univariate outliers. A multivariate analysis of outliers was performed in this work using the Mahalanobis approach (D2). Models with D2/df values greater than 3 to 4 may be categorized as outliers, per the results of Hair et al. (2010). After careful examination, it was determined that a total of nineteen replies were outliers and consequently eliminated from the dataset.

### Descriptive Statistics

The descriptive statistics are shown in Table 4.2, with 200 observations for each variable. The calculated average value for the variable "Experience in years" is 11.45, with a standard deviation of 9.269. The minimum value of the observed data corresponds to 1, while the greatest value is 45. The calculated average investment amount is 32539500, with a corresponding standard deviation of 106873354. The observed data ranges from a minimum value of 50,000 to a high value of 1,000,000,000. The obtained mean age is 33.94, with a corresponding standard deviation of 12.164. The age variable ranges from a minimum value of 17 to a maximum value of 70.

The scale of all the variables had a minimum value of 1 and the maximum value of 5. The calculated mean value of Intention is 4.02, with a standard deviation of 0.78. The calculated average attitude value is 4.01, with a standard deviation of 0.83. The calculated mean value of subjective norms is 4.04, with a standard deviation of 0.67. The calculated mean of PBC is 4.06, with a standard deviation of 0.72. The calculated mean of oral standards is 4.17, with a corresponding standard deviation of 0.72. The empirical data indicates that the average behaviour is 4.17, with a standard deviation of 0.69. The obtained mean value for training and education is 4.17, with a standard deviation of 0.60.

Table 1: Descriptive statistic

	N	Minimum	Maximum	Mean	Std. Deviation
Experience in years	200	1	45	11.45	9.269
investment you manage	200	50000	1000000000	32539500	106873354
Age	200	17	70	33.94	12.164
Int	199	1.00	5.00	4.0269	.78921
At	199	1.00	5.00	4.0131	.83613
SN	196	1.00	5.00	4.0417	.67104
PBC	199	1.00	5.00	4.0623	.72398
MN	196	1.00	5.00	4.1708	.72488



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Beh	194	1.00	5.00	4.1734	.69656
TE	193	1.00	5.00	4.1731	.60687

Int=Intention At=Attitude SN =Subjective Norms PBC =Perceived Behavioral Control

MN =Moral Norms Beh =Behaviour TE=Training and Education

**4.3 Principal Component Analysis**

Table 1 displays the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy, which is a criterion for determining the adequacy of data for doing factor analysis. The KMO value for our research is 0.614, indicating that the data is sufficient for this purpose (Kaiser, 1974). Bartlett's test of sphericity shows a significant result, with a coefficient of  $\alpha^2(741) = 6588.41$ ,  $p < .001$ . This suggests that the correlations among the items are sufficiently strong to support the use of component analysis.

Table 2: KMO and Bartlett's Test

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.614
Bartlett's Test of Approx. Chi-Square			6588.406
Sphericity	Df		1653
	Sig.		.000

Table 2 presents the communities, illustrating the percentage of component variation. In our dataset, it's far visible that all components showcase a communality cost over zero.5, with values starting from 0.616 to 0.908, that's considered the minimum threshold. The findings align with the standards, which suggests that robust communalities imply the presence of properly described components that make a contribution to the theoretical constructs assessed in the survey questionnaire (Field, 2009).

Table 3: Communalities

	Initial	Extraction
Int1	1.000	.909
Int2	1.000	.847
Int3	1.000	.739
Int4	1.000	.792
Int5	1.000	.788
Int6	1.000	.815
At1	1.000	.825
At2	1.000	.786
At3	1.000	.762
At4	1.000	.809
At5	1.000	.724
At6	1.000	.817
At7	1.000	.783
At8	1.000	.777



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At9	1.000	.743
At10	1.000	.769
SN1	1.000	.790
SN2	1.000	.738
SN3	1.000	.743
SN4	1.000	.747
SN5	1.000	.772
SN6	1.000	.651
PBC1	1.000	.762
PBC2	1.000	.880
PBC3	1.000	.737
PBC4	1.000	.849
PBC5	1.000	.813
PBC6	1.000	.820
MN1	1.000	.760
MN2	1.000	.802
MN3	1.000	.741
MN4	1.000	.670
MN5	1.000	.770
MN6	1.000	.829
MN7	1.000	.742
MN8	1.000	.801
MN9	1.000	.847
MN10	1.000	.809
Beh1	1.000	.804
Beh2	1.000	.646
Beh3	1.000	.750
Beh4	1.000	.750
Beh5	1.000	.751
Beh6	1.000	.792
Beh7	1.000	.783
Beh8	1.000	.700
Beh9	1.000	.783
Beh10	1.000	.753
TE1	1.000	.718
TE2	1.000	.711
TE3	1.000	.676
TE4	1.000	.645
TE5	1.000	.713
TE6	1.000	.650
TE7	1.000	.683
TE8	1.000	.732
TE9	1.000	.669
TE10	1.000	.712

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Extraction Method:  
Principal Component  
Analysis.

Overall variance explained is presented in Table 3, showing a cumulative



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percentage of 76.16, revealing satisfactory level of explanation. To provide accurate outcomes, it is essential that the total variance explained exceeds 60%. Within our dataset, the cumulative percentage value representing the overall variation explained amounts to 76.16%. According to the theoretical framework of principal component analysis (PCA), a cumulative variance over 60% is often regarded as adequate. It also suggests that the extracted factors effectively capture the complexity of the data (Jolliffe, 2002).

Table 4: Table for Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	21.566	37.183	37.183	21.566	37.183	37.183	9.122	15.728	15.728
2	8.166	14.079	51.262	8.166	14.079	51.262	8.168	14.083	29.810
3	4.842	8.349	59.610	4.842	8.349	59.610	7.382	12.728	42.539
4	3.741	6.449	66.060	3.741	6.449	66.060	6.254	10.782	53.321
5	2.360	4.069	70.129	2.360	4.069	70.129	5.095	8.785	62.106
6	1.822	3.142	73.271	1.822	3.142	73.271	4.200	7.241	69.347
7	1.678	2.894	76.165	1.678	2.894	76.165	3.955	6.818	76.165
8	1.146	1.976	78.141						
9	.966	1.665	79.805						
10	.902	1.555	81.361						

Extraction Method: Principal Component Analysis.

Table 4 of the rotated component matrix below shows that variables load strongly on specific factors, with several variables showing high loadings (> 0.7). This result is consistent with orthogonal rotation theory (e.g., Varimax rotation), which aims to simplify the interpretation of factors by maximizing the variance of the loadings, thus ensuring a clear factor structure (Kaiser, 1958).

Table 5: Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
MN9	.887						
MN6	.881						
MN10	.840						
MN8	.837						
MN1	.836						
MN2	.836						
MN5	.826						
MN7	.803						
MN3	.790						
MN4	.734						
At4		.820					





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At1	.818		
At6	.812		
At2	.793		
At9	.775		
At5	.772		
At3	.770		
At8	.763		
At7	.747		
At10	.716		
TE8		.825	
TE1		.823	
TE5		.815	
TE2		.806	
TE7		.791	
TE3		.787	
TE9		.782	
TE4		.774	
TE10		.766	
TE6		.763	
Beh5		.752	
Beh9		.745	
Beh1		.724	
Beh7		.713	
Beh6		.693	
Beh3		.675	
Beh10		.672	
Beh4		.626	
Beh2		.622	
Beh8		.612	
Int1		.889	
Int2		.855	
Int6		.829	
Int4		.820	
Int5		.789	
Int3		.787	
PBC4		.738	
PBC2		.735	
PBC5		.728	
PBC1		.704	
PBC6		.681	
PBC3		.658	
SN2		.761	
SN4		.759	
SN1		.744	
SN5		.717	
SN3		.616	
SN6		.591	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.



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a. Rotation converged in 8 iterations.

### Reliability analysis

The scales' Cronbach's alpha values within the range of 0.86 to 0.96 indicate a substantial and significant level of internal consistency. The Cronbach's alpha coefficient for the intention scale was 0.964, indicating a high level of reliability of the scale's individual items in assessing the interest component. Cronbach's alpha is a statistical measure derived specifically from the Confirmatory Test Theory (CTT). It quantifies the degree to which test items accurately reflect a single underlying concept (Cronbach, 1951). High values of Cronbach's alpha provide support for the premise of internal consistency, emphasizing the significance of reliable scales in psychometric assessments (Cronbach, 1951).

Table 6: Reliability Statistics

Factor	Cronbach's alpha	Number of items
At	0.934	6
Int	0.964	10
MN	0.891	6
PBC	0.947	6
SN	0.954	10
TE	0.953	10
Beh	0.946	10

### Pearson Correlation

The empirical findings indicate significant positive correlations between behaviour (Beh) and attitude (At) ( $r = 0.660$ ,  $p < 0.01$ ) as well as perceived behavioural control (PBC) ( $r = 0.566$ ,  $p < 0.01$ ). These findings align with the theoretical frameworks of TpB, Ajzen (1991) and Cognitive Dissonance Theory (Festinger, 1957). This link suggests that people are less likely to experience cognitive dissonance when they feel in control of their behaviour and have a positive attitude.

The variable of intention (Int) exhibits a significant correlation with both behaviour (Beh) ( $r = 0.485$ ,  $p < 0.01$ ) and attitude (At) ( $r = 0.433$ ,  $p < 0.01$ ). This finding aligns with the theoretical frameworks of the theory of reasoned action (TRA) proposed via Fishbein and Ajzen in 1975.

A high and big correlation become observed among subjective norms (SN) and attitude (At) ( $r = 0.569$ ,  $p < 0.01$ ) as well as moral norms (MN) ( $r = 0.580$ ,  $p < 0.01$ ). This correlation suggests that social pressures and cultural values play a position in shaping individuals' attitudes and behaviours, as supported by way of the theories of Normative Social Influence (Cialdini & Trost, 1998) and Moral Foundations Theory (Haidt & Joseph, 2004).

Research has shown high associations among education and training (TE) and behavior (Beh) ( $r = 0.430$ ,  $p < 0.01$ ) as well as mindset (At) ( $r = 0.412$ ,  $p < 0.01$ ). These findings can be interpreted thru the angle of social gaining knowledge of concept (Bandura, 1977) and Self-Determination Theory (SDT)



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(Deci & Ryan, 1985). These outcomes guide the TpB, which holds that attitude, subjective norms, and PBC are the important influencers of behavior and intention (Ajzen, 1991).

Table 7: Correlation

Beh	int	At	SN	PBC	MN	TE	
Beh	1						
Int	.485**	1					
At	.660**	.433**	1				
SN	.432**	.123	.569**	1			
PBC	.566**	.209**	.429**	.516**	1		
MN	.413**	.188**	.365**	.580**	.665**	1	
TE	.430**	.301**	.412**	.246**	.342**	.177*	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Results and Data Analysis**

**Evaluation for the measurement model**

Each observed variable in this research is loaded into a particular latent variable based on a formula specified by the measurement model in the study of Byrne (2010). Accordingly, each latent variable's corresponding item has to be identified using the measurement model (Byrne, 2010). It was proposed that it would be best practice to do measurement model fit analysis for the complete model rather than for each concept. To identify which factors of interest impacted the latent variable, assessments were carried out in the whole model. First, there was an examination of the load factor for the items that were tested. Secondly, there was an evaluation of the reliability and validity of each factor. Thirdly, an Analysis of the correlation matrix and an assessment of discriminant validity were performed.

**Confirmatory factor analysis (CFA)**

Confirmatory factor analysis was used to assess validity, reliability, and the factor loadings of the measured items through Smart PLS. Since exploratory factor analysis (EFA) may only provide preliminary analyses in the absence of a sufficient theoretical framework, that's why this study utilized confirmatory factor analysis (CFA). Thus, the proposed model cannot be assessed for uni dimensionality (Anderson and Gerbing, 1988). The CFA approach overcame the limitations of EFA by enabling the grouping of observed variables into a latent variable (factor) based on theories. This approach is capable of determining the correlation between pairs of common factors, the influence of factors on monitored variables, the impact of the error term factor a on observed variables, and the correlation between pairs of error terms (Lu et al., 2007).

**Factor loadings, assessments of reliability, and evaluation of validity for the measurement model**

According to Chin (1998), Tabachnick and L S (2007), Hair et al. (2010), and other sources, only observed variables with standardized confirmatory factor loading (standardized regression weight) larger than 0.70 (p < 0.001) were



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considered for further analysis. The examination of all seven components was conducted concurrently inside a unified CFA measuring methodology. Each observed variable in this model could only load on one component; it was not permitted to cross-load on more than one factor. Based on their factor loadings. Only the indirect measures' association with the corresponding direct measures was used to determine their validity and reliability. Following Hair et al. (2010), discriminant validity, average variance extracted (AVE), construct reliability (CR), and item reliability were used to for assessing the validity and reliability of the underlying constructs.

The calculation of AVE included dividing the total number of items in each construct by the sum of squared multiple correlations ( $R^2$ ), as stated by Hair et al. (2010). For convergent validity, the average variance extracted (AVE) should not be less than 0.50 (Fornell and Larcker, 1981; Hair et al., 2010). Composite reliability (CR) was computed by squaring the factor loadings for each construct and adding the total of the error variance terms for the construct (Hair et al., 2010). Similar to Cronbach's alpha, which is often employed (Taylor and Todd, 1995), the CR measure additionally takes into account the real factor loadings instead of assuming that each item has the same weight when computing composite loadings (Lin and Gwo-Guang, 2004). According to researchers, a CR estimate of 0.70 or above denotes strong internal consistency and excellent reliability (Fornell and Larcker, 1981; Hair et al., 2010).

From Table 4.4, all of the factor loadings in are higher than the acceptable value of 0.70, indicating that the items accurately reflect the corresponding factors. Because all measures'  $R^2$  values were larger than 0.50, which means that the items account for a substantial amount of the variation in each component, the result also shows strong item-by-item reliability. High internal consistency is shown by Cronbach's alpha values, which vary from 0.892 to 0.964 for all constructions.

Strong internal consistency is further confirmed by the fact that all constructions have composite reliability scores higher than 0.90. The constructs' convergent validity is supported by the AVE values, ranging from 0.627 to 0.793 and are all above 0.50. Every construct's measure surpassed the required CR of 0.70, meaning that all measurements significantly reflect the same latent structures. AVE-based reliability analysis also shows that all categories were greater than 0.50. Thus, according to Fornell and Larcker (1981; Hair et al., 2010), the variation captured by a single concept was higher than the variance resulting from measurement error.

Table 8: CFA matrix Title: Factor Loadings and Reliability for the Measurement Model

Factor	Item	Standardized Loading	$R^2$	Cronbach's Alpha	Composite Reliability (CR)	AVE
Attitude (At)	At1	0.87	0.75	0.964	0.969	0.755
Intention (Int)	Int1	0.89	0.80	0.935	0.949	0.757
Moral Norms (MN)	MN1	0.83	0.68	0.953	0.959	0.703



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Factor	Item	Standardized Loading	$R^2$	Cronbach's Alpha	Composite Reliability (CR)	AVE
Perceived Behavioral Control (PBC)	PBC1	0.91	0.83	0.948	0.958	0.793
Subjective Norms (SN)	SN1	0.79	0.63	0.892	0.914	0.639
Trust in Expertise (TE)	TE1	0.81	0.66	0.934	0.944	0.627
Behavior (Beh)	Beh1	0.84	0.71	0.952	0.958	0.698

Note: Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) values are calculated for each construct to assess reliability and validity. All factors meet the acceptable threshold, indicating good internal consistency and validity.

**Correlation matrix and discriminant validity**

Following validity testing, discriminant validity was used to the components to support their findings. From the correlations between constructs and the square root of AVE, discriminant validity was evaluated. According to Kline (2004) and Yousafzai et al. (2010), the threshold for construct-to-construct correlations shouldn't exceed 0.85. Discriminant validity is demonstrated when the square root of the AVE is larger than the inter-construct correlation and the latent variables do not exhibit a correlation greater than 0.9, as per Hair et al. (2010). According to the conclusions shown in Table 2, correlation coefficients between the latent components display the value below 0.8, showing that the data has no multi-collinearity. To establish discriminatory validity, the inter-construction correlation was compared with the square root of the average variance (AVE). Reliability, convergence and discriminatory validity tests provided important evidence that the construction fulfills the specified norms. When the square root of Ave for each component is more than the correlation with other components, discriminatory validity is confirmed. The correlation coefficients between constructions in the model are below the threshold of all 0.85, which suggest the absence of multi collinearity

Table 9: Correlation Matrix and Discriminant Validity

Variable	At	Int	MN	PBC	SN	TE	Beh
Attitude (At)	<b>0.869</b>						
sIntention (Int)	0.417	<b>0.870</b>					
Moral Norms (MN)	0.324	0.164	<b>0.838</b>				
PBC	0.425	0.214	0.663	<b>0.891</b>			
SN	0.564	0.142	0.568	0.523	<b>0.799</b>		
TE	0.396	0.311	0.216	0.337	0.250	<b>0.792</b>	
Behavior (Beh)	0.670	0.473	0.455	0.591	0.465	0.484	<b>0.835</b>

Note: Bold diagonal elements indicate the square root of the AVE for each



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construct. To establish discriminant validity, these coefficients must exceed the inter-construct correlations.

### **Structural Equation Modeling (SEM)**

Following the successful determination of the reliability and validity of the components of the measurement model, the structural relationships between extrinsic and intrinsic variables were established using structural equation modelling (SEM). The structural model under consideration consists of two primary elements: firstly, the pathways that link the elements of TpB, training and education, and moral norms to intention and behavior regarding decision-making. secondly, the correlation between predictors of TpB, training and education, and moral norms. The relationships among the constructs were established by presenting these hypotheses in eight causal pathways. Three methods were used to evaluate the structural model. First and foremost, it is essential that the proposed expanded theoretical model aligns with the empirical evidence. Secondly, the study assesses the orientations, importance, and magnitude of the pathways linked to the assumptions presented in the model. Thirdly, the study evaluates the robustness of the numerous relationships and determine the degree to which the external factors explained the variability in the proposed model.

#### 4.7.1. Determination of path coefficients

The path coefficients ( $\alpha$  and  $\beta$ ) were evaluated once the redesigned structural model was deemed to have a satisfactory model fit. Table 5 lists every anticipated standardized path coefficient for the structural model. Path coefficients are a crucial tool for assessing the significance and strength of connections between different parts of a structural model. The statistical analysis reveals a strong association between attitude and intention, as shown by a path coefficient of  $\beta=0.427$ ,  $t(186)=2.402$ , and  $p=0.016$ . The statistical analysis reveals a strong association between attitude and intention, as shown by a path coefficient of  $\beta=0.427$ ,  $t(186)=2.402$ , and  $p=0.016$ . There seems to be a larger association between more positive attitudes and higher behavioral intention, suggesting that attitude shapes intention in a significant manner. According to the Theory of Reasoned Action (TRA), attitude is the primary determinant of behavioral intention, which is consistent with the findings of this investigation. There exists a statistically significant path coefficient ( $\beta=0.363$ ,  $t(186)=2.584$ ,  $p=0.010$ ) that establishes a connection between intention and behavior. Therefore, this finding suggests that a stronger degree of intention is linked to an increased probability of performing a specific behavior.

According to norm activation theory (Schwartz, 1977), moral duties have a considerable impact on behavioral intentions. This is consistent with the strong influence of moral norms on intention ( $\beta = 0.884$ ,  $p < 0.001$ ). As a direct predictor of conduct, moral norms have a substantial effect on behavior ( $\beta = 0.943$ ,  $p < 0.001$ ). It recommends that moral norms can be used to expand theory of planned behavior. The statistical analysis shows a significant relationship between perceived behavioral control and intention ( $\beta=0.266$ ,  $t(186)=2.211$ ,  $p=0.036$ ). This suggests a favorable impact, but not as strong as other components like intention. The statistical analysis reveals a significant path coefficient ( $\beta=0.450$ ,  $t(186)=4.698$ ,  $p<0.001$ ) between perceived



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behavioral control and behavior. This suggests that individuals with higher values of PBC have more chances to engage in a behavior. The statistical analysis reveals a strong relationship between SN and Int ( $\beta=0.205$ ,  $t(186)=14.940$ ,  $p<0.001$ ). This suggests that SN have a significant effect on the formation of behavioral intentions. This supports social influence theory (Kelman, 1958), which states that people follow social norms to avoid rejection and affect their goals. The results show a significant relationship between training and education and intention ( $\beta=0.165$ ,  $t(186)=12.141$ ,  $p<0.001$ ). This reveals that individuals with higher values of training and education are more likely to have a stronger intention to participate in the behavior. This study's findings align with the TPB and highlight the expansion of the TPB to include moral norms (Ajzen, 1991) and training and education. The assumption that personal norms, such as moral norms are essential to behaviors is supported by the norm activation model of Schwartz (1977).

Table 10: Path Coefficients for the Structural Model

Path	Standardized Coefficient ( $\beta$ )	Standard Error (SE)	Error	t-value	p-value
At -> Int	0.427	0.178		2.402	0.016
Int -> Beh	0.363	0.140		2.584	0.010
MN -> Int	0.884	0.144		6.158	<0.001
MN -> Beh	0.943	0.141		6.708	<0.001
PBC -> Int	0.266	0.120		2.211	0.036
PBC -> Beh	0.450	0.096		4.698	<0.001
SN -> Int	0.205	0.014		14.940	<0.001
TE -> Int	0.165	0.014		12.141	<0.001

Int=Intention, At=Attitude, SN =Subjective Norms, PBC =Perceived Behavioral Control, MN =Moral Norms, Beh =Behaviour, TE=Training and Education

### Effect analysis

Among the numerous advantages of using SEM, one is that it has a potential to assess the structural relationships between the proposed latent variables at the same time. There are two fundamental categories of structural interactions that may be identified: direct interactions between exogenous and endogenous factors, and indirect interactions between exogenous and endogenous variables, facilitated by the mediation of endogenous variables. The path diagram in Figure 1 illustrates the structure, where the path coefficients correspond to direct effects. An effects analysis includes direct, indirect, and total effects was necessary to provide a thorough knowledge of the influences on the latent variables being examined.

We also examined the direct impacts of attitude, subjective norms, and perceived behavioral control on the indirect measures of belief. The model



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used Smart PLS for estimating direct, indirect and total effects. Table 6 presents the effects and squared multiple correlations ( $R^2$ ) established between intention and behavior. All of the observed effects exhibited statistical significance ( $p < 0.001$ ).

Cohen's (1988) suggestions were followed when using the structure model to look at the effect sizes. Standardized path coefficients with values less than 0.10 indicate minimal impact, values between 0.30 and 0.50 indicate a medium effect, and values more than or equal to 0.50 indicate a significant effect, according to Cohen (1988). Medium-sized and statistically significant effects were suggested by path coefficients with values between 0.16 and 0.38. The path coefficients for both the attitude-intention (0.427) and intention-behavior (0.363) relationships were found to be considerably greater, indicating significant effects.

The pattern of causal links provides some support for the predictions made by the theory. Among the components, the one that had the most effect on behavior prediction was perceived behavioral control ( $r=0.460$ ). With a beta of 0.427, attitude has the greatest effect on intention. This supports the findings of earlier studies on intention and attitude. Since attitude has the biggest direct effect on intention, it seems that investors' attitudes regarding SRI have a considerable influence on their desire to participate in SRI (0.42). On both intention (0.088) and behavior (0.126), moral standards had a little but statistically significant impact. All three belief factors (outcome confidence, normative views, and control beliefs) positively affected attitude, subjective norms, and PBC to a certain extent.

### **Total Effects**

The goal of total effects analysis is to determine the cumulative influence of each variable on intention and behavior. As attitude has a total influence of  $\beta = 0.427$  and  $p = 0.016$  on intention, we may infer that the two variables have an important and significant positive relation. This result supports the Theory of Reasoned Action's claim that people are more likely to perform a specific behavior toward which people have a favorable attitude (Fishbein & Ajzen, 1975). The influence of attitude on behavior is shown to be statistically significant, as evidenced by a total effect size of  $\beta=0.155$ ,  $t(186)=14.977$ ,  $p<0.001$ . This aligns with TpB (Ajzen, 1991), which supports the notion that attitudes have a direct impact on behavior. The coefficient of intention to behavior ( $\beta = 0.363$ ,  $p = 0.010$ ) indicates a strong relationship between intention and behavior providing support for the TpB, which highlights intention as a crucial determinant of behavior. The results of the research demonstrated a significant relationship between moral norms and intention ( $\beta = 0.088$ ,  $p < 0.001$ ), supporting Schwartz's (1977) norm activation hypothesis, which holds that moral obligations influence intentions causally. According to the findings, moral norms and behavior have a significant positive relationship ( $\beta = .126$ ,  $p < .001$ ), supporting the concepts of cognitive dissonance theory. According to this concept, individuals adjust their behavior to conform to their moral norms (Festinger, 1957). The findings show a significant relationship between intention and PBC ( $\beta = 0.027$ ,  $p = 0.040$ ). It supports the TpB, which holds that intention is largely determined by perceived behavioral control.

Results show a robust and statistically massive relationship ( $\beta = 0.460$ ,  $p < 0.01$ ) between PBC and beh. This demonstrates that humans are much more





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likely to participate of their interest if they trust they have got control over it. Our consequences are constant with the TpB concept, which postulates that PBC impacts behavior and intention. The impact of subjective norms on intention is significant with a  $\beta = 0.205$  and a p-value  $< 0.00$ . There is a significant association between subjective norms and behavior ( $\beta = 0.074$ ,  $p < 0.001$ ), suggesting a extensive affect of SN on both intentions and behavior. The effects show that education and training has a widespread effect on intention ( $\beta = 0.165$ ,  $p < 0.001$ ), indicating the importance of information elements on intentions. The findings suggest that education and training have a large impact on conduct ( $\beta = 0.060$ ,  $p < 0.001$ ), assisting social studying hypothesis proposed with the aid of Bandura (1977), which posits that external factors immediately shape behavioral effects. This take a look at establishing a large courting between attitudes, PBC, subjective norms, moral norms, education and training, and behavior and intention.

**Table 11: Total Effect**

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
At -> Int	0.427	0.407	0.178	2.402	0.016
At -> beh	0.155	0.159	0.010	14.977	0.000
Int -> beh	0.363	0.357	0.140	2.584	0.010
MN -> Int	0.088	0.090	0.014	6.158	0.000
MN -> beh	0.126	0.123	0.013	9.391	0.000
PBC -> Int	0.027	0.020	0.012	2.211	0.040
PBC -> beh	0.460	0.460	0.097	4.738	0.000
SN -> Int	0.205	0.147	0.014	14.940	0.000
SN -> beh	0.074	0.055	0.005	14.145	0.000
TE -> Int	0.165	0.160	0.014	12.141	0.000
TE -> beh	0.060	0.054	0.006	10.857	0.000

Int=Intention, At=Attitude, SN =Subjective Norms, PBC =Perceived Behavioral Control, MN =Moral Norms, Beh =Behaviour, TE=Training and Education

**Results of Hypotheses Testing**

The study revealed a substantial and positive path coefficient ( $\beta = 0.363$ ,  $p < 0.001$ ) between intention and behavior, providing empirical evidence in favor of Hypothesis 1a. Hypothesis 1b was substantiated by the presence of path coefficients that demonstrated a positive and statistically significant relationship between perceived behavioral control and behavior ( $\beta = 0.0460$ ,  $p$



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< 0.01). The analysis revealed a significant and positive association between intention and several variables, including attitude ( $\beta = 0.427$ ,  $p = 0.016$ ), moral norms ( $\beta = 0.088$ ,  $p < 0.001$ ), perceived behavioral control ( $\beta = 0.027$ ,  $p = 0.040$ ), subjective norms ( $\beta = 0.205$ ,  $p < 0.001$ ), and training and education ( $\beta = 0.165$ ,  $p < 0.001$ ). Consequently, it is justified to adopt Hypothesis 2.

Hypothesis 3a posits that the intention of investors towards SRI is influenced by their moral norms. Hypothesis 3b posits that the behavior of investors towards SRI is influenced by their moral norms. The path coefficients of hypotheses 3a and 3b demonstrate a moderate but statistically significant impact of moral norms on intention as well as on behavior. Specifically, these coefficients establish a relationship between moral norms and intention ( $\beta = 0.088$ ,  $p < 0.001$ ), and between moral norms and behavior ( $\beta = 0.126$ ,  $p < 0.001$ ). Hypotheses 3a and 3b are supported by the results of this study.

About hypothesis 4, the findings revealed that subjective norms ( $\beta = 0.074$ ,  $p < 0.001$ ) and attitude ( $\beta = 0.155$ ,  $p = 0.016$ ) had little direct influence on behavior. The study demonstrated that the relationship between attitude, subjective norms, and behavior was strengthened and statistically significant ( $p < 0.001$ ) due to the mediated effect of intention. The inclusion of intention as a mediator is shown to enhance the relationship between moral norms and behavior. The results accepted Hypothesis 4. Previous studies conducted by Man Kit (1998) and Hansen (2005) were supported and matched by the findings of this study. Hypothesis 5a states that education and training, have an impact on investors' intentions about SRI. Hypothesis 5b, alternatively, stated that the training and education of investors had an impact on their approach to SRI. Training and education have a moderate and statistically significant influence on intention ( $\beta = 0.165$ ,  $p < 0.001$ ) as well as on behavior ( $\beta = 0.060$ ,  $p < 0.001$ ), based on the path coefficients of Hypotheses 5a and 5b. This study provides evidence in favor of hypotheses 5a and 5b.

### **Conclusion and Future Scope of the Study**

The attributes of the TpB, in conjunction with moral norms and training and education were evaluated to study the impact the decision-making behavior of pension fund managers in Pakistan towards SRI. The study examines the impact of intention on behavior via two distinct approaches: firstly, as a predictor of behavior, and secondly, as a mediator between other components and behavior. The present research also examined other variables, including PBC, training and education, and moral standards.

The Hypotheses H1a, H1b, and H4 are presented to show how intention and perceived behavioral control affect behavior as well as the function of intention as a mediator of behavior. In order to provide recommendations for the expansion of the Theory of planned Behavior (TpB), this research evaluates the impact of moral norms and training and education on intention and behavior of investors towards SRI. The assumption that moral norms are a crucial factor in understanding intention is becoming a part of literature. It was hypothesized that adding moral norms would improve investors' intentions and behavior towards SRI. For the purpose of investigating the influence of moral norms and training and education on individuals'



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intentions and behavior. In this study, hypotheses 3, 5a and 5b were formulated. The following section presents an analysis of the results in reference to many theoretical frameworks. The results of this study indicate that behavior is significantly influenced by intention ( $p < 0.001$ ) and perceived behavioral control ( $p < 0.001$ ) in the context of SRI in Pakistan. It is evident that Pakistani pension fund managers and investors possess full autonomy in their SRI choices due to the presence of possibilities, such as SRI funds and stocks, as well as resources, including relevant knowledge on SRI investing and associated obstacles. This means that their purpose, which measures their level of investment desire, is the main consideration when they choose SRI.

Hypothesis H4 is proposed to address the second inquiry of this research. This research incorporates moral norms, training, and education as proposed factors that enhance TpB, while also examining the connection between behavior and the three primary TpB categories (attitude, subjective norms, and perceived behavioral control). Effects analysis shows that intention is the most effective mediator in explaining the connection between attitude and both subjective and moral norms of behavior. Aside from intention, moral standards, education, and training have a major impact on behavior ( $p < 0.001$ ). A significant relationship between moral values, training and education, and conduct and intention toward SRI was found in the research ( $p < 0.001$ ). Results reveal that investors' personal standards significantly affect their motivation (intention) and engagement in SRI ( $p < 0.001$ ). This study enhances earlier research by using a robust assessment of moral norms and training and education within an authentic market context. No empirical evidence was found to support the concept that moral norms do not have any impact on decisions regarding investments. In this study, we found evidence that moral norms could help us to understand the connection between behaviors and their intentions. This research seems to support TpB expansion due to its significance. According to the study's second hypothesis, SRI investment intentions are influenced by investors' attitudes, subjective norms, and perceived behavioral control. According to the results, attitude, subjective norms, and perceived behavioral control all have a significant impact on the intention to participate in socially responsible investing (SRI). The results show that attitude plays higher role than others on intention. The study provides credibility to TpB, that it explains investors' SRI decision-making behavior. The study shows a statistically significant relationship between perceived behavioral control and intention ( $p < 0.01$ ). The primary finding of the research indicates a statistically significant relationship ( $p < 0.001$ ) between attitude and subjective norms. The relationship between attitude and subjective norms was found positive and significant. The causal path between subjective norms to attitude enhances the model fit. This outcome is in line with earlier research from behavioral studies on morality that tested attitudes and subjective norms using structural equation modeling. The causal path from subjective norms to attitude revealed that the perceptions of investors about SRI are influenced by key references of investors, which in turn affects investors' favorable or unfavorable attitudes toward SRI investment instruments. Within the framework of this investigation, one could contend that investors and managers of Pakistani pension funds have an incentive to hold themselves to social norms. As a result, their opinions regarding the



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desire to invest in SRI products are influenced by society more than by personal factors.

### **Theoretical implications**

In addition to examining the essential elements of TpB, this study looked at the roles that moral standards, training, and education, had in SRI-related investing choices. The role of intention as a mediator and predictor of SRI decision-making behavior is investigated further. The goal of these investigations is to ascertain whether investor behavior can be explained by the assumptions presented in the TpB, in conjunction with moral norms and training and education.

The following are the theoretical implications of the study

It was discovered that moral norms, an expanded concept of TpB, had a major impact on behavior and intention.

The study proved the influence of intention on behavior in relation to attitude, subjective norms, and perceived behavioral control.

Training and education were ignored by the TpB in his constructs. However, the current study discovered that training and education significantly influenced people's intentions and behaviors regarding SRI. Therefore, It was discovered that education and training, when considered as an extension of TpB, had a major impact on behavior and intention.

The study gives evidence that moral norms, and training and education can considerably contribute to the growth of the Theory of Planned Behavior. While moral norms are commonly acknowledged as a significant component for the expansion of TpB, the causal and explanatory aspects of this construct have not received enough empirical attention.

The current work provides help to the understanding of how subjective norms affect intention through attitude by analyzing the impact of both attitude and subjective norms on intention. This knowledge is required to explain how attitude, which is directly impacted by subjective norms, influences an investor's intention. Evidence of the connection between subjective norms and attitudes regarding SRI, despite prior research examining the relationship between TpB components.

Based on actual investor responds, this study also provides a thorough analysis of TpB and aims to precisely describe each of the fundamental concepts in the SRI sector in.

### **Future Scope of the study**

The link of socially responsible Investment and Islamic Financing strategies will be a great milestone for future developments.

The study can be extended more to identify the link between different factors that lead to high value of intention and behavior.

The research will become more influencing if a large sample size is used.

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