Financial Literacy, Experience, Risk Tolerance and Investment Behavior: Observations during Pandemic

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ABSTRACT

This paper investigates the relationships among financial literacy, investment experience, risk tolerance, and investment decision-making. The study, carried out in the top two populated states in Peninsular Malaysia, is to better understand investment behavior, especially during the coronavirus disease (COVID-19) pandemic. The target respondents are widely distributed across ages, academic qualifications, years of investment experience, occupations, and gender. The correlations and regressions propose significant relationships among financial literacy, investment experience, risk tolerance, and investment behavior. Generally, financial literacy, investment experience, and risk tolerance are important factors contributing to the investment decision-making prescribed, with experience typically outpacing literacy in our sample. At the same time, investment experience is found to be relevant in describing the level of risk tolerance. The result supports the importance of understanding finance to aid investment decision-making and manage investment risks. It contributes to the literature by covering experience as one of the factors in describing investment behavior. This year-2021 survey also helps to better understand investment behavior among Malaysians in recent days and during the pandemic.

Keywords: Financial literacy; Investment experience; Risk tolerance; Investment behavior; Malaysia

INTRODUCTION

Investment decision-making has become highly essential in preparing for a better future, especially in light of present economic uncertainties. Literacy in finance is the comprehension of financial components and the capability to focus on understanding, resulting in sound financial decisions and increased economic and individual financial well-being (Balasubramnian & Sargent, 2020; Vieira, 2012). By implementing strategies that can lower the risk, like diversifying assets, building savings, and purchasing insurance, financial literacy helps people prepare for difficult financial situations (Abdeldayem, 2016). It is crucial to take action in managing financial affairs during the coronavirus disease (COVID-19) pandemic, which has affected people worldwide. To adapt to the new norm, individuals might take action to search for alternatives when reassessing their financial position. A survey conducted by the Agency of Credit Counselling and Debt Management in Malaysia found that 41% of Malaysians indicated that financial stress affects their mental health, and there was also an increase of 57% concerning financial problems. This shows that many have low financial literacy, which may lead to unhealthy financial behavior. Some investors with surplus funds are likely to go for the safer savings options, despite the low interest rates. Investment involves a critical decision-making process because investors invest not only in money but also in time. Besides, risk factors are highly relevant in affecting investment decisions. When choosing an investment, a person's capacity to weigh risks is crucial, and it has been important among investment managers, financial planners, and advisors. The primary objective of this study is to investigate the extent of financial literacy and investment experience among investors in Malaysia, as well as to explore the associations between these factors and risk tolerance and investment decision-making.

Understanding the financial literacy concept to reduce risk and reach better opportunities among alternatives can be linked to whether individuals make sound investment decisions. Complicated market conditions

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further make decision-making challenging. Investors without sufficient financial knowledge have placed themselves in a situation where they invest without focusing on risk measurement and long-term gains. Financial literacy assists behaviors such as paying bills on time and avoiding making more loans to help individuals maintain their access to tight credit markets (Abdeldayem, 2016). The data by the Malaysian Department of Insolvency (MDI) showed that a significant double-digit percentage of individuals facing bankruptcy were aged below 35 years old.

Investors must possess crucial knowledge pertaining to the impact, assessment methods, and risk tolerance associated with stocks, bonds, or mutual funds in order to engage in trading activities. This holds true even in the face of the inherent uncertainty of investments, the willingness to assume risks, active involvement in the market, and the recognition of potential returns (Khan, Tan & Gan, 2018). Financial products have become more difficult in an evolving world, requiring investors to keep up-to-date with the latest financial details (Garg & Singh, 2018). The option of financial products is more complex, and it seems that investors do have difficulty making rational decisions as to which option is relevant (Zakaria, Nor & Ismail, 2017). Maximum benefits can be achieved from financial development when resources are used wisely (Lusardi & Mitchell, 2014). The process of decision-making becomes complicated, and the uncertainty in financial markets increases due to poor-quality financial information (Cox, Brounen, & Neuteboom, 2015). Financial literacy affects efficiency in managing financial resources. Based on prior studies, illiterate investors are liable to make unfavorable investment decisions. Fedorova, Nekhaenko, and Dovzhenko (2015) indicate that investors with low financial literacy prefer to avoid participating in the stock market and hold fewer portfolios.

The ability to make better investment decisions depends on individuals' financial literacy and risk measurement skills. Improving investment decisions is crucial due to the evolution of new financial markets and changes in demographics and economics. The procedures for making investment decisions are different for each individual. The decisions may be made based on personal judgment or other factors that have an impact on making rational decisions (Gupta & Gupta, 2017). It is a learning process that requiring individuals to choose alternate scenarios to tackle complex situations (Abdeldayem, 2016). The most challenging aspect is selecting a specific investment area, considering market trends, risk tolerance, and rate of return. This investment decision is related to risk tolerance (Trang & Tho, 2017). A good investment is challenging, especially for those with limited knowledge and experience. It depends on how individuals critically apply financial knowledge, risk measurement, logical reasoning, past experiences, judgments and intuition.

Other than that, investment experience significantly influences decision-making, making it easier for individuals to make long-term investments. Experienced investors can compete in stock trading and have better knowledge of the securities market or mix of long-term assets. They also demonstrate the ability to raise investor trust through a good and bad experience portfolio. If an investor makes a bad investment decision, they learn not to make the same mistake in the future and will focus on managing potential risk situations for high returns. Combining good comprehension with experience in investment makes individuals well-prepared for future investment decisions. Experience is important for investors as it helps them make good decisions in tough times, builds confidence, and avoids biased investing.

Individuals may bear losses if they make the wrong decisions because it is related to risk. Investing in risky investments may generate broad outcomes, covering gain or loss. However, investing in low-risk investments tends to result in minimal outcomes. Risk tolerance refers to a person's acceptance of an uncertainty maximum when making investment decisions. Financial risk tolerance is an essential determinant that affects the option of financial investment and optimizes the investor's portfolio. Bayar, Sezgin, Öztürk, and Şaşmaz (2020) clarify that risk is a major variable in actual investment decision-making because the investors have to consider all the potential risks and the returns in the investments. Investors will focus on the risk that they may be facing in choosing investment products and attain optimal returns.

Investors also become more prudent in managing financial and investment activities (Subagio, Satoto & Ediningsih, 2020). Risk tolerance appears to be a significant variable that influences the preferred investment in markets. Thus, this variable is essential for individuals' financial planning and the maximization of investors' portfolios.

Furthermore, experience plays an important role in estimating decisions based on tolerance for risk. Experienced investors are more risk-prone and have a realistic understanding of their ability and willingness to take greater risks. This is important as long-term investments may involve large funds and financial risk. Investors can use their experience as a benchmark for future decisions and their level of risk tolerance. How each investor tolerates risk is different. Understanding the potential loss is essential for making informed decisions in the context of risk, and it helps in portfolio management and driving investment decisions. If an investor's risk tolerance is low, investments will be made conservatively.

Financial service companies have to determine the risk tolerance of individuals to offer a suitable investment. Therefore, literacy in finance is not only beneficial to investors in deciding on investments with reasonable risk but also gives the country an advantage in terms of economic and social well-being. This study encompasses a further understanding of how financial literacy and investment experience affect risk tolerance and investment decisions in Malaysia. There are still inconsistent outcomes in recent studies in connection with the influencing variables. This study could contribute to supporting the prior results' inferences and theories for further improvement. It could also serve to provide a better understanding for financial advisors to assess financial risk tolerance and the way investment decisions are made, especially during the pandemic period. Meanwhile, the study may help raise awareness of the importance of risk tolerance considerations in investment decision-making.

LITERATURE REVIEW

Individuals who lack a fundamental understanding of financial principles are not well prepared to make financial decisions. Financially literate people can make informed financial choices. Kadoya and Khan (2019) state that interpreting the value of money and maximizing the benefits of money utilization have consequences for interest, inflation, risks, and diversification. It is easy for investors to access financial markets, and the need for a financial advisor is low because literate investors have a clearer understanding of financial products (Calcagno & Monticone, 2015). Other than that, financial literacy is needed in an era where complex financial products are accessible to a broad segment of the population. Significant costs may be borne by an individual with financial ignorance. Individuals who are not able to grasp the principle of finance have to pay more in transaction fees and interest rates and accumulate more debt (Lusardi & Tufano, 2015). Individuals will borrow more and have low savings (Stango & Zinman, 2009). Then, financial literacy has many possible benefits. Individuals with strong financial expertise are great at retirement planning and investing (Lusardi & Mitchell, 2014). Financially sophisticated investors tend to minimize risk by diversifying their resources through many investments (Abreu & Mendes, 2010).

Experienced individuals in the relevant financial context are able to make good decisions, including matters regarding sunk costs (Fennema & Perkins, 2008). Individuals gaining experience from different knowledge could directly affect decision results (Eberhardt, De Bruin & Strough, 2019). Awais, Laber, Rasheed and Khursheed (2016) emphasize that the actions of investors are influenced by prior experience. Investors with experience tend to select risky investments because they know how to handle them. Whether the experience is good or not, it will affect their degree of risk tolerance and investment decisions, thus generating a high return. Good or bad investment experiences affect the willingness to take a risk (Sabir, Mohammad & Shahar, 2019). The investor tends to become a risk-taker if there is proof of profitability from the past investment, but if there are losses, the investor tends to become risk-averse (Nofsinger, 2005). The output of experience can be referred to evaluate the uncertainty in current investment. Investors can manage pooled investments based on desired objectives and time frames if they have sufficient financial knowledge and experience.

Aini and Lutfi (2019) state that the way an individual responds to and takes action regarding the risk of an investment is to define risk tolerance. This will help the individual understand their tolerance for risk and their willingness to accept the future rate of return. There may be a risk-averse individual who is reluctant to take risks and make choices under risk before defining their risk tolerance. There is a possibility that investors may take, avoid, or not take the risk seriously. An investor has to consider expected knowledge and information that are related to risk and the probability of results because most decisions involve risk (Rasouli & Timmermans, 2014). Also, Dickason and Ferreira (2018) find that risk tolerance has been linked to the selection of investment options, asset allocation, and fund accumulation strategies. Individuals must understand the role of factors as well as their risk tolerance and capital market expectations. The risk must be measured within the field of risk passion, and it should be flexible to increase the possibility of taking the risk of investment.

Investment refers to the various alternatives to assets like financial assets and real assets in investing funds. Hasanuh and Putra (2020) examine that investment is an activity that individuals are involved in, including saving through the funds in an asset with the expectation of a high return in the future. The individual investment decision will allocate limited resources between opportunities for investment products, and the decision requires estimating the value of the opportunities, which is the population, timing, and predictability of future cash flows. Deciding investment is the process of making conclusions and decisions on problems and choices between alternatives. Each investor will evaluate potential return and risk when making an investment decision (Aini & Lutfi, 2019). Therefore, the perspective of the investor on risk will influence investment decisions (Nofsinger, 2017).

Even though there are prior studies that determine the impact of being financially literate on investment decisions or tolerance of risk, most of the studies explore demographic and behavioral variables, such as Bannier and Neubert (2016). Researchers also determine factors that influence investment decision-making in other countries but are lacking in Malaysia. Furthermore, there are studies in the Malaysian context that focus on financial literacy, like Boon, Yee and Ting (2011); Loh, Peong and Peong (2019); and investment decision-making, like Jaiyeoba, Adewale, Haron and Che Ismail (2018). However, to the authors' understanding, a few studies have explored the correlation between financial literacy and investment decisions associated with risk tolerance in the Malaysian context, such as Zakaria et al. (2017). Therefore, investment experience serves as one of the variables that indicates different outcomes for comparison with other studies. Individuals who have investment experience tend to consider risky investments to acquire high returns. This study attempts to further improve and contribute to the agreed understanding of what defines and influences the differences in financial risk tolerance and investment decisions.

A. Financial Literacy and Risk Tolerance

Besides, Sabri (2016) indicates that the preferences of individuals for risks are essential determinants of investment in stock ownership. The willingness to take a risk also depends on a risk attitude, such as in mutual funds, which have low risk. Zakaria et al. (2017) also examine the fact that financial literacy is directly proportional to risk tolerance, which impacts decision-making and involvement in investment. Likewise, financial literacy is the most essential factor to predict risk tolerance and makes demographic factors less important (Grable & Joo, 1999). Grable (2000) also examines how literacy about finance and education affect risk tolerance in managing the financial situation. Frijns, Koellen & Lehnert (2008) explain that individuals tend to distribute their financial resources to less risky investments because they have low financial literacy or knowledge of portfolio options. Individuals with high risk tolerance usually have higher financial knowledge and skills (Beal & Delpachitra, 2003).

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B. Financial Literacy and Investment Decision

The process of organizing finances refers to financial literacy. Knowledge can be a tool to generate a return and minimize financial risk. Individuals who are financially literate are able to differentiate between mutual funds and stocks and are more likely to take a risk when deciding on an investment (Sabri, 2016). However, individuals may face difficulties when making investment decisions if they lack financial literacy or knowledge of economic concepts. Youth who are financially illiterate could also select unsuitable financial products and have low savings (Au Yong & Tan, 2017). Financial literacy allows individuals to more fully participate in risky investments. Nye and Hillard (2013) describe the capability of investors to make better decisions in respect of handling funds, to understand the fundamental concepts of finance, and, at the same time, to manage their resources efficiently. Moreover, these investors confidently understand long-term and short-term financial planning based on different economic situations (Waheed, Ahmed, Saleem & UI Din, 2020). The individual who has better financial literacy shows the tendency to be good and smarter when facing investment decisions (Junianto, Kohardinata & Silaswara, 2020).

C. Investment Experience and Risk Tolerance

Investment experience can be related to risk tolerance because investors learn from experience and become more tolerant of risk (Perveen, Ahmad, Usman & Liaqa, 2020). Individuals who have more investment experience tend to have a higher risk tolerance and also have higher-risk portfolios compared to those who are inexperienced or have limited experience (Corter & Chen, 2006). According to Onsomu, Kaijage, Adudu and Iraya (2017), the least experienced investors can hold a less risky portfolio and earn a low return. The inexperienced investor will become more cautious when choosing stocks to invest in due to their low risk tolerance, which adversely affects their returns. Experiencing losses from prior investments may reduce the investor's risk tolerance.

D. Investment Experience and Investment Decision

Generally, individuals are more interested in purchasing stocks due to past performance or experience, good or bad. Individuals probably learn from experience, which may come from their parents or themselves. Experience would also impact the individual's willingness to take a risk when making an investment decision. Fachrudin and Fachrudin (2016) find that investors find it easier to make a decision and consider which alternative stock would be chosen. Investors with low investment experience will consider all the factors before deciding, while an investor with more investment experience does not take more time by considering only certain factors to make an investment decision. In addition, financial literacy would strengthen the influence of experience on investment decisions. Bihari and Shukla (2012) examine whether the connection between financial literacy and investor experience is acceptable. Virtual gaming of the stock market provides the possibility to enhance the effective experience and expose individuals to a real-life situation when making an investment decision (Frijns, Gilbert & Tourani-Rad, 2014).

E. Risk Tolerance and Investment Decision

Risk tolerance helps determine the level of risk that should be taken and understood before making any investment decisions. The tendency to tolerate the maximum amount that individuals or investors desire to take in making an investment decision is referred to as risk tolerance (Grable & Lytton, 1999). There is an influence of risk tolerance on investors' decisions to purchase investment alternatives (Pak & Mahmood, 2015). The way an individual invests their resources is influenced by their financial risk tolerance, and individuals are expected to act differently at various levels of risk tolerance. The risk tolerance of an individual depends on attitudes and will affect the behavior of the investment taken (Annamalah, Raman, Marthandan & Logeswaran, 2019; Jamaludin & Gerrans, 2015). The low-risk tolerance of individuals tends to avoid high-risk assets compared to the high-risk tolerance of individuals who are brave enough to invest in high-risk assets (Nguyen, Gallery & Newton, 2016). Some researchers also argue that willingness and knowledge may affect the preferences of an individual, like risk tolerance, in financial decision-making. Therefore, individuals only invest when they identify that there is an acceptable risk, which reflects their degree of risk tolerance.

METHODOLOGY

A. Data Collection and Variables

For the purpose of this analysis, a survey was conducted in the two most populated states in Peninsular Malaysia, i.e., Selangor and Johor. The data was collected in 2021 from 150 respondents, covering various demographic characteristics described in Part C. Five questions pertaining to the profile and background of the respondent are in the first part of the questionnaire. The second part deals with the level of financial literacy and investment experience, and the last part covers the level of risk tolerance and investment decisions. Financial literacy is described as a set of self-awareness, knowledge, skills, attitudes, and behaviors that enable individuals to make sound financial decisions and ensure individual well-being. Experience is one of the determinants of the implementation of financial management (Gveroski & Jankuloska, 2017). Investment experience is an investor's action that is influenced by prior experience, whether good or bad, since they acquire various knowledge and information that may directly impact outcomes (Awais et al., 2016). Risk tolerance is the agreed-upon maximum level of unpredictability when an investor makes a financial decision (Bayar et al., 2020). Risk tolerance is also a level of tolerance for varying investment returns that an investor can accept (Zakaria et al., 2017). Next, the investment decision is a vital action that is affected by various factors and differs between investors because it requires specific consideration to be acknowledged for making the right decision (Awais et al., 2016). The decision-making process regarding investments is contingent upon the behavior of the individual and is intrinsically linked to the extent of an investor's financial literacy.

B. Data Analysis Method

A reliability test is performed to ensure the results are consistent, accurate, and reliable. In other words, the reliability of the questionnaire should represent its credibility. Cronbach's alpha is used as a lower-bound estimate and also measures internal consistency. A validity test is taken to ensure that the questionnaire is accurate and capable of measuring what it is intended to determine. The high validity of the questionnaire may indicate no or low systematic errors. To improve the study's validity, a pilot study was carried out in which some random respondents were asked to assess the questions and see if they made sense. The descriptive analysis would describe or summarize the raw data in a way that is easy to comprehend and interpret by the respondents.

In this study, descriptive analysis, which is descriptive frequencies, is used to explain the questions in the profile and background parts, where nominal scale and ordinal scale are used. We use five-point Likert scale statements to describe the degree of financial literacy and investment experience at the level of risk tolerance and investment decisions. Pearson correlation analysis determines the strong relationship between independent variables and dependent variables. Pearson's coefficient of correlation is used to calculate the co-variation or relationship between dependent variables, which are risk tolerance level and investment decision, and independent variables, which are level of financial literacy and investment experience. The key thing about the relationship between variables is that it is important for interpreting the results. Multiple regression is performed to discover possible relationships among the variables. The result can be used to explore the predictability of a combination of independent variables for dependent variables.

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C. Demographic Characteristics of Respondents

The background of investment experience measures how long investors have gone through with their investments. Table 1 shows the distribution of respondents based on such criteria. There are only about 10% with more than five years of investment experience. In terms of age distribution (see Appendix I), the majority of respondents are from the age group of 41 to 50 years old, covering 39.33% of the total respondents. Only 16.67% of respondents are 51 years old or older. The age ranges of 18-30 and 31-40 years old make up 22% each. The age distribution implies that the findings cover investors of different ages. In terms of occupation demography, there are 43.33% of respondents from the private sector, 30.67% from the public sector, 16.67% are students, and 9.33% are self-employed. The distribution of academic qualifications among the respondents is also considered. 54% of respondents have undergraduate qualifications, 18.67% have diploma qualifications, followed by 15.33% postgraduate qualifications, and 12% have professional qualifications. The contents and structure of the questionnaire are exhibited in Appendix II.

Table 1 Investment Experience Of Respondents

Investment Experience	Frequency (N)	Percent
No experience	51	34.00
Less than 1 year of experience	20	13.33
1 – 3 years of experience	36	24.00
3 – 5 years of experience	29	19.33
More than 5 years of experience	14	9.33
	150	100

FINDINGS AND DISCUSSION

A. Descriptive Analysis

The content's validity is defined by using validated instruments from previous studies. The questions covered under the respective sections of financial literacy, investment experience, risk tolerance, and investment decision show acceptable internal consistency, where the respective Cronbach's alpha values are 0.854, 0.710, 0.708, and 0.724. The skewness index range is between -1.442 and 0.432, while the kurtosis is between -0.338 and 3.460. Thus, the collected data for all four variables fulfills the normal distribution criteria, falling within the skewness range of -2 and +2 and the kurtosis range of -7 and +7. Financial literacy is a major factor in influencing an individual to invest. Individuals with good knowledge of finance are more likely to participate in investments and prefer to invest large sums of money. Table 2 shows the financial literacy level, and the mean range of questions ranged between 1.73 and 2.75. Among all questions, the fifth question showed the highest mean score of 2.75, and most of the respondents agreed that they are well informed about the economic information that affects the market.

TABLE 2 Descriptive statistics of financial literacy (N=150)

No	Statements	Mean	Standard Deviation
1	Self-rate of overall knowledge of financial matters.	1.91	0.439
2	I am knowledgeable in investing.	2.25	0.810
3	I am confident in my ability to invest.	2.71	0.854
4	I am well informed about the stock market.	2.55	0.848
5	I am well informed about the major economic news that impacts the stock market.	2.75	0.829
6	The equity shares display fluctuations (often increases and decreases in price) over time.	1.73	0.476

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Investors with investment experience base their investment decisions on previous financial and investment results. This influences investors' consideration and decision-making for any financial product. Table 3 shows the mean scores for questions in the investment experience. The mean score ranged from 1.75 to 2.35. This shows that investment experience also has a low average mean score. The fourth question has the lowest standard deviation, 0.317, with a mean of 1.99. About 138 respondents agreed that they would be more risk-seeking after having some good returns from prior investments. Risk tolerance refers to an investor's willingness to take a risk in exchange for potentially higher returns. This is essential in investing, as it will influence the investor's selection of the type of investment.

TABLE 3 Descriptive statistics of investment experience (N=150)

No	Statements	Mean	Standard Deviation
1	I rely on my past experiences in the market for my next investment.	2.10	0.663
2	I forecast the changes in stock prices for the future based on past stock prices.	2.12	0.448
3	I use past performance as an indicator for future performance and rely on this to make investment decisions.	1.75	0.507
4	After a prior gain, I am more risk-seeking than usual.	1.99	0.317
5	The return rate of my past stock investment meets my expectations.	2.35	0.591
6	I am satisfied with my investment decisions in the past (including selling, buying, selecting, and deciding the stock volumes).	2.31	0.579

Table 4 shows the risk tolerance mean scores for its questions, and the mean scores range from 1.82 to 1.96. This shows that the average mean score for this variable is low (1.89 compared to other variables). For the second question, 101 respondents agreed that they are willing to have short-term losses for higher returns in the future, where the mean is 1.96 and the standard deviation is 0.566. Investment decisions relate to the decisions taken by investors to be able to earn the highest possible returns. Making decisions for specific investments can help investors endure low risk. Table 5 presents the mean scores for items included in the investment decision. The mean scores ranged from 1.82 to 2.38, while the standard deviation ranged from 0.317 to 0.552.

TABLE 4 Descriptive statistics of risk tolerance (N=150)

No	Statements	Mean	Standard Deviation
1	I am willing to experience volatility to generate higher returns.	1.88	0.462
2	I am willing to risk shorter-term losses for the prospect of higher,longer-term returns.	1.96	0.566
3	I consider the risk of each instrument when making a selection forthe investment instrument.	1.89	0.339
4	I invest in unit trusts because they carry a lower level of riskcompared to others.	1.82	0.492
5	The level of risk determines the return on the investment.	1.87	0.396
6	The risk of the instrument determines my investment decisions.	1.92	0.393

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TABLE 5 Descriptive statistics of investment decision (N=150)

No	Statements	Mean	Standard Deviation
1	I consider the levels of risk associated with particular stocks before investing in the stock market.	1.91	0.390
2	If I unexpectedly received some easy money, I would surely invest a certain amount of money in stocks.	2.38	0.552
3	I use trend analysis of some representative stocks to make investment decisions for all stocks that I invest in.	2.02	0.317
4	I carefully consider the price changes of stocks that I intend to invest in.	1.90	0.362
5	I study the market fundamentals of underlying stocks before making investment decisions.	1.82	0.419
6	I invest in unit trusts because they give stable returns and revenues.	1.87	0.438

B. Correlation and Regression

A total of five hypotheses can be tested based on the above discussion: (i) there is a positive relationship between investment experience and investment decision; (ii) there is a positive relationship between risk tolerance and investment decision. (iii) there is a positive relationship between investment experience and risk tolerance; (iv) there is a positive relationship between financial literacy and risk tolerance; and (v) there is a positive relationship between financial literacy and investment decisions among Malaysian investors. Table 6 indicates the outcomes of correlation analysis in which the Pearson measure of correlation is employed. All linear correlations between the independent and dependent variables are found to be positive. Investment experience and risk tolerance have a correlation of 0.176 at the 5% significance level. Investment decisions exhibit strong correlations at the 1% significance level with investment experience and risk tolerance, but a mild correlation with financial literacy at the 10% significance level. Meanwhile, financial literacy has a strong relationship with the investment experience prescribed in this study. The correlation analysis demonstrates that the relationships among these variables of interest are interrelated. Multiple regression analysis helps to estimate how a dependent variable may vary in relation to the changes in one or more independent variables. The overall significance of the F-test evaluates whether it gives a good fit to the data. Investment decision-making is the ultimate dependent variable that we would like to examine in this study. We also consider the potential impacts of financial literacy and investment experience on risk tolerance before any decision is made.

TABLE 6 Pearson measure of correlation

	Financial literacy	Investment experience	Risk tolerance	Investment decision
Financial	1			
literacy				
Investment	0.702	1		
experience	(.000)***			
Risk	0.100	0.176	1	
tolerance	-0.223	(.031)**		
Investment	0.143	0.355	0.592	1
decision	(.081)*	(.000)***	(.000)***	

***** p<0.01, ** p<0.05, * p<0.1**

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The results from the three tables (Tables 7–9) indicate that there are statistically significant relationships, at least at the 5% significance level, between investment decisions and the other three variables. All factors covering financial literacy, investment experience, and risk tolerance significantly affect how an investment decision is made during this pandemic situation. Consistent with correlation analysis, the regression also shows that financial literacy may not affect the level of risk tolerance, but investment experience could have a potential impact at the 10% significance level.

TABLE 7 Regression of risk tolerance

	Unstandardized coefficients		Standardized coefficients	t-statistics	p value
	B	Standard error	Beta		
Financial literacy	-0.024	0.058	-0.047	-0.41	0.682
Investment experience	0.177	0.096	0.209	1.835	0.069
				F = 2.445	
				p = 0.090	

TABLE 8 Regression of investment decision

	Unstandardized coefficients		Standardized coefficients	t-statistics	p value
	B	Standard error	Beta		
Financial literacy	-0.093	0.047	-0.210	-1.965	0.051
Investment experience	0.367	0.078	0.503	4.702	.000
				F = 12.818	
				p = 0.000	

TABLE 9 Regression of investment decision on risk tolerance

	Unstandardized coefficients		Standardized coefficients	t-statistics	p value
	B	Standard error	Beta		
Risk tolerance	0.512	0.057	0.592	8.933	.000
				F = 79.806	
				p = 0.000	

C. Result Discussion

Risk tolerance has been theoretically assumed to affect the decisions of investors in investing since a high level of tolerance makes investors make more thoughtful decisions concerning investment portfolios. In this study, the level of risk tolerance is found to have a significant relationship with investment decisions (p-value = 0.00), as investors with a higher risk tolerance consider more factors before making investment decisions (Pak & Mahmood, 2015; Awais et al., 2016). Besides, the greater the tolerance for risk, the more likely it is that an investor will take more precautions to put their money into high-risk investments. It also implies a decent risk management attitude, even if they are in the market for risky assets. Making complex investing decisions necessitates that investors possess adequate knowledge of investment choices, underlying risk and return, and stock market performance. Investors' financial risk tolerance emerges as a vital factor influencing investment decisions and the allocation of funds in stock markets, which results in portfolio optimization for investors.

Experience in investing has a significant impact on investment decisions in a positive direction (p-value = 0.00). It explains the behavior of investors relying on their previous experience as a reference for their future decisions, and it is consistent with the studies of Fachrudin and Fachrudin (2016) and Subagio et al. (2020). When compared to inexperienced investors, investors with a lot of investment experience show higher confidence in betting trades. They perceive themselves to be well-versed in confronting a variety of situations that may arise. Based on the designed questions, even if an investor has some experience in investing, he or she still considers relevant aspects in decision-making. Investors could be more careful in considering investment decisions to maximize gains and minimize losses given the recent uncertainties in financial market trends. Financial literacy is crucial for investment decision-making, with high-financial-literacy investors making more informed choices. Poor decision-making can result from a lack of financial literacy, an inability to understand long-term and short-term financial planning, and a lack of awareness of the economic situation. However, financial literacy alone may not always improve decisions, as personal judgment and experience also play a role. In this study, experience is found to have a stronger influence on investment decisions than financial literacy.

Besides, experience in investment is found to be related to risk tolerance, with a significant correlation at the 5% level. When regressed together with financial literacy, the significance of the coefficient is moderate at the 10% level (p-value = 0.069). Inexperienced and unsophisticated investors tend to focus solely on past returns. Those investors may struggle to perceive portfolio risk and may prefer to use portfolio returns as a more easily accessible performance measure. However, theoretically, experienced investors can determine that an investment is at risk better than inexperienced investors because they are satisfied and rely on previous experience, which makes them familiar with the circumstances. Investors' experience will benefit them in managing pool investments in line with intended returns and higher risk tolerance levels.

Financial literacy, on the other hand, shows an insignificant impact on risk tolerance, as suggested by both the correlation and regression analyses. The result is inconsistent with Zakaria et al. (2017) and Bayar et al. (2020), where, theoretically, literacy about finance is expected to affect risk tolerance. However, this insignificant result is consistent with research conducted by Hermansson and Jonsson (2021) that suggests financial literacy might have the greatest impact on risk tolerance for investors with a lower risk tolerance. It is recognized that being financially literate in financial matters does not necessarily imply a greater tolerance for risk. Furthermore, individuals with lower financial literacy are more inclined to be tolerant of risk. A diversified investment portfolio cannot be made, and this leads to a lower return for investors. The finding shows more active investors are subjected to time pressures to reduce potential financial losses as opposed to those more likely to engage in financial risk.

CONCLUSIONS

The specific findings of this pandemic-period study, based on the proposed hypotheses, suggest that (i) there is a strongly significant positive relationship between investment experience and investment decision; (ii) there is a strongly significant positive relationship between risk tolerance and investment decision. (iii) there is a moderately positive relationship between investment experience and risk tolerance; (iv) there is no relationship between financial literacy and risk tolerance; (v) there is a weak relationship between financial literacy and investment decisions in Malaysia. The main significant factors in investment decisions are investment experience and risk tolerance. Financial literacy and investment experience have a low-to-moderately significant relationship with risk tolerance. This is despite the general presumption that higher financial literacy should contribute to a higher tolerance of risk, leading to more informed investment decision-making. When investors take into account all of the factors that influence them to make a good decision, the decision process becomes simpler, and potential future risks can be minimized. Subjective perceptions of the literacy assessment may have an impact on the self-administered survey. It is thus important to consider the improved assessment in such a study as well as increasing financial literacy awareness among investors. Future researchers could consider more perspectives to enable investors to identify variables essential to assign to and relevant to investing, making the results more realistic and valuable to others.

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APPENDICES

APPENDIX I: DEMOGRAPHIC PROFILE OF RESPONDENTS

Gender:

Gender	Frequency	Percent
Male	80	53.33
Female	70	46.67
Total	150	100.00

Age:

Age	Frequency	Percent
18 – 30 years old	33	22.00
31 – 40 years old	33	22.00
41 – 50 years old	59	39.33
51 years old above	25	16.67
Total	150	100.00

Education:

Education	Frequency	Percent
Diploma	28	18.67
Undergraduate	81	54.00
Postgraduate	23	15.33
Professional Qualification	18	12.00
Total	150	100.00

Occupation:

Occupation	Frequency	Percent
Private Sector	65	43.33
Public Sector	46	30.67
Self-employed	14	9.33
Student	25	16.67
Total	150	100.00

Experience in investment:

Investment Experience	Frequency	Percent
No experience	51	34.00
Less than 1 year of experience	20	13.33
1 – 3 years of experience	36	24.00
3 – 5 years of experience	29	19.33
More than 5 years of experience	14	9.33
Total	150	100.00

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APPENDIX II CONTENTS OF QUESTIONNAIRE

Section A: Demographic Profile

1. **Gender**

- Male
- Female

2. **Age**

- 18 – 30 years old
- 31 – 40 years old
- 41 – 50 years old
- 51 years old and above

3. **Education**

- High School
- Diploma
- Undergraduate
- Postgraduate
- Professional Qualification
- Other: ……….

4. **Occupation**

- Private Sector
- Public Sector
- Self-employed
- Students
- Other: ……….

5. **Investment Experience**

- No experience
- Less than 1 year experience
- 1 – 3 years of experience
- 3 – 5 years of experience
- More than 5 years of experience

Section B: Financial Literacy and Investment Experience

1. Strongly Disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly Agree

	Statement	1	2	3	4	5
Financial Literacy						
6	Self-rate of overall knowledge of financial matters.					
7	I am knowledgeable in investing.					
8	I am confident in my ability to invest.					
9	I am well informed about the stock market.					
10	I am well informed about major economic news that impacts the stock market.					

11	The equity shares display fluctuations (often increases and decreases in price) over time.					
Investment Experience						
12	I rely on my past experiences in the market for my next investment.					
13	I forecast the changes in stock prices for the future based on past stock prices.					
14	I use past performance as an indicator for future performance and rely on this to make investment decisions.					
15	After a prior gain, I am more risk-seeking than usual.					
16	The return rate of my past stock investment meets my expectations.					
17	I am satisfied with my investment decisions in the past (including selling, buying, selecting, and deciding the stock volumes).					

Section C: Risk Tolerance and Investment Decision

1. Strongly Disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly Agree

Statement		1	2	3	4	5
Risk Tolerance						
18	I am willing to experience volatility to generate higher returns.					
19	I am willing to risk shorter-term losses for the prospect of higher, longer-term returns.					
20	I consider the risk of each instrument when making a selection for the investment instrument.					
21	I invest in unit trusts because they carry a lower level of risk compared to others.					
22	The level of risk determines the return on the investment.					
23	The risk of the instrument determines my investment decisions.					
Investment Decision						
24	I consider the levels of risk associated with particular stocks before investing in the stock market.					
25	If I unexpectedly received some easy money, I would surely invest a certain amount of money in stocks.					
26	I use trend analysis of some representative stocks to make investment decisions for all stocks that I invest in.					
27	I carefully consider the price changes of stocks that I intend to invest in.					
28	I study the market fundamentals of underlying stocks before making investment decisions.					
29	I invest in unit trusts because they give stable returns and revenues.					