

The Role of Perceived Risk in Shaping Personal Financial Choices: Insights from TPB

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ABSTRACT:

This study examines the factors influencing investors' financial decision-making behavior by extending the Theory of Planned Behavior (TPB) with Perceived Risk. Data were collected from 661 respondents and analyzed using PLS-SEM through SmartPLS 4. The findings reveal that Attitude and Subjective Norms positively influence Behavioral Intention, while Perceived Risk has a negative impact. Perceived Behavioral Control was found to be insignificant. Additionally, Behavioral Intention significantly influences Actual Investment Behavior. The study validates the extended TPB framework and highlights the importance of psychological, social, and risk-related factors in shaping investment decisions. The findings provide useful implications for financial institutions, policymakers, and investment advisors in promoting informed investment behavior.

Keywords: Financial Decision-Making Behavior, Theory of Planned Behavior, Perceived Risk, Behavioral Intention, Investment Behavior, PLS-SEM.

1. Introduction

Financial decision-making plays a crucial role in achieving individual financial well-being and long-term wealth creation. Investment decisions are influenced not only by economic factors but also by psychological and social factors that shape investors' behavior. Understanding these determinants has become increasingly important in today's dynamic and uncertain financial environment.

The Theory of Planned Behavior (TPB) is a framework in psychology that Icek Ajzen created. Ultimately, it aims to provide an explanation for and make predictions about human conduct. Knowing this is crucial for comprehending behaviors that are affected by

intentional thought and purpose. Psychological theory known as the Theory of Planned Behavior (TPB) attempts to explain how people act in reaction to predetermined circumstances. As a follow-up to his 1985 publication of the Theory of Reasoned Action with Martin Fishbein, Icek Ajzen developed this theory in 1985.

As an extension of the Theory of Reasoned Action (TRA), first presented by Fishbein and Ajzen (1975), the Theory of Planned Behavior (TPB) was developed by Ajzen (1985). Ultimately, TPB aims to provide insight on the thought processes that drive people's decision-making. The theory of planned behavior (TRA) states that one's attitude toward the activity and the subjective norms one follows make up one's purpose to conduct. The term "attitude" is used

to describe the degree to which an evaluation of an action's performance is viewed favorably or unfavorably. On the other hand, "subjective norm" describes the assumed social pressure that people feel to do or not do something (Colman, 2015). A person's intention is the immediate precursor to their actual participation in an activity; it is the state of mind that allows them to pursue a certain goal. In order to set TPB apart from TRA, Ajzen (1985) proposed the concept of perceived behavior control, an additional factor that influences the incentive to engage in a behavioral activity.

2. Literature Review

The study of human financial behavior, and more specifically the elements that influence financial decision-making, has recently seen a meteoric rise in interest. Attitudes, subjective norms, and perceived behavioral control are key factors in determining financial conduct, according to many behavioral and psychological theories. One such theory is the Theory of Planned Behavior (Ajzen, 1991). The Theory of Planned Behavior (TPB) provides a widely accepted framework for explaining behavioral intentions and actual behavior through Attitude, Subjective Norms, and Perceived Behavioral Control. However, in the context of investment decisions, Perceived Risk is also considered a significant factor due to the uncertainty and potential financial losses associated with investments.

2.1 Elements of TPB:

Attitude toward the Behavior:

The Theory of Planned Behavior (TPB) states that the aim is the primary factor that immediately impacts behavior. A person's mindset may have an effect on their actions as well (Norman et al., 2019). As to Schmidt (2010), AT lays the groundwork for subsequent actions, which may be beneficial or harmful, leading to pleasant or unpleasant results, among others. According to O'Connor and White (2010), a person is more likely to have a positive intention to engage in a behavior if they have a positive attitude towards it.

The phrase "financial attitude" is defined by Pankow (2003) as an individual's frame of mind, viewpoint, and evaluation of their own financial situation. When people have a positive or negative attitude about money, it shows in their viewpoint and actions when it comes to managing their own finances, creating a budget, and making investment decisions. An attitude is a general emotion that conveys a person's propensity or hostility towards an item, as stated by Ajzen (1985). A person's attitude about money has a favorable effect on how they handle their own finances, according to study results published by Ameliawati and Setiyani (2018). Students' positive and considerable attitudes about money had a positive and substantial influence on their conduct regarding money management tactics. In order to enhance one's financial habits, it is crucial to acquire favorable attitudes regarding money. Wulandari,

S. A., & Mahendra, A. (2021).

Subjective Norms :

The evaluation of the behaviour is based on the views of relevant persons, such as members of your family, friends, and colleagues, and whether or not they expect you to participate in the behaviour (Pahlevi & Oktaviani, 2018). Research conducted by (Ameer & Khan, 2020) indicates that subjective norms are significant predictors of financial behavior among working adults, with behavioral intentions serving as a mediating factor. This highlights the significance of social influences in shaping financial behaviors by affecting intentions. Subjective norms were shown to have a favorable and substantial impact on investment intentions, according to the findings of Hidayati and Destiana (2023). Katalbas et al. (2022) demonstrated that subjective norms affect the intentions of young investors in the Philippines, with financial literacy serving as a moderating factor.

Perceived Behavioral Control:

A person's "perceived behavior control" is defined as their estimation of how simple or complex a job is to complete, according to Ajzen (1991). In their study, Ajzen and Fishbein (2000) pointed out that people often mistakenly believe

that perceived behavior control includes both the real problem and the perceived regulating aspects. Many factors affect how much control someone seems to have over their actions. One of these is the individual's confidence in their own abilities to manage the situation and another is how quickly they can obtain the tools they need to control it. The Theory of Planned Behaviour (TPB) is a theory that focuses on the relationship between attitudes, subjective norms, and

perceived behavioral control (Chandra et al., 2017). We postulate, based on the present experiment's findings, that perceived behavioral control (PBC) significantly affects investment intentions (East, 1993). The degree to which individuals believe they have the freedom to make their own decisions and act in accordance with those decisions is reflected in their judgments, as stated by Hamid (2014).

Perceived Risk:

Gazali et al. (2018) states that prior research has demonstrated a correlation between an individual's risk tolerance and their preference for high-risk ventures. A person's level of risk tolerance may be a good predictor of their intention to invest in financial assets, according to research by Croy et al. (2010). Those who are comfortable taking calculated risks are more likely to invest in high-risk financial assets and less likely to put their money into low-risk investments. According to research published in 1998 by Weber and colleagues, those with a low risk tolerance are more likely to try out various strategies for minimizing the dangers they face. This result lends credence to the findings presented here. Keller and Siegrist (2006) found that an individual's propensity to invest was significantly affected by their income, level of risk tolerance, and investment account. According to Grable and Lytton (2003), investors with a low risk tolerance tend to choose savings accounts and hoard cash and bonds inside their own possession. Stock and derivatives trading, on the other hand, tend to attract people who are comfortable with high amounts of risk.

Behavioral Intention:

Intentions are assumed to capture the motivational factors that influence a behavior and to indicate how hard people are willing to try or how much effort they would exert to perform the behaviour" (Ajzen, 1991, p. 181). According to Ajzen (1991), as a general rule, the stronger the intention to engage in a behaviour, the more likely should be its performance. Intention can thus be construed as a predictor of behaviour. Many studies also claim the strong involvement of intention in behaviour performance in a way that increases the chance of the behaviour being conducted. Author also agree that individual's intention strongly affect behaviour and may lead he/she will perform his/her behaviour. (East 1993).

3. Objective And Hypothesis Of The Study:

3.1 Objectives:

- To investigate the influence of Attitude, Subjective Norms and Perceived Behavioral Control on behavioral intention of Investors.
- To study role of Perceived Risk in shaping Personal Financial Behavior on Investors.

3.2 Hypothesis of the Study:

H1: Attitude has a positive significant impact on the investment intention of investors.

H2: Subjective Norms have a positive significant impact on the investment intention of investors.

H3: Perceived behavioral control has a positive significant impact on the investment intention of investors.

H4: Perceived Risk has a significant negative impact on the investment intention of investors.

H5: Behavioral Intention has a positive significant impact on Actual Behavior.

4. Research Methodology:

4.1 Target Population:

In our research, the population is selected from age group of less than 30, 31-40 years, 41-50

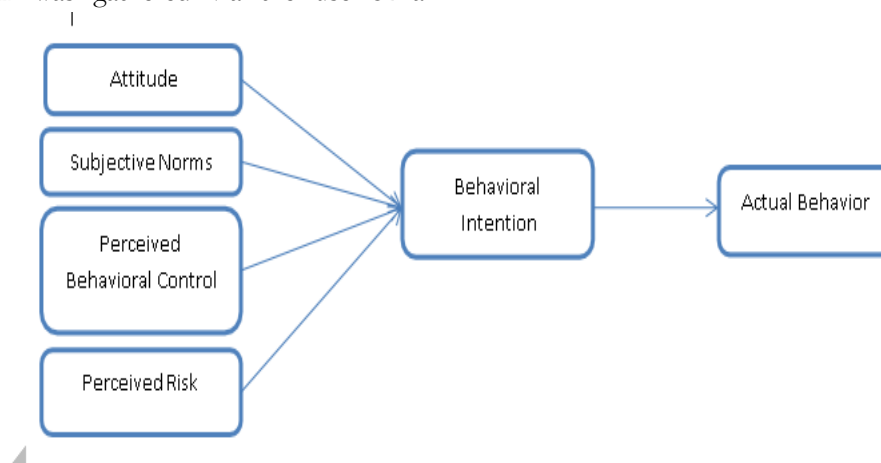
years and more than 50 years. The respondents are from big cities of Gujarat state namely, Ahmedabad, Vadodara, Surat and Rajkot.

4.2 Sampling Frame & Sampling Size:

In our research the sampling frame consists of respondents who are using any type of financial services. A total of 661 out of 750 individuals engaged with the study and were taken into account in the research sample. For this investigation, a non-random sampling method was employed.

4.3 Research Instrument Development:

Information was gathered via the use of a



5. Data Analysis:

5.1 Demographic Distribution:

Demographic data indicates that majority of respondents are male 64.6% of the total, while females constitute 35.4% of the total. Of the participants, a significant majority fall > 50 years of age (28.3%), followed by those aged 41 to 50 (28.0%), and a lesser percentage of those beyond

5.2 Reliability and Validity:

questionnaire in order to achieve the primary objective of the study. Constructs were evaluated using a seven-point Likert scale, with 1 indicating Strongly Disagree and 7 indicating Strongly Agree.

4.4 Research Tools:

The subsequent results derive from several statistical studies conducted on data obtained by SPSS 25. Furthermore, we employed SMART PLS-4 for modeling structural equations based on variance.

4.5 Conceptual Model:

the age of 30 (18.3%). Among the individuals, 38.4% respondents have finished their education, 25.3% have obtained a master's degree, whilst 21.3% have successfully completed high school. The bulk of the sample consists of young males who have attained a very advanced Theoretical Model degree of schooling.

Table 1

Construct	Cronbach's Alpha	CR	AVE
Attitude (ATI)	0.911	0.934	0.739
Subjective Norms (SNO)	0.835	0.897	0.651
Perceived Behavioral Control (PBC)	0.840	0.889	0.586
Perceived Risk (PRS)	0.855	0.897	0.635
Behavioral Intention (BHIN)	0.919	0.940	0.757

Actual Behavior (ABH)	0.843	0.906	0.762
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Table 1 presents the reliability and convergent validity assessment of the measurement model. The results indicate that all constructs exhibit satisfactory internal consistency reliability, with Cronbach's Alpha values ranging from 0.835 to 0.919, exceeding the recommended threshold of 0.70. Similarly, Composite Reliability (CR) values range from 0.889 to 0.940, confirming adequate construct reliability. Convergent validity was

assessed using the Average Variance Extracted (AVE). The AVE values for all constructs range from 0.586 to 0.762, which are above the recommended threshold of 0.50. Therefore, the measurement model demonstrates acceptable reliability and convergent validity, indicating that the indicators adequately represent their respective latent constructs.

Table 2

Construct	ATI	SNO	PBC	PRS	BHIN	ABH
ATI	0.860					
SNO	0.168	0.807				
PBC	0.022	0.342	0.766			
PRS	-0.069	-0.320	-0.594	0.797		
BHIN	0.448	0.542	0.361	-0.504	0.870	
ABH	0.211	0.352	0.278	-0.409	0.637	0.873

Discriminant validity was assessed using the Fornell–Larcker criterion. According to Fornell and Larcker (1981), the square root of the Average Variance Extracted (AVE) of each construct should be greater than its correlations with other constructs. The results (Table 2) indicate that the square root of AVE for Attitude (0.860), Subjective Norms (0.807), Perceived Behavioral Control (0.766), Perceived Risk (0.797), Behavioral Intention (0.870), and Actual

Behavior (0.873) are all greater than their corresponding inter-construct correlations. Therefore, each construct shares more variance with its own indicators than with other constructs in the model. These findings confirm that discriminant validity has been established for all constructs, indicating that the latent variables are empirically distinct from one another and adequately capture unique aspects of investors' financial decision-making behavior.

5.3 HTMT (Heterotrait–Monotrait Ratio) Analysis

Table 3

ATI	SNO	PBC	PRS	BHIN	ABH
0.190					
0.031	0.401				
0.082	0.376	0.671			
0.501	0.612	0.418	0.571		
0.232	0.394	0.325	0.468	0.731	

The Heterotrait–Monotrait Ratio (HTMT) was employed to further assess discriminant validity among the study constructs. According to

Henseler et al. (2015), HTMT values below 0.90 indicate adequate discriminant validity, while values below 0.85 represent a more conservative

threshold. The results revealed that all HTMT values were below the recommended threshold of 0.85. The highest HTMT value was observed between Behavioral Intention and Actual Behavior (HTMT = 0.731), which remained well below the acceptable limit. Therefore, the findings confirm that each construct is

empirically distinct from the others and captures a unique aspect of investors' financial decision-making behavior. Consequently, the discriminant validity of the measurement model is established, supporting the suitability of the constructs for subsequent structural model analysis and hypothesis testing.

5.4 Hypothesis Testing (Direct Effects)

Hypothesis	Path	Path Coefficient (β)	t-value	p-value	Decision
H1	ATI $\rightarrow$ BHIN	0.383	13.254	0.000	Supported
H2	SNO $\rightarrow$ BHIN	0.364	12.616	0.000	Supported
H3	PBC $\rightarrow$ BHIN	0.022	0.578	0.564	Not Supported
H4	PRS $\rightarrow$ BHIN	-0.372	10.505	0.000	Supported
H5	BHIN $\rightarrow$ ABH	0.672	14.694	0.000	Supported

The structural model was evaluated using path coefficients, t-values, and p-values to examine the relationships among the constructs. The findings provide substantial support for the extended Theory of Planned Behavior (TPB) framework in explaining investors' financial decision-making behavior.

The results reveal that **Attitude has a significant positive effect on Behavioral Intention** ($\beta = 0.383$, $t = 13.254$, $p = 0.000$), thereby supporting H1. This finding suggests that investors who hold favorable perceptions regarding investment activities are more likely to develop stronger intentions to invest. The result is consistent with the Theory of Planned Behavior, which posits that positive evaluations of a behavior increase the likelihood of forming intentions to perform that behavior.

Similarly, **Subjective Norms significantly and positively influence Behavioral Intention** ($\beta = 0.364$, $t = 12.616$, $p = 0.000$), supporting H2. This indicates that social influences play an important role in shaping investors' intentions. Recommendations and opinions from family members, friends, colleagues, financial advisors, and social networks can positively affect an individual's willingness to invest.

Contrary to expectations, **Perceived Behavioral**

Control does not significantly influence Behavioral Intention ($\beta = 0.022$, $t = 0.578$, $p = 0.564$), leading to the rejection of H3. This result suggests that

investors' perceptions regarding their ability, resources, knowledge, or control over investment decisions do not significantly determine their intention to invest.

The analysis further indicates that **Perceived Risk has a significant negative effect on Behavioral Intention** ($\beta = -0.372$, $t = 10.505$, $p = 0.000$), supporting H4. This finding implies that investors who perceive higher levels of uncertainty, financial loss, market volatility, or investment risk are less likely to develop intentions to invest.

Furthermore, **Behavioral Intention significantly and positively influences Actual Behavior** ($\beta = 0.672$, $t = 14.694$, $p = 0.000$), supporting H5. This finding represents one of the core propositions of the Theory of Planned Behavior, which argues that intentions serve as the immediate antecedent of actual behavior. Investors with stronger intentions to invest are significantly more likely to translate those intentions into actual investment actions. The relatively strong path coefficient demonstrates that intention is a critical predictor of real-world

financial behavior and serves as the primary mechanism through which psychological factors

influence investment decisions.

Coefficient of determination (R^2)

	R^2
Behavioral Intention (BHIN)	0.539
Actual Behavior (ABH)	0.247

The coefficient of determination (R^2) for **Behavioral Intention** is 0.539, indicating that Attitude, Subjective Norms, Perceived Behavioral Control, and Perceived Risk collectively explain 53.9% of the variance in investors' behavioral intentions. According to Hair et al. (2022), this level of explanatory power can be considered moderate to substantial, suggesting that the proposed model successfully captures the major determinants of investment intention. Similarly, the R^2 value for **Actual Behavior** is 0.247, indicating that Behavioral Intention explains 24.7% of the variance in actual investment behavior. Although additional factors beyond the scope of the present model may influence actual behavior, the result confirms that intention remains a significant predictor of investors' actions. Overall, the findings support the applicability of the extended Theory of Planned Behavior in explaining investors' financial decision-making behavior. The study demonstrates that favorable attitudes and supportive social influences enhance investment intentions, whereas perceived risk reduces such intentions. Moreover, behavioral intention serves as the primary driver of actual investment behavior, reinforcing the theoretical assumptions of TPB in the context of personal finance and investment decision-making.

6 Conclusion:

This study examined the factors influencing investors' financial decision-making behavior by extending the Theory of Planned Behavior (TPB) and incorporating Perceived Risk as an additional determinant. The study investigated the effects of Attitude, Subjective Norms, Perceived Behavioral Control, and Perceived Risk on Behavioral Intention, as well as the impact of Behavioral Intention on Actual

Investment Behavior. The findings revealed that Attitude and Subjective Norms significantly and positively influence Behavioral Intention, indicating that favorable perceptions toward investing and supportive social influences encourage individuals to participate in investment activities. In contrast, Perceived Risk was found to have a significant negative impact on Behavioral Intention, suggesting that concerns regarding uncertainty and potential financial losses discourage investment participation. The results further demonstrated that Behavioral Intention significantly predicts Actual Investment Behavior, confirming the central proposition of the Theory of Planned Behavior that intentions translate into actual actions. However, Perceived Behavioral Control did not exhibit a significant influence on Behavioral Intention, indicating that investors' perceived ability or control over investment activities may not be a decisive factor in shaping their intentions within the current context. The study contributes to the existing literature by validating the applicability of the extended Theory of Planned Behavior in explaining investors' financial decision-making behavior. By integrating Perceived Risk into the TPB framework, the research provides a more comprehensive understanding of the psychological and social factors that influence investment intentions and behaviors. Overall, the study highlights that investment decisions are influenced not only by rational financial considerations but also by psychological, social, and risk-related factors. Understanding these determinants can assist stakeholders in designing strategies that promote informed investment decisions and sustainable financial behavior among investors.

7 Theoretical Contribution

This study contributes to the literature by extending the Theory of Planned Behavior (TPB) through the inclusion of Perceived Risk as an additional determinant of investment behavior. The findings validate the applicability of the extended TPB framework in explaining investors' financial decision-making behavior and highlight the significant roles of Attitude, Subjective Norms, and Perceived Risk in shaping Behavioral Intention. Furthermore, the study confirms that Behavioral Intention serves as a strong predictor of Actual Investment Behavior. By providing empirical evidence from the Indian context, the study enriches both behavioral finance and TPB literature and offers a deeper understanding of the psychological, social, and risk-related factors influencing investment decisions.

8 Practical Implication

This study offers valuable practical insights for policymakers, financial institutions, investment advisors, and financial educators. The findings indicate that positive attitudes and supportive social influences significantly enhance investors' intentions to invest, while perceived risk negatively affects investment intentions. Therefore, financial institutions and regulators should focus on improving investor awareness, strengthening financial literacy, and providing transparent information to reduce perceived

investment risk. Furthermore, investment advisors can design targeted educational programs and communication strategies that build investor confidence and encourage informed investment decisions. By understanding the key factors influencing investment behavior, stakeholders can develop effective initiatives to promote greater participation in financial markets and support long-term financial well-being among investors.

9 Future Scope

The present study provides valuable insights into investors' financial decision-making behavior; however, several opportunities exist for future research. First, future studies may incorporate additional

behavioral factors such as financial literacy, overconfidence bias, herding behavior, trust in financial institutions, and investment experience to improve the explanatory power of the model. Second, researchers may conduct comparative studies across different demographic groups, regions, or countries to examine variations in investment behavior. Third, longitudinal studies can be undertaken to analyze changes in investors' intentions and behaviors over time. Finally, future research may explore the moderating effects of demographic variables such as age, income, education, and gender on investment decision-making behavior.

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