Jurnal
Manajemen
Teknologi

Jurnal Manajemen Teknologi, 22(1), 2023,1-16
Available online at http://journal.sbm.itb.ac.id

The Determinants of Millennial Stock Market Participation: Empirical Testing of Theory of Planned Behavior

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Abstract. *This study examines how investment intention functions as a moderating variable that links financial literacy, financial well-being, overconfidence bias, risk tolerance, herding behavior, and social interaction to millennial employees' participation in the stock market during the COVID-19 pandemic. The target population of this research is millennial employees who have participated in the stock market. This study employs the purposive sampling method for sampling. The structural equation method is the data analysis method employed. According to this study's findings, social interaction, risk tolerance, financial literacy, and financial well-being all have a positive effect on investment intention. Additionally, stock market participation is positively impacted by investment intention. Furthermore, investment intention cannot mediate the relationship between financial literacy, financial well-being, overconfidence bias, risk tolerance, herding behavior, and social interaction on stock market participation. Investment intention is not positively impacted by overconfidence bias or herding behavior. This study demonstrates that among millennial employee investors, their intention to invest can be influenced by their financial literacy, financial well-being, risk tolerance, and social interaction. However, the uncertainty of investment returns during the COVID-19 pandemic mitigated the investment intention of these millennials and did not encourage them to participate in the stock market. As a result, this research provides empirical evidence of the Theory of Planned Behavior for millennial employee investors in investing in the stock market*

Keywords: *Financial Literacy, Financial Well-Being, Risk Tolerance, Social Interaction, and Investment Intentions.*

Abstrak. *Penelitian ini mengkaji bagaimana niat investasi berfungsi sebagai variabel moderasi yang menghubungkan literasi keuangan, kesejahteraan keuangan, bias terlalu percaya diri, toleransi risiko, perilaku menggiring, dan interaksi sosial terhadap partisipasi karyawan milenial pada pasar saham selama pandemi Covid 19. Populasi dalam penelitian ini adalah pegawai milenial yang berinvestasi saham di pasar modal. Penelitian ini menggunakan metode purposive sampling untuk pengambilan sampel. Metode persamaan struktural adalah metode analisis data yang digunakan. Menurut temuan studi ini, interaksi sosial, toleransi risiko, literasi keuangan, dan kesejahteraan keuangan semua memiliki efek positif pada niat investasi. Selanjutnya niat investasi berpengaruh positif terhadap partisipasi pasar saham. Selanjutnya, niat investasi tidak dapat memediasi hubungan antara literasi keuangan, kesejahteraan keuangan, bias terlalu percaya diri, toleransi risiko, perilaku menggiring, dan interaksi sosial terhadap partisipasi pasar saham. Bias terlalu percaya diri dan perilaku menggiring tidak berpengaruh positif terhadap niat investasi. Penelitian ini memberikan bukti bahwa literasi keuangan, kesejahteraan keuangan, toleransi risiko, perilaku menggiring dapat mendorong niat karyawan milenial untuk berinvestasi. Akan tetapi kondisi ketidakpastian ketika mereka berinvestasi selama pandemi Covid 19 tidak mendorong niat mereka untuk berpartisipasi dalam pasar saham. Dengan demikian penelitian ini memberikan bukti empiris Theory of Planned Behavior bagi investor karyawan milenial dalam melakukan investasi pasar saham.*

Kata kunci: *Literasi Keuangan, Kesejahteraan Keuangan, Toleransi Risiko, Interaksi Sosial, dan Niat Investasi.*

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Received: March 31th, 2022; Revision: January 18th, 2023; Accepted: January 23th, 2023;
Print ISSN: 1412-1700; Online ISSN: 2089-7928. DOI: http://dx.doi.org/10.12695/jmt.2023.22.1.1

Introduction

Individual participation in financial markets always increases (Yang et al., 2021). Participants in the stock market (commonly referred to as investors) will greatly influence the positive or negative value of investment interest rates in the stock market, which influences the health of a country's economy (Kalam, 2020). According to Akhtar & Das (2019), the profitability of financial market assets, the adaptability of financial market instruments, and the variety of available investment types are some of the factors that contributed to the growth in participants or investors. Ibrahim & Arshad (2017) state that based on Theory of Planned Behavior (TPB), individual participation in the financial market in relation to stock investment is influenced by their intention to invest and buy actual shares. In short, TPB provides a strong theoretical model for predicting individual behavioral intentions in investing. The authors also reveal that there are many factors that can exert complex influences on purchasing decisions, and this applies to studying investment intentions.

Previous literature has identified several factors that have the potential to influence a person's intent to purchase shares of stock, such as the demographic profile of investors, level of risk tolerance, psychological factors, and consumer behavior (Liang & Guo, 2015; Sashikala & Chitramani, 2018; Koekemoer & Ferreira, 2019; Lee, Lee, & Kim, 2020; Yang et al., 2021; Akhtar & Das, 2019). TPB can be applied to a literature study that discusses the factors that influence actual individual behavior (Ajzen, 2015). Previous literature has proven that TPB can be associated with financial behavior (Kennedy, 2013; Ibrahim & Arshad, 2017).

Using TPB, Kennedy (2013) investigated financial literacy as a determinant of individual financial behavior, while Ibrahim & Arshad (2017) confirmed product involvement and subjective norms as significant factors influencing the investment intentions of individual investors. Recent literature studies have also proven that the level of investment intention can be determined by the individual's financial literacy (Koekemoer & Ferreira, 2019; Yang et al., 2021). In summary, several studies have proven that TPB can be used to study knowledge sharing (Feng et al., 2021). Furthermore, Abidin, Setiawan, Muhaimin, Shinta, & Nandayani (2021) also proved that TPB can be applied to determine millennial consumer behavior toward purchasing functional food in online marketplaces in Indonesia.

Ibrahim & Arshad (2017) consider the stock market a system of human interaction. They also mention that a number of researchers in the fields of behavioral finance and economic psychology are presently examining how investors' individual perceptions of businesses may affect their choices to purchase company stock. One of these subjective perceptions is the interaction between individuals or investors. Previous studies have proven that these interactions play a role in shaping investment behaviors, and that these behaviors will affect investing decisions (Liang & Guo, 2015). Another opinion holds that investment decision-making can be influenced by overconfidence bias, a behavior that is formed from the mindset of the individual (Sashikala & Chitramani, 2018). In addition, an individual's investment decisions can also be influenced by other people in a phenomenon called herding behavior (Sabir et al., 2019). Yang et al.'s (2021) research also identifies a number of additional elements that may influence stock market participants or investors, such as financial literacy, financial stability, risk tolerance, excessive optimism bias, behavior of herds, interaction with others and intention to invest.

Referring to stock market participants or investor, one of the articles on medcom.id stated that the Financial Services Authority (OJK) recorded the number of Single Investor Identification (SID) reaching 5.82 million people as of July 30, 2021, an increase of 50 percent dominated by millennials and members of generation Z *(https://www.medcom.id/economic/keuangan/VNnog2Jb-investor-pasar-modal-ri-didominated-generation-millennial)*.

The article also discussed the performance of the capital market in 2021, which purportedly still showed a positive trend, where the Indonesian Composite Index (IHSG) is already at 6,130 or an increase of 2.53 percent year to date (YTD). Aside from that, the COVID-19 pandemic saw an increase in millennial investors. The number of millennial investors increased due to the emergence of figures called influencers who encourage investment. This is in accordance with Yang et al. (2021) which states that social interaction and herding behavior can influence an individual's desire to invest and decision to become an investor.

Previous research has identified a number of variables that affect people's intentions to invest in the stock market, including investor demographics, risk aversion, financial knowledge, financial ability, excessive optimism bias, risk tolerance, behavior of herd, social engagement, investment objectives, and participants in the stock market, and how these variables relate to one another (Nguyen, Gallery, & Newton, 2016; Sivaramakrishnan, Srivastava, & Rastogi, 2017; Kansal & Singh, 2018; Rahman, Albaity, & Isa, 2020; Zulfiqar, Zhang, Khan, & Chen, 2021; Yang et al., 2021;). There is, however, still little research that specifically examines the connections between financial knowledge, financial ability, excessive optimism bias, risk tolerance, behavior of herd, social engagement, investment objectives, and participants in the stock market, in a research context on millennial investors in Indonesia connected to TPB.

According to this justification, the goal of this study is to make TPB more understandable as a conceptual basis for measuring the mediating role of risk tolerance and investment intention toward millennial investors in the stock market, followed by financial knowledge, financial ability, excessive optimism bias, risk tolerance, behavior of herd, social engagement, investment objectives, and investment intention among millennial employees in Indonesia during the the COVID-19 pandemic.

Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) is an outgrowth of the Theory of Reasoned Action (TRA) (Ryan & Carr, 2010; Samudra Mahardhika et al., 2020). TRA suggests that a person's behavior is determined by their intention to perform the behavior, and that this intention is, in turn, a function of their attitude toward the behavior and subjective norms (Fishbein & Ajzen, 1975). Kennedy (2013) says TRA is an individual's behavior can be predicted based on their attitudes toward certain behaviors and subjective norms. These attitudes form behavioral intentions, which then determine the actual behavior of the individual. Meanwhile, Ajzen & Fishbein (2000) according to TPB, behavior is examined in terms of three different types of beliefs: normative beliefs, behavioral beliefs, and beliefs about attendance. Beliefs about potential consequences of behavior are known as behavioral beliefs, while normative beliefs are thoughts about what other people think is typical. They also state that intentions can be assumed as the basis for individuals to behave. In short, TPB is a motivation theory created to forecast and comprehend human behavior (Xiao, 2008; Yang et al., 2021).

This justification leads us to the conclusion that TPB is a fundamental theory that aids in the study of the process by which actual behavior occurs by way of behavior that can cause a person's intention to behave before they actually execute the behavior """(Islam et al., 2021). From this explanation, several variables such as financial knowledge, financial ability, excessive optimism bias, risk tolerance, behavior of herd, social engagement are variables that predict behavioral intentions such as investment intention. In the end, these behavioral intentions will create actual behavior, which in this research is stock market participation.

Hypothesis Development

The Effect of Financial Literacy on Investment Intention

Financial literacy is a very interesting occurrence to study in financial decisions (Sadiq & Khan, 2019; 'Hussain, 2022).

Yang et al. (2021), "Nadeem et al. (2020) posited that the ability to manage money well is made possible by having financial literacy, enabling individuals to make appropriate judgments and effective decisions regarding the act of investment. They added that financial literacy gives investors confidence in their ability to make rational judgments and take into account all pertinent factors before making an investment decision in addition to helping investors develop a consistent way of thinking to guide their investment decisions. Kamakia, Mwangi, & Mwangi (2017), "Nadeem et al. (2020) say that motivation and self-confidence are needed when applying financial knowledge to decision-making. Wealth management, stock ownership, and demand for insurance are just a few examples of the types of financial decisions that financial literacy can affect (Niu, Zhou, & Gan, 2020). In light of the foregoing explanation, the following hypothesis can be developed:

H1: Investment intention is positively impacted by financial literacy

The Effect of Financial Well-Being on Investment Intention

People with a better understanding of finances are able to make better decisions for themselves and their loved ones, which puts them in a stronger, more stable financial position. (Lee et al., 2020). Yang et al. (2021) declared that investors who have positive investment behavior can also create positive financial well-being. From the lifecycle of an investor, individual financial well-being has a different perspective on psychological adjustment, physical health, and life satisfaction. (Koekemoer & Ferreira, 2019). Financial well-being can affect how people view and intend to make investments, according to research by Kamakia et al. (2017); Yang et al. (2021). According to the discussion above, the following hypothesis can be developed:

H2: The intention to invest is positively impacted by financial well-being.

The Effect of Overconfidence Bias on Investment Intention

According to Yang et al. (2021), overconfidence bias can have an impact on how stock market investors behave, leading them to undervalue the risks associated with investments and engage in excessive trading. Overconfident investors are more likely to take bigger risks (Sabir et al., 2019). According to Bakar and Yi (2016), overconfidence bias has a significant beneficial impact on investor decision-making. According to the discussion above, the following hypothesis can be developed:

H3: Investment intention (II) is positively impacted by overconfidence bias (OB)

The Effect of Risk Tolerance on Investment Intention

Risk tolerance occurs when a person is committed to accepting uncertainty in investment decisions (Yang et al., 2021). Investors with low risk tolerance tend to make investments without understanding the financial risks they may encounter (Sarwar & Afaf, 2016). An investor's level of risk tolerance can affect their investment behavior, in that investors with high risk tolerance will trade their shares with a higher value (Yang et al., 2021). Lim, Soutar, & Lee (2013) have proven that there are differences in investment decisions and behavior between investors in their efforts to avoid high uncertainty and low uncertainty. Their study's findings reveal that investors have the following traits: (1) greater flexibility; (2) comfort with uncertainty; (3) willingness to take risks; and (4) greater tolerance for the actions and opinions of others. According to Yang et al. (2021), an investor invests in risky securities in order to generate returns that are higher than average. In light of the foregoing explanation, the following hypothesis can be developed:

H4: The intention to invest is positively impacted by risk tolerance.

The Effect of Herding Behavior on Investment Intention

When people make investment decisions based on herding behavior, this can lead to speculative thinking and inefficiencies in the stock market (Bakar & Yi, 2016).

According to Sabir et al. (2019), herding behavior affects investors for two reasons: to protect themselves from losses and to reward themselves with the greatest profits. When investors select stocks for investment and do not steer clear of these stocks, herding behavior takes place (Yang et al., 2021). Herding behavior can in this way cause industrial market values to deviate from their fundamental (Spyrou, 2013). The study of Yang et al. (2021) demonstrates that herding behavior has a favorable impact on stock market investment intention. According to the discussion above, the following hypothesis can be developed:
H5: Investment intention is positively impacted by herding behavior.

The Effect of Social Interaction on Investment Intention
Yang et al. (2021) argue that social interaction considers the user's perception of how others view a particular product or service. There is a feedback mechanism in social interaction, such as giving and receiving comments that are in line with expectations between individuals (Akhtar & Das, 2019). Stock market fluctuations can result from investment success stories circulating on social media (Yang et al., 2021). Internet use and social interaction increase stock market participation, as well as the use of contemporary communication tools that can reduce the informational effects of social interaction (Liang & Guo, 2015). Previous research has demonstrated the beneficial effects of social interaction and media on trading decisions (Shanmugham & Ramya, 2012). The results of Wu, Huang, Chen, Davison, and Hua (2018) also demonstrate the beneficial effects of social interaction on client investment intentions. According to the discussion above, the following hypothesis can be developed:
H6: The intention to invest is positively impacted by social interaction.

The Effect of Investment Intention on Stock Market Participation
According to Kumar & Goyal (2015), investors must pick a specific course of action from a variety of alternatives when making investment decisions in the face of uncertainty. Identification of the relative weights of various behavioral intention determinants is a crucial first step in research on individual investors' behavioral intentions (Cuong & Jian, 2014). According to Sivaramakrishnan et al. (2017), the stock market behavior can be significantly predicted by investment intention. The following study demonstrates that stock market participation is positively impacted by stock market investment intention (Yang et al., 2021). According to the discussion above, the following hypothesis can be developed:
H7: Participation in the stock market is positively impacted by investment intention.

The Mediating Effect of Investment Intention
Risk tolerance, herding behavior, and financial literacy with regard to stock market participation are a few indicators that can be used to predict investment intentions (Cuong & Jian, 2014). Short- and long-term investment intentions are used to describe a person's financial behavior, and they can be a reflection of the person's behavioral intentions (Sashikala & Chitramani, 2018). According to Yang et al. (2021), intention is an attitude construct based on intrinsic values that has a significant impact on behavior prediction. They clarify that intention can point to a person's potential future behavior direction. According to the discussion above, the following hypothesis can be developed:
H8: Investment Intention acts as a mediator in the relationship between risk tolerance, financial well-being, financial literacy, overconfidence bias, herding behavior, and social interaction on stock market participation among Indonesian millennial workers.

From the above hypothesis, the following is the hypothetical.

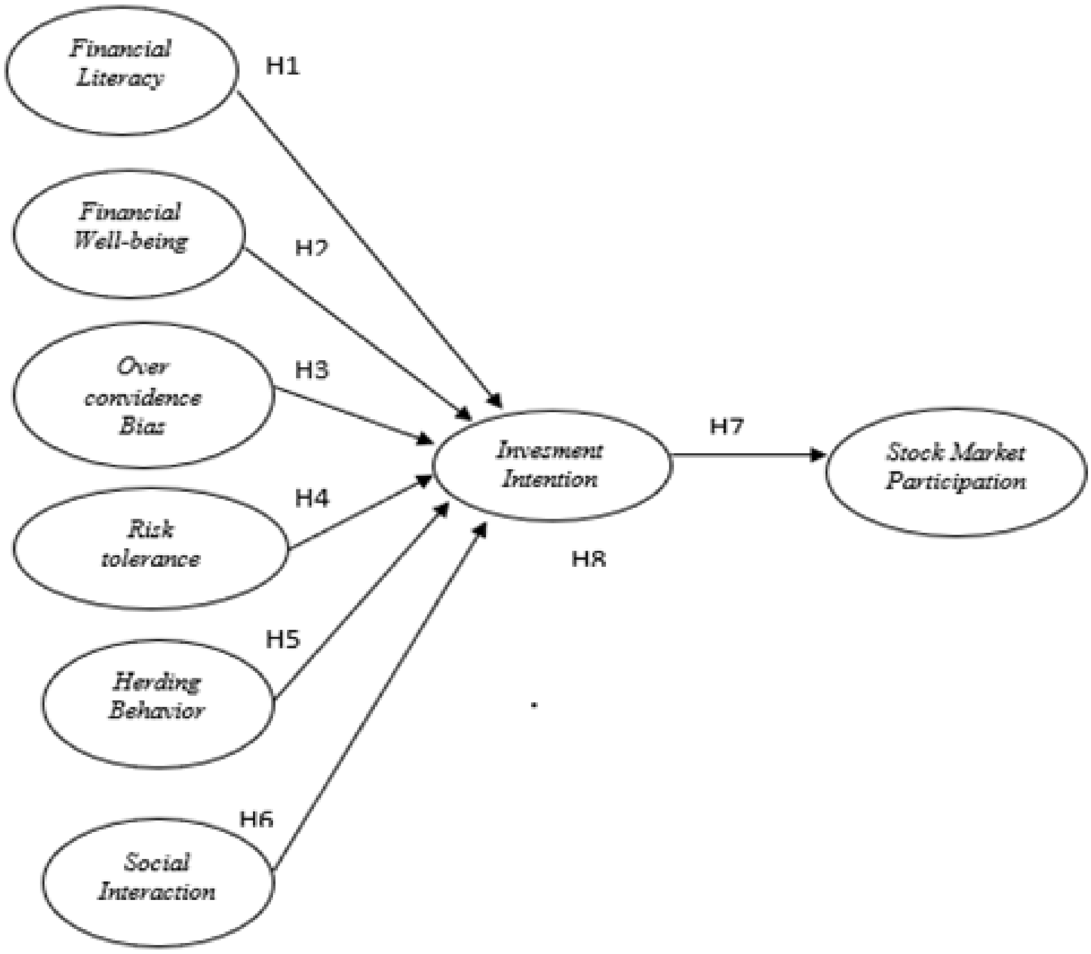

Figure 1.
Research Model

Research Methodology

Purposive sampling is the technique employed to select the sample. Participants in this study are Indonesian millennial stock market users. Millennial employees who make stock market investments make up the study's sample criteria.

The number of samples taken must be at least five times as many as the parameters used in the study, according to the SEM analysis method (Hair, Black, Babin, & Anderson, 2013). There are 27 indicators used in this study. As a result, there are 165 samples total, or 5 times the number of indicators used.

Results
With a loading factor value greater than 0.50, all variables are valid. Additionally, the results of the reliability test show that the variance extracted value is 0.50 and the minimum limit value of construct reliability is 0.60 (Hair et al., 2014).

Table 1.
Construct Reliability (CR) and Variance Extracted (VE)

Variable	*Standard Loading*	*Error*	*Construct Reliability* ∑ *STd. Loading*	(∑ *STd. Loading*)²	∑ *Error*	Nilai CR	*Variance Extracted* *Standard Loading*²	∑ *STd. Loading* ²	Nilai VE
Financial Literacy (FL)									
FL1	0,63	0,61					0,40		
FL2	0,83	0,31	2,31	5,34	1,19	**0,82**	0,69	1,81	**0,60**
FL3	0,85	0,27					0,72		
Financial Well-being (FWB)									
FWB1	0,61	0,63					0,37		
FWB2	0,72	0,48	2,19	4,80	1,38	**0,78**	0,52	1,63	**0,54**
FWB3	0,86	0,27					0,74		
Overconfidence Bias (OB)									
OB1	0,78	0,40					0,61		
OB2	0,74	0,45	2,2	4,84	1,39	**0,78**	0,55	1,62	**0,54**
OB3	0,68	0,54					0,46		
Risk Tolerance (RT)									
RT1	0,71	0,49					0,50		
RT2	0,71	0,50	2,18	4,75	1,41	**0,77**	0,50	1,59	**0,53**
RT3	0,76	0,42					0,58		
Herding Behavior (HB)									
HB1	0,55	0,70					0,50		
HB2	0,68	0,54	2,01	4,04	1,63	**0,71**	0,46	1,57	**0,56**
HB3	0,78	0,39					0,61		
Social Interaction (SI)									
SI1	0,82	0,33					0,67		
SI2	0,69	053					0,48		
SI3	0,77	0,41	3,79	14,36	2,12	**0,87**	0,59	7,03	**0,77**
SI4	0,72	0,48					0,52		
SI5	0,79	0,37					0,62		
Investment Intention (II)									
II1	0,78	0,40					0,61		
II2	0,81	0,34	2,92	8,53	1,81	**0,82**	0,66	2,20	**0,55**
II3	0,82	0,33					0,67		
II4	0,51	0,74					0,26		
Stock Market Participation (SMP)									
SMP1	0,76	0,43					0,58		
SMP2	0,90	0,19	2,41	5,81	1,06	**0,85**	0,81	1,95	**0,65**
SMP3	0,75	0,44					0,56		

The analysis results for the model suitability test reveal that there are still a number of items with good fit levels on Chi-Square, ECVI, AIC and CAIC, Fit Index, and RMSEA. Additionally, there are items with marginal fit, such as Critical N and Goodness of Fit.

Table 2.
Goodness of Fit

No	Indicator	*Value*	Keterangan
1.	*Degree of Freedom*	287	*Good fit*
	Chi Square	421,44	
	NCP	90,73	
	Confidence Interval	44,40 : 145,77	
2.	RMSEA	0,047	*Good fit*
	Confidence Interval	0,033 : 0,060	
	P Value	0,63	
3.	ECVI *Model*	3,94	*Good fit*
	ECVI *Saturated*	5,32	
	ECVI *Independence*	45,85	
	Confidence Interval	3,62 : 4,33	
4.	AIC *Model*	559,73	*Good fit*
	AIC *Saturated*	756,00	
	AIC *Independence*	6510,28	
	CAIC *Model*	920,35	
	CAIC *Saturated*	2253,96	
	CAIC *Independence*	6617,27	
5.	NFI	0,93	*Good fit*
	CFI	0,98	
	NNFI	0,97	
	IFI	0,98	
	RFI	0,92	
	PNFI	0,76	

The following are the results of the research described in the T-Value diagram:

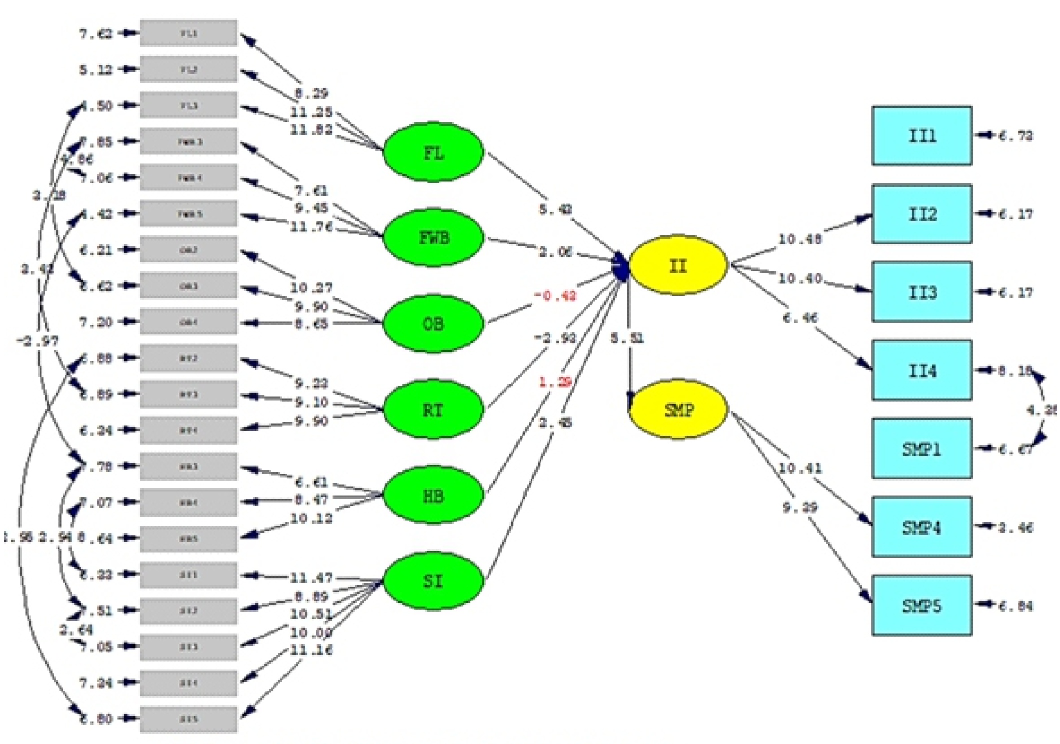

Figure 2.
T- Value Diagram

Table 3.
Research Model Hypothesis Test Result

Hypothesis	**Hypothesis Statement**	*T-Value Score*	**Description**
H1	Financial literacy (FL) has a positive effect on investment intention(II).	5,43	Proven hypothesis
H2	Financial well-being (FWB) has a positive effect on investment intention(II).	2,06	Proven hypothesis
H3	Overconfidence bias (OB) has a positive effect on investment intention(II).	-0,43	Hypothesis not proven
H4	Risk Tolerance (RT) has a positive effect on investment intention(II).	-2,93	Proven hypothesis
H5	Herding behavior(HB) has a positive effect on investment intention(II).	1,29	Hypothesis not proven
H6	Social Interaction(SI) has a positive effect on investment intention(II).	2,45	Proven hypothesis
H7	Investment intention (II) has a positive effect on stock market participation (SMP).	5,51	Proven hypothesis
H8	Investment intention (II) mediates the relationship between risk tolerance, financial well-being, financial literacy, overconfidence bias, herding behavior, social interaction on stock market participation in millennial workers in Indonesia.	FLto II 5,43 FWB to II 2,06 OB to II -0,43 RT to II -2,93 HB to II 1,29 SI to II 2,45 II to SMP 5,51	Hypothesis not proven

Analysis of the Role of Mediation Variables

The findings of this study demonstrate that investment intention (II) cannot fully mediate the relationship between financial literacy (FL), financial well-being (FWB), overconfidence bias (OB), risk tolerance (RT), herding behavior (HB), and social interaction (SI) with stock market participation (SMP). This is due to the fact that investment intention (II) has an effect on stock market participation (SMP) with a t value of 5.51 but has no effect on the overconfidence bias (OB) variable with a t value of 0.43 and the herding behavior (HB) variable with a t value of 1.29.

Results and Discussion

In this study, we examine how Financial Literacy (FL), Financial Well-Being (FWB), Overconfidence Bias (OB), Risk Tolerance (RT), Herding Behavior (HB), and Social Interaction (SI) affect Investment Intention (II), as well as how Investment Intention (II) mediates the relationship between Financial Literacy (FL), Financial Well-Being (FWB), Overconfidence Bias (OB), Risk Tolerance (RT), Herding Behavior (HB), and Social Interaction (SI) on Stock Market Participants (SMP).

The first finding demonstrates that Investment Intention (II) is positively impacted by Financial Literacy (FL). The significant positive relationship between Financial Literacy (FL) and Investment Intention (II) in these findings lends support to Theory Planned Behavior (TPB). This study proves that the financial literacy of millennial employee investors has a very strong influence on their intention to invest. This is in accordance with previous research, which states that there is a role for financial literacy (FL) in influencing the level of investment intention (II) in Malaysian employees (Yang et al., 2021). Kamakia, Mwangi, & Mwangi (2017), 'Hussain (2022) also discuss whether financial literacy is able to motivate individuals to form self-confidence and assurance that they can make the right decisions about their finances.

According to the second finding, Investment Intention (II) was positively impacted by Financial Well-Being (FWB). In accordance with behavioral theory (TPB), the financial well-being of millennial employees acts as a supporting factor that shapes their intention to invest. Financial well-being makes millennial employees feel they have a good opportunity to invest their finances because they are confident in their current financial condition. Millennial employee investors, who enjoy following current events, are motivated to invest when they feel confident about their financial stability. These findings are consistent with the research by Kamakia et al. (2017) and Yang et al. (2021), according to which financial well-being has a favorable impact on investment intention.

The third result proves that the overconfidence bias (OB) has no positive effect on investment intention (II). In this study, most of the new millennial employees tried to use the stock market during a pandemic. Therefore, their experience is not adequate to give them a high level of confidence in making strong investing decisions. They just follow the current trend, but still have a little doubt about investing large sums of money. Millennials tend to follow current developments, building up their knowledge and courage little by little as they go through life.

During the pandemic, millennial employee investors have many factors to consider when making a financial investment. They must pay attention to the possible risks they may face if they do not make wise investment choices. Previously, Bakar & Yi (2016); Sabir et al. (2019) explained that only investors with overconfidence dare to take higher risks. Therefore, millennial employee investors do not have the confidence to make investments, especially investments with large amounts and high risk. This statement is in accordance with the Theory of Planned Behavior, which states that causal factors influence individual behavior (Ajzen & Fishbein, 2000). If an investor lacks confidence, that will affect his decision regarding an investment.

The fourth finding demonstrates that Investment Intention (II) is positively impacted by Risk Tolerance (RT). If an investor is aware of the risks he may incur when investing, that knowledge will support him in making wise decisions about the investment. This is in accordance with the theory of Yang et al. (2021) which states that investors' investment intentions can be influenced by their ability to take into account the risks associated with those investments. Millennial employee investors are the type of investors who have high curiosity and a desire to learn anything related to their investment.

Therefore, they generally have a tolerance for financial risk, and this is one of the motivating factors that increases their desire for investment. These findings are consistent with the study by Yang et al. (2021), which demonstrates that Risk Tolerance (RT) significantly influences Investment Intention (II). The fifth finding showed that Investment Intention (II) was not positively impacted by Herding Behavior (HB). This research demonstrates that millennial employees do not base their investment choices on those of a group.

Millennial employee investors tend to study the stock market first before making their decision to invest. Millennial employee investors also read various financial articles and watch informational videos about financial investing that are trending during the pandemic. They rely more on their own knowledge rather than the influence of a particular group to build their desire to invest.

In accordance with behavioral theory (TPB), the desire to invest must be shaped by behavioral factors (Yang et al., 2021). Here, millennial employee investors are not influenced by herding behavior but other factors such as financial literacy, financial well-being, and risk tolerance. This is in accordance with the statements of Cuong & Jian (2014); Yang et al. (2021) that financial literacy, financial stability, and risk tolerance have a positive role in influencing investment intention.

According to the sixth finding, Social Interaction (SI) has a favorable impact on Investment Intention (II). This finding is consistent with earlier research that demonstrated social interaction positively influences investment intention (Shanmugham & Ramya, 2012; Wu et al., 2018). Millennial employee investors like to communicate with fellow investors, both experienced and novice, to share information about investments. With social interaction, either directly or via the internet, millennial employee investors can acquire deeper knowledge about the stock market "'(Asad et al., 2022). This knowledge underlies their desire to invest.

The seventh finding demonstrates that stock market participation (SMP) is positively impacted by investment intention (II). These findings are consistent with the study by Yang et al. (2021) which establishes that investment intention (II) has a significant impact on stock market participation (SMP). The intention to invest in millennial employees can build their desire to engage in stock market trading (Widagdo & Roz, 2022). This finding is consistent with the previous theory, which says that high investment intentions have the potential to make an individual an investor (Sivaramakrishnan et al., 2017);(Mahardhika & Zakiyah, 2020). Sivaramakrishnan et al. (2017); Yang et al. (2021) revealed that the investment intention that exists in individuals can increase their curiosity about investment and lead them to participate directly in investment.

The eighth finding indicates that investment intention (II) cannot mediate the relationship between financial literacy (FL), financial well-being (FWB), overconfidence bias (OB), risk tolerance (RT), herding behavior (HB), and social interaction (SI) on stock market participation (SMP). This is due to the fact that Overconfidence Bias (OB) and Herding Behavior (HB) cannot affect investment intention (II) for millennial employee investors. Millennial employee investors tend to seek information and gain a strong foundation of knowledge before they plan to make an investment, especially in conditions of high uncertainty during a pandemic. In accordance with behavioral theory (TPB), individual behavior will be reflected in what underlies the behavior (Ajzen & Fishbein, 2000).

Millennial employees who have successfully studied financial information thoroughly will have financial literacy (Sadiq & Khan, 2019). They will learn more and more about their financial situation from this financial literacy (Niu et al., 2020); (Munir et al., 2020). Sivaramakrishnan et al. (2017); Niu et al. (2020); Yang et al. (2021) explains that financial literacy in individuals can build their desire to invest and will lead to their participation in these investments. According to the findings of this study, financial literacy is the primary factor influencing millennial employee investors to make investments.

Conclusion

The findings of this study demonstrate that investment intention (II) is positively influenced by financial literacy (FL), financial well-being (FWB), risk tolerance (RT), and social interaction (SI), and that stock market participation (SMP) is positively influenced by investment intention (II). Additionally, investment intention (II) is not positively impacted by overconfidence bias (OB) or herding behavior (HB). This last point is that investment intention (II) cannot mediate the relationship between financial literacy (FL), financial well-being (FWB), overconfidence bias (OB), risk tolerance (RT), herding behavior (HB), and social interaction (SI) toward stock market participation (SMP) for millennial employee investors.

This research has inherent shortcomings, including that it focuses on millennial employees in general regardless of their work status. This is an issue because work is also a factor that can influence individual investment intentions. Therefore, for further research, it is recommended that the employee's type of work be taken into consideration. Furthermore, this study uses an online sampling method to make it easier to acquire samples efficiently during the pandemic. However, this method has weaknesses, one of which is that the contribution of the findings can only be applied to certain groups that have relationships, such as friendships, so there is a possibility that the data results are less accurate.

For further research, it is expected that other methods will be used in collecting sample data. In addition, it is recommended that samples be grouped into two populations, such as stock players and bond players, and that the questionnaires include stock account numbers to make the data more valid. Next, because there are two factors—overconfidence bias and herding behavior—that cannot influence the investment intention of millennial employees, for further research it is recommended that these two variables be replaced with other variables that are more appropriate when applied to millennial employees, such as financial knowledge and financial attitude.

This research contributes to providing new knowledge about several factors that can influence stock market participation by millennial employee investors, such as financial literacy, financial well-being, risk tolerance, social interaction, and investment intention. Considering the findings of this study, financial literacy, financial well-being, risk tolerance, and social interaction can be considered factors that increase investment intention among millennial employee investors. If some of these things have been fulfilled, then investment intention will be built, and this will lead to stock market participation or desire to invest, which will benefit the stock market.

This research focuses on millennial employees who invest in stocks regardless of their employment status, even though employment status is one of the factors influencing individual investment intentions. This is a limitation of the research. However, this study shows that among millennial employee investors, their intention to invest can be influenced by their level of financial literacy, financial well-being, risk tolerance, and social interaction. The uncertainty of returns on investments made during the COVID-19 pandemic means that the intention of these millennials does not encourage them to participate in the stock market. Thus, the research provides empirical evidence on the Theory of Planned Behavior for millennial employee investors in encouraging their intention to invest in the stock market.

References

Abidin, Z., Setiawan, B., Muhaimin, A. W., Shinta, A., & Nandayani, D. R. (2021). Millennial consumer behavior on purchasing of fishery functional food at tokopedia: Testing the Theory of Planned Behavior. *IOP Conference Series: Earth and Environmental Science,* 718(1), 1–7. doi: 10.1088/1755-1315/718/1/012073

Ahmad Fauzi, A. W., Husniyah, A. R., Mohamad Fazli, S., & Mohamad Amim, O. (2017). Financial Risk Tolerance as a Predictor for Malaysian Employees' Gold Investment Behavior. *Eurasian Studies in Business and Economics,* 7, 63–76. doi: 10.1007/978-3-319-54112-9_5

Ajzen, I. (2015). Consumer attitudes and behavior: the theory of planned behavior applied to food consumption decisions. *Italian Review of Agricultural Economics,* 70(2), 121–138. doi: 10.13128/REA-18003

Ajzen, I., & Fishbein, M. (2000). Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes. *European Review of Social Psychology,* 11(1), 1–33. doi: 10.1080/14792779943000116

Akhtar, F., & Das, N. (2019). Predictors of investment intention in Indian stock markets: Extending the theory of planned behaviour. *International Journal of Bank Marketing,* 37(1), 97–119. doi: 10.1108/IJBM-08-2017-0167

Alquraan, T., Alqisie, A., & Shorafa, A. Al. (2016). Do Behavioral Finance Factors influence Stock Investment Decisions of Individual Investors? (Evidences from Saudi Stock Market) Talal. 12(9), 72–82.

Asad, H., Toqeer, I., & Mahmood, K. (2022). A qualitative phenomenological exploration of social mood and investors' risk tolerance in an emerging economy. *In Qualitative Research in Financial Markets*, 149(1), 189–211. doi: 10.1108/QRFM-01-2021-0006

Atkinson, A., Monticone, C., & Mess, F. A. (2016). *OECD/INFE International Survey of Adult Financial Literacy Competencies.* Oecd, 1–100.

akar, 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(October 2015), 319–328. doi: 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*. doi: 10.1177/2158244020945717

Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research,* 79, 228–237. doi: 10.1016/j.jbusres.2017.03.013

Burchi, A., Włodarczyk, B., Szturo, M., & Martelli, D. (2021). The effects of financial literacy on sustainable entrepreneurship. *Sustainability (Switzerland),* 13(9), 1–22. doi: 10.3390/su13095070

Cuong, P. K., & Jian, Z. (2014). Factors Influencing Individual Investors' Behavior: An Empirical Study of the Vietnamese Stock Market. American *Journal of Business and Management,* 3(2), 77–94. doi: 10.11634/216796061403527

Cwynar, A. (2020). Financial Literacy, Behaviour and Well-Being of Millennials in Poland Compared to Previous Generations: The Insights from Three Large-Scale Surveys. *Review of Economic Perspectives,* 20(3), 289–335. doi: 10.2478/revecp-2020-0015

Dickason-Koekemoer, Z., & Ferreira, S. (2019). A conceptual model of financial well-being for south african investors. *Cogent Business and Management,* 6(1). doi: 10.1080/23311975.2019.1676612

Dopierała, Łukasz; Magdalena, S. (2021). *Herding in the Context of Regulatory Changes: New Evidence. Mdpi, 9(1), 1–19.* Retrieved from https://www.mdpi.com/2227-9091/9/1/6

Elshqirat, M. K. (2020). Ramadan effect on sectoral herding. *Independent Journal of Management & Production,* 11(6), 1867. doi: 10.14807/ijmp.v11i6.1146

Feng, X., Wang, L., Yan, Y., Zhang, Q., Sun, L., Chen, J., & Wu, Y. (2021). The Sustainability of Knowledge-Sharing Behavior Based on the Theory of Planned Behavior in Q&A Social Network Community. *Complexity,* 2021. doi: 10.1155/2021/1526199

Friedman, H. (2007). *ScholarlyCommons Does Overconfidence Affect Entrepreneurial Investment*? Does Overconfidence Affect Entrepreneurial Investment? (May).

Ghorban Nejad, S., & Hansen, H. (2021). Environmentally motivated travel reduction: The effects of availability, herding bias, and self-monitoring. *Sustainability (Switzerland),* 13(2), 1–14. doi: 10.3390/su13020691

Hair, J.F, Black, W.C. Babin, B. J. Anderson, R. E. (2013). Multivariate Data Analysis. I*n Exploratory Data Analysis in Business and Economics*. doi: 10.1007/978-3-319-01517-0_3

Henager, R., & Cude, B. J. (2016). *Financial Literacy and Long- and Short-Term Financial Behavior in Different Age* Groups. 27(1), 3–19.

Hu, Y., Zhou, M., Shao, Y., Wei, J., Li, Z., Xu, S., … Wang, D. (2021). The effects of social comparison and depressive mood on adolescent social decision-making. *BMC Psychiatry,* 21(1), 1–16. doi: 10.1186/s12888-020-02928-y

Hussain, S. (2022). *Empirical Study on Financial Literacy , Investors ' Personality , Overconfidence Bias and Investment Decisions and Risk Tolerance as Mediator Factor.*

Ibrahim, Y., & Arshad, I. (2017). Examining the impact of product involvement, subjective norm and perceived behavioral control on investment intentions of individual investors in Pakistan. *Investment Management and Financial Innovations,* 14(4), 181–193. doi: 10.21511/imfi.14(4).2017.15

Islam, A., Anjum, N., & Ahmed, I. (2021). Predicting Consumers' Intention to Shop Online in an Emerging Market: A COVID-19 Perspective. *Journal of Marketing and Consumer Behaviour in Emerging Markets,* 2021(1(12)), 4–18. doi: 10.7172/2449-6634.jmcbem.2021.1.1

Jin, X., Li, R., & Zhu, Y. (2021). Could social interaction reduce the disposition effect? Evidence from retail investors in a directed social trading network. *PLoS ONE,* 16(2 February), 1–18. doi: 10.1371/journal.pone.0246759

Kalam, K. (2020). The effects of macroeconomic variables on stock market returns: Evidence from Malaysia's stock market return performance. *Journal of World Business,* 55(August), 101076. Retrieved from https://www.researchgate.net/publication/344158504

Kamakia, M. G., Mwangi, C. I., & Mwangi, M. (2017). Financial Literacy and Financial Wellbeing of Public Sector Employees: A Critical Literature Review. *European Scientific Journal,* ESJ, 13(16), 233. doi: 10.19044/esj.2017.v13n16p233

Kansal, P., & Singh, S. (2018). Determinants of overconfidence bias in Indian stock market. *Qualitative Research in Financial Markets*, 10(4), 381–394. doi: 10.1108/QRFM-03-2017-0015

Kennedy, B. P. (2013). *The theory of planned behavior and financial literacy: A predictive model for credit card debt?* [Theses, Dissertations and Capstones]. Paper 480, 84. https://doi.org/Paper 480

Kim, K. T., Anderson, S. G., & Seay, M. C. (2019). Financial Knowledge and Short-Term and Long-Term Financial Behaviors of Millennials in the United States. *Journal of Family and Economic Issues*, 40(2), 194–208. doi: 10.1007/s10834-018-9595-2

Kumar, S., & Goyal, N. (2015). Behavioural biases in investment decision making – a systematic literature review. *Qualitative Research in Financial Markets,* 7(1), 88–108. doi: 10.1108/QRFM-07-2014-0022

Lee, J. M., Lee, J., & Kim, K. T. (2020). Consumer Financial Well-Being: Knowledge is Not Enough. *Journal of Family and Economic Issues,* 41(2), 218–228. doi: 10.1007/s10834-019-09649-9

Liang, P., & Guo, S. (2015). Social interaction, Internet access and stock market participation-An empirical study in China. *Journal of Comparative Economics,* 43(4), 883–901. doi: 10.1016/j.jce.2015.02.003

Lim, K. L., Soutar, G. N., & Lee, J. A. (2013). Factors affecting investment intentions: A consumer behaviour perspective. *Journal of Financial Services Marketing,* 18(4), 301–315. doi: 10.1057/fsm.2013.23

Madaan, G., & Singh, S. (2019). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research, 1*0(4), 55–67. doi: 10.5430/ijfr.v10n4p55

Mahardhika, S. A., & Zakiyah, T. (2020). Riset Akuntansi dan Keuangan Indonesia URL: http://journals.ums.ac.id/index.php/reaksi/index Millennials' Intention in Stock Investment: Extended Theory of Planned Behavior. 83–91. http://journals.ums.ac.id/index.php/reaksi/index.

Miftahudin, Husen. 5 Agustus 2021. *Investor Pasar Modal RI didominasi Generasi Milenial. Diakses pada 1 September 2021*. https://www.medcom.id/ekonomi/keuangan/VNnog2Jb-investor-pasar-modal-ri-didominasi-generasi-milenial

Mottola, G. R. (2014). The Financial Capability of Young Adults — A Generational View. F*INRA Foundation Financial Capability Insights, March(March),* 1–12. doi: 10.13140/RG.2.1.3800.5281

Munir, I. U., Yue, S., Ijaz, M. S., Hussain, S., & Zaidi, S. Y. (2020). Financial Literacy and Stock Market Participation: Does Gender Matter? *In Singapore Economic Review*. doi: 10.1142/S0217590820500757.

Nadeem, M. A., Qamar, M. A. J., Nazir, M. S., Ahmad, I., Timoshin, A., & Shehzad, K. (2020). How Investors Attitudes Shape Stock Market Participation in the Presence of Financial Self-Efficacy. *Frontiers in Psychology,* 11(October), 1–17. doi:10.3389/fpsyg.2020.553351

Nauman Sadiq, M., & Ased Azad Khan, R. (2019). Impact of Personality Traits on Investment Intention: The Mediating Role of Risk Behaviour and the Moderating Role of Financial Literacy. *Journal of Finance & Economics Research,* 4(1), 1–18. doi: 10.20547/jfer1904101

Nguyen, L. T. M., Gallery, G., & Newton, C. (2016). The influence of financial risk tolerance on investment decision-making in a financial advice context1. *Australasian Accounting, Business and Finance Journal,* 10(3), 3–22. doi: 10.14453/aabfj.v10i3.2

Niu, G., Zhou, Y., & Gan, H. (2020). Financial literacy and retirement preparation in China. P*acific Basin Finance Journal,* 59(December 2018), 101262. doi: 10.1016/j.pacfin.2020.101262

Psuturi, T. (2021). Student Corner Investor Psychology: Behavioral Biases having an Impact on Financial Decisions. *Journal of Multidisciplinary Research,* 13(1), 103–110.

Rahman, M., Albaity, M., & Isa, C. R. (2020). Behavioural propensities and financial risk tolerance: the moderating effect of ethnicity. *International Journal of Emerging Markets,* 15(4), 728–745. doi: 10.1108/IJOEM-01-2018-0024

Ryan, S., & Carr, A. (2010). Applying the biopsychosocial model to the management of rheumatic disease. In Rheumatology: *Evidence-Based Practice for Physiotherapists and Occupational Therapists.* doi: 10.1016/B978-0-443-06934-5.00005-X

Sabir, S. A., Mohammad, H. Bin, & Shahar, H. B. K. (2019). The role of overconfidence and past investment experience in herding behaviour with a moderating effect of financial literacy: Evidence from pakistan stock exchange. *Asian Economic and Financial Review,* 9(4), 480–490. doi: 10.18488/journal.aefr.2019.94.480.490

Safronova, T., Chernousova, N., & Safronova, M. (2020). Financial Literacy and Financial Capability: Interdependence of Concepts and Possibilities to Form Them in a School Course of Mathematics. *Propósitos y Representaciones,* 8(3). doi: 10.20511/pyr2020.v8n3.504

Samsuri, A., Ismiyanti, F., & Narsa, I. M. (2019). *Effects of Risk Tolerance and Financial Literacy to Investment Intentions.* 10(9), 40–54.

Sarwar, A., & Afaf, G. (2016). A comparison between psychological and economic factors affecting individual investor's decision-making behavior. *Cogent Business and Management,* 3(1). doi: 10.1080/23311975.2016.1232907

Sashikala, V., & Chitramani, P. (2018). The Impact of Behavioural Factors on Investment Intention of Equity Investors. *Asian Journal of Management,* 9(1), 183. doi: 10.5958/2321-5763.2018.00028.8

Setiyani, A., Djumarno, D., Riyanto, S., & Nawangsari, L. C. (2019). the Effect of Work Environment on Flexible Working Hours, Employee Engagement and Employee Motivation. *International Review of Management and Marketing,* 9(3), 112–116. doi: 10.32479/irmm.8114

Shanmugham, R., & Ramya, K. (2012). Impact of Social Factors on Individual Investors' Trading Behaviour. *Procedia Economics and Finance,* 2(Af), 237–246. doi: 10.1016/s2212-5671(12)00084-6

Sivaramakrishnan, S., Srivastava, M., & Rastogi, A. (2017). Attitudinal factors, financial literacy, and stock market participation. *International Journal of Bank Marketing,* 35(5), 818–841. doi: 10.1108/IJBM-01-2016-0012

Spyrou, S. (2013). Review of Behavioral Finance Article information: *Review of Behavioural Finance*, 5(2), 175–194.

Van de Venter, G., Michayluk, D., & Davey, G. (2012). A longitudinal study of financial risk tolerance. *Journal of Economic Psychology,* 33(4), 794–800. doi: 10.1016/j.joep.2012.03.001

Vieira, K. M., Bressan, A. A., & Fraga, L. S. (2021). Financial well-being of the beneficiaries of the minha casa minha vida program: Perception and antecedents. *Revista de Administracao Mackenzie,* 22(2). doi: 10.1590/1678-6971/ERAMG210115

Widagdo, B., & Roz, K. (2022). The role of personality traits, financial literacy and behavior on investment intentions and family support as a moderating variable. *Investment Management and Financial Innovations,* 19(2), 143–153. doi: /10.21511/imfi.19(2).2022.12

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 and People,* 31(3), 688–711. doi: 10.1108/ITP-10-2016-0236

Xiao, J. J. (2008). Handbook of consumer finance research. *Handbook of Consumer Finance Research,* (August), 1–424. doi: 10.1007/978-0-387-75734-6

Yang, M., Al Mamun, A., Mohiuddin, M., Ali Al-Shami, S. S., & Zainol, N. R. (2021). Predicting stock market investment intention and behavior among malaysian working adults using partial least squares structural equation modeling. *Mathematics,* 9(8). doi: 10.3390/math9080873

Zulfiqar, M., Zhang, R., Khan, N., & Chen, S. (2021). Behavior towards r&d investment of family firms ceos: The role of psychological attribute. *Psychology Research and Behavior Management,* 14, 595–620. doi: 10.2147/PRBM.S306443