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Research Article

Antecedents Of Investors' Risk-Taking Propensity And The Role Of Financial Literacy And Capability, Thinking Style And Financial Behavior: The Case Of Tehran Stock Exchange Investors

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ABSTRACT

The present study aimed to explore the antecedents of investors' risk-taking propensity and analyze the role of financial literacy, financial capability, thinking style and financial behavior among the investors of Tehran Stock Exchange. The present applied research was descriptive and correlational in type. The research population was the investors of Tehran Stock Exchange. The minimum sample size was 384, and the sampling was non-randomized and convenience in type. The data collection instruments were the standard surveys developed by Molina-García et al. (2023) and Kumar et al. (2023). Their validity was confirmed through face, construct, divergent and convergent validation processes, and the reliability was also tested using Cronbach's alpha and composite reliability. For data analysis, structural equation modeling (SEM) was run in smart PLS. The present findings showed that investors' financial literacy, financial capability, and thinking style have significant effects on their financial behavior in Tehran Stock Exchange. Also, the investors' financial behavior affects their risk-taking propensity in Tehran Stock Exchange. Finally, the mediating role of investors' financial behavior in the relationship between financial literacy, financial capability, thinking style and their risk-taking propensity was confirmed in Tehran Stock Exchange.

Keywords: financial literacy, financial capability, thinking style, financial behavior, risk-taking propensity, Tehran Stock Exchange
JEL Classification: B26, G40, G53, P34

Introduction

Today, effective financial decision-making has become increasingly important. The reason is the high availability of complex products and the increased need to save for retirement. While this is true for almost all people, these decisions are especially important for the middle classes of society in emerging economies such as Asian countries. These economies are characterized by a rapid growth, fundamental structural changes, and the emergence of an upper middle class (Grohmann, 2018). Many of ordinary daily decisions involve some level of risk often related to financial matters. Research has shown that risk is related to different areas of life

and is an important concept in many economic models (Sekścińska et al., 2021). Risk-taking is a human characteristic that varies in level across individuals. Risk-taking can be affected by many factors, including environmental conditions, personality and demographic variables (Aren and Zengin, 2016). Risk-taking, as a financial-behavioral issue, is the extent to which people are encouraged to take initiative and do risky things. In fact, risk-taking is one's desire to find oneself in a decision-making situation (Haugen, 2001). Therefore, risk-taking is a human tendency and behavioral characteristic. Financial behaviors are human behaviors concerning financial decision-making and money management, such as making a sound budget plan, controlling it, paying bills quickly and making regular savings, planning expenses properly and taking care of financial stability, and so on. In Western economics in the analysis of financial behaviors, human being is defined as a rational creature that makes decisions under extremely clear conditions. Herbert Simon (1990) - a pioneer in financial behavior - recognized an economic man an unrealistic being in economic theories. An investor may make a decision that is not economically justified or does not make payments for necessary matters, but spends on unnecessary things, which can end in regret in future (Abendroth and Diehl, 2006). Today, financial literacy is an economic concept and principle for making correct decisions in financial matters. Policymakers and academic researchers advocate increasing financial literacy as a critical antidote to the improvement of financial health (Goyal et al., 2021).

When someone is financially literate, he can simultaneously allocate his income to different purposes, including current expenses, savings, debt repayment, etc. Therefore, policy makers consider financial literacy as the key to improving consumer behavior and having a positive effect on their financial behavior (Fernandes et al., 2014). Another factor that can influence financial behavior is specific situational thinking styles, described as a specific thinking style or momentary thinking orientation adopted by the consumer in a particular context (Novak and Hoffman, 2009). The problem that arises currently in the stock market is the lack of proper recognition of behavioral factors affecting investors' investment decisions. This lack of appropriate recognition causes a decrease in market efficiency, inappropriate allocation of financial resources and ultimately a waste of resources in the market. A cognitive variable that can affect people's activities, behaviors and interests is thinking styles. Among psychological variables, some are of special importance. Among them are thinking styles that are not related to talent and ability, but to the way people use their abilities (Zhang, 2002). Considering the current condition of consumers or the logic they follow to complete a task, they can use different thinking styles (Novak and Hoffman, 2009). In general, the relevant findings show that thinking styles (intuitive and analytical) affect investment behavior, and the effect of financial literacy decreases with the introduction of thinking styles (Glaser and Walter, 2014). The difference between perceived emotional and analytical thinking is broader for financial decisions than in any other area. Consumers who rely more on their emotional and experiential thinking style experience less favorable financial behaviors than those depending more on their logical and analytical system in making financial decisions (Park and Sella, 2018). Besides the aforementioned factors, other factors also affect the financial behavior of a consumer or customer. One is financial capability (Kumar et al., 2023), which is a multidimensional and dynamic concept to include financial literacy, money management, future planning, choice of products and services, and keeping informed.

The stock market increases investment in society by attracting and using stagnant funds. The stock exchange links suppliers and demanders of capital and regulates capital market transactions. Also, by pricing stocks and securities, it prevents the extreme fluctuation of prices to some extent. The stock market encourages people to save and, thereby, causes people's savings to be used in economic activities. The stock market provides the necessary capital for the implementation of public and private projects. Tehran Stock Exchange is an organized and self-regulating market where securities are lawfully traded by brokers or traders. The stock exchange is established and managed as a public joint-stock company. Also, shares of Tehran Stock Exchange have been sold in Tehran Stock Exchange. The vision of this organization is to improve the supervisory position of the Securities and Exchange Organization to increase public trust, provide a stable and attractive financial ecosystem as the first priority of small and institutional investors, entrepreneurs, government companies and other market participants for financing, investment and risk hedging. Also, the mission of this organization is to maintain, strengthen and develop the capital market in a stable, transparent, fair and efficient way through monitoring a good implementation of rules and regulations, and comprehensive risk management. It aims to create regulatory and technological infrastructures, promote international status, develop investment culture and promote financial literacy. In the present research, in order to determine the antecedents of investors' risk-taking propensity, factors such as financial literacy, thinking style, financial capability and financial behavior were addressed. The present study hoped to find whether investors' financial literacy, thinking style and financial capability affect their financial behavior and whether this behavior affects investors' risk-taking propensity.

Theoretical framework and hypotheses

Financial literacy

Financial literacy, a combination of awareness, knowledge, skill, attitude and behavior necessary for making correct financial decisions and ultimately achieving individual financial well-being, is an important skill for a

successful economic life (Razen et al., 2021). Financial literacy is defined as the level of financial knowledge and the ability to apply knowledge to improve financial status (Xiao and Porto, 2017). Financial literacy enables individuals to organize their finance efficiently, manage their day-to-day expenses, maintain emergency savings, plan for children's education, and prepare for the years after retirement (Goyal and Kumar, 2021). The effects of financial literacy lead to a better response to financial challenges, the benefits of which extend to the real economy (Grohman et al., 2018). Goyal et al. (2021) showed that a combination of different factors affects financial behavior. Examples are demographic, socio-economic, psychological, social, cultural, financial experiences, financial literacy and technological factors. The major outcomes of personal financial management behavior include financial satisfaction, relationship satisfaction, quality of life, financial success, happiness, financial vulnerability/resilience, and financial well-being. Therefore, the following hypothesis can be formulated:

Hypothesis 1: Investors' financial literacy has a significant effect on their financial behavior in Tehran Stock Exchange.

Thinking style

In general, thinking styles refer to one's preferred ways of using individual abilities (Grigorniko and Sternberg, 1997). Thinking styles follow from Sternberg's mental self-management theory and postulate that just as there are different ways to manage society, there are different ways for people to take advantage of their abilities. One specific thinking style is the momentary thinking orientation taken by a consumer in a particular context. An individual's use of thinking styles is influenced by the task at hand or the consumer's reason for completing the task (Novak and Hoffman, 2009). Consumers who rely more on their emotional and experiential thinking style show less favorable financial behaviors than those who depend more on their logical and analytical system for making financial decisions. It is expected that thinking styles, a combination of Kahneman and Epstein's dual processing theories, positively predict financial behaviors (Meneau, and Moorthy, 2022). Therefore, the following hypothesis can be formulated:

Hypothesis 2: Investors' thinking style has a significant effect on their financial behavior in Tehran Stock Exchange.

Financial capability

Among all continuous skills or abilities needed by entrepreneurs, financial capability is often less emphasized, despite its potential importance. The concept of financial literacy, often defined as financial knowledge and skills, has been further developed to include attitudes, behaviors, and external enablers. Financial capability enriches financial literacy by emphasizing attitudes and behaviors. It points to the real interaction between financial consumers and the financial sector (Luo et al., 2021). Financial capability is a combination of knowledge, attitude and behavior that leads to sound financial decisions and personal/familial financial well-being (Tzora et al., 2023). Financial capability is measured by researchers through different approaches such as a set of financial behaviors, a combination of financial behaviors and outcomes, and a combination of financial literacy, behavior and perceived capability (Xiao et al., 2015: Xiao and Porto, 2017). Experts consider financial capability to have two dimensions: the ability to act (based on the knowledge gained) and the opportunity to act (access to the product, affordability, ease of use, safety and reliability). It also refers to financial skills, knowledge, attitudes and psychological variables in the socioeconomic and cultural context, all leading to the optimal management of financial resources and consequently rational financial decisions, such as financial planning and budgeting (Meneau and Moorthy, 2022). Therefore, the following hypothesis could be formulated:

Hypothesis 3: Investors' financial capability has a significant effect on their financial behavior in Tehran Stock Exchange.

Risk-taking propensity

Risk-taking plays an important role in business and accounting, and a certain degree of risk is necessary for business success, while excessive or uncontrolled risk can lead to failure. Risk-taking propensity is a personality trait representing one's general tendency to exhibit risk-seeking or risk-avoiding behavior in situations that may involve a risk factor (Vinson et al., 2020). Risk-taking propensity is defined as showing behavior that involves potential negative consequences (or harm) somehow balanced by perceived positive consequences (or gain) (Xu et al., 2019: Molina -García et al., 2023). These risk-taking consequences depend on one's risk-taking propensity, as it is a personal (inherent) characteristic (Xu et al., 2019). Saivasan and Lokhande (2022) studied the effect of risk-taking propensity, behavioral biases and demographic factors on the risk perception of stock investors. They found evidence for the relationship and effect of demographic factors on risk-taking propensity and behavioral bias. Therefore, the following hypothesis could be formulated:

Hypothesis 4: Investors' financial behavior has a significant effect on their risk-taking propensity in Tehran Stock Exchange.

Financial behavior

Financial behavior can be defined as any human behavior concerning money management. Common financial behaviors include cash, credit and savings behaviors (Xiao, 2008). Human behavior in financial decision-making and money management, for instance making a proper budget plan, controlling it, paying bills promptly, and the nature of regular savings, is known as financial behavior (Bhushan and Madhuri, 2014). Financial behavior is an integral aspect of financial literacy. People's positive financial behavior, such as proper planning for spending and taking care of financial stability, increases their level of financial literacy, while negative financial behavior that depends on credits and loans weakens their financial well-being. Financial behavior can play a fundamental role in people's well-being in the family, society, nation and the whole world. A set of observable financial activities by economic agents best exemplifies financial behavior. Such overt behavior is mainly influenced by one's identity, desires, knowledge, performance, achievements, personality traits, importance, and psychological traits. Those who show their financial knowledge and can perform a series of financial activities to improve their well-being are financially literate. It is necessary to understand what drives financial behavior, especially given the emergence of financial crises, which generally negatively affect people's well-being across social classes. Internal factors that affect financial behavior are cognitive ability and psychological factors, while external factors include social and economic conditions. The theory of planned behavior (TPB) contends that financial knowledge interacts with financial attitudes, mental norms and perceptions to stimulate financial behavior. Financial literacy is represented by financial knowledge and the ability to use the acquired financial knowledge to improve well-being. Financial literacy features deal with cognitive abilities (Lusardi, 2015).

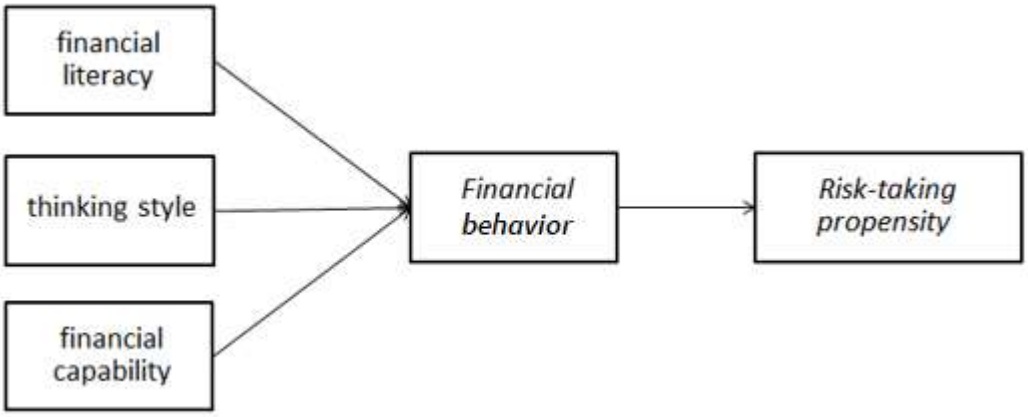
Addo et al. (2022) studied the effect of financial literacy on risk-taking propensity through access to financial resources. The results showed that access to financial resources partially mediates the relationship between financial literacy and risk-taking propensity. The relationship between financial literacy and risk-taking propensity was also highly favorable. Moreover, access to financial resources significantly affected risk-taking propensity. Conchar et al. (2004) clearly defined risk-taking propensity as the result of risk assessment or the final state for a consumer before making a risky decision. In all cases, a negative relationship was found between risk perception and risk-taking propensity and a positive relationship between risk-taking propensity and actual risk-taking. Risk-taking propensity is defined as one's current propensity to accept or avoid risks (Carlsson Hauff, 2014). In general, risk-taking behavior means one's behavior in risky situations, characterized by a degree of risks in decision-making (Nkundabanyanga et al., 2015). Çera et al. (2021) in some research on improving financial capability mediated by financial behavior showed that financial capability can be improved by increasing financial knowledge, financial behavior of people and promoting their participation in financial services. In addition, the indirect effect of financial knowledge and attitude on financial capability is significant, which highlights the importance of financial behavior. In their research, Eva Mpaata et al. (2021) showed that financial literacy and self-control significantly predict saving behavior. Also, the relationship between financial literacy and saving behavior is moderated by self-control. These findings suggest that individuals with low self-control need more financial literacy to have a positive effect on their saving behavior than individuals with high self-control, because even if they undergo financial literacy training, its effect on saving behavior will be insignificant. Before people are asked to take part in financial literacy training, it is necessary to assess their self-control level. Younes et al. (2019) investigated the relationship between financial literacy, self-control, financial behavior and financial well-being in the effect of self-control, financial literacy and financial behavior on financial well-being. The results showed that self-control and financial literacy affect financial well-being through financial behavior. Financial literacy has a significant direct effect on financial well-being, but the direct effect of self-control on financial well-being is insignificant. The effect of financial behavior on financial well-being is stronger than the effects of financial literacy and self-control on financial well-being. Therefore, the following hypotheses can be formulated:

Hypothesis 5: Investors' financial literacy has a significant effect on their risk-taking propensity through financial behavior in Tehran Stock Exchange.

Hypothesis 6: Investors' thinking style has a significant effect on their risk-taking propensity through financial behavior in Tehran Stock Exchange.

Hypothesis 7: Investors' financial capability has a significant effect on their risk-taking propensity through their financial behavior in Tehran Stock Exchange.

Figure 1: Conceptual model



Methodology

The present applied research was descriptive and correlational in type. The research population was all investors in Tehran Stock Exchange. A sample of 384 was selected in a non-randomized convenient method. The research instrument was a standard questionnaire with 35 items developed by Molina-García et al. (2023), Kumar et al. (2023) and Meneau and Moorthy (2023). Risk-taking propensity was measured along with 6 questions, financial behavior with 12 questions, financial capability with 8 questions, thinking style with 6 questions and financial literacy with 3 questions. For the validation of instrument, face, construct, and convergent and divergent validities were used. For reliability, Cronbach's alpha coefficient and composite reliability were used, and the results substantiated the validity and reliability of the instrument. In order to analyze the data, SEM was run in PLS. Since the significance level or *sig* value for all variables was less than 0.05, the data proved to be abnormally distributed. PLS was used in this research for data analysis as this software does not require the normality or distribution.

Table 1- Kolmogorov Smirnov test results

variable	Z	Sig
Risk-taking propensity	0.138	0.000
Financial behavior	0.115	0.000
Thinking style	0.204	0.000
Financial literacy	0.273	0.000
Financial capability	0.201	0.000
Total	0.157	0.000

Table 2- Results of factor analysis, validity and reliability

Variable	Indicator	Factor loading	AVE	Cronbach's alpha	Composite reliability
Risk-taking propensity	Q1	0.832	0.503	0.727	0.763
	Q2	0.856			
	Q3	0.551			
	Q4	0.666			
	Q5	0.608			
	Q6	0.691			
Financial behavior	Q7	0.869	0.507	0.797	0.838
	Q8	0.878			
	Q9	0.619			
	Q10	0.720			
	Q11	0.558			
	Q12	0.559			
	Q13	0.566			
	Q14	0.652			
	Q15	0.690			
	Q16	0.723			
	Q17	0.734			
	Q18	0.871			
Thinking style	Q19	0.489	0.573	0.827	0.879
	Q20	0.634			
	Q21	0.789			

Variable	Indicator	Factor loading	AVE	Cronbach's alpha	Composite reliability
	Q22	0.870			
	Q23	0.857			
	Q24	0.833			
	Q25	0.915			
	Q26	0.846	0.778	0.859	0.913
Financial literacy	Q27	0.884			
	Q28	0.514			
	Q29	0.670			
	Q30	0.621			
	Q31	0.847			
Financial capability	Q32	0.740	0.526	0.780	0.838
	Q33	0.807			
	Q34	0.789			
	Q35	0.758			

As it can be seen in Table 2, factor loadings are greater than 0.4, AVE is greater than 0.5, and Cronbach's alpha coefficients and composite reliability are greater than 0.7, which confirms the construct validity, convergent validity, and reliability of the instrument. Also, divergent validity was substantiated using Fornell and Larcker tests according to Table 3.

Table 3- Fornell and Larcker test

	Risk-taking propensity	Financial behavior	Thinking style	Financial literacy	Financial capability
Risk-taking propensity	0.709				
Financial behavior	0.558	0.712			
Thinking style	0.467	0.649	0.758		
Financial literacy	0.471	0.601	0.670	0.882	
Financial capability	0.489	0.580	0.592	0.668	0.725

For data analysis, the partial least squares structural equation modeling was used. The first step was to test the reliability and validity of the measurement model (as explained earlier). The second step was to specify the structural model through the analysis of fit indices, coefficient of determination and path analysis. In the first step, validity and reliability estimation was used for the measurement model, which checks the confirmation methods of data fitness with a certain factor structure. In fact, confirmatory factor analysis (CFA) examines the fitness of the items selected to represent the variables. In the second step, path analysis of model fit indices and coefficient of determination was used to check the structural model.

Results

A summary of participants' demographic information is presented in Table 3.

Table 4: Research participants' demographic information

variable	level	f.	%
Sex	male	241	62.8%
	female	143	37.2%
Age	< 30 years	94	24.5%
	30-40 years	141	36.7%
	41-50 years	81	21.1%
	≥50 years	68	17.7%
Education	≥diploma	62	16.1%
	Associate degree	67	17.4%
	Bachelor's degree	79	20.6%
	Master's degree	102	26.6%
	Ph.D.	74	19.3%
History of activity in the stock market	< 3 years	97	25.3%
	3-6 years	77	20.1%
	6-9 years	83	21.6%
	9-12 years	82	21.4%
	≤12 years	45	11.7%

Inferential statistics

To check the fit of the structural model, the coefficient of determination is estimated for endogenous (dependent) variables of the model. This coefficient is used to link the measurement part and the structural part of SEM, and it shows the effect of an exogenous variable on an endogenous variable. It is noteworthy that the R^2 values are calculated only for endogenous (dependent) structures of the model, and for exogenous variables, this value is zero. According to Chin, three values of 0.19, 0.33 and 0.67 are interpreted as weak, medium and strong. The higher the R^2 value, the better the fit of the model. Table 5 shows that the R^2 value of risk-taking propensity and financial behavior is reported as 0.311 and 0.496, respectively, which represents an average amount.

Table 5- The coefficient of determination analysis

variable	R^2
Risk-taking propensity	0.311
Financial behavior	0.496

Hypothesis testing

To evaluate the fit of the structural model, several criteria were used, the first and most basic of which was the Z value and t-value, shown on the path arrows as the output of the bootstrap technique. If the t-value is greater than 1.96, it points to the validity of the relationship between the structures and as a result, the research hypothesis can be accepted at the confidence level of 95 percent.

Figure 2- Factor loading of CFA model

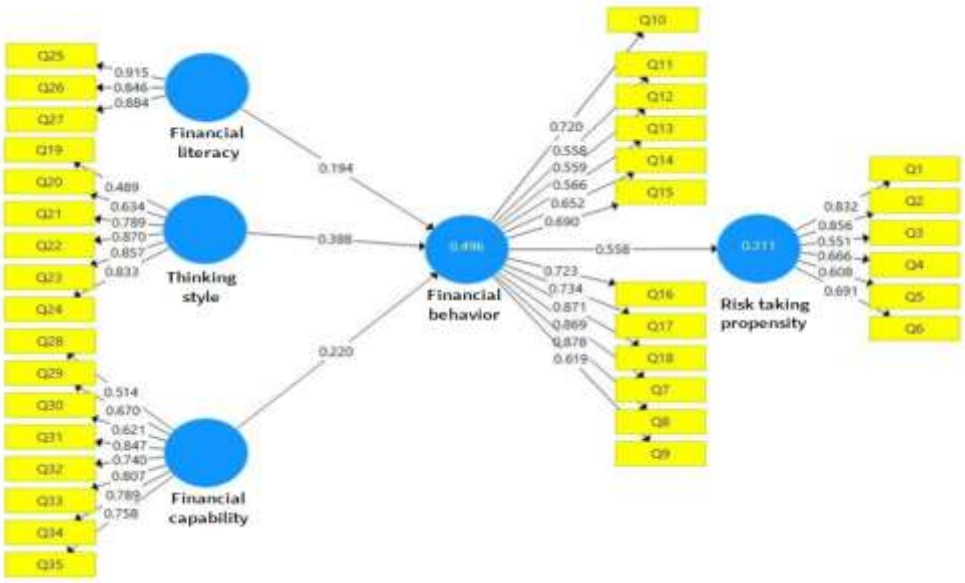
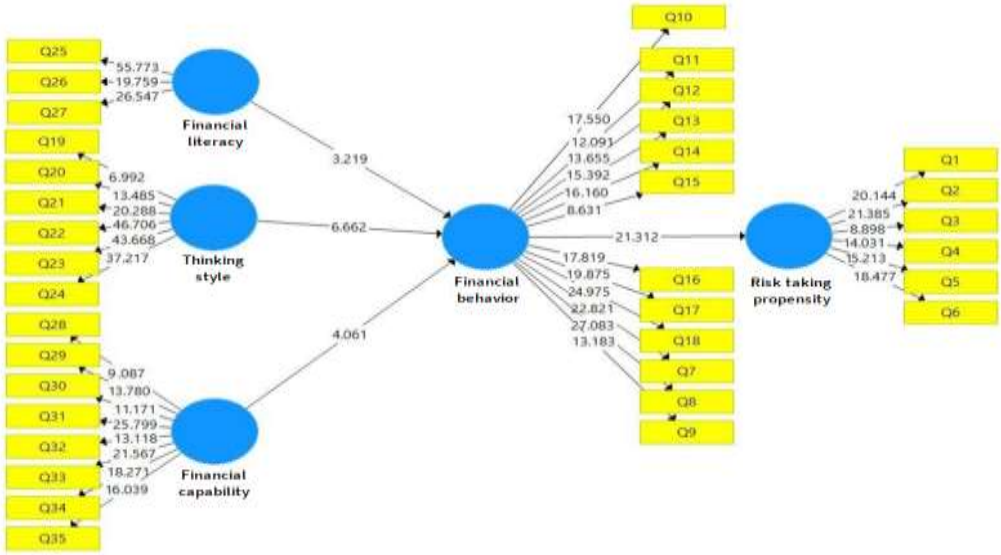


Figure 3: T-value of CFA model



Standardized path coefficients are used to determine the effect of each independent variable on the corresponding dependent variable. Therefore, the larger the absolute value of the path coefficient, the greater its effect. The arrow of the path coefficient shows the type of effect (direct or indirect). The bootstrapping technique in automatic sampling is common in mediation analysis because it is used in different structural equation modeling softwares such as *Amos* and *SmartPLS*. The bootstrapping technique does not have any assumption of the normality of distribution and can be used more reliably for small sample sizes. When the mediating variable is not present in the model, the direct path and its effect should be statistically significant (Zhao et al., 2010). Therefore, we should analyze the model once in the absence of the mediator and once again in the presence of the mediator. If the indirect path proves significant, we can move on to examine the VAF. If the VAF is >0.80, the mediation is complete. If the VAF index is ≤0.80 ≤ 0.20, the mediation is partial, and if it is <0.20, there is no mediation effect. Since there is no direct path from the variables of financial literacy, thinking style, and financial capability to risk-taking propensity and as the output shows, the indirect effects are equal to the overall effects, the VAF is equal to 1 and the mediation is complete.

Table 6: Results of hypothesis testing

#	hypothesis	Path coefficient	p-value	t-value	result
1	Financial literacy > Financial behavior	0.194	0.001	3.219	accepted
2	Thinking style > Financial behavior	0.388	0.000	6.662	accepted
3	Financial capability > Financial behavior	0.220	0.000	4.061	accepted
4	Financial behavior > risk-taking propensity	0.558	0.000	21.312	accepted
5	Financial literacy > Financial behavior > risk-taking propensity s	0.108	0.002	3.147	accepted
6	Thinking style > Financial behavior > risk-taking propensity	0.217	0.000	6.398	accepted
7	Financial capability > Financial behavior > risk-taking propensity	0.123	0.000	3.777	accepted

Conclusion and discussion

Today, the importance of behavioral finance and the related components, including financial literacy, thinking style and financial capability is higher than before to international organizations, public institutions, researchers and citizens due to the effect on individual financial behavior, risk-taking propensity and generally on economy. Therefore, the present study aimed to explore the effect of financial literacy, financial capability and thinking style on financial well-being and finally on investors' propensity of risk-taking in Tehran Stock Exchange. In the following, the discussion and conclusions and finally the suggestions concerning each hypothesis are provided.

Hypothesis 1: Investors' financial literacy has a significant effect on their financial behavior in Tehran Stock Exchange.

According to the findings, this hypothesis was accepted. Considering factors such as the increased complexity and variety of financial products and services, the complex financial decisions that investors make, with the transfer of responsibility for financial security during retirement from governments to individuals and changes in demographic and economic factors, attention to financial literacy has significantly increased. The lack of financial literacy among market participants, especially in the financial sector, violates the first condition of the free market that is equal access to information, and can affect the performance of markets. Consequently, a key barrier to the effective functioning of financial markets is the lack of financial literacy among participants, both actual and potential. The minimum level of financial literacy required for market participants should be known in advance by policymakers to develop financial markets based on market economy theories to achieve desirable outcomes. The result of this hypothesis testing is consistent with a body of research by Kumar et al. (2023), Fernandes et al. (2014), Meneau and Moorthy (2022), Andarsari and Ningtyas (2019), Ingale and Paluri (2022) and Grohmann (2018).

Hypothesis 2: Investors' thinking style has a significant effect on their financial behavior in Tehran Stock Exchange. As the findings showed, this hypothesis could be accepted. Undoubtedly, the effectiveness of the financial system of a country, as a subset of the economic system of country, and considering the interaction between these two systems may have a significant effect on the effectiveness of the economic system. The capital market, as a part of the financial system, has a unique position and is vital in attracting capital to society and putting it into production and employment. The stock market is an economic market where securities are bought and sold according to rules and regulations. Considering the availability of shares of the country's largest and most prominent economic units in the stock market, any change in economic, political or other factors can quickly affect the stock market and cause fluctuations. While real-world empirical research has recently questioned contemporary financial theories and the rational man hypothesis, the dominant paradigm in classical financial theories (modern finance) is based on the expected utility maximization and risk avoidance. According to psychological research, human beings do not react as rationally as current financial theories would have us believe. The result of this hypothesis testing is consistent with a body of research by

Meneau and Moorthy (2022), Park and Sela (2018), Glaser and Walther (2014), Caballero et al. (2022), and Selim and HAMAMCI (2023).

Hypothesis 3: Investors' financial capability has a significant effect on their financial behavior in Tehran Stock Exchange. As the findings showed, this hypothesis could be accepted. Governments are constantly striving to create the appropriate climate for people to understand their financial complexities, make sound financial decisions and plan wisely for their retirement and other financial goals. To do so, people must have a favorable financial attitude, knowledge and behavior. In recent studies, it has been pointed out that intention to promote financial literacy and all related efforts through regulations, policies, plans and business practices should help people improve their financial abilities (Cera et al., 2020). The result of this hypothesis testing is consistent with a body of research by Białowolski et al. (2022), Ingale and Paluri (2022), Lundberg and Mulaj (2014), Álvarez Espiño et al. (2020) and Çera et al. (2021).

Hypothesis 4: Investors' financial behavior has a significant effect on their risk-taking propensity in Tehran Stock Exchange. As the findings showed, this hypothesis could be accepted. Financial behavior means how a person behaves in relation to issues that significantly affect their financial situation and financial well-being. Financial behavior is the ability to understand the overall effects of financial decisions on one's current circumstances (e.g., person, family, society, country) and make sound decisions on liquidity management, precautionary measures, and budget planning opportunities (Tezel, 2015). Good financial behavior involves proper financial planning, paying bills on time, keeping track of expenses, efficient credit management, and saving money or strict budget control, among other things. Regular engagement in appropriate financial behavior leads to better experiences of financial issues and their possible consequences, thereby increasing people's confidence in their ability to deal with them safely. The more financial experience people gain, the greater their competence and expertise in financial matters and the more likely they are to make risky decisions. Indeed, previous research has shown that positive decision-making experiences encourage greater risk tolerance (Cardak & Wilkins, 2009). The result of this hypothesis testing is consistent with a body of research by Molina-García et al. (2023), Hamid et al. (2013), Saivasan and Lokhande (2022), Javed and Malik (2021) and Grable et al. (2009).

Hypothesis 5: Investors' financial literacy has a significant effect on their risk-taking propensity through financial behavior in Tehran Stock Exchange. According to the findings, this hypothesis could be accepted. The complex phenomenon called investor risk perception is influenced by several factors that fall into the categories of demographics (personality traits, age, sex), cognition (heuristics, biases), context (access to information), and emotion (attitudes, feelings) (Saivasan & Lokhande, 2022). In behavioral finance, efforts have been made to deconstruct the effect of psychology on investment decision-making, which has led to the identification of several factors. This effort to reduce the dimensions that affect the investor's risk perception can help better recognize people in risk-taking. Through a deeper understanding of behavioral finance and investor's risk-taking propensity, industry practitioners can broaden their horizons of investor's preferences and can make recommendations for investment strategies and products in more effective and organized ways (Pompian, 2012: 2016). Therefore, the influence of financial literacy through financial behavior on investors' risk-taking propensity is justified. The results of this hypothesis are in line with the studies of Aren and Zengin (2016) and ADDO et al. (2022). Hypothesis 6: Investors' thinking style has a significant effect on their risk-taking propensity through financial behavior in Tehran Stock Exchange. As the findings showed, this hypothesis could be accepted. There are a number of theories about the perception of risk in behavioral finance. It is a phenomenon that has evolved and continues to evolve. The theory of bounded rationality, proposed by Simon (1972), contends that people's rationality is limited by the available information. Other key limitations are one's cognitive ability and response time to decision-making (Saivasan & Lokhande, 2022). Research has shown a need to place risk perception and risk-taking propensity at the core of frameworks that include high-risk decision-making. Risk perception refers to one's possible estimate of the degree of uncertainty in a situation. Risk-taking propensity is one's attitude towards risk-taking. Researchers concluded that risk perception and risk-taking propensity have direct and indirect (mediated) effects on investor's decision. In many academic works, it has been proven that risk-taking propensity is an indicator of people's decision-making attitude in high-risk situations (Pablo, 1997: Ghosh & Ray, 1997). This attitude can influence the investor's thinking style and ultimately guide investment decisions. Also, these attitudes can become the foundation of his financial behavior. The results of this hypothesis testing are consistent with the study of Selim and HAMAMCI (2023).

Hypothesis 7: Investors' financial capability has a significant effect on their risk-taking propensity in Tehran Stock Exchange mediated by their financial behavior. According to the findings, this hypothesis could be accepted. An individual's current propensity to take or avoid risks is known as his risk-taking propensity. It can be described as a risk-seeking or risk-avoiding attitude of the decision-maker. Therefore, risk-taking propensity can be considered as the degree to which someone is willing to pursue risky opportunities with unknown outcomes. Company managers make many important decisions in the day-to-day running of their

business, which have important consequences for their business performance. Therefore, it is necessary to have extensive knowledge in finance to enable them to make efficient and effective decisions (ADDO et al., 2022). Experts' description of risk-taking propensity clearly shows that this propensity ultimately affects actual risk-taking. The existing literature shows that one's propensity to accept or avoid risks affects risk-taking (Hamid et al., 2013). Financial capability includes the construction of knowledge and access to financial services (Loke et al., 2015); thus, it can be concluded that if financial knowledge is improved, the tendency to take risks increases, and the effect of financial behavior influenced by financial information and knowledge is intensified.

The overall suggestions are summarized here:

- Continuous training to improve investors' financial literacy and knowledge should be done face to face or as e-learning. This can be considered at the very beginning as a pre-requisite for obtaining a stock exchange code.
- The stock exchange organization or reputable brokerages are recommended to hold specialized technical and fundamental courses for investors.
- It is essential to construct and improve the conditions of pre-existing stock exchange halls in the capital cities of provinces. As the findings showed, the presence of investors in a place exclusively for the stock exchange organization can influence their behavior.
- It is suggested to give personality tests and thinking style tests to investors for better insights and leadership
- It is suggested to test investors' level of risk tolerance and risk avoidance by stock exchange agencies, in which artificial intelligence technology is adequately used.
- It is recommended to categorize investors into risk takers and risk avoiders to offer value suggestions (stocks) to encourage them to invest in the capital market.

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