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Research paper

Understanding the impact of investment literacy and risk tolerance on young adults' investment choices

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Abstract

The primary factors affecting people's choices with investments are their comprehension of investments and their comfort with risk. This research assesses investment knowledge and risk appetite among respondents with varied demographic characteristics. The research focuses particularly on the relationship between investment literacy as well as risk tolerance, along with their combined effect on the investment choices of students and additionally working people aged 18-28.

The study collected responses from 208 participants via an online survey. The study assessed participants' investment literacy and risk preferences using a validated scale, and particular statistical analyses, such as Mann-Whitney U, Kruskal-Wallis, and logistic regression, were applied. The findings indicate that while investment literacy improves financial awareness, it does not substantially influence people's willingness to engage in high-risk investments. People who can take on greater risk are 1.9 times more likely to put money into assets that have more risk. Although gender influences risk tolerance, it does not directly affect investment choices.

The study's results stress that investment literacy alone does not increase risk perception. Instead, other external factors are important to address. These findings stress the need for targeted investment literacy programs that carefully improve financial knowledge, integrating many behavioral understandings to support thoroughly well-informed decision-making. This study improves the broader comprehension of the psychological factors influencing investment decisions, especially for younger investors.

Keywords: *Investment Literacy; Risk Tolerance; Investment Decision Making.*

1. Introduction

Investment decisions are very important for financial security since they affect how a person accumulates wealth and achieves long-term stability (Lusardi & Mitchell, 2007). The constantly changing markets emphasize the need to make informed investment decisions. Financialization due to digitalization has brought unprecedented changes in how investment opportunities exist through digital media and apps, and therefore, the need for having a better insight into financial principles (Chaturvedi Sharma, 2024).

Investment literacy involves understanding risk and returns, analyzing financial products, and figuring out fundamental investing ideas. Making smart investment choices, along with assessing financial abilities, requires investment literacy. Any individual with an internet connection may now quickly access information at any time, thanks to the fintech and digital media segments' rapid growth (OECD, 2020). This has bridged some gaps between the financial institutions and the public. Many financial institutions provide basic investor information and knowledgeable insights through their websites and apps. Access to financial information enables individuals to assess investment options and make informed decisions.

Despite having financial knowledge, investors' decisions are influenced by various factors, including risk tolerance, behavioral biases, emotional responses, and external conditions. One of the important factors among all this is risk tolerance, representing the level of risk a person is willing to take when it comes to investment. Risk is not only of losses but also of the patience in investment, as it is always termed as an increased risk; the better the returns (Mohta & Shunmugasundaram, 2024). Therefore, investment decision-making is highly influenced by this factor, and the risk-bearing capability an individual possesses will determine the asset category in which they invest. The low-risk-tolerant individual wishes to choose a conventional asset category with low risk and moderate return, but the higher-risk-tolerant individual prefers risky assets (Hussain & Rasheed, 2023).

The growing presence of fintech in emerging markets has changed how people, especially young investors, approach financial decisions. Instead of relying solely on traditional financial literacy, recent research highlights the importance of how confident individuals feel using fintech tools. Investors from emerging markets, like Malaysia, are mostly influenced by Islamic finance and religiosity and are mainly influenced by attitude and not by the impact of religiosity (Hassan et al., 2024). The researchers found that even if someone had a positive attitude toward investing, it was their comfort and familiarity with fintech platforms that pushed them to follow through with an investment. This is especially relevant for younger investors in places like India, where mobile apps and online platforms are often the first point of

contact with financial markets. So, while digital access is important, what seems to matter is how capable young investors feel when navigating these tools.

The increasing reliance on digital platforms has notably influenced investment behaviour, particularly in emerging economies such as India. Rather than engaging through traditional financial intermediaries, retail investors now often interact with markets via mobile apps and online tools. Gupta & Dey (2024)emphasized that information quality, privacy, and platform security significantly affect investors' risk perception and willingness to invest. These insights highlight the critical role of digital infrastructure and user experience in shaping modern investment choices.

Even with widespread studies of investment literacy and risk tolerance, few studies have examined their joint impact on young investors' choices. Given the increased use of online investment platforms, the motivation to examine the impact of investment literacy and risk tolerance on the financial behaviour of young investors is increasingly salient. This research aims to fill this gap by investigating how investment literacy and risk tolerance intersect to influence the investment choices of working professionals and students between the ages of 18 and 28 years.

This paper analyses the responses of 208 individuals using quantitative methods, including non-parametric tests and logistic regression, to investigate the link between investment literacy and risk tolerance, examining the extent of their effect on investment decision-making. By looking at how these two interact, the study investigates whether financial education can enhance risk-taking behaviour in investors. The outcome of this research will add to the behavioural finance literature by looking into the emotional and cognitive drivers of investment choices. In addition, this research will provide value to policymakers, financial planners, and financial institutions to formulate impactful investment literacy programs to improve the investment outcomes of individuals.

2. Literature review

Al Ma'ruf S et al. (2025) analyzed the impact of Overconfidence, Availability Bias, and Risk Perception on Generation Z's Investment choices, with Financial Literacy as a moderating factor. The findings showed that Overconfidence and Availability Bias significantly influence investment choices, although Risk Perception does not. Financial literacy contributes to reducing overconfidence and influencing risk perception, but Availability Bias does not influence these areas. Similarly, Aminatuzzuhriyeh et al. (2025)examined the effect of financial literacy, overconfidence, and risk tolerance on investment decision-making and concluded that overconfident investors tend to opt for bolder investment choices but are guided by financial literacy, while risk tolerance does not play a role in investment choices.

Margono & Anwar (2024)found that financial education contributes positively to investment decisions and that financial behaviour mediates this relationship, encouraging better financial planning. Yet, risk tolerance fails to mediate financial literacy's effect on investment decisions, suggesting that financially literate women may not necessarily be more risk tolerant. While the analysis underlines the key role of financial education in fostering better investment habits, it is limited by its focus on a single demographic and geographical location. In contrast, Mahat & Lau (2023)concluded that an investor's experience has a greater impact on risk tolerance than financial knowledge. Their study, which integrates the Theory of Planned Behaviour into subjective and psychological norms, suggests that behavioural factors such as attitude and the perception of behaviour influence the investment decisions of young individuals. However, risk tolerance and financial literacy have less significance in shaping investment intentions (Rizani et al., 2024). Contrary to this, Bayar et al. (2020) concluded that people with better investment knowledge and skills have higher risk tolerance levels and tend to make riskier investment decisions.

Investment choices are influenced by financial literacy, often shaped by behavioural factors. Investment knowledge is instrumental in shaping investment choices, enabling individuals to make informed decisions (Uddin et al., 2024). Similarly, Samsuri et al. (2019) showed that those with enhanced financial knowledge tend to exhibit greater risk tolerance and that financial literacy significantly affects the intention to invest. However, risk perception depends largely on personal experiences and socioeconomic factors. Sharma (2020a) further supports this, as his study on the bridging effect of financial literacy and risk-taking capacity towards investment decisions showed that those with extensive financial literacy have higher risk tolerance and tend to avoid conservative investment choices in Favor of higher-risk assets.

Putrihasyyati & Rahardjo (2023) explored Differences across genders in investment decisions and indicated that males show increased risk tolerance than women. Women generally prefer lower-risk investments such as gold and deposits. Their study, which included Generation X and Y individuals, highlights that women of Generation X are more conservative, whereas men are moderate risk-takers. Among Generation Y, men tend to be more risk-tolerant, while women prefer lower-risk investments. Zahwa & Soekarno (2023) concluded that risk tolerance, gender, and income do not significantly influence investment decision-making, whereas financial knowledge, attitude, age, and occupation do. In line with this, Bhattarai (2024) identified that individuals possessing higher risk tolerance tend to invest in volatile assets. Meanwhile, individuals exhibiting lower risk tolerance tend to favor less risky investment categories.

Mahdzan et al. (2020) examined the link between investment literacy and managed funds, concluding that investment literacy influences mutual fund investments. However, they found no strong dependence between risk tolerance and managed fund investments. Lastly, Nguyen et al. (2016) studied the link between risk tolerance and investment decisions, concluding that higher risk tolerance leads to riskier investment decisions. Their study also stressed that financial literacy and financial advisors positively influence risk tolerance and lead to better investment decisions. Ming et al. (2024) indicate that financial literacy has a major role in individual investment behaviour, including financial risk tolerance. Greater financial literacy provides the ability to know and evaluate investment risks, hence making better decisions. This awareness can make a person more confident in taking prudent risks, hence having a greater risk tolerance. The report emphasizes that even workers in the financial sector see financial literacy as a key consideration in their decision-making process regarding investments and risk acceptance.

Ajzen (1991) presented three constituent elements that, together, determine behaviours, i.e., attitudes, social pressures, and a sense of behavioural control. In its most basic sense, subjective norms are societal influences on behaviour; attitudes are an individual's thoughts regarding favourable or unfavourable outcomes of any behavior; Perceived decision-making power concerns an individual's perception of resource availability while undertaking that behaviour. Applying TBP further discloses how financial-risk attitudes, perceptions about social norms surrounding investments, and confidence in being able to manage their investments directly affect investment behaviour regarding investment decisions. It helps explain the link between risk tolerance and investment knowledge on one's inclination to invest.

Financial literacy theory says that understanding and applying financial concepts in everyday life. More than that, Lusardi & Mitchell (2007) mentioned that greater financial literacy allows a better understanding of some risks, returns, and portfolio diversification, thus improving investment decision-making. This theory of how financial information influences investment behaviour is critical to your research. It exemplifies that financially literate individuals are more inclined to make informed decisions following their investing preferences and risk tolerance and thereby avoid many biases that may lead to suboptimal investment outcomes.

As per the risk perception theory (Slovic, 1987), subjective perceptions of risk held by each investor may not be directly linked to real-risk situations, and yet they play an important part in influencing investment decisions. Factors influencing people's perceptions of financial risk include sociocultural considerations, cognitive biases, and personal experience. For example, an investor may personally perceive equity to be riskier than bonds, even if there is an objective distinction for the risk involved with both stocks and bonds, due to a unique experience or media portrayal. This theory applies to the decisions of even highly financially aware individuals, suggesting that the perceived financial risk and individual risk tolerance determine the course of investment action. It stresses how investors may end up being overcautious based on these perceptions, even when there could be better alternatives.

The gender role theory (Eagly & Sczesny, 2019) states that societal norms about gender affect people's actions and choices about money and investments. This signifies that the female gender tends to acquire a more careful or conservative attitude towards finance during socialization, while men and women may act differently regarding financial issues because of different socialization into gender roles. It draws attention to the ways that gender-related cultural and societal norms may affect investing decisions, with women exhibiting more prudence and males potentially taking higher financial risks. In India, investment decisions are shaped by both personal and regional factors. Kannadas (2021)looked into how short-term and long-term investors across the country make their choices. His study found that most investors, whether they're in it for the short or long run, tend to play it safe by focusing on preserving their initial investment rather than chasing higher returns. This cautious mindset seems to be influenced by factors like income, experience with the market, and even where they live. This research highlights the importance of understanding these personal and local influences when looking at how people invest in India, especially in such a diverse and ever-changing market.

Financial literacy and risk tolerance are the determining factors of financial decisions, but most research only considers them independently and not as a combined factor (Bayar et al., 2020). While financial literacy assists one in making knowledgeable decisions, risk tolerance defines how much risk one is willing to take. A few studies have considered the association between these two factors, especially among young investors who are beginning their financial practices (Margono & Anwar, 2024; Bayar et al., 2020). The regional diversity significantly impacts the investment decision-making of individuals, Rehman et al. (2024) who studied the impact of behavioural biases on global investors, combining investors from India and China, found that Indian investors show a high degree of emotional and cognitive biases compared to Chinese investors, and they emphasize that regional and cultural differences shape the investment behaviour, and they should be observed and managed. Supporting this, the study by Sindhuja & Hymavathi (2024) looked into the external behavioural factors impacting the individual investor's decision-making specific to the Vijayawada region of Andhra Pradesh, India, and they concluded that investors should handle the multifaceted financial environment as external factors such as government regulations, market volatility, and regional differences will also affect the investment behaviour.

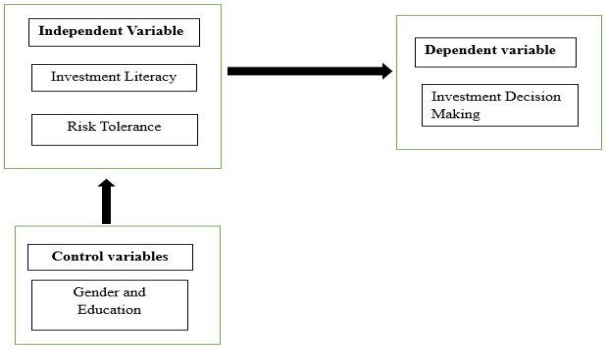
In parallel, Digital financial literacy has emerged as a critical factor in the present era. With everything becoming increasingly digitized, digital tools and technologies in their financial decision-making heavily influence the younger generation. Bhat et al. (2024)investigated university students in Andhra Pradesh, India, and found that digital financial literacy and digital financial skills were negatively associated with impulsive financial behaviour. Their findings suggest that despite having access to digital tools, students tend to lack focus on long-term financial planning, indicating the importance of integrating behavioural training alongside digital financial education. Similarly, Zhibin et al. (2024)examined the investment behaviours of Chinese internet users and found that financial literacy, risk perception, and risk preference each played a significant role. Interestingly, their study emphasized that even in a highly digitized investment environment, investors' perceptions and tolerance of risk still drive their decisions. The results indicate that teaching investment principles alone may not be sufficient; it is equally important to focus on how young investors understand and react to financial risk, especially in a rapidly evolving, digitally driven market.

Most past studies have focused on developed economies where investment resources are different and knowledge about finance differs from emerging countries such as India. Cultural as well as economic factors significantly contribute to investment attitude, but no extensive research exists on this issue (Mahdzan et al., 2020; Uddin et al., 2024). In addition, although past research indicates that investment literacy enhances awareness, it may not translate into increased risk-taking. (Aminatuzzuhriyeh et al., 2025; Mahat & Lau, 2023; Mukhtar & Jan 2023). In contrast, risk tolerance has been strongly associated with investment decisions, where risk-tolerant investors tend to invest in risky assets (Nguyen et al., 2016; Rizani et al., 2024). Despite this, there is limited knowledge regarding how risk tolerance and investment literacy combine to affect investment choices, particularly among young adults who are using digital investment platforms.

This research bridges this gap by examining how investment awareness and risk tolerance influence financial choices among working adults and students between the ages of 18 and 28. The results can assist financial educators, policymakers, and institutions in developing more effective investment literacy programs that consider behavioural and psychological considerations, ultimately leading to improved financial decision-making.

Figure 1

2.1. Conceptual framework



Source: Author's contribution.

The conceptual model clearly shows that Investment literacy and risk tolerance interact to influence investment decision-making, with Gender and education being control variables.

3. Hypotheses

H1 There is no considerable distinction in Investment literacy across gender
H2 Males exhibit a significantly increased willingness to take risks relative to females.
H3 Investment literacy significantly differs across educational levels.
H4 Risk tolerance significantly varies across different educational levels.
H5 Higher investment literacy is significantly connected to a higher tendency to choose high-risk investments.
H6 Individuals with a higher Risk tolerance are significantly more likely to invest in high-risk options.
H7 Gender significantly influences the potential for investment in high-risk options.
Building on the literature, this study employs a quantitative approach to test the proposed hypotheses.

4. Methodology

4.1. Research questions

1) What is the level of investment literacy and risk tolerance among working individuals and students aged 18-28?
2) Is there a significant difference in investment literacy and risk tolerance based on gender?
3) How do educational qualifications affect investment literacy and Financial Risk Tolerance?
4) To what extent does investment literacy influence investment decision-making?
5) How does risk tolerance affect investment decision-making?

4.2. Research objectives

1) To assess the degree of investment literacy and risk tolerance among the study population.
2) To analyze gender differences in investment literacy and risk tolerance.
3) To investigate the effect of educational qualifications on investment literacy and Risk Tolerance.
4) To evaluate whether investment literacy influences individuals' willingness to make high-risk investment decisions.

5. Research design

The study used a quantitative research design to explore the influence of investment literacy and financial risk perception in investment decision-making.

5.1. Population and sample

The research population was working individuals and students aged 18-28. 215 responses were collected using convenience and snowball sampling, these were chosen due to accessibility constraints and the need to reach young working professionals and students efficiently. After removing duplicates and incomplete responses, 208 valid responses were retained for analysis.

5.2. Data collection

A structured online questionnaire was employed, which was monitored through Google Forms. The questionnaire consisted of different sections, namely:
Section 1: demographics- age, gender, education level, employment status, and income
Section 2: Investment Literacy- 10 5-point Likert scale questions to measure fundamental investment knowledge
Section 3: Risk tolerance- 6 5-point Likert scale questions to measure risk tolerance and one scenario-based question to quantify the investment decision based on risk category.

5.3. Variables in the study

Independent variables: Investment literacy, Risk tolerance.
Dependent variable: investment decision making.
Control variables: Gender and Education Qualification.

5.4. Measurement of variables

Investment literacy is examined through a validated 10-item scale adapted from Lusardi & Mitchell (2008), Volpe et al. (1996), Halim et al. (2021), Dogra et al. (2023), and Houts & Knoll (2020). The scale assessed financial knowledge across key areas such as the impact of interest rates and inflation, diversification benefits, stock market functioning, and investment performance evaluation. Participants' responses were evaluated using a 5-point Likert scale, from Strongly Disagree (1) to Strongly Agree (5). The Cronbach's Alpha for this scale was 0.907, indicating excellent reliability and internal consistency of the items used to measure investment literacy.
Risk tolerance is assessed using a 7-item scale adapted from Grable & Lytton (2000), Weber et al. (2002), and Dohmen et al. (2011). The scale captured respondents' openness to financial risk exposure, their preference for stability, investment-holding behaviour during volatility, and risk-aversion tendencies. Additionally, a scenario-based question (adapted from Weber et al. (2002); Grable & Lytton, 2000) examined participants' investment choices across varying risk levels. Responses were recorded on a 5-point Likert scale. The scale demonstrated acceptable reliability with a Cronbach's Alpha of 0.717.

5.5. Data analysis techniques

The study performed Statistical analyses to gain insight into investment literacy, financial risk tolerance, and investment decision-making. Descriptive statistics, including a mean, standard deviation, and range, were performed to summarize the investment literacy and risk tolerance levels. The two scales were tested for reliability through Cronbach's Alpha. For the Investment Literacy Scale, this was satisfactory (α=0.907), while it was acceptable for the Risk Tolerance Scale (α=0.717).
Since the Shapiro-Wilk test indicated a non-normal distribution, we adopted a non-parametric approach. To determine the degree of difference in both investment literacy and risk tolerance based on gender, the study conducted a Mann-Whitney U test, and the study conducted a Kruskal-Walli's test to examine differences across educational levels.
Again, a binary logistic regression analysis was carried out to further develop empirical analysis from the perspective of how investment literacy and risk tolerance influence investment decisions. This technique tested whether individuals with improved financial literacy and elevated risk tolerance picked high-risk investments. The results also offer interesting insights into how these factors shape investment behaviors among the young.

5.6. Limitations of the study

This study relies on self-reported data, provoking response bias since personal perceptions and social desirability might affect participants' answers. In addition, because of the use of non-probability sampling methods, the generalizability of the results is limited since the sample may not fairly represent the entire population. Finally, Future studies could incorporate a larger sample size with diverse income groups to enhance generalizability.

5.7. Data analysis

5.7.1. Descriptive statistics

Table 1 summarizes the Descriptive data analysis of the principal variables. Respondents showed moderate to Strong financial knowledge with an average Investment Literacy of 3.64 (SD = 0.79). Yet, the average Risk tolerance score stood at 3.43 (SD = 0.70), showing that respondents tend to have a risk-neutral attitude. The standard deviations indicate moderate variability in both scores, implying that while some respondents have high financial literacy and risk tolerance, others score much lower. The upper and lower values (1.20 to 5.00 for Investment Literacy and 1.00 to 5.00 for Financial Risk Tolerance) further highlight the diversity in financial behaviour among the participants.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Investment Literacy	3.64	0.79	1.20	5.00
Risk Tolerance Score	3.43	0.70	1.00	5.00

5.7.2. Reliability analysis

Table 2 shows that the Investment Literacy scale has an internal consistency of Cronbach's Alpha 0.907, showing that the ten items on the scale are highly precise at measuring the notion of investment literacy. The scale's exceptionally high alpha value indicates that the questionnaire is designed well and consistently measures the investment literacy of responders. The Cronbach's Alpha of the Risk Tolerance scale is 0.717, within the typically acceptable 0.7 to 0.8 for reliability. This value is slightly less than ideal, however. The overall reliability is enhanced by removing one item from the Risk Tolerance scale since it added little to Cronbach's Alpha. While there is potential for growth, either through the addition of new items or through refinement of the ones that exist, the remaining five items already provide a reliable measure of Risk Tolerance.

Table 2: Reliability Analysis

Scale	Cronbach's Alpha	No. of Items
Investment Literacy	0.907	10
Risk Tolerance	0.717	5

5.7.3. Normality test

The p-value of 0.000 in Table 3, not exceeding 0.05, is obtained from the Shapiro-Wilk test for investment literacy. This demonstrates that there is no normal distribution for the variable Investment Literacy. As a result, we conclude that the data on investment literacy deviates from a normal distribution, leading to the rejection of the null hypothesis of normality. Additionally, the p-value for Risk tolerance from the Shapiro-Wilk test is 0.002, not exceeding 0.05. We reject the assumed hypothesis of normality since this suggests that the Risk tolerance variable is likewise not regularly distributed.

Table 3: Normality Test (Shapiro-Wilk)

Variable	p-value	Normality Decision
Investment Literacy	0.000	Not Normal
Risk Tolerance	0.002	Not Normal

Mann-Whitney U Test (Gender Differences).

Table 4: Mann-Whitney U Test (Gender Differences)

Variable	Males (Mean Rank)	Females (Mean Rank)	U-value	p-value	Significance
Investment Literacy	109.91	99.29	4854.000	0.203	Not Significant
Risk Tolerance Score	118.50	91.03	3978.000	0.001	Males have higher Risk Tolerance

P-value = 0.203 and U-value = 4854.000: The difference between males and females on the Investment Literacy is not statistically significant, as indicated by the p-value being more than 0.05. Therefore, we find that no substantial gender-based distinction in investment decisions, and we retain the null hypothesis. The p-value is 0.001, and the U-value is 3978.000. The p-value (< 0.05) indicates a statistically

significant difference between males and females in the Risk Tolerance Score. Males are more likely to prefer risk than females, as indicated by their mean rank (118.50) being higher compared to that of females (91.03).

Kruskal-Wallis Test (Education Differences)

Education level significantly influenced Investment Literacy (p = 0.025), but no significant difference was found for Risk tolerance (p = 0.285).

Table 5: Kruskal-Wallis Test (Education Differences)

Variable	Bachelor's (Mean Rank)	Master's (Mean Rank)	Doctorate (Mean Rank)	H-value	p-value	Significance
Investment Literacy	90.40	109.53	137.78	7.416	0.025	Significant
Risk Tolerance Score	95.24	108.60	114.83	2.508	0.285	Not Significant

H-value = 7.416 and p-value = 0.025: The three education groups (Bachelor's, Master's, and Doctorate) differ significantly in their Investment Literacies, as indicated by the p-value being less than 0.05. Those with a doctorate have the highest mean rank for investment literacy, suggesting that an education degree influences investment literacy. The p-value is 0.285, and the H-value is 2.508. Since the p-value is greater than 0.05, the Risk tolerance Scores for the various educational levels are the same. Since the ranks for bachelors, master's, and doctoral degrees are not much different, this points to the fact that education level plays a minor role in how people perceive or handle hazards.

6. Binary logistic regression (predicting investment risk level)

Table 6: Model Fit Statistics

Model Test	Chi-Square (χ^2)	Df	p-value	Model Fit
Omnibus Test	9.481	3	0.024	Significant
Hosmer-Lemeshow	14.428	8	0.071	Good Fit
Nagelkerke R^2	0.063	-	-	Explains 6.3% variance

The Omnibus Test (Chi-Square = 9.481, p-value = 0.024) checks if the model is meaningful overall. Since the p-value is below 0.05, it shows the model is significant, meaning at least one of the factors has an important role in explaining the outcome. The Hosmer-Lemeshow Test (Chi-Square = 14.428, p-value = 0.071) measures how well the model fits the data. A p-value of 0.071 (above 0.05) means the model fits well, and there is no major difference between what we predicted and what happened. Nagelkerke $R^2 = 0.063$ shows the model explains just 6.3% of the variation in the outcome. While the model is significant and fits well, it does not explain much of the outcome's variation.

Table 7: Regression Coefficients

Predictor	B (Coefficient)	S.E.	Wald (χ^2)	p-value	Exp(B) (Odds Ratio)	Interpretation
Investment Literacy	-0.185	0.254	0.529	0.467	0.831	Not Significant
Risk Tolerance	0.646	0.298	4.692	0.030	1.909	Higher Risk tolerance→ 1.9x more likely to invest in high-risk options
Gender (Male = 1)	0.436	0.316	1.908	0.167	1.546	Not Significant
Constant	-2.611	0.879	8.825	0.003	0.073	The model significantly separates risk groups

The regression model suggests that individuals with higher investment literacy are marginally less inclined to choose high-risk investment options. However, since the p-value is 0.467 (above the 0.05 threshold), this is not statistically significant, meaning investment literacy does not have a strong effect on high-risk investment decisions. On the other hand, people with higher risk tolerance (B = 0.646) are more likely to invest in high-risk options. The odds ratio of 1.909 means that for each increase in risk tolerance, the chances of choosing high-risk investments nearly double. This finding is statistically significant with a p-value of 0.030.

For gender, the model suggests that men (B = 0.436) are slightly more likely to invest in high-risk options than women. However, the p-value of 0.167 indicates that gender is not a major factor in investment decisions here. The constant term (B = -2.611) represents the starting point for the likelihood of investing in high-risk options when all other factors are set to zero. With a p-value of 0.003, this baseline is significant, indicating that the model can still distinguish between different risk levels, even without considering the other factors.

7. Discussion

A notable finding was that investment literacy had little influence on individuals' likelihood of selecting high-risk investments, challenging common assumptions. These outcomes reflect the findings from Mahdzan et al. (2020), who reported that while financial literacy improves awareness, it does not directly influence individuals' willingness to take risks. Similarly, Aminatuzzuhriyeh et al. (2025) found that overconfident investors make bold choices, but financial literacy primarily helps in reducing overconfidence rather than encouraging riskier investments. This is consistent with what Al Ma'ruf S et al. (2025)discovered in their study, where financial literacy assisted in curbing overconfidence and affecting risk perception, but didn't necessarily lead individuals to more risky investments. Likewise, Margono & Anwar (2024) revealed that although financial literacy promotes sounder financial planning, it does not necessarily render individuals more risk tolerant. Therefore, although financial literacy is important, other factors also play a role in shaping investment decisions.

On the other hand, Risk tolerance was a very good predictor of investment decisions. Individuals with higher Financial Risk Tolerances were approximately 1.9 times more inclined to allocate funds to risky assets. The outcomes of this research support previous study results, where Risk tolerance has had an equally significant correlation with investment decisions. Like Bayar et al. (2020), who observed that individuals having higher risk tolerance tend to make riskier investment choices. Given that risk tolerance plays a dominant role in investment decision-making, financial awareness programs are advised not only to focus on improving investment literacy but also to incorporate behavioral finance insights. Tailored risk assessment platforms and interactive learning modules can assist young investors in assessing their risk appetite and making well-informed choices. Fintech platforms could also incorporate behavioural nudges to nudge users toward balanced portfolios aligned with their risk profiles (Nguyen et al., 2016; Rizani et al., 2024). In contrast, Mahat & Lau (2023) suggested

that attitudes and perceived control could be more important than risk tolerance, but our results underscore the weight that Risk tolerance carries in decision-making.

In one of the interesting results of our work, we found no significant effect of gender on investment decisions. This is somewhat at variance with the findings of some previous studies. For example, Putrihasyyati & Rahardjo (2023) found that, in general, men take more risks in investments compared to women. Meanwhile, in our study, it seems Gender had no meaningful impact on Risk tolerance or on the choice to invest in high-risk assets. This implies that gender could affect investment behaviour less than we had assumed, particularly when involved factors include investment literacy and Risk Tolerance. Factors like one's own risk tolerance or knowledge about finances may play a more important role in this decision than gender.

While the model was a reasonable fit, it accounted for only 6.3% of the variance in investment decisions, suggesting other influential factors were at play. It indicates that other external or psychological variables are present in investment decision-making that we did not tap into in this model. The low explained variance in the regression model suggests that socioeconomic status and psychological biases could be influential, yet unaccounted, factors. Studies highlight the role of socioeconomic factors like income and financial experience in shaping investment decisions. For example, Kannadas (2021) found that investors across India prioritize preserving their initial investments, influenced by factors like income and market experience. Additionally, psychological biases, such as overconfidence and availability bias, significantly impact investment choices, as noted by Al Ma'ruf S et al. (2025) and Aminatuzzuhriyeh et al. (2025)Though these were not included in the model. Accounting for these factors could improve the model's explanatory power. While research such as Rizani et al. (2024) demonstrated how decisions to invest are influenced by numerous factors, the present work reveals the importance of considering other factors, some of which are personal history, social forces, and even broader socioeconomic factors, into account in seeking to understand what drives investment behaviour.

8. Conclusion and policy recommendation

Finally, the present study underscores the key influence of risk tolerance on investment decisions and reveals that financial literacy per se might not necessarily prompt investments that are riskier. The results indicate the occurrence of many interrelated factors, and further research should dig deeper into individual, social, and psychological factors informing investment. Although research identifies risk preference and financial literacy as influencing decision-making, there is a need for future studies to focus on other causal variables, like economic conditions and finance policy, in finance education. These insights guide financial institutions on how to design investment literacy programs.

Furthermore, with the increasing role of technology in investment and finance, young individuals should be equipped with skills to critically assess digital investment platforms, understand the cybersecurity risks, and make better investment decisions in the evolving fintech landscape. It is recommended that authorities integrate digital financial literacy into financial and investment literacy training programs, thereby enabling young investors to navigate the digital era with greater confidence and responsibility.

8.1. Policy recommendations:

1) Implement financial and investment literacy programs through academic institutions, online platforms, and investment workshops
2) Provide personalized advice to young investors through financial advisors regarding risk profiles.
3) Include behavioural nudges to fintech platforms and apps- this can be done by including quizzes assessing the nudges and risk tolerance, and the platforms can assess the answers and recommend and guide investors towards their investment choices and help them make better investment decisions.
4) Support ongoing research for refining strategies and creating custom-made policies for different demographic segments of the population.

For future studies, analysis of socioeconomic factors, such as income, employment, and family type, could provide clearer insights into how they conceptualize investment behaviour and their relationship with investment literacy and risk attitude. The digital growth and fintech will enable us to investigate how investment choice is influenced by digital literacy, particularly in the emerging world. Researchers can also apply cross-cultural studies to discover how various countries or cultures of operation have differences in investment behaviour and financial acumen. The reasons why these differences will influence risk sensitivity and investment decisions, respectively, are also researchable. Financial advisors' research might provide insightful views regarding professional guidance and decision-making, with an emphasis on mitigating behavioural biases.

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