

Fostering Future Investors: Analysing Determinants of Stock Market Participation Among Malaysian Students using PLS-SEM

Suhaily Maizan Abdul Manaf, Mohd Talmizie Amron*, Zalinawati Abdullah, Zuraida Mohamad,
Sahaida Laily Md Hashim

University Teknologi MARA, Puncak Alam Campus, Selangor, Malaysia

*talmizie@uitm.edu.my

Corresponding Author: Mohd Talmizie Amron

Abstract: Participation in the stock market is crucial for financial engagement and wealth creation. However, specific population segments, such as students from higher learning institutions, may exhibit lower stock market participation levels. Addressing this issue, this study uses the behavioral finance theory to examine how financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, social interaction, and investment intention influence stock market participation. Data was collected through a self-administered questionnaire distributed to 669 university students in Malaysia aged 17-30 years old. The findings reveal that financial literacy, herding behavior, risk tolerance, and social interaction positively influenced investment intention. The study also discovered that investment intention positively influences stock market participation. This study has made significant contributions to both theory and practice. Theoretically, this study contributes to the literature by confirming the positive relationship between financial literacy and investment intention. This study contributes to the development of more effective interventions and policies that not only educate students about an essential aspect of financial literacy but also prepare them for a financially secure future.

Keywords: *Stock market participation, investment intention, higher education institution, behavioral intention*

1. Introduction

The stock market is a public platform where buyers and sellers of stocks (also called shares) come together to trade. Stocks represent ownership claims on businesses; investors can own a piece of a company by buying stocks. Jaiyeoba and Haron (2016) stated that comprehending the investment decision-making behavior of stock market participants extends beyond merely examining their priorities.

The Malaysian government has encouraged investment in the stock market throughout the years, particularly among university students who allocate their investment funds towards various savings schemes that yield minimal returns. The National Strategy for Financial Literacy 2019-2023 illustrates a national initiative to promote and foster a culture of savings and investments among Malaysians. Hence, it is imperative to comprehend the financial aspect of human behavior and decision-making and scrutinize the determinants that impact the inclination of Malaysian undergraduate students toward investing in the stock market. (Yang et al., 2021). Furthermore, it is paramount to ascertain the influence of these factors on the involvement of unemployed individuals in the Malaysian stock market.

According to the CGS-CIMB Retail Investors' Sentiment Survey, only 17% of Malays participate in stock market activities, compared to 76% of Chinese, 4% of India, and 3% of other ethnicities in Malaysia. Furthermore, the survey highlights that 25% of the investors surveyed are under the age of 31. This suggests that most investors are relatively young and may have different investment preferences and risk tolerances than older investors. Surprisingly, the survey also reveals that only 5% of the investors identified themselves as students with either rudimentary knowledge or no knowledge of stock investment. This implies that most investors surveyed possess at least some level of understanding or experience in stock investing.

Evidence of determinant factors, namely financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, and social interaction, that influence stock market investment intention and participation has not been fully addressed, especially from the perspective of Malay Bumiputra and young people in Malaysia. Based on the financial behavior theory (Thaler, 1999), this study tries to answer the following research questions: (a) How do determinate factors, namely financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, and social interaction toward influence stock market investment intention? (b) Does investment intention influence stock market participation?

Thus, this study seeks to fill in the literature gap by examining how financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, and social interaction influence investment intention, as well as how investment intention influences stock market participation. The study provides significant contributions to both theory and practice. From a theoretical perspective, this study enhances understanding of the influence of financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, social interaction on stock market investment intention, and the influence of investment intention on stock market participation. From a managerial perspective, the findings provide guidelines to help financial and educational institutions develop their comprehensive approach, which makes the initiative more aligned with contemporary trends such as digitalization and more appealing to a generation that is increasingly conscious of sustainability.

2. Literature Review

Stock market participation

The stock market serves as a platform for individuals and institutions to buy and sell securities, such as stocks and bonds, intending to generate returns on investment. Understanding the stock market and its impact on investment intention is crucial for individuals seeking to participate in financial markets (Jain et al., 2022). The stock market is a crucial instrument in equity investments. It attracts significant funding from financial institutions and retail investors (Sabiran et al., 2023), particularly in developing countries, as it represents the country's economic performance (Murthy et al., 2016).

Gaining insights into the determinant factors that influence stock investment intention holds paramount importance for various stakeholders, as the participation of stock investors plays a pivotal role in determining the stock market's success (Yoopetch & Chaithanapat, 2021). A higher number of investors, from individual to institutional to international investors, could assist in the stock market growth and improve market efficiency. It asserts that people are more motivated to take the necessary measures to enter the stock market and make investments when they genuinely want to invest and intend to do so. This goal may motivate people to do a thorough analysis, get the essential information, seek advice, and get beyond entry-level obstacles, increasing stock market participation. The extent to which a person participates in the stock market has a significant impact on how much money she/he can accumulate and spend (Mehra & Prescott, 1985).

Investment Intention

Investment intention refers to an individual's inclination or desire to invest in financial instruments, such as stocks, bonds, or mutual funds, intending to generate long-term capital growth or income. (Ghosh, 2022). Recent research has focused on various factors influencing investment intention in the stock market. One important factor is financial literacy, which refers to an individual's knowledge and understanding of financial concepts, products, and investment strategies. (Dorina et al., 2022). Research has consistently revealed a positive association between higher levels of financial literacy and investment intention in the stock market. (Jain et al., 2022; Lin & Bates, 2022). Individuals with excellent financial knowledge and understanding are likelier to have a positive attitude toward stock market investing and express an intention to invest.

In the context of Malaysia, as a developing nation, Ahmaed and Noreen (2021) Expressed that investors need help making investment decisions due to the high volatility and vast heterogeneity of investor behavior. Given the influential role of financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, and social interaction in shaping investment decisions, the study puts forth the following hypotheses with the research model as shown in Figure 2:

Financial Literacy

Financial literacy refers to acquiring a comprehensive range of competencies and information, enabling individuals to make judicious and efficient choices regarding their financial assets. Enhancing financial literacy levels enables individuals to make more informed decisions regarding their financial investments (Bayar et al., 2020). Ahmad and Shah's (2022) Research uncovered a noteworthy positive correlation between financial literacy, investment choices, and investment outcomes.

In addition, Bayar et al. (2020) Econometric analysis findings suggest a positive relationship between financial risk tolerance, financial literacy level, and educational level. This relationship is attributed to the fact that these factors facilitate making complex financial decisions. Furthermore, Mishra (2018) Disclosed that individuals must augment their financial literacy and awareness by participating in financial education programs or seminars offered by diverse organizations. The inadequate level of financial literacy among individuals poses a significant challenge to their preparedness to engage in stock market investment, which necessitates a comprehensive grasp of fundamental concepts about the economy, industry, and companies.

Financial Well-being

Financial well-being refers to an individual's overall satisfaction and sense of security regarding their financial situation. It encompasses various dimensions, including financial stability, financial security, and financial freedom. (Diener & Biswas-Diener, 2008). Understanding and promoting financial well-being is important as it is closely linked to an individual's overall life satisfaction, psychological well-being, and overall quality of life (Brailovskaia et al., 2022).

Financial literacy is a crucial aspect of financial well-being, which refers to an individual's knowledge and understanding of financial concepts, products, and decision-making skills (Kumar et al., 2023). Numerous studies have emphasized the positive association between financial literacy and financial well-being. Higher levels of financial literacy are linked to better financial management practices, reduced financial stress, and improved financial decision-making (Cossa et al., 2022; Van Nguyen et al., 2022).

Additionally, financial behaviors play a vital role in determining financial well-being. Research has shown that responsible financial behaviors, such as budgeting, saving, and prudent debt management, positively impact financial well-being. (Bhatia & Singh, 2023; Mousavi & Rasaeimanesh, 2023). Conversely, impulsive spending, excessive debt, and inadequate savings contribute to financial distress and hinder financial well-being.

Herding Behavior

Herding behaviors are the propensity for people to rely on their investment choices on the actions and behaviors of others, especially in ambiguous or uncertain circumstances. Jaiyeoba et al. (2020) Detailed that it is a scenario in which rational investors disregard their information and instead adopt the judgments of others when making investment decisions. This phenomenon occurs when the impact of external information or decisions outweighs investors' private information. To be clear, people are more likely to form an intention to invest when they obtain support or encouragement to engage in herding behavior through social cues or recommendations from reliable sources. Bakar and Yi (2016) defined herding behavior as the tendency for an individual to conform to the decisions of the majority, which are assumed to be correct. The perception of a consensus or majority partaking in a specific investing activity can foster trust and confidence, improving one's intention to invest.

The influence of herding behavior on investors' stock market participation decisions has been affirmed in multiple studies (Ahmaed & Noreen, 2021; Pahlevi & Oktaviani, 2018; Yang et al., 2021). Thus, the phenomenon of availability bias occurs when an individual's decision-making process is influenced by easily accessible and recent information. The findings of Ahmaed and Noreen (2021) shed light on the behavior of individual investors in the Pakistan Stock Exchange, indicating a strong alignment with various factors. Specifically, investors demonstrate agreement with the impact of other investors' decisions regarding stock selection and stock volume on their investment decisions. This suggests a manifestation of the herding effect in their behavior, as they also exhibit agreement with other aspects associated with herding. Yang et al. (2021) concurred that a lack of knowledge and limited access to information leads many investors to mimic the actions of others. The strong alignment of investors with the factors mentioned above holds significance due to the presence of the herding effect. This phenomenon highlights investors' tendency to follow others' decisions and behaviors, further emphasizing the impact and relevance of the identified factors.

Conversely, Bakar and Yi (2016) discovered that herding does not significantly influence investors' decision-making. On the other hand, availability bias occurs when individuals base their actions on readily accessible and recent information. The findings suggest disparities exist between retail and institutional investors concerning their tendencies towards herding behavior and religious bias. Retail investors are advised to

acquire knowledge or seek guidance from institutional investors to mitigate the occurrence of excessive herding in the market.

Overconfidence bias

The overconfidence bias describes a person's propensity to exaggerate their skills, expertise, and the precision of their judgments. The concept discussed is associated with the self-attribution bias, whereby individuals tend to overestimate their abilities by attributing their successes to their skills and capabilities while attributing their failures to external factors such as 'poor luck' (Bakar & Yi, 2016). Investors who exhibit overconfidence tend to misconstrue the precision of the information presented and overrate their analytical abilities when scrutinizing such information. Jaiyeoba et al. (2020) indicated that mounting evidence from many parts of the world suggests investors have excessive confidence. In addition, this phenomenon leads individuals to overestimate their level of expertise, underestimate potential hazards, and amplify their perceived capacity to manage circumstances.

Studies by Bakar and Yi (2016), Jaiyeoba et al. (2020), and Pahlevi and Oktaviani (2018) found overconfidence to have a significant positive impact on investors' decision-making to participate in the stock market. In previous investigations conducted by Jaiyeoba et al. (2020), it was discovered that overconfident bias, anchoring bias, and representative heuristics have similar impacts on both retail and institutional investors. Therefore, it becomes crucial for retail investors to actively work on reducing the influence of these biases when making investment decisions rather than solely relying on guidance from institutional investors.

In contrast, the studies conducted by Ahmad et al. (2022), Fagerström (2008), and Kafayat (2014) revealed a detrimental effect of overconfidence on decision-making. It asserts that individuals become more careful and methodical in their investing decisions by acknowledging and lowering overconfidence, which increases their propensity to engage in investment activities. Ahmad et al. (2022) proved that the quality of investment decisions is substantially impacted by overconfidence, which negatively correlates with investment decision-making.

Risk Tolerance

Risk tolerance is the capacity of a person to accept and withstand possible setbacks in the pursuit of greater financial returns. People are more likely to decide to invest when they receive assistance in understanding and controlling their risk tolerance through risk assessment tools, instructional materials, or individualized guidance. It implies that improving people's risk comprehension and comfort level with taking calculated risks makes them more likely to indicate an intention to engage in investment activities.

Studies by Ahmad & Shah (2022) and Yang et al. (2021) demonstrated the noteworthy positive impacts of risk tolerance on investment intention in the stock market. Risk perceptions related to investment choices and performance significantly influence the decision-making process. One decides to refrain from investing if they believe a high risk is involved with their investment selection and performance. Mishra (2018) also found that households with a higher risk tolerance are more likely to participate in stock markets. Ahmad and Shah (2022) identified a robust correlation between risk tolerance, investment decisions, and investment performance. In essence, individuals who perceive a higher level of risk associated with their investment decisions and performance tend to make more informed decisions and experience improved investment success.

Social Interaction

Support for social interaction entails allowing people to interact meaningfully, exchange personal stories, and seek counsel from others on financial concerns. When assisted in fostering social contacts and participating in an investor community, people are more likely to establish a favorable desire to invest. Besides, people can learn important lessons, boost their self-esteem, and increase their understanding of investment techniques through social interaction. As a result, people are more likely to want to engage in investing activities.

Previous studies revealed that social interaction notably impacts individuals' inclination towards investing and participating in the stock market (Shanmugham & Ramya, 2012; Yang et al., 2021). This specific discovery corroborates the results from Wu et al. (2018), which posited that social interaction significantly influences individuals' investment intentions in the stock market. Novice investors may derive elevated levels of both

utilitarian and hedonic values from social values, and hedonic values primarily drive the inclination towards investing in the stock market. Experienced investors tend to prioritize utilitarian values to a greater extent. Furthermore, Shanmugham and Ramya (2012) demonstrated that engaging in social interaction, such as utilizing social media and receiving information from close acquaintances, fosters an inclination towards investing in the stock market and consequently enhances participation in the stock market.

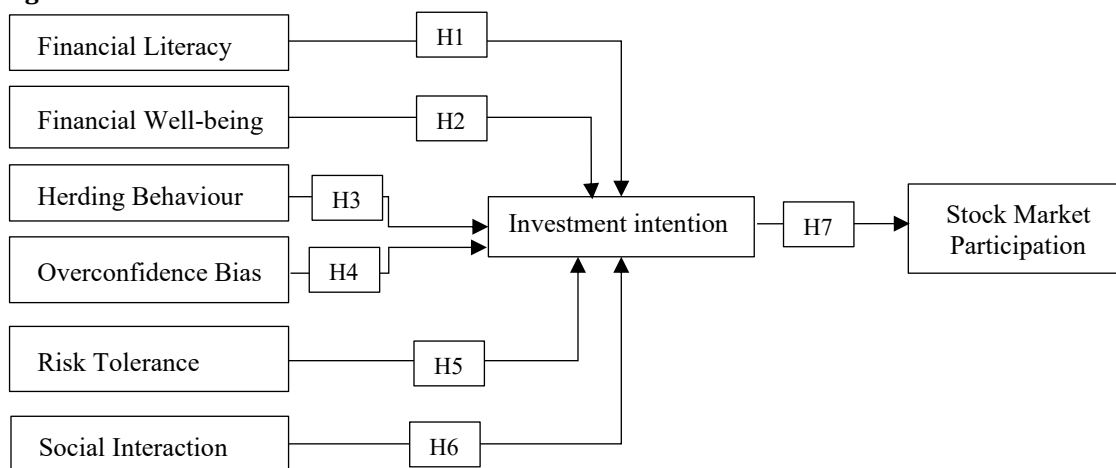
Theoretical framework and hypotheses development

Conventional financial theories are built upon the assumption that participants in financial markets behave rationally, operate within efficient market environments, and consistently make rational judgments. Investors exhibit irrational market behavior: they trade excessively, acquire stocks without considering their fundamental value, purchase the same stocks as their friends, base their decisions on past performance, and retain losing stocks while selling winning ones. The concept of investment decision remains elusive, as discussions on its various facets have not yet yielded definitive principles or theories that can be universally applied (Ahmad et al., 2022). Furthermore, most researchers also stated that the feelings, human behavior, and perspectives an investor brings to the investment process should not be overlooked by research (Ahmaed & Noreen, 2021; Amin & Pirzada, 2014; Yang et al., 2021).

The effect of behavioral factors such as financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, and social interaction on investment intention to participate in the stock market was explored by various investigators (Ahmaed & Noreen, 2021; Bakar & Yi, 2016; Yang et al., 2021). Understanding investors' behavior is more important than understanding stocks; therefore, understanding such behaviors is vital. Even experienced investors usually fail because they permit their cognitive biases to determine their decisions (Jaiyeoba & Haron, 2016).

Therefore, comprehending the investment decision-making behavior of Malaysians may facilitate the implementation of measures that encourage investors to engage actively, aligning with their long-term investment objectives while considering their short-term requirements (Mishra, 2018). Applying the financial behavior theory in the context of this study, it is proposed that financial literacy, financial well-being, herding behavior, overconfidence bias, risk tolerance, and social interaction influence stock market investment intention and participation. Concerning the financial behavior theory, the following theoretical framework and hypotheses were proposed for this study, as shown in Figure 1.

Figure 1: Research model



Therefore, based on the financial behavior theory and past literature, the following hypotheses were developed:

- H1 - Financial literacy has a positive influence on investment intention
- H2 - Financial well-being has a positive influence on investment intention.
- H3 - Herding behavior has a positive influence on investment intention.
- H4 - Overconfidence bias has a positive influence on investment intention.

- H5 - Risk tolerance has a positive influence on investment intention.
- H6 - Social interaction has a positive influence on investment intention.
- H7 - Investment intention has a positive influence on stock market participation.

3. Methodology

Sampling

This study utilized a quantitative research approach with a recommended sampling method by Hulland et al. (2018). The study used G*Power application tools to determine the minimum sample size needed, which was 98 respondents for one independent variable and two dependent variables, using a medium effect size (f^2) of 0.15. However, 690 questionnaires were collected through an online questionnaire for two months.

Measurement Items

Data were collected using a well-structured and self-administered questionnaire with questions in a prearranged order. The questionnaire items were developed by the researchers for this study. The questionnaire was divided into nine main areas. Section A dealt with the demographic profile, which included students' general information such as gender, race, age, education level, and others. Section B represented the dependent variable, which was stock market participation. Section C touched on the variable, which was investment intention. Meanwhile, Section D focused on the students' financial literacy.

On the other hand, Section E highlighted the third determinant factor, which was students' financial well-being. Next, Section F emphasizes herding behavior. Then, Section G focused on overconfidence bias. Section H consists of risk tolerance and Section I highlights the factor that emphasises social interaction. All items in Section B until F were measured on a five-point Likert. Scale ranging from 1-strongly disagree, 2-disagree, 3-Moderate, 4-Agree, and 5-Strongly Disagree. The average time taken by each respondent was almost 10 to 15 minutes. A total of 700 questionnaires were distributed, and 690 (9%) were returned. However, 21 sets were discarded due to incompetent data, resulting in merely 669 usable responses.

Data Analysis

Data analysis is vital in uncovering valuable insights and reaching conclusive findings. In this section, we describe the data analysis methods employed in our study, emphasizing using two essential tools: Statistical Package for the Social Sciences (SPSS) for descriptive analysis and SmartPLS software for model analysis. This comprehensive approach enabled us to thoroughly examine the research variables, evaluate their interrelationships, and assess the validity of our proposed theoretical model. By leveraging these analytical techniques, we were able to gain a deeper understanding of the data and extract meaningful findings.

This study employed SmartPLS software, a powerful statistical tool that utilizes a partial least squares (PLS) approach to evaluate the proposed theoretical model and explore the relationships between variables. This approach is particularly well-suited for exploratory research and complex latent variable models. The model analysis consisted of two main components: the measurement model analysis and the structural model analysis.

4. Results

Demographic Profile

Descriptive analysis is an essential step in any empirical study as it provides an initial understanding of the data and facilitates the exploration of patterns and trends within the variables of interest. We used SPSS, a widely recognized statistical software, to conduct descriptive analysis in our research. This involved calculating measures of central tendency (e.g., mean, median) and dispersion (e.g., standard deviation, range) for the research variables.

To test the proposed hypotheses, a survey questionnaire was administered to university students in Malaysia, focusing on individuals aged 17-30 years. A total of 669 students actively participated in the study, with an intriguing distribution of respondents: 31.5% were males (211), while 68.5% were females (458). The ethnic distribution indicated that 99.4% of the participants identified as Malay (665), while the remaining 0.6% were

of Chinese ethnicity (4%). Regarding residential areas, approximately 54.6% of the respondents resided in rural regions, whereas 45.4% lived in urban areas. Furthermore, educational levels varied among the participants, with 47.4% at the diploma level, 48.6% pursuing a degree, and 3.9% enrolled in pre-diploma or certificate programs.

Measurement Model

The measurement model analysis assessed the research constructs' reliability, validity, and associated indicators. Following the guidelines proposed by Hair et al. (2017), the study examined convergent validity using measures such as factor loading, average variance extracted (AVE), and composite reliability (CR). The analysis findings affirmed that all the criteria successfully met the necessary standards. Notably, the factor loadings surpassed the recommended threshold of 0.7, the AVE values were higher than 0.5, and the CR values exceeded 0.7. These findings indicate that the scale measurements demonstrated satisfactory convergent validity, as depicted in Table 1.

Table 1: Convergent validity for scale measurement

Variable	Item	Loading	CR	AVE	VIF
Financial Literacy (FL)	FL1	0.646	0.846	0.58	2.402
	FL2	0.808			
	FL3	0.816			
	FL4	0.764			
Financial Well-being (FW)	FW1	0.694	0.836	0.507	1.586
	FW2	0.678			
	FW3	0.675			
	FW4	0.811			
	FW5	0.692			
Herding Behaviour (HB)	HB1	0.719	0.891	0.62	2.716
	HB2	0.769			
	HB3	0.831			
	HB4	0.817			
	HB5	0.797			
Investment Intention (INT)	INT1	0.845	0.925	0.756	2.735
	INT2	0.882			
	INT3	0.891			
	INT4	0.858			
Overconfidence Bias (OB)	OB1	0.783	0.911	0.673	2.921
	OB2	0.806			
	OB3	0.853			
	OB4	0.857			
	OB5	0.799			
Risk Tolerance (RT)	RT1	0.649	0.856	0.546	1.94
	RT2	0.756			
	RT3	0.805			
	RT4	0.825			
	RT5	0.638			
Social Interaction (SI)	SI1	0.847	0.937	0.75	2.735
	SI2	0.894			
	SI3	0.898			
	SI4	0.837			
	SI5	0.853			
Stock Market Participation (SMP)	SMP1	0.752	0.898	0.638	2.587
	SMP2	0.816			
	SMP3	0.784			
	SMP4	0.785			
	SMP5	0.853			

The study employed the heterotrait-monotrait (HTMT) ratio of correlations based on the multitrait-multimethod matrix to ensure discriminant validity, as Henseler et al. (2015) recommended. Discriminant validity is considered questionable if the HTMT value exceeds the threshold of HTMT.85 (0.85) suggested by Goodboy & Kline (2017) Or HTMT.90 (0.90), as proposed by Gold et al. (2001). As illustrated in Table 2, the results reveal that all the HTMT values are below the HTMT.85 threshold, indicating the presence of discriminant validity.

Table 2: HTMT ratio of correlations

Variable	a	b	c	d	e	f	g	h
a Financial Literacy								
b Financial Well-being	0.645							
c Herding Behaviour	0.792	0.605						
d Investment Intention	0.767	0.573	0.678					
e Overconfidence Bias	0.842	0.612	0.799	0.675				
f Risk Tolerance	0.706	0.634	0.581	0.735	0.666			
g Social Interaction	0.740	0.526	0.754	0.75	0.769	0.607		
h Stock Market Participation	0.769	0.508	0.740	0.757	0.792	0.604	0.766	

Structural Model

The structural model analysis aimed to examine the relationships between the latent variables and test the proposed hypotheses. SmartPLS facilitated the estimation of path coefficients and provided measures such as the significance levels (p-values) and effect sizes. Furthermore, the significance and reliability of the structural model's relationships were evaluated using bootstrapping techniques. To evaluate the R2, standard beta, and t-values of the structural model, a bootstrapping procedure with 10,000 resamples was conducted. Additionally, as recommended by Hair et al. (2017), the predictive relevance (Q2) and effect sizes (f2) were examined. Detailed results can be found in Table 3.

Table 3. Structural model

Hs	Relationship	Std. beta	SE	t-value	Decision	f2	R2	VIF	Q2
H1	FL → INT	0.176	0.045	3.879**	Supported	0.034		2.402	
H2	FW → INT	0.038	0.034	1.135	Unsupported	0.002		1.586	
H3	HB → INT	0.132	0.049	2.673**	Supported	0.017		2.716	
H4	OB → INT	-0.015	0.05	0.301	Unsupported	0.000		2.921	
H5	RT → INT	0.287	0.037	7.819**	Supported	0.121		1.94	
H6	SI → INT	0.326	0.051	6.358**	Supported	0.114		2.735	
H7	INT → SMP	0.679	0.029	3.642**	Supported	0.856	0.607	2.735	0.593

Note: ** p<0.01

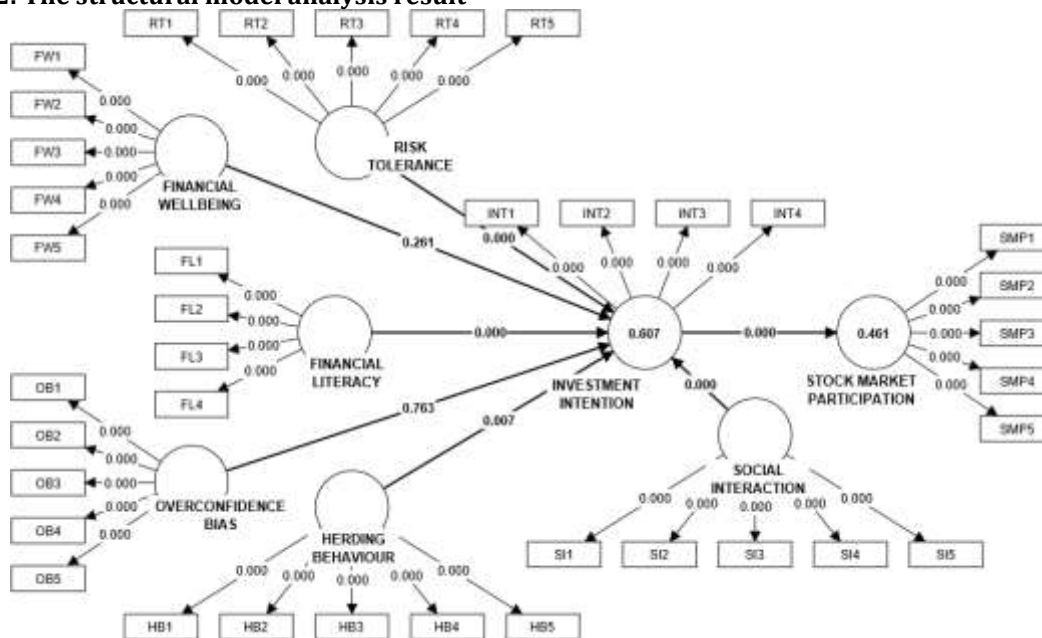
Based on the structural model analysis findings, as shown in Figure 2, several factors were significant predictors of investment intention, which in turn was found to predict stock market participation strongly. Financial literacy ($\beta=0.176, p<0.001$) was found to have a significant positive effect on investment intention, suggesting that individuals more financially literate are more likely to express an intention to invest. Herding behavior ($\beta=0.132, p=0.004$) was also a significant predictor of investment intention, indicating that individuals who perceive others in their social networks to be investing are more likely to express an intention to invest themselves. Additionally, risk tolerance ($\beta=0.287, p<0.001$) and social interaction ($\beta=0.326, p<0.001$) were also significant positive predictors of investment intention.

Furthermore, the analysis showed that investment intention had a strong positive effect on stock market participation. This suggests that individuals who intend to invest are more likely to participate in the stock market. Therefore, H1, H3, H4, H6, and H7 were supported the study hypotheses. On the other hand, financial well-being ($\beta=0.038, p=0.128$) was an unsupported predictor of investment intention. Similarly, overconfidence bias ($\beta=-0.015, p=0.382$) was also found to be an unsupported predictor of investment intention, indicating that these factors did not significantly affect investment intention. Thus, H2 and H5 have not supported the study hypotheses.

The study employed the blindfolding procedure to evaluate the model's predictive relevance. A commonly used technique, Stone-Geisser's Q2, was applied as a criterion for assessing predictive relevance and examining the R2 values. This approach, as emphasized by Henseler et al. (2009), serves as a valuable measure for evaluating the model's predictability. By employing the blindfolding procedure, Q2 assesses the model's predictive validity using PLS analysis.

Typically, the Q2 is computed with a leave-one-out cross-validation approach, with a recommended omission distance of 5–10 in PLS analysis (Aker et al., 2013). If the resulting Q2 value exceeds 0, the model holds predictive relevance for a specific endogenous construct (Hair et al., 2017). Notably, the analysis findings demonstrate a Q2 value of 0.593 for stock market participation, surpassing zero and indicating a substantial level of predictive relevance within the model. According to the guidelines provided by Hair et al. (2017), a Q2 value of 0.02, 0.15, or 0.35 represents small, medium, or large predictive relevance, respectively, between an exogenous construct and a specific endogenous construct. Hence, this model has large predictive relevance.

Figure 2: The structural model analysis result



Discussion

The findings derived from the structural model analysis and the results presented in the table offer several implications and predictions in real-world contexts. One of the most significant implications is that financial literacy positively influences investment intention. Implementing financial literacy programs and interventions can enhance individuals' inclination to invest. This finding aligns with previous research, consistently demonstrating a positive association between financial literacy and investment behavior.

In addition, the analysis reveals that financial well-being does not significantly influence investment intention, indicating that improving individuals' financial well-being may not necessarily translate into an increased inclination to invest. This finding is unexpected, as financial well-being is often considered a significant predictor of financial behavior. However, it is possible that other factors, such as financial literacy or risk tolerance, exert a more substantial influence on individuals' investment intentions.

Furthermore, the positive relationship observed between herding behavior and investment intention suggests that the investment decisions made by others can influence individuals. This finding aligns with previous research, which has consistently demonstrated the significant impact of social factors on shaping individuals' financial behavior.

Moreover, the study highlights that investment intentions positively influence stock market participation, indicating that increasing individuals' investment intentions can effectively promote greater engagement in the stock market. This finding holds significant implications for policymakers and financial institutions aiming to stimulate stock market participation.

Additionally, the non-significant relationship observed between overconfidence bias and investment intention suggests that overconfidence may not necessarily increase individuals' investment intentions. This finding is unexpected, considering that overconfidence bias is a commonly observed cognitive bias in financial decision-making. However, it is plausible that other factors, such as financial literacy or risk tolerance, exert a more substantial influence on shaping individuals' investment intentions.

Finally, the compelling positive associations observed between risk tolerance, social interaction, and investment intention imply that individuals with a higher propensity for risk-taking and with extensive social networks are more inclined to express an intention to invest. These findings align with prior research emphasizing the influential roles of risk tolerance and social influence in shaping financial behavior. Overall, the findings presented in the structural model have important implications for individuals, financial professionals, and policymakers interested in promoting greater investment intention and stock market participation.

A deeper understanding of the factors influencing investment intention opens up opportunities to devise more impactful interventions and policies to encourage individuals to invest in their financial future. With this knowledge, policymakers and financial institutions can develop targeted strategies to address barriers, enhance financial literacy, promote risk awareness, and cultivate social networks that support investment decision-making. By aligning interventions with the key drivers of investment intention, such as risk tolerance, social interaction, and financial literacy, stakeholders can effectively empower individuals to make informed investment choices and participate in the stock market. This can contribute to the overall financial well-being of individuals and the broader economy.

5. Conclusion and Implications

The results suggest that financial literacy, herding behavior, risk tolerance, and social interaction positively influence investment intention. In contrast, financial well-being and overconfidence bias have no significant impact. Additionally, investment intention has a strong positive influence on stock market participation. These findings can help financial institutions and policymakers develop targeted interventions to encourage investment behavior among individuals. For example, financial literacy programs can be developed to increase financial knowledge among individuals, and social interaction programs can be created to encourage investment among peer groups.

Future research could explore the impact of financial education interventions on financial literacy, financial well-being, and investment behavior. Furthermore, exploring the connection between overconfidence bias and investment behavior in greater detail would be valuable, as the present study did not reveal a significant relationship. Finally, the influence of social interaction on investment behavior could be studied in more detail, focusing on the role of social media and online communities in shaping investment decisions.

Acknowledgment: Our heartfelt gratitude goes out to all individuals who contributed to the successful completion of this study, including the participants and reviewers, for their valuable contributions. The support and guidance from colleagues are also greatly appreciated. It is worth mentioning that this study was conducted independently without any sponsorship.

References

- Ahmad, M., & Shah, S. Z. A. (2022). Overconfidence heuristic-driven bias in investment decision-making and performance: Mediating effects of risk perception and moderating effects of financial literacy. *Journal of Economic and Administrative Sciences*, 38(1), 60–90. <https://doi.org/10.1108/JEAS-07-2020-0116>
- Ahmaed, Z., & Noreen, U. (2021). Role of behavioral determinants for investment decision making. *Asia-Pacific Social Science Review*, 21(2), 48–62.
- Akter, S., D'Ambra, J., & Ray, P. (2013). Development and validation of an instrument to measure user-perceived service quality of mHealth. *Information and Management*, 50(4), 181–195. <https://doi.org/10.1016/j.im.2013.03.001>
- Bakar, S., & Yi, A. N. C. (2016). The impact of psychological factors on investors' decision making in Malaysian stock market: A case of Klang Valley and Pahang. *Procedia Economics and Finance*, 35, 319–328. [https://doi.org/10.1016/S2212-5671\(16\)00040-X](https://doi.org/10.1016/S2212-5671(16)00040-X)
- Bayar, Y., Sezgin, H. F., Öztürk, Ö. F., & Şaşmaz, M. Ü. (2020). Financial literacy and financial risk tolerance of individual investors: Multinomial logistic regression approach. *SAGE Open*, 10(3). https://doi.org/10.1177/2158244020945717/ASSET/IMAGES/LARGE/10.1177_2158244020945717-FIG1.JPEG
- Bhatia, S., & Singh, S. (2023). Exploring financial well-being of working professionals in the Indian context. *Journal of Financial Services Marketing*. <https://doi.org/10.1057/s41264-023-00215-x>
- Brailovskaia, J., Lin, M., Scholten, S., Zhu, M., Fu, Y., Shao, M., Hu, S., Li, X., Guo, W., Cai, D., Lu, S., & Margraf, J. (2022). A qualitative cross-cultural comparison of well-being constructs: the meaning of happiness, life satisfaction, and social support for German and Chinese students. *Journal of Happiness Studies*, 23(4), 1379–1402. <https://doi.org/10.1007/s10902-021-00454-6>
- Cossa, A., Madaleno, M., & Mota, J. (2022). Financial literacy environment scan in Mozambique. *Asia Pacific Management Review*, 27(4), 229–244. <https://doi.org/https://doi.org/10.1016/j.apmr.2021.09.004>
- Diener, E., & Biswas-Diener, R. (2008). Health and happiness. In *Happiness: unlocking the mysteries of Psychological Wealth* (pp. 27–46). Wiley Library. <https://doi.org/https://doi.org/10.1002/9781444305159.ch3>
- Dorina Clichici, & Moagăr-Poladian, S. (2022). Financial literacy, economic development and financial development: A cross-country analysis. *Romanian Journal of European Affairs*, 22(1). http://rjea.ier.ro/sites/rjea.ier.ro/files/revista/RJEA_2015_vol16_no1_site.pdf
- Fagerström, S. (2008). *Behavioral finance: The psychological impact and overconfidence in financial markets*.
- Ghosh, U. (2022). A study on the impact of COVID-19 on investor behavior of individuals towards the mutual fund. *Journal of Positive School Psychology*, 6(8).
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185–214. <https://doi.org/10.1080/07421222.2001.11045669>
- Goodboy, A. K., & Kline, R. B. (2017). Statistical and practical concerns with published communication research featuring structural equation modelling. *Communication Research Reports*, 34(1), 68–77. <https://doi.org/10.1080/08824096.2016.1214121>
- Hair, J. F., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. Loong. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management and Data Systems*, 117(3), 442–458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modelling in international marketing. *Advances in International Marketing*, 20(2009), 277–319. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Hulland, J., Baumgartner, H., & Smith, K. M. (2018). Marketing survey research best practices: evidence and recommendations from a review of JAMS articles. *Journal of the Academy of Marketing Science*, 46(1), 92–108. <https://doi.org/10.1007/s11747-017-0532-y>
- Jain, R., Sharma, D., Behl, A., & Tiwari, A. K. (2022). Investor personality as a predictor of investment intention – the mediating role of overconfidence bias and financial literacy. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJOEM-12-2021-1885>
- Jaiyeoba, H. B., Abdullah, M. A., & Ibrahim, K. (2020). Institutional investors vs retail investors Are psychological biases equally applicable to investor divides in Malaysia? *International Journal of Bank Marketing*, 38(3), 671–691. <https://doi.org/10.1108/IJBM-07-2019-0242>

- Kafayat, A. (2014). Interrelationship of biases: Effect investment decisions ultimately. *Theoretical and Applied Economics*, 21(6), 85–110.
- Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2023). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision-making and well-being. *Borsa Istanbul Review*, 23(1), 169–183. <https://doi.org/https://doi.org/10.1016/j.bir.2022.09.012>
- Lin, C. A., & Bates, T. C. (2022). Smart people know how the economy works: Cognitive ability, economic knowledge and financial literacy. *Intelligence*, 93, 101667. <https://doi.org/10.1016/j.intell.2022.101667>
- Mehra, R. and Prescott, C. E. (1985). The equity premium: A puzzle, *Journal of Monetary Economics*, 15(2), 145–161.
- Mishra, R. (2018). Financial literacy, risk tolerance and stock market participation. *Asian Economic and Financial Review*, 8(12), 1457–1471. <https://doi.org/10.18488/journal.aefr.2018.812.1457.1471>
- Mousavi, S. J., & Rasaeimanesh, D. (2023). Investigating the direct effect of financial knowledge, financial stress, financial risk tolerance and financial socialization on the financial behavior and financial well-being of individuals in Iran. *International Journal of Innovative Science and Research Technology*, 8(5).
- Murthy, U., Anthony, P., & Vighnesvaran, R. (2016). Factors affecting Kuala Lumpur Composite Index (KLCI) stock market return in Malaysia. *International Journal of Business and Management*, 12(1), 122. <https://doi.org/10.5539/ijbm.v12n1p122>
- Pahlevi, R. W., & Oktaviani, I. I. (2018). Determinants of individual investor behavior in stock investment decisions. *Accounting and Financial Review*, 1(2), 53–61. <http://jurnal.unmer.ac.id/index.php/afre>
- Sabiran, M., Mohamed, N., & Yusoff, N. (2023). Factors influencing stock market participation intentions among millennials. *Journal of Advanced Research in Business and Management Studies*, 30(1), 58–73. <https://www.akademiabaru.com/submit/index.php/arbms>
- Shanmugham, R., & Ramya, K. (2012). Impact of social factors on individual investors' trading behavior. *Procedia Economics and Finance*, 2, 237–246. [https://doi.org/10.1016/S2212-5671\(12\)00084-6](https://doi.org/10.1016/S2212-5671(12)00084-6)
- Thaler, H. R. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12(3), 183–206.
- Van Nguyen, H., Ha, G. H., Nguyen, D. N., Doan, A. H., & Phan, H. T. (2022). Understanding financial literacy and associated factors among adult population in a low-middle income country. *Heliyon*, 8(6), e09638. <https://doi.org/https://doi.org/10.1016/j.heliyon.2022.e09638>
- Wu, W., Huang, V., Chen, X., Davison, R. M., & Hua, Z. (2018). Social value and online social shopping intention: The moderating role of experience. *Information Technology & People*, 31(3), 688–711. <https://doi.org/10.1108/ITP-10-2016-0236>
- Yang, M., Al-Mamun, A., Mohiuddin, M., Al-Shami, S. S. A., & Zainol, N. R. (2021). Predicting stock market investment intention and behavior among Malaysian working adults using PLS-SEM. *Mathematics*, 9(873), 1–16. <https://doi.org/10.3390/math9080873>
- Yoopetch, C., & Chaithanapat, P. (2021). The effect of financial attitude, financial behavior and subjective norm on stock investment intention. *Kasetsart Journal of Social Sciences*, 42(3), 501–508. <https://doi.org/10.34044/J.KJSS.2021.42.3.08>