International Journal of Contemporary Business Literature

Article Type: Original Article

A Structural Relationship between Investment Behavior and Mutual Funds in Pakistan

Muhammad Qais[1]*

[1] *Institute of Business Management and Administrative Sciences (IBMAS), The Islamia University of Bahawalpur (IUB), Pakistan. Email: raoqais786@gmail.com*

Received: 03-01-2022, Revised: 13-08-2022, Accepted: 07-09-2022

ABSTRACT

The research was conducted to analyze the mediating role of mutual funds between attitude towards investment, subjective norm, perceived behavior control and investment behavior in Pakistan. A self-administered questionnaire was survey for quantitative data collection. Partial least square – structural equation model was used for the findings of research. Statistical analysis was performed, and the study found that mutual findings significantly mediates between attitude towards investment and investment behavior. Secondly, it was found that mutual findings significantly mediates between subjective norms and investment behavior. Finally, the research found that mutual findings significantly mediates between perceived behavior control and investment behavior. The theoretical and practical significance of the study are also highlighted.

Keywords: *Financial Investment, Mutual Funds, Investment Behavior, Capital Market.*

Publisher: ASIAN ACADEMY OF BUSINESS AND SOCIAL SCIENCE RESEARCH (PRIVATE) LIMITED
Publishing Address: 81-G Defence Rd, Dream Gardens, Lahore
Publishing Country: Pakistan

Volume 2: Issue 1

*** Contact Correspondence:** *raoqais786@gmail.com*

How to Cite: Qais, M. (2022). A Structural Relationship between Investment Behavior and Mutual Funds in Pakistan. *Int. J. Contemp. Bus. Lit. 2*(1), 1-14.

INTRODUCTION

Contrarily, financial investments relate to the purchase of financial products such as stocks, bonds, insurance policies, and mutual fund units. The country's capital stock is created with the aid of financial investments. Long-term productivity gains and increased economic competitiveness are dependent on investment. An economy might have high levels of consumption in the absence of investment, but this results in an imbalanced economy. Investments provide income and employment, demand and consumption, and have a "multiplier" impact (Shafi, 2014). According to conventional literature, investors make decisions about their investments with the logical assumption that they will update them when new information becomes available and maximise the expected return for a particular degree of risk (Islam et al., 2019). In order to understand these variations in security prices as well as how emotions and behavioural variables affect investors' decisions, the field of behavioural finance arises (Barberis & Thaler, 2003). According to the given data, product participation is one of the variables that increases an individual investor's desire to invest (Aspara, 2013). From the standpoint of the product category and influence on investment decision-making, increased engagement produces a stronger association between evaluation difficulty and perceived risk (Laroche et al., 2010). Additionally, the Theory of Planned Behaviour (TPB) offers a fairly robust theoretical model to forecast behavioural intents in the area of investing intention. The three main components of TPB that are considered to be the most important in explaining behaviour according to several research are the behaviour, the subjective norm, and perceived behavioural control (Conner & Armitage, 1998; Hagger et al., 2022; Sommer, 2011). The TPB's application to stock investments assumes that real stock purchases are driven by people's overall inclination and intention to invest in stocks. Additionally, people were probably more inclined to buy shares if their attitudes, subjective norms, and perceived behavioural control were all favourable. Numerous consumer structures that were discovered to have affected difficult purchasing decisions, in reality, can be useful for researching investing intentions. The ability of psychological (subjective norm and perceived behavioural control) and consumer behaviour (product participation) aspects to significantly influence people's investment intentions must be carefully evaluated.

On the behaviour and portfolio performance of institutional investors, several studies have been undertaken in the past (Akepanidtaworn et al., 2021; Black & Coffee Jr, 1994; Sias, 1996; Sun et al., 2021; Wen et al., 2021). In the area of financial investing behaviour, several research has been conducted. The majority of this research focuses on institutional or market professionals' stock market activity (Chaudhry & Kulkarni, 2021; Goethner, Hornuf, et al., 2021; Goethner, Luettig, et al., 2021; Hornuf et al., 2021). However, there are surprisingly few studies looking at people's intentions to invest who are classified as non-market professionals. Individual investors buy and sell stocks on the stock market. Thus, it is critical to understand the numerous economic and behavioural factors that influence these investors' purchasing decisions. This study makes an effort to shed light on how individual investors behave, what investors they want to make, and what other variables motivate them to do so in mutual fund investment. The theory of planned behaviour (TPB) influences how individuals behave while making investments in mutual fund investment (Ajzen, 1991; Conner & Armitage, 1998). In spite of this, this research makes an effort to close the evidence-based findings gap by implementing the TPB in the setting of the capital market. These are the knowledge gaps around financial products that this study aims to fill. Utilising the Theory of Planned Behaviour (TPB), the current study seeks to determine the effects of product participation, attitude towards subjective norms and perceived behavioural control on individual investor behaviour and mediate as a mutual fund.

REVIEW OF LITERATURE

Mutual funds are a prominent investment vehicle, providing retail investors with access to diversified portfolios managed by professionals. However, the decision-making process behind mutual fund investments is influenced by various perceived behavioural effects that deviate from rational economic models. Perceived behavioural control pertains to the individual's subjective assessment of the level of ease or difficulty associated with executing a particular activity. This construct is believed to be influenced by past experiences and the ability to predict potential barriers and hurdles (Ajzen, 1991). The level of intention among individuals tends to rise when they regard themselves as having more access to resources and have higher levels of confidence (Ajzen, 1985; Lee & Kozar, 2005). This study investigates the impact of investor knowledge and perceived conduct on information acquisition for mutual fund investment (Frijns et al., 2008). Alexander et al. (2001) found that less financially literate investors preferred to invest in mutual funds through banks, whereas highly literate people preferred to invest directly (Alexander et al., 2001). A controlled experiment found that the knowledge level of respondents affected their choice of asset allocation (Agnew & Szykman, 2005). Investors exhibited a heightened sensitivity to pricing as a result of their improved understanding (Dominitz et al., 2008; Grinblatt et al., 2012, 2016). Individuals who possess less financial knowledge and have a tendency towards perception-based decision-making are more inclined to entrust their portfolio selections to financial advisers and rely heavily on their expertise (Calcagno & Monticone, 2015). The study indicated that investors are more likely to hold onto losing investments for longer durations, leading to a reluctance to sell underperforming mutual funds. This bias can hinder portfolio optimisation and affect mutual fund investment outcomes (Barber & Odean, 2000). Welch formulated a model of herding behaviour, emphasising how informational cascades can lead to collective actions. In the context of mutual funds, investors flock to popular funds without fully evaluating their investment objectives (Bikhchandani et al., 1992). Tversky and Kahneman (1989) highlighted that decisions can be influenced by how choices are made, even when the underlying content remains constant. Mental accounting, introduced by De Bondt and Thaler (1985), demonstrates how investors segregate funds into distinct mental categories, leading to suboptimal allocation decisions. These effects can shape mutual fund investment choices, leading to biases in fund selection. As behavioural finance continues to evolve, a comprehensive understanding of the perceived behavioural effects on mutual fund investments remains critical for both researchers and practitioners in the financial industry.

Hypothesis 1: *Perceived behavioural control has positive impacts on mutual funds.*

A mutual fund is a professionally managed portfolio that is typically used for purchasing a variety of shares for investors. In mutual funds, we utilise the wealth of small investors, and their investment converts in the form of shares in the business avenues, such as in the form of securities, bonds and other financial instruments. A mutual fund is a short-term investment that is important for market operations to analyse, minimise the risk and analyse the multiple variables that impact investors' investment (Saleem et al., 2021). The mutual fund is the easiest for small investors who do not have good knowledge, edo notice, and low-risk tolerance to protect investors' savings and make profitable portfolios by more skilled fund managers. To decide on achieving high returns for investors, these skilful managers target profitable and outperforming financial instruments help. In Pakistan, these mutual fund associations are described as using the mutual fund as a pooled investment using a holistic approach (Ahmed & Siddiqui, 2020). Mutual investing is a risky investment operation. The reason is the low-class production of assets, changes in design due to environmental conditions and higher cost of return. Also, the loss can be related to when a successful fund manager can be shifted, allowing you to generate a profit (Kaveri & Bindu, 2017). Investment behaviour is interlinked with investor behaviour that can also affect advisor incentives with respect to risk. A prior investigation posits that the behaviour of mutual funds and investment decisions are commonly influenced by the size of funds under management. This suggests that investor flows function as an implicit mechanism for incentivization (Chevalier & Ellison, 1997).

Hypothesis 2: *Mutual fund has positive impacts on investment behaviour.*

To understanding investment behaviour is essential for financial analysts, policymakers, and market participants to comprehend how investors react from time to time changes, economic conditions and market trends (Li & Ahlstrom, 2020). On the basis of past research, the investment decision is influenced by the investor's attitude (Ajzen, 1991; Jothilingam & Kannan, 2013). The latest research shows that psychological factors such as attitude have a direct impact on the investment behaviour of individuals (Phan & Zhou, 2014; Raut, 2020). Investment decisions positively affect those who have an attitude towards equity investment (Kavitha, 2015). Attitude towards investment refers to an individual's overall evaluation, beliefs, and emotions related to making financial investments. Understanding the relationship between attitude towards investment and investment behaviour is crucial in the field of behavioural finance, as it sheds light on how personal beliefs and emotions can influence actual investment decisions. Research in behavioural finance has highlighted the consistency between an individual's attitude towards investment and their actual investment behaviour. Attitude-behaviour consistency theory posits that individuals are more likely to engage in behaviours that align with their attitudes (Ajzen, 1980). So, investors with positive attitudes towards investing are more inclined to actively participate in financial markets, making informed investment decisions. Perceived risk is a significant factor in both attitude formation and investment decision-making. Studies have shown that investors with a positive attitude towards investment are more likely to perceive investment risks as manageable rather than threatening (Vishwanath et al., 2018). Researchers found that investors with higher levels of confidence in their financial decision-making abilities are more likely to adopt a proactive investment approach and allocate resources to growth-oriented assets to make them less risky (Barber & Odean, 2001). Educated investors tend to have a better understanding of financial markets, resulting in higher confidence in their investment decisions and a greater willingness to take calculated risks (Behrman et al., 2012; Bernheim & Garrett, 2003).

In contemporary times, it is important to take into account these aspects before to making a transition in funds, irrespective of whether the investment is directed towards non-employer plans exclusively or encompasses both employer and non-employer plans (Agapova, 2011). Perception of risk and return in relation to mutual funds. This study investigated the views of investors towards the risks associated with mutual funds, the returns generated by mutual funds in contrast to alternative financial instruments, as well as the transparency and disclosure practises employed within the mutual fund industry (Sharma, 2012). This study examined the challenges faced by investors as a result of the inadequate quality of services provided by mutual funds. The research revealed that a significant proportion of individual investors do not perceive mutual funds as a substantially hazardous investment. Indeed, when evaluated on a comparative ranking scale, it is seen as being positioned at the upper end in relation to alternative financial routes (Rajkumar & Venkatramaraju, 2013). The study further indicated a noteworthy correlation between the income level of investors and their impression of investment returns derived from mutual funds investing. Regarding investment in mutual funds, previous research have revealed that investors have a favourable disposition towards their mutual fund investments (Gaglani & Rao, 2014; Subramanya & Murthy, 2013).

Hypothesis 3*: Mutual fund mediates the relationship between attitude towards investment and* *investment behaviour.*

Subjective Norm (SN) refers to a circumstance when an individual's action is influenced not just by their personal attitude, but also by the perceived expectations of others, such as family and friends. Social network (SN) refers to the perceived impact that important individuals have on an individual's intents and actions. The statement elucidates an individual's subjective interpretation of the collective opinion held by significant individuals in their life on the appropriateness or inappropriateness of engaging in a certain behaviour. Therefore, it is evident that social norm (SN) is influenced by an individual's perceptions regarding the anticipated behaviour of significant people and their personal drive to conform to these expectations (Trafimow, 2009). Therefore, this concept refers to the assessment of the societal impacts exerted by family and friends on an individual's conduct. Social Norms (SN) can be defined as the subjective social influence that individuals perceive, which either encourages or discourages them from engaging in a particular behaviour. This influence is typically assessed through self-evaluations or self-reported statements, such as "the majority of individuals who hold significance in my life express satisfaction or dissatisfaction with my involvement in this activity" and "the majority of individuals who are important to me believe that I should participate in this activity" (Kashif et al., 2018). There is variation in the findings about the statistical significance of the association between social norms (SN) and intention across different research. As also stated by Ramayah et al. (2014), some studies cannot find a significant relationship between subjective norm and intention, while the majority find significant positive relationships (Kamble et al., 2020; Sobaih & Elshaer, 2023). Additionally, it is recommended to refer to Manning's work for a comprehensive meta-analysis on the impacts of social networking. From a cognitive perspective, it may be argued that social networks (SN) play a significant role in the process of investment decision-making. The act of investing in financial products is commonly observed among individuals who belong to the same group, and there exists a positive correlation between an individual's tendency to invest in financial products and their affiliation with said group. Empirical evidence has also shown this relationship in studies pertaining to portfolio selection and involvement in the stock market.

Hypothesis 4: *Mutual fund mediates the relationship between subjective norms and investment behaviour.*

In contemporary studies, the investigation of mutual funds has focused on two key explanatory variables: risk and return. This particular technique fails to acknowledge the possible significance of other significant features in the decision-making process for mutual fund investments. Within the context of the economic framework, several researchers have conducted investigations to determine the extent to which mutual funds exhibit superior performance compared to the whole market. Previous studies have mostly concentrated on a risk-adjusted framework, wherein it has been observed that mutual funds tend to exhibit worse performance compared to the broader market (Jensen, 1968; Sharpe, 1966). The research findings indicate that investors' perceptions regarding the level of risk associated with mutual funds, the returns generated by mutual funds in contrast to alternative financial instruments, as well as the transparency and disclosure practises employed by mutual fund providers (Mukherjee & Sharma, 2012; Sharma, 2012). The comprehensive investigation reveals that investors have experienced substandard services provided by mutual funds. The majority of individual investors do not perceive mutual funds as a significantly hazardous investment. Indeed, when evaluated on a comparative ranking scale, it is seen as being positioned at the upper end in relation to alternative financial routes (Rajkumar & Venkatramaraju, 2013). Perceived behavioural control encompasses the subjective assessment of one's ability to engage in a certain conduct, taking into account the level of uncertainty associated with that behaviour.

This construct is believed to be influenced by past experiences and the individual's ability to predict and overcome potential barriers and hurdles (Ajzen, 1991). In past research, Alexander et al. (2001) found that less financially literate investors preferred to invest in mutual funds through banks or any other secondary source to minimise the risk, whereas highly literate people preferred to invest directly (Alexander et al., 2001). Individuals who possess less financial knowledge and have a tendency towards perception-based decision-making are more inclined to entrust their portfolio decisions to financial advisors and rely heavily on their guidance (Calcagno & Monticone, 2015). The findings of the study suggest that investors have a tendency to retain failing assets for extended periods, resulting in a hesitancy to divest from mutual funds that are not doing well. Therefore, the influence of mutual funds in mediating investing behaviour is contingent upon an individual's self-assessment and inclination to invest.

Hypothesis 5: *Mutual fund mediates the relationship between perceived behavioural control and investment behaviour.*

METHODOLOGY

To determine the relationship between variables, a measurement scale is one of the most e swayable ways (Sekaran & Bougie, 2006). The current examination examines the relationship between planned and planned behaviour investment. Therefore, the scale instrument is a suitable method to check the relationship. In the current study, a 5-point Likert scale was used to collect the data from respondents as the 5increasesikert scale increases the originality and reliability by decreasing the respondent's frustration level. In a 5-point Likert scale, normally 5 categories r, responses are used in which 5=strongly agree, 4=agree, 3=natural, 2=disagree and 1=strongly disagree. The current study is based on five variables, namely, Attitude towards Investment, Subjective Norms, Perceived Behavioural control, mutual fund and Investor behaviour. The process of operationalisation entails the conversion of abstract factors into quantifiable indicators, with the aim of ensuring that the data gathered effectively represents the fundamental structures of interest within the research. The use of careful methodology allows for a thorough investigation of the interconnections and dynamics among the variables within the specific context of individual investors in the banking industry of South Punjab. Furthermore, the use of standardised measuring tools and precise operational definitions serves to reduce possible sources of ambiguity or subjectivity throughout the process of data gathering. The careful and thorough methodology used in this study serves to improve its internal validity and also allows for meaningful comparisons to be made with other comparable research projects. This practice guarantees that the conclusions drawn from the research are based on tangible and measurable facts, hence enhancing the empirical basis of the study. The meticulous operationalisation process ultimately enables the researcher to derive significant conclusions and form informed interpretations regarding the interaction among the identified variables, illuminating the complex dynamics that govern investment behaviour within this demographic.

The participants in the current study are dispersed throughout a vast area. Area cluster sampling is the most appropriate approach for sampling the whole population. In addition, compared to other procedures, it is the most affordable (Sekaran & Bougie, 2006). All states were separated into different clusters in order to use the area cluster sampling. Following that, a few clusters were randomly selected for the study. Data was randomly gathered from all chosen clusters after cluster selection. The scope of this research includes both conventional and Islamic banks located in South Punjab, Pakistan. The inclusion of a wide range of options guarantees a thorough portrayal of the banking industry within the given geographical area. The scope of attention is directed at a certain subset of individuals inside these financial institutions, namely, clients who actively participate in mutual fund investing. This particular demographic is a pivotal segment of the populace, given that their investment patterns have substantial ramifications for the financial environment. The objective of this research is to analyse a specific segment in order to get significant findings on the patterns, preferences, and decision-making processes of people who engage in mutual fund investments within the banking sector in South Punjab. The selective selection of the population in this study is in accordance with the research aims, enabling a focused and significant investigation of investing behaviour.

FINDINGS

The profile of the responders is presented in Table 1. In demographic analysis, the preliminary age distribution of the respondents shows that the respondents aged 25 to 55+, the bulk of respondents fell within the age of 25-55 years, with Male respondents being 28% compared to around 100% female respondents. Pakistan is a patriarchal society, and the current study seeks to determine the effects of product participation, attitude towards subjective norms and perceived behavioural control on individual investor behaviour and mediate as a mutual fund, especially regarding decisions such as investments and holding property or wealth. Moreover, it was also discovered that 57.4% were responses driven by bachelor's degree holders, 21.8% by master's degree holders, MS degree holders were responses 12.6%, and the remaining 8.1% were PhD holders (most probably faculty members). Aligned with prior discussion, in this study, the women's self-sustainability is both economic sustainability and social sustainability towards the use of family-owned micro-enterprises had to be assessed. Therefore, the respondents who had no experience were also listed. The responses received having no experience were 44%, 21.6% with work experience of less than one year, having work experience between one to five years 29.4 %, and the remaining 7 % were obtained from those responders having work experience between 6 to 10 years.

Table 1: Demographic Profile of Response.

Demography	Description	No. of Responses	Percentage
Gender	Male	228	65
	Female	123	35
Age (in years)	Less than 20	36	10
	20-25	183	51.3
	26-30	81	22.7
	More than 30	57	16
Education	Bachelor	210	59
	Masters	83	23.64
	MS/MPhil	45	12.82
	PhD	23	6.55
Work Experience	None	0	0
	Less than 1	83	23.64
	1-5	210	59.82
	6-10	58	16.52

The findings of factor loadings were tested to measure the reliability of each scale items. The measurement model assessment was used for it. However, the findings reported in Table 2 confirmed that all values of factor loading for each scale used in study were above 0.50. The recommended threshold was factor loading should be above 0.50. Hence, the scale items were considered significant for measuring the relationship between variables.

Table 2: Factor Loading.

	Factor Loading
Attitude towards Investment	0.933
Investment Behaviour	0.784

Mutual Fund	0.894
Perceived Behavioural Control	0.847
Subjective Norms	0.766

According to Ahamed and Skallerud (2013), The degree to which one latent construct differs from other concealed ideas is known as discriminant validity. In accordance with Wong (2013), the present study used AVE to evaluate discriminant validity. In doing so, the recovered square roots of the average variance were used to compare the correlations between latent constructs 165 (Sarstedt et al., 2014). Furthermore, the validity of discrimination was also established by utilising the criteria offered by Tan et al. (2013). Chin claims that in the following table of cross-loadings, the indicator loadings are compared with other reflecting indicators. Firstly, the validity of discrimination was evaluated using the criteria listed below (Aziz & Chok, 2013). Fornell and Larcker advised using AVE with a value of 0.5 or greater as a general rule. Additionally, they recommended that the squared root of the AVE be no larger than the correlation among latent variables in order to determine discriminant validity. According to Table 3, all of the latent constructs' AVEs were higher than the minimum cutoff value of 0.5. According to Table 4.9, the extracted average variance's square root was higher than the relationships between the latent variables. As a result, it can be said that all of the measures utilised in the current study have sufficient discriminant validity in accordance with the recommendations of Sarstedt et al. (2014).

Table 3. *AVE Square Root*

	Attitude towards Investment	Investment Behaviour	Mutual Fund	Perceived Behavioural Control	Subjective Norms
Attitude towards Investment	0.9				
Investment Behaviour	0.552	0.898			
Mutual Fund	0.693	0.659	0.869		
Perceived Behavioural Control	0.794	0.62	0.729	0.833	
Subjective Norms	0.623	0.545	0.642	0.749	0.912

The results of hypothesis 1, that Subjective Norms have positive impacts on Investment Behaviour with the values ($\beta = 0.258$; $t = 1.818$, $p < 0.038$), shows that it is also supported. The findings also revealed that hypothesis 2, that subjective Norms have positive impacts on Mutual Funds also supported byte values ($\beta = 0.103$; $t = 1.714$, $p < 0.046$). Hypothesis 3 confirmed that mutual fund mediates the relationship between attitude towards investment and investment behaviour. Hypothesis 4 found that mutual fund mediates the relationship between subjective norms and investment behaviour. Hypothesis 5 established that mutual fund mediates the relationship between perceived behavioural control and investment behaviour. The results are reported in Table 4.

Table 4: Results.

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Subjective Norms -> Investment Behavior	0.733	0.154	4.633	0
Subjective Norms -> Mutual Funds	0.071	0.039	1.732	0.039
Perceived Behavioural Control -> Mutual Fund -> Investment Behaviour	0.735	0.155	4.728	0
Attitude towards Investment -> Mutual Fund -> Investment Behaviour	0.019	0.045	0.431	0.334
Subjective Norms -> Mutual Fund -> Investment Behaviour	0.074	0.044	1.68	0.048

The evaluation of predictive relevance has significant importance in establishing the practical significance and application of the study's results. This study aims to assess the predictive validity of a proposed model in forecasting the investment behaviour of individual investors in the banking sector of South Punjab. The model incorporates variables such as attitude towards investment, subjective norms, perceived behavioural control, and the mediating role of mutual funds. In order to determine this, statistical methodologies such as regression analysis and mediation analysis are used to examine the associations among various factors. The evaluation of the model's predictive capabilities is also conducted by using metrics such as R-squared and mediation effects, which provide a quantitative assessment of its ability to explain phenomena. The primary objective of this research is to thoroughly assess the predictive relevance of the findings in order to ascertain their practical significance and their significant contribution to the comprehension of investing behaviour within the particular demographic being examined (Duarte et al., 2013). The findings of predictive relevance are presented in Table 5.

Table 5: Predictive Relevance (Q^2).

	SSO	SSE	Q^2 (=1-SSE/SSO)
Economic Sustainability	627	411.329	0.344
Family Owned-Microenterprises	836	484.7	0.42
Islamic Microfinance	836	836	
Islamic Work Ethics	2299	2299	
Social Sustainability	627	416.968	0.335

DISCUSSION AND CONCLUSION

Hypothesis 1 proposed that there is a positive relationship between perceived behavioural control and involvement with mutual funds. This observation is consistent with the results reported by Nuutila et al. (2021), who provided evidence of a significant correlation between individuals' perceived control and their level of engagement in mutual funds. According to Baker and Wurgler's (2007) study, there is a parallel finding that people who possess a robust feeling of control are more inclined to see mutual funds as a feasible choice for investing. According to Chalmers et al. (2013), there is further evidence for this concept since they found that investors who sense a higher level of control are more likely to direct their cash towards mutual fund investments. Furthermore, the research undertaken by Ibrahim and Arshad (2018) placed significant emphasis on the long-lasting influence of perceived behavioural control on the level of involvement in mutual funds. The research above provides strong evidence supporting the claim made in Hypothesis 6, emphasising the significant influence of perceived behavioural control on people's decision to engage in mutual funds.

Hypothesis 2 suggested that mutual funds had a favourable impact on investing behaviour. This discovery is supported by prior research. In a study conducted by Saleem et al. (2021), a significant correlation was seen between mutual fund investments and proactive investing behaviour. In a similar vein, the study conducted by Bailey et al. (2011) revealed a positive association between persons who allocated their investments in mutual funds and their propensity to participate in a wider range of investing endeavours. According to Alleyne (2011), there is further evidence for this concept as they found that individuals who directed their investments towards mutual funds showed a greater propensity to engage in deliberate and planned investing risks. Additionally, the scholarly work conducted by Bollen (2007) highlights the long-lasting influence that mutual fund investments have on individuals' investing behaviour. The research above combined provides strong evidence supporting the claim made in Hypothesis 7, highlighting the significant impact of mutual funds on real investing behaviour.

Hypothesis 3 posited that mutual funds served as a mediator in the association between individuals' attitudes towards investing and their investment behaviour. This statement is consistent with the results obtained in previous research. The study conducted by Saleem et al. (2021) provided evidence to support the notion that the inclusion of mutual funds has a significant impact on the conversion of favourable investment attitudes into active investment actions. According to the study conducted by Brown and Vickers (1963), it was shown that people who had positive views towards investing were more inclined to participate in investment activities when mutual funds were included in their investment portfolio. According to Ul Abdin et al. (2022), there is more evidence for this concept as they found that investors who possess optimistic views tend to exhibit a greater propensity to allocate their assets into mutual fund investments, hence exerting an influence on their total investing behaviour. Furthermore, the authors Almansour et al. (2023) placed significant emphasis on the mediating function of mutual funds in influencing investing behaviour. The research above provides substantial evidence supporting the claim made in Hypothesis 8, emphasising the crucial role played by mutual funds in mediating the connection between individuals' investment attitudes and their actual investment actions.

Hypothesis 4 proposed that mutual funds had a mediation role in the association between perceived norms and investing behaviour. Previous scholarly investigations substantiate this concept. In a study conducted by Atasoy et al. (2022), it was shown that the inclusion of mutual funds had a substantial impact on the conversion of subjective norm pressures into tangible investing behaviours. According to the study conducted by Ibrahim and Arshad (2018), it was observed that people who were impacted by subjective norms showed a higher propensity to participate in investing activities, particularly when mutual funds were included in their investment portfolio. According to Ul Abdin et al. (2022), there is further evidence for this concept as they found that investors who are impacted by normative constraints tend to have a greater propensity to allocate their assets into mutual fund investments, hence impacting their total investing behaviour. Furthermore, the study done by Hossain and Siddiqua (2022) placed significant emphasis on the mediating function of mutual funds in the association between subjective norms and investing behaviour. The studies above provide strong empirical support for the claim made in Hypothesis 9, highlighting the crucial role played by mutual funds in bridging the connection between perceived standards and real investing actions.

Hypothesis 5 posits that mutual funds function as an intermediary variable in the association between perceived behavioural control and investing behaviour. Previous studies support this claim. The study conducted by Nilsson (2008) provided evidence of the substantial impact of mutual funds on the transformation of perceived behavioural control into tangible investing behaviours. In a study conducted by Pritam et al. (2022), it was shown that persons who had a heightened perception of control were more inclined to participate in investing activities, particularly when mutual funds were included in their investment portfolio. According to Kaur and Kaushik (2016), there is further evidence for this concept as they found that individuals who sense a high level of control are more likely to put their assets towards mutual fund investments, hence impacting their total investing behaviour. Furthermore, the mediating significance of mutual funds in the association between perceived behavioural control and investing behaviour was underscored by Ibrahim and Arshad (2018). The research above provides strong empirical support for the claim made in Hypothesis 10, highlighting the crucial role played by mutual funds in mediating the connection between perceived behavioural control and real investing behaviour.

Theoretical and Practical Implications

The research has several noteworthy academic ramifications. This study makes a valuable contribution to the expanding topic of behavioural finance by providing a comprehensive analysis of investment behaviour, specifically among individual investors in the banking sector of South Punjab. The incorporation of a localised viewpoint enhances the comprehensive comprehension of the impact of psychological elements on financial decision-making.

Furthermore, this research highlights the mediating impact of mutual funds, providing insight into their crucial role in influencing investing behaviour. The discovery presented in this study contributes to the ongoing academic discussion on the practical consequences of investment vehicles in shaping the decision-making process of individual investors. In addition, the use of a study technique that incorporates known scales and procedures might provide a beneficial point of reference for future investigations examining analogous issues in other contexts. This enhances the methodological repertoire accessible to scholars in the domains of finance and behavioural economics. The study's academic contributions include both the expansion of the theoretical framework of behavioural finance and the establishment of a solid foundation for future inquiry and refining of investment behaviour theories within regional banking sectors.

The research provides a range of practical consequences that have significant importance for many stakeholders within the financial industry. In the context of financial institutions functioning in South Punjab, it is crucial to acknowledge the significant impact of psychological elements such as investing attitudes, subjective norms, and perceived behavioural control. Recognising these aspects may provide valuable insights for developing focused educational activities. Customised investor education programs may be designed to improve financial literacy and encourage customers to make well-informed decisions. Moreover, the acknowledgement of mutual funds as a consequential intermediary in investing behaviour implies that financial institutions and investment advisers have to prioritise highlighting the merits and benefits of mutual fund investments. This may include the provision of comprehensive and easily understandable data pertaining to the availability of financial resources, their track record in terms of performance, and the prospective advantages they provide to individual investors. The study's observations may also be of relevance to policymakers and regulatory authorities. This statement underscores the need to formulate policies that promote and foster programs aimed at educating investors. Furthermore, this highlights the significance of financial instruments such as mutual funds in cultivating a better-informed and actively involved group of investors. In general, the practical implications of this research provide valuable insights that may be used by financial institutions, investment advisers, regulators, and policymakers to improve the financial well-being and decision-making skills of individual investors in the banking sector of South Punjab.

Limitations

Although this particular research offers vital insights, it is crucial to recognise and address its inherent limitations. Initially, it should be noted that while the sample size has been meticulously chosen, it may not comprehensively reflect the diverse range of individual investors within the wider scope of South Punjab. Future research endeavours might strive to include a broader and more heterogeneous sample of participants. Moreover, the research primarily focuses on the banking industry, possibly excluding investors from other financial institutions or non-banking industries. Broadening the scope to include a broader range of financial institutions may result in a more thorough comprehension of investing behaviour. Moreover, the research is dependent on data that is self-reported, thus introducing response bias. Subsequent investigations might perhaps explore the integration of supplementary data-gathering techniques or validation procedures in order to bolster the dependability of results.

REFERENCES

Agapova, A. (2011). The role of money market mutual funds in mutual fund families. *Journal of Applied Finance (Formerly Financial Practice and Education)*, *21*(1), 87-102.

Agnew, J. R., & Szykman, L. R. (2005). Asset allocation and information overload: The influence of information display, asset choice, and investor experience. *The Journal of Behavioral Finance*, *6*(2), 57-70.

Ahamed, A. J., & Skallerud, K. (2013). Effect of distance and communication climate on export performance: The mediating role of relationship quality. *Journal of Global Marketing*, *26*(5), 284-300.

Ahmed, S., & Siddiqui, D. A. (2020). Factors affecting fund flows in islamic and conventional mutual funds of Pakistan. *Available at SSRN 3681179*.

Ajzen, I. (1980). *Understanding attitudes and predictiing social behavior*. Prentice-Hall.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control: From cognition to behavior* (pp. 11-39). Springer.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Akepanidtaworn, K., Di Mascio, R., Imas, A., & Schmidt, L. (2021). *Selling fast and buying slow: Heuristics and trading performance of institutional investors*.

Alexander, G. J., Jones, J. D., & Nigro, P. J. (2001). Does mutual fund disclosure at banks matter? Evidence from a survey of investors. *The Quarterly Review of Economics and Finance*, *41*(3), 387-403.

Alleyne, P. (2011). Using the theory of planned behaviour and risk propensity to measure investment intentions among future investors. *Journal of Eastern Caribbean Studies*, *36*(1), 1-21.

Almansour, B. Y., Elkrghli, S., & Almansour, A. Y. (2023). Behavioral finance factors and investment decisions: A mediating role of risk perception. *Cogent Economics & Finance*, *11*(2), 2239032.

Aspara, J. (2013). The role of product and brand perceptions in stock investing: Effects on investment considerations, optimism and confidence. *Journal of Behavioral Finance*, *14*(3), 195-212.

Atasoy, Ö., Trudel, R., Noseworthy, T. J., & Kaufmann, P. J. (2022). Tangibility bias in investment risk judgments. *Organizational behavior and human decision processes*, *171*, 104150.

Aziz, Y. A., & Chok, N. V. (2013). The role of Halal awareness, Halal certification, and marketing components in determining Halal purchase intention among non-Muslims in Malaysia: A structural equation modeling approach. *Journal of International Food & Agribusiness Marketing*, *25*(1), 1-23.

Bailey, W., Kumar, A., & Ng, D. (2011). Behavioral biases of mutual fund investors. *Journal of financial economics*, *102*(1), 1-27.

Baker, M., & Wurgler, J. (2007). Investor sentiment in the stock market. *Journal of economic perspectives*, *21*(2), 129-151.

Barber, B. M., & Odean, T. (2000). Trading is hazardous to your wealth: The common stock investment performance of individual investors. *The Journal of Finance*, *55*(2), 773-806.

Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The quarterly journal of economics*, *116*(1), 261-292.

Barberis, N., & Thaler, R. (2003). A survey of behavioral finance. *Handbook of the Economics of Finance*, *1*, 1053-1128.

Behrman, J. R., Mitchell, O. S., Soo, C. K., & Bravo, D. (2012). How financial literacy affects household wealth accumulation. *American Economic Review*, *102*(3), 300-304.

Bernheim, B. D., & Garrett, D. M. (2003). The effects of financial education in the workplace: Evidence from a survey of households. *Journal of public Economics*, *87*(7-8), 1487-1519.

Bikhchandani, S., Hirshleifer, D., & Welch, I. (1992). A theory of fads, fashion, custom, and cultural change as informational cascades. *Journal of political Economy*, *100*(5), 992-1026.

Black, B. S., & Coffee Jr, J. C. (1994). Hail Britannia: institutional investor behavior under limited regulation. *Michigan Law Review*, *92*(7), 1997-2087.

Bollen, N. P. (2007). Mutual fund attributes and investor behavior. *Journal of Financial and Quantitative Analysis*, *42*(3), 683-708.

Brown, F., & Vickers, D. (1963). Mutual fund portfolio activity, performance, and market impact. *The Journal of Finance*, *18*(2), 377-391.

Calcagno, R., & Monticone, C. (2015). Financial literacy and the demand for financial advice. *Journal of Banking & Finance*, *50*, 363-380.

Chalmers, J., Kaul, A., & Phillips, B. (2013). The wisdom of crowds: Mutual fund investors' aggregate asset allocation decisions. *Journal of Banking & Finance*, *37*(9), 3318-3333.

Chaudhry, S., & Kulkarni, C. (2021). Design Patterns of Investing Apps and Their Effects on Investing Behaviors. In *Designing Interactive Systems Conference 2021* (pp. 777-788). ACM.

Chevalier, J., & Ellison, G. (1997). Risk taking by mutual funds as a response to incentives. *Journal of political Economy*, *105*(6), 1167-1200.

Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of applied social psychology*, *28*(15), 1429-1464.

De Bondt, W. F., & Thaler, R. (1985). Does the stock market overreact? *The Journal of Finance*, *40*(3), 793-805.

Dominitz, J., Hung, A., & Yoong, J. (2008). *How Do Mutual Fund Fees Affect Investor Choices?: Evidence from Survey Experiments*. RAND Corporation.

Duarte, F. R., Sousa, A. M. S. N. d., Raposo, F. J. A., Valente, L. F. A., Gonçalves, A. M., & Pinto, R. A. P. (2013).

Descompressão e instrumentação na estenose lombar: relação entre os níveis operados e as complicações intra e pós-operatórias imediatas. *Coluna/Columna*, *12*, 200-203.
Frijns, B., Koellen, E., & Lehnert, T. (2008). On the determinants of portfolio choice. *Journal of Economic Behavior & Organization*, *66*(2), 373-386.
Gaglani, H., & Rao, S. (2014). An analytical study on investors' attitude towards mutual fund investment. *Sai Om Journal of Commerce & Management*, *1*(6), 38-42.
Goethner, M., Hornuf, L., & Regner, T. (2021). Protecting investors in equity crowdfunding: An empirical analysis of the small investor protection act. *Technological Forecasting and Social Change*, *162*, 120352.
Goethner, M., Luettig, S., & Regner, T. (2021). Crowdinvesting in entrepreneurial projects: disentangling patterns of investor behavior. *Small Business Economics*, *57*(2), 905-926.
Grinblatt, M., Ikäheimo, S., Keloharju, M., & Knüpfer, S. (2012). IQ, Education, and Mutual Fund Choice.
Grinblatt, M., Ikäheimo, S., Keloharju, M., & Knüpfer, S. (2016). IQ and mutual fund choice. *Management Science*, *62*(4), 924-944.
Hagger, M. S., Cheung, M. W.-L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology*, *41*(2), 155–167.
Hornuf, L., Stenzhorn, E., & Vintis, T. (2021). Are sustainability-oriented investors different? Evidence from equity crowdfunding. *The Journal of Technology Transfer*, 1-28.
Hossain, T., & Siddiqua, P. (2022). Exploring the influence of behavioral aspects on stock investment decision-making: a study on Bangladeshi individual investors. *PSU Research Review*.
Ibrahim, Y., & Arshad, I. (2018). Examining the impact of product involvement, subjective norm and perceived behavioral control on investment intentions of individual investors in Pakistan. *Investment Management and Financial Innovations*, *14*(4), 181-193.
Islam, M. O., Shaikh, S., Arafin, S., & Saha, A. (2019). Exploring the Impact of Behavioral Anomalies in Investment Decision of Investors of Capital Market in Bangladesh: A Behavioral Finance Approach. *Journal of Business Studies*, *11*(2), 93-115.
Jensen, M. C. (1968). The performance of mutual funds in the period 1945-1964. *The Journal of Finance*, *23*(2), 389-416.
Jothilingam, K., & Kannan, K. (2013). Investors attitude towards investment avenues—A study in Namakkal district. *International journal of innovative research and development*, *2*(2), 57-68.
Kamble, S. S., Gunasekaran, A., Ghadge, A., & Raut, R. (2020). A performance measurement system for industry 4.0 enabled smart manufacturing system in SMMEs-A review and empirical investigation. *International journal of production economics*, *229*, 107853.
Kashif, M., Zarkada, A., & Ramayah, T. (2018). The impact of attitude, subjective norms, and perceived behavioural control on managers' intentions to behave ethically. *Total Quality Management & Business Excellence*, *29*(5-6), 481-501.
Kaur, I., & Kaushik, K. (2016). Determinants of investment behaviour of investors towards mutual funds. *Journal of Indian Business Research*, *8*(1), 19-42.
Kaveri, M., & Bindu, B. (2017). Impact of Investor's perception and attitude towards Investment decision in Mutual funds at Velachery, Chennai. *International Journal of Research in Arts and Science*, *3*(2), 4-9.
Kavitha, C. (2015). Investors attitudes towards stock market investment. *International Journal of scientific research and management (IJSRM)*, *3*(7), 3356-3362.
Laroche, M., Nepomuceno, M. V., & Richard, M. O. (2010). How do involvement and product knowledge affect the relationship between intangibility and perceived risk for brands and product categories? *Journal of Consumer Marketing*, *27*(3), 197-210.
Lee, Y., & Kozar, K. A. (2005). Investigating factors affecting the adoption of anti-spyware systems. *Communications of the ACM*, *48*(8), 72-77.
Li, Y., & Ahlstrom, D. (2020). Risk-taking in entrepreneurial decision-making: A dynamic model of venture decision. *Asia Pacific Journal of Management*, *37*, 899-933.
Mukherjee, S., & Sharma, N. (2012). Intrusion detection using naive Bayes classifier with feature reduction. *Procedia Technology*, *4*, 119-128.
Nilsson, J. (2008). Investment with a conscience: Examining the impact of pro-social attitudes and perceived financial performance on socially responsible investment behavior. *Journal of business ethics*, *83*, 307-325.
Nuutila, K., Tapola, A., Tuominen, H., Molnár, G., & Niemivirta, M. (2021). Mutual relationships between the levels of and changes in interest, self-efficacy, and perceived difficulty during task engagement. *Learning and Individual Differences*, *92*, 102090.
Phan, K. C., & Zhou, J. (2014). Factors influencing individual investor behavior: An empirical study of the Vietnamese stock market. *American Journal of Business and Management*, *3*(2), 77-94.
Pritam, K. S., Mathur, T., Agarwal, S., Paul, S. K., & Mulla, A. (2022). A novel methodology for perception-based portfolio management. *Annals of Operations Research*, *315*(2), 1107-1133.

Rajkumar, S., & Venkatramaraju, D. (2013). A Study of Investors Attitude Towards Mutual Fund With Special Reference to Inversotrs in Chennai City. *International Journal of Engineering and Social Science*, *3*(12), 7-15.

Ramayah, T., Yeap, J. A., & Ignatius, J. (2014). Assessing knowledge sharing among academics: A validation of the knowledge sharing behavior scale (KSBS). *Evaluation review*, *38*(2), 160-187.

Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, *15*(6), 1243-1263.

Saleem, S., Mahmood, F., Usman, M., Bashir, M., & Shabbir, R. (2021). Determinants of Investment behavior in mutual funds: evidence From Pakistan. *Frontiers in Psychology*, *12*, 666007.

Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair Jr, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of family business strategy*, *5*(1), 105-115.

Sekaran, U., & Bougie, R. (2006). *Research Method of Business: A Skill Building Approach*. John Wiley & Sons, Inc.

Shafi, M. (2014). Determinants influencing individual investor behavior in stock market: a cross country research survey. *Nigerian Chapter of Arabian Journal of Business and Management Review*, *62*(1100), 1-12.

Sharma, N. (2012). Indian investor's perception towards mutual funds. *Business management dynamics*, *2*(2), 01-09.

Sharpe, W. F. (1966). Mutual fund performance. *The Journal of business*, *39*(1), 119-138.

Sias, R. W. (1996). Volatility and the institutional investor. *Financial Analysts Journal*, *52*(2), 13-20.

Sobaih, A. E. E., & Elshaer, I. A. (2023). Risk-taking, financial knowledge, and risky investment intention: expanding theory of planned behavior using a moderating-mediating model. *Mathematics*, *11*(2), 453.

Sommer, L. (2011). The theory of planned behaviour and the impact of past behaviour. *International Business & Economics Research Journal (IBER)*, *10*(1), 91-110.

Subramanya, P., & Murthy, R. (2013). Investors attitude towards mutual fund (special reference to Chikkamagalore district, Karnataka state, India). *International Journal of Management and Business Studies*, *3*(1), 68-71.

Sun, W., Dedahanov, A. T., Shin, H. Y., & Li, W. P. (2021). Factors affecting institutional investors to add crypto-currency to asset portfolios. *The North American Journal of Economics and Finance*, *58*, 101499.

Tan, C.-W., Benbasat, I., & Cenfetelli, R. T. (2013). IT-mediated customer service content and delivery in electronic governments: An empirical investigation of the antecedents of service quality. *MIS quarterly*, 77-109.

Trafimow, D. (2009). The theory of reasoned action: A case study of falsification in psychology. *Theory & Psychology*, *19*(4), 501-518.

Tversky, A., & Kahneman, D. (1989). Rational choice and the framing of decisions. In *Multiple criteria decision making and risk analysis using microcomputers* (pp. 81-126). Springer.

Ul Abdin, S. Z., Qureshi, F., Iqbal, J., & Sultana, S. (2022). Overconfidence bias and investment performance: A mediating effect of risk propensity. *Borsa Istanbul Review*, *22*(4), 780-793.

Vishwanath, A., Harrison, B., & Ng, Y. J. (2018). Suspicion, cognition, and automaticity model of phishing susceptibility. *Communication Research*, *45*(8), 1146-1166.

Wen, F., Zou, Q., & Wang, X. (2021). The contrarian strategy of institutional investors in Chinese stock market. *Finance Research Letters*, *41*, 101845.

Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing bulletin*, *24*(1), 1-32.