

## Robotic Advisors, Risk Tolerance, and Trust: Their Impact on Sharia-Compliant Investment Decisions in Fintech Applications (A Study of Generation Z Retail Investors in Jakarta)

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### ABSTRACT

The development of Financial Technology has transformed individual investment behavior, particularly through Robo Advisors, which leverage algorithms and Artificial Intelligence to provide automated, efficient, and risk profile aligned investment recommendations. This study examines the influence of Robo-Advisors, risk tolerance, and trust levels on Sharia mutual fund investment decisions among Generation Z investors in Jakarta. The data for this research were collected between June 2025 and July 2025. The research employs a descriptive quantitative approach with a sample of 105 Generation Z investors selected through purposive sampling. Data were collected using questionnaires and analyzed using multiple linear regression, including determination tests, F-tests, and T-tests. The results indicate that Robo-Advisors ( $\beta = 0.183$ ), risk tolerance ( $\beta = 0.276$ ), and trust ( $\beta = 0.492$ ) have positive and significant effects on Sharia mutual fund investment decisions, with trust being the dominant factor. Together, these three variables explain 62.8% of the variation in investment decisions. The findings confirm that the integration of technological innovation, psychological characteristics, and trust perception constitutes the main determinants of Generation Z investment behavior, providing both academic contributions and practical implications for the development of digital investment platforms. Practically, platforms targeting Generation Z must prioritize building trust through enhanced data security and transparency, as well as providing personalized risk education tools, so that adoption increases and perceived investment risk decreases.

### Article Info

Received: Oct 14, 2025

Revised: Dec 23, 2025

Accepted: Dec 23, 2025

Online: Dec 30, 2025

**Keywords:** *Robo-Advisors, Risk Tolerance, Trust, Investment Decisions, Generation Z*

**JEL Classification:**  
AD134, ER24, MN36

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 <https://doi.org/10.14421/jmes.2025.042-05>



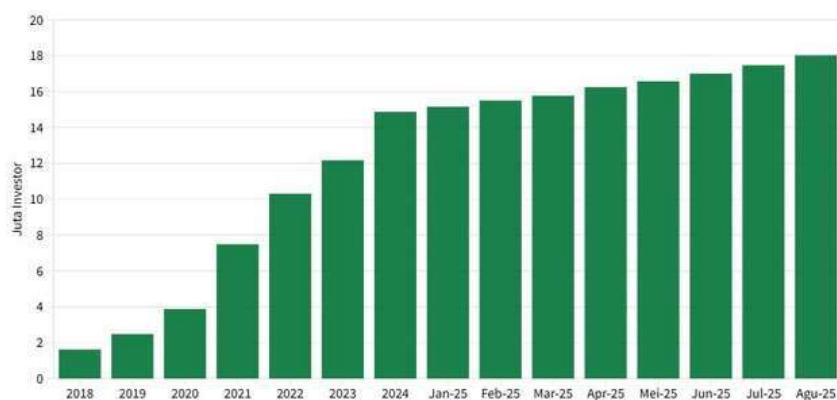
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## 1. Introduction

The development of Financial Technology has driven significant transformations in financial systems and individual investment behavior. These innovations not only enhance transactional efficiency and access to financial services but also reshape investment decision making processes through the utilization of algorithm-based technologies and artificial intelligence. One of the most prominent innovations within the FinTech ecosystem is the Robo Advisor, an automated system that provides investment recommendations based on data analytics and investors' risk profiles. The presence of Robo-Advisors enables investment decisions to be made in a more objective, efficient, and structured manner.

In terms of investment instruments, mutual funds have become a popular choice due to their accessibility, portfolio diversification, and competitive return potential. The use of digital investment applications has significantly expanded public participation in mutual fund investments, including Sharia compliant mutual funds, particularly among Generation Z, who exhibit high levels of digital literacy and technology adoption. Based on data from the KSEI (Indonesia Central Securities Depository), as of August 2025, the number of capital market investors in Indonesia reached approximately 18 million individuals, with more than 55% of them aged under 30 years. These figures indicate the dominance of Generation Z as the primary users of digital investment platforms.

**Figure 1.** Data Number of Investors in Indonesia as of August 2025



Source : Statistics KSEI (Indonesia Central Securities Depository)

As the country with the largest Muslim population in the world, Indonesia holds substantial potential for the development of Sharia-compliant financial products. Jakarta, as the national center of economic and financial activities, represents a region with a high concentration of investors and mutual fund assets. This condition makes Jakarta a particularly relevant setting for examining FinTech based Sharia investment behavior. Alongside the increasing use of digital platforms, investment decisions among Generation Z are influenced not only by technological convenience but also by psychological factors, particularly risk tolerance, as well as trust in FinTech systems and service providers.

Risk tolerance represents an individual's capacity to withstand uncertainty and potential financial losses, thereby exerting a substantial influence on investment preferences and decision-making processes. In parallel, trust in system security, information transparency, and platform credibility serves as a fundamental factor driving the adoption of digital financial services. Within the framework of Sharia investment, trust assumes an expanded role, as it encompasses not only technological reliability but also adherence to Islamic financial principles, including the prohibition of riba (usury), gharar (excessive uncertainty), and maysir (gambling), as well as conformity with standards and oversight prescribed by Sharia regulatory authorities.

Although prior studies have examined the roles of Robo-Advisors, risk tolerance, and trust in investment decision making, research that integrates these three variables within the context of FinTech based Sharia mutual fund investments among Generation Z in Indonesia remains limited. Most existing studies focus on conventional investment instruments or are conducted in countries with more mature digital financial ecosystems. Moreover, empirical investigations that position trust as a dominant factor in the use of Robo-Advisors for Sharia investment in Indonesia are still relatively scarce. This gap highlights the need for more contextual and comprehensive research.

Accordingly, this study seeks to examine the influence of Robo-Advisors, risk tolerance, and trust on Sharia mutual fund investment decisions conducted through FinTech based platforms among Generation Z investors in Jakarta. The results are expected to offer theoretical contributions to the body of knowledge on Sharia compliant digital financial behavior, while also providing practical insights for FinTech developers, investment managers, and regulatory authorities in formulating investment services that are more responsive, secure, and aligned with the behavioral characteristics of young investors.

## 2. Literature Review

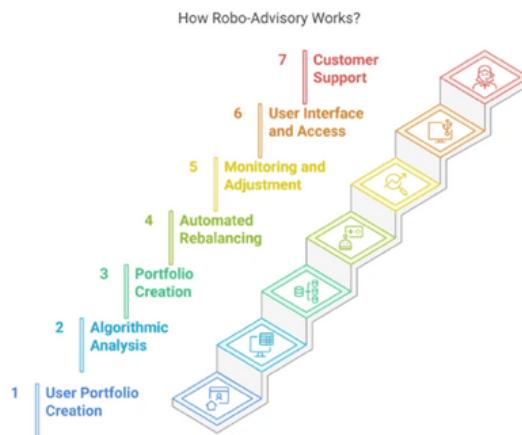
### 2.1. Robo-Advisors in the Financial Technology Ecosystem

Robo Advisors are technology driven financial service instruments that leverage mathematical algorithms, quantitative analytics, and artificial intelligence to provide automated, objective, and personalized investment recommendations (Sironi, 2016). This technology aims to partially supersede conventional financial advisors by minimizing human subjectivity, enhancing cost efficiency, and accelerating the decision-making process. Advances in financial technology through Sharia-compliant Robo-Advisors facilitate investors in selecting products that align with both their risk profiles and Islamic principles. Factors such as financial literacy, trust in platform security, and perceived ease of use enhance perceived behavioral control, which ultimately drives investors toward actual investment behavior. The theoretical relevance of this framework lies in its emphasis on an individual's intention to act, which, in this research context, pertains to investment decision-making behavior regarding Sharia mutual fund products.

The Unified Theory of Acceptance and Use of Technology (UTAUT) approach provides a broader dimension by emphasizing that intentions and technology usage behavior do not emerge in isolation; rather, they are shaped by social influence and facilitating conditions. Within this context, the argument that Generation Z investment decisions result from a synergy between personal capacity and the support of digital and social environments becomes increasingly robust. These external factors within UTAUT simultaneously stimulate the constructs found in the Technology Acceptance Model (TAM), specifically perceived usefulness and perceived ease of use. These factors are highly salient in the context of Robo Advisors, as Generation Z as digital natives exhibits a higher propensity to adopt investment applications if they perceive that automated features and algorithm based recommendations offer efficiency, accuracy, and simplicity in portfolio management.

International studies indicate that Robo-Advisors can enhance practical financial literacy and mitigate emotional biases in decision making (Lusardi & Mitchell, 2017). In the Indonesian context, however, academic research on Robo Advisors remains sparse, particularly regarding the effectiveness of this technology in influencing the investment decisions of the younger generation. As digital natives, Generation Z represents a significant potential user base for this technology; thus, investigating the role of Robo-Advisors in shaping Sharia investment behavior is highly relevant from both academic and practical perspectives.

**Figure 2.** Robo-Advisor Mechanism



## 2.2. Risk Tolerance in the Context of Investment Behavior

Risk tolerance is defined as the degree to which an investor is willing to accept uncertainty and potential losses in investment activities (Grable, 2000). This variable serves as a fundamental determinant of investment behavior, influencing asset allocation strategies, instrument preferences, and investment horizons (Roszkowski & Grable, 2005). Investors with high risk tolerance tend to select aggressive instruments, such as Sharia equity mutual funds, whereas those with lower tolerance levels prefer conservative options, such as Sharia money market funds. In a digital context, risk tolerance dictates the extent to which investors comply with automated

recommendations. Despite its importance, research linking this variable to FinTech adoption, particularly Robo-Advisor applications in Indonesia, remains sparse, presenting a significant opportunity to explore the interaction between psychological risk profiles and digital technology.

From a behavioral finance perspective, risk tolerance can be elucidated through Prospect Theory (Kahneman & Tversky, 1979), which posits that individuals are generally more sensitive to potential losses than to equivalent gains. This phenomenon significantly shapes the investment preferences of Generation Z; investors with low risk tolerance exhibit greater caution toward high-risk Robo-Advisor recommendations, while those with high risk tolerance are more inclined to make aggressive investment decisions. Consequently, risk tolerance functions as a crucial psychological bridge between digital technology and investment behavior.

International literature further indicates a positive relationship between risk tolerance and investment decision-making, suggesting that higher tolerance can enhance practical investment experience and mitigate emotional biases (Nguyen, Gallery, & Newton, 2016). While academic research on risk tolerance is relatively established in domestic, studies specifically focusing on Sharia-compliant investments among Generation Z remain limited. As digital natives, Generation Z possesses immense potential as a primary investor group due to the vast availability of digital information, which fosters more comprehensive investor insights.

### **2.3. Trust Levels in Financial Technology Adoption**

Trust is an essential element in the adoption of technology-based systems, particularly within digital financial services that involve asset management and data confidentiality (Gefen et al., 2003). Within the TAM (Technology Acceptance Model) framework, trust is conceptualized as an external determinant influencing perceived usefulness and perceived ease of use. Trust is established through perceptions of system security, information transparency, and the service provider reputation. Empirical studies indicate that trust contributes significantly to the sustained use of digital investment applications and the willingness of investors to allocate larger capital amounts (Montazemi & Qahri-Saremi, 2015). Consequently, this study is pertinent to broadening the academic understanding of trust as a critical determinant of digital investment behavior.

The theoretical underpinning of this study is grounded in the concept of Trust in Technology, which posits that trust is not solely placed in individuals or institutions but is also directed toward the technological systems through which services are delivered. As articulated by McKnight, Carter, and Clay (2009), trust in technology is a critical determinant of user beliefs and behaviors in information system environments. This construct encompasses perceptions of technological competence, integrity, and benevolence associated with digital platforms or service providers. These attributes are manifested through a system capability to generate reliable and accurate

recommendations, ensure data security and privacy, and operate in a manner that prioritizes users interests. Such conceptualization is consistent with e-trust theory, which highlights transparency of information, system dependability, and institutional credibility as essential mechanisms for building trust and sustaining user engagement with digital platforms. Within the FinTech investment context particularly the application of robo advisors in Sharia mutual fund investments trust in technology functions as a pivotal socio psychological factor that shapes both the effectiveness and continuity of investment decision-making (McKnight et al., 2009).

International literature highlights a positive relationship between trust and investment decision-making preferences. These findings serve as a benchmark for understanding investor reliance on technology, which enhances the customer experience and mitigates emotional anxiety during the decision-making process by leveraging functional technological assistance (Aren & Hamamci, 2022).

Despite the extensive availability of domestic literature on trust, studies specifically integrating the dimension of trust within technology-driven investment ecosystems remain limited. From a psychological perspective, an investor's level of self efficacy often correlates with their age cohort; Generation Z, characterized by its young demographic profile, possesses superior information accessibility and digital financial literacy compared to preceding generations. The distinct risk profile of this generation, bolstered by high trust in digital platforms, not only influences individual investment decisions but also serves as a critical determinant in enhancing overall capital market liquidity.

#### 2.4. Sharia Mutual Fund Investment Decisions

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), is a well established behavioral framework widely applied to explain and predict individual actions across multiple contexts, including financial and investment decision-making. According to this theory, actual behavior is primarily driven by behavioral intention, which is jointly determined by three key components: attitude toward the behavior, subjective norms, and perceived behavioral control.

In the context of Sharia mutual fund investment, TPB offers a robust lens for understanding how psychological and social dimensions shape individual investment behavior, particularly among Generation Z. Attitudes toward Sharia-compliant investments are influenced by beliefs that such financial products provide competitive return prospects while adhering to Islamic ethical and financial principles, notably the prohibition of riba, gharar, and maysir. Stronger perceptions of both economic utility and religious compliance foster more favorable attitudes toward these instruments. In addition, subjective norms exert a significant influence on investment intentions among Generation Z, as family members, peers, online communities, and Sharia-focused financial influencers on social media function as important sources of social validation and normative pressure. When perceived social endorsement is high, individuals are more inclined to allocate funds to Sharia mutual fund products. Meanwhile, perceived

behavioral control reflects investors' assessments of their capability and ease in accessing, managing, and monitoring Sharia investments through digital platforms.

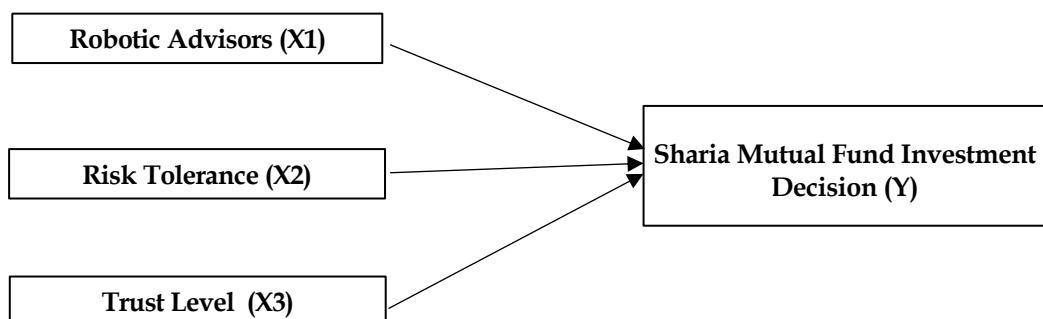
Investment decisions are defined as the rational and behavioral processes through which individuals determine asset allocation and fund management strategies in accordance with their financial objectives (Pompian, 2012). The digitalization of financial services has transformed this process from conventional consultation based methods into more autonomous, technology-driven approaches (Lee & Shin, 2018). Although technology facilitates more efficient decision-making, psychological factors (risk tolerance), technological features (Robo-Advisors), and socio-psychological factors (trust) remain significant determinants influencing the quality of investment decisions.

The integration of technological advancements and psychological factors has become a crucial determinant in shaping modern financial behavior. Theoretically, Robo-Advisors provide cognitive support through efficient data analysis, while risk tolerance establishes the necessary psychological threshold for individuals to act decisively yet prudently in capital markets. These factors are further bolstered by trust, which functions as a socio psychological "glue" that mitigates uncertainty in digital transactions.

The urgency of this research lies in the necessity to map how technological automation mechanisms can align with individual risk constraints and digital system confidence to produce high-quality investment decisions. This is imperative because, without an integrative understanding of these three factors, the adoption of financial technology among Generation Z is at risk of becoming a mere herd behavior phenomenon, lacking a foundation in appropriate risk profiling. Empirical validation of this model is expected to provide a framework for the financial services industry to design investment algorithms that are not only technically sophisticated but also transparent and capable of fostering emotional trust. Ultimately, this will encourage more stable, liquid, and sustainable capital market participation among young investors.

## 2.5. Research Model & Hypothesis

Figure 3. Research Model Framework



The Hypothesis in this study are as follows:

The influence of Robo-Advisors on investment decisions can be elucidated through the integration of the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM). UTAUT emphasizes that performance expectancy and effort expectancy are the primary drivers of behavioral intention, while TAM highlights the significance of perceived usefulness. Robo-Advisors serve as cognitive support tools that simplify complex data analysis into efficient, actionable recommendations. For Generation Z, the accessibility and automation offered by this technology reduce technical barriers to entry in investing. This is supported by studies from Bhatia et al. (2021) and Rahadian et al. (2025), which indicate that automation features in financial applications significantly encourage young investors to make more structured and disciplined investment decisions.

H<sub>1</sub>: Robo Advisors have a positive effect on investment decisions

Risk tolerance is a primary psychological determinant rooted in Prospect Theory (Kahneman & Tversky, 1979). This theory posits that individuals evaluate potential gains and losses asymmetrically, where risk perception heavily influences choices under uncertainty. Investors with higher levels of risk tolerance tend to have a more moderate perception of potential losses, making them more decisive in allocating assets toward Sharia mutual fund instruments with higher volatility, such as equity funds. Conversely, individuals with low risk tolerance tend to exhibit more passive investment behavior. Empirical evidence from Slamet et al. (2025) and Wardani & Lutfi (2016) confirms that an individual's capacity to tolerate risk is a major driver of the frequency and decisiveness of investment decision making.

H<sub>2</sub>: Risk tolerance has a positive effect on investment decisions.

The trust variable in this study is examined through the Trust in Technology approach developed by McKnight, Carter, and Clay (2009). This theory asserts that within the context of information systems, trust is directed not only toward the institution but also toward the reliability of the system itself, encompassing technological competence, integrity, and benevolence. Trust acts as a risk-reduction mechanism that enables Generation Z investors to rely on digital algorithms without excessive anxiety. In Sharia-based investment, trust also includes the conviction that the technology can maintain data confidentiality and strictly adhere to Sharia principles. Findings by Angga et al. (2025) and Viorentina (2023) reinforce the argument that high trust in digital systems is an absolute prerequisite that encourages investors to allocate capital through digital investment platforms.

H<sub>3</sub>: Trust has a positive effect on investment decisions.

### 3. Research Method

This research uses a quantitative approach with a descriptive method to analyze the factors influencing sharia investment decisions thru FinTech applications. The study population consists of Generation Z investors residing in Jakarta, with the sample determined using purposive sampling techniques based on the criteria of Generation Z investors who have made Sharia investments in the last 12 months. The independent variables analyzed include robo-advisors (X1), risk tolerance (X2), and trust (X3), while the dependent variable is Sharia investment decisions (Y). Primary data was collected thru structured interviews using 1–5 Likert scale based questionnaire distributed online via Google Forms over a two month period. The sample size determination refers to the guidelines of Hair et al. (2014), which is 5–10 times the number of indicators. With 15 indicators and a ratio of 7 times the number of indicators, the sample size was set at 105 respondents, which was considered sufficient for statistical analysis and representative of Generation Z investors in Jakarta. Data analysis includes testing the validity and reliability of the instrument as well as multiple linear regression analysis. Hypothesis testing was conducted using the coefficient of determination, simultaneous test (F-test), and partial test (t-test), supplemented by content analysis to strengthen the interpretation of the research results.

### 4. Result

The capital market as urgent role in supporting national economic growth and functions as a strategic platform for public investment, including individual participation. Among the various investment instruments available, Sharia mutual funds have gained increasing prominence due to their relatively low entry barriers, portfolio diversification benefits, and competitive return potential while adhering to Islamic principles. Consequently, it is essential for individuals particularly the younger generation to develop adequate awareness and competence in making informed investment decisions, as investment activities constitute a critical component in achieving long-term financial sustainability and wealth accumulation.

Generation Z, as digital natives shaped by rapid technological advancement and dynamic socio-economic conditions, faces increasingly complex financial decision-making environments. These circumstances necessitate adaptive investment behaviors, particularly through the utilization of digital financial innovations such as FinTech based investment platforms. One of the most significant innovations within this domain is the emergence of Robo Advisors, which offer automated, data driven, and risk profile aligned investment recommendations. Reducing information asymmetry and simplifying the decision making process, Robo-Advisors have the potential to enhance investment accessibility and participation among younger investors.

Jakarta, as Indonesia primary economic and financial center, represents a strategic context for examining digital investment behavior due to its high concentration of investors, advanced digital infrastructure, and growing adoption of Sharia-compliant

financial products. The integration of FinTech technologies in this metropolitan area is expected to not only increase participation among young investors but also broaden access to capital markets and contribute to both regional and national economic development. Accordingly, investigating the influence of Robo Advisors, risk tolerance, and trust on Sharia investment decisions among Generation Z investors in Jakarta holds substantial academic significance and practical relevance, particularly in the context of digital Sharia finance.

Based on the demographic analysis, out of 105 Generation Z investors surveyed in Jakarta, 69 respondents (65.57%) were male, while 36 respondents (34.33%) were female. This distribution indicates that investment participation through FinTech based applications is higher among males compared to females.

**Table 2.** Gender Distribution of Respondents

| No | Type   | Total | Percent |
|----|--------|-------|---------|
| 1  | Male   | 69    | 65,57%  |
| 2  | Female | 36    | 34,33%  |
|    | Total  | 105   | 100%    |

Source: Data analysis processed by the author (2025)

The geographical distribution of the 105 Generation Z investor respondents in Jakarta reveals variation across the city five administrative regions: Central, North, South, West, and East Jakarta. The largest proportions of respondents were concentrated in South Jakarta, totaling 30 individuals (28.6%), and West Jakarta, with 28 individuals (26.7%). In comparison, Central Jakarta and North Jakarta were represented by 15 respondents (14.3%) and 12 respondents (11.4%), respectively, while East Jakarta accounted for 20 respondents (19.0%). This distribution suggests that spatial factors may influence investment participation, particularly in metropolitan areas characterized by stronger digital infrastructure and greater accessibility to FinTech services.

**Table 3.** Geographical Distribution of Respondents

| Region          | Male      | Female    | Total      | Percent (%) |
|-----------------|-----------|-----------|------------|-------------|
| Central Jakarta | 10        | 5         | 15         | 14,3        |
| North Jakarta   | 8         | 4         | 12         | 11,4        |
| South Jakarta   | 20        | 10        | 30         | 28,6        |
| West Jakarta    | 18        | 10        | 28         | 26,7        |
| East Jakarta    | 13        | 7         | 20         | 19,0        |
| <b>Total</b>    | <b>69</b> | <b>36</b> | <b>105</b> | <b>100%</b> |

Source: Data analysis processed by the author (2025)

The selection of Sharia investment applications by Generation Z in Jakarta is influenced by ease of use, mobile accessibility, as well as automation and financial education features. Trust in data security and the service providers reputation also plays a crucial role. Applications with Robo Advisor features that facilitate portfolio personalization and transactions are the preferred choice, reflecting Generation Z emphasis on efficiency, speed, and an intuitive digital experience. These findings align with the literature on FinTech adoption among young generations, which highlights the importance of convenience and innovation in digital service offerings.

**Table 4.** Distribution of Digital Investment Applications

| Investment Apps | Number of Respondents | Percent (%) |
|-----------------|-----------------------|-------------|
| Bitbit          | 48                    | 45,7        |
| Bareksa         | 26                    | 24,7        |
| Ajaib           | 29                    | 27,6        |
| Others          | 2                     | 1,9         |
| <b>Total</b>    | <b>105</b>            | <b>100%</b> |

Source: Data analysis processed by the author (2025)

The results of the validity assessment demonstrate that all measurement indicators exhibit correlation coefficients exceeding the corresponding critical r-values, with positive relationships observed. Accordingly, all questionnaire items are deemed to be valid and suitable for further analysis.

**Table 5.** Result of Validity test

| Variable                 | Item | r-value | r-table | Status |
|--------------------------|------|---------|---------|--------|
| Robotic Advisors<br>(X1) | X1.1 | 0,742   | 0,191   | Valid  |
|                          | X1.2 | 0,685   | 0,191   | Valid  |
|                          | X1.3 | 0,712   | 0,191   | Valid  |
|                          | X1.4 | 0,698   | 0,191   | Valid  |
| Risk Tolerance<br>(X2)   | X2.1 | 0,710   | 0,191   | Valid  |
|                          | X2.2 | 0,755   | 0,191   | Valid  |
|                          | X2.3 | 0,688   | 0,191   | Valid  |
|                          | X2.4 | 0,724   | 0,191   | Valid  |
| Trust Level (X3)         | X3.1 | 0,812   | 0,191   | Valid  |
|                          | X3.2 | 0,790   | 0,191   | Valid  |

|                                |             |                |                |               |
|--------------------------------|-------------|----------------|----------------|---------------|
|                                | X3.3        | 0,755          | 0,191          | Valid         |
|                                | X3.4        | 0,782          | 0,191          | Valid         |
| <b>Variable</b>                | <b>Item</b> | <b>r-value</b> | <b>r-table</b> | <b>Status</b> |
|                                | Y.1         | 0,766          | 0,191          | Valid         |
| <b>Investment Decision (Y)</b> | Y.2         | 0,801          | 0,191          | Valid         |
|                                | Y.3         | 0,774          | 0,191          | Valid         |

Source: Data analysis processed by the author (2025)

The reliability analysis indicates that the Cronbach's Alpha coefficients for all constructs exceed the threshold value of 0.6, demonstrating satisfactory internal consistency. Therefore, the measurement instrument is considered reliable for subsequent analysis.

**Table 6.** Result of Reliability test

| <b>Variabel</b>                | <b>Cronbach's Alpha</b> | <b>Standard</b> | <b>Status</b>   |
|--------------------------------|-------------------------|-----------------|-----------------|
| <b>Robotic Advisors (X1)</b>   | 0,782                   | 0,60            | <b>Reliable</b> |
| <b>Risk Tolerance (X2)</b>     | 0,805                   | 0,60            | <b>Reliable</b> |
| <b>Trust Level (X3)</b>        | 0,841                   | 0,60            | <b>Reliable</b> |
| <b>Investment Decision (Y)</b> | 0,823                   | 0,60            | <b>Reliable</b> |

Source: Data analysis processed by the author (2025)

The multicollinearity test shows that the Variance Inflation Factor (VIF) values for all independent variables are below 10 and the Tolerance values exceed 0.10, indicating that the research model is free from multicollinearity issues.

**Table 7.** Result of Multicollinearity test

| <b>Variable</b>              | <b>Tolerance</b> | <b>VIF</b>   | <b>Status</b>        |
|------------------------------|------------------|--------------|----------------------|
| <b>Robotic Advisors (X1)</b> | 0.612            | <b>1.634</b> | No Multicollinearity |
| <b>Risk Tolerance (X2)</b>   | 0.585            | <b>1.709</b> | No Multicollinearity |
| <b>Trust Level (X3)</b>      | 0.540            | <b>1.851</b> | No Multicollinearity |

Source: Data analysis processed by the author (2025)

In addition, the normality test asymptotic significance values greater than 0.05, suggesting that the data can be assumed to follow a normal distribution and meet the statistical assumptions required for further analysis.

**Table 8.** Result of Normality test

| Description            | Unstandardized Residual |
|------------------------|-------------------------|
| <b>N</b>               | 105                     |
| <b>Mean</b>            | 0,0000000               |
| <b>Std. Deviation</b>  | 1,2458210               |
| Asymp. Sig. (2-tailed) | 0,200                   |

Source: Data analysis processed by the author (2025)

After all of the conditions for classical assumption testing have been including normality, linearity, and the absence of multicollinearity the next step is to do multiple linear regression analysis. The purpose of this analysis is to determine the strength of the link and influence of the variables Robotic Advisor (X1), Risk Tolerance (X2), and Trust Level (X3) on Sharia Investment Decisions (Y) among Jakarta's Generation Z. The table below presents the outcomes of data processing with multiple linear regression analysis.

**Table 9.** Results of Multiple Linear Regression Analysis

| Independent Variables | Coefficient | t-ratio                | Sig.  |
|-----------------------|-------------|------------------------|-------|
| Robotic Advisors (X1) | 0,183       | 2,045                  | 0,043 |
| Risk Tolerance (X2)   | 0,276       | 2,101                  | 0,038 |
| Trust Level (X3)      | 0,492       | 3,215                  | 0,002 |
| Constant = 4.271      |             |                        |       |
| R2                    |             | = 0,628                |       |
| F                     |             | = 14, 541 (Sig. 0,000) |       |

Source: Data analysis processed by the author (2025)

Based on Table 1, the multiple linear regression equation can be formulated as follows:

$$Y = 4.271 + 0,183 (X1) + 0,276 (X2) + 0,492 (X3)$$

$$(0,043) \quad (0,038) \quad (0,002)$$

The coefficient of determination ( $R^2$ ) of 0.628 indicates that Robotic Advisors, Risk Tolerance, and Trust collectively explain 62.8% of the variance in Sharia investment decisions. This finding suggests that technological support, individual risk preferences, and trust related perceptions play a substantial role in shaping investment behavior among investors. Nevertheless, the remaining 37.2% of the variation is influenced by other factors not incorporated in the model

## 5. Discussion

The results of the multiple linear regression analysis demonstrate that all independent variables Robotic Advisors, Risk Tolerance, and Trust contribute positively and significantly to Sharia mutual fund investment decisions among Generation Z investors in Jakarta. Each variable exhibits a positive regression coefficient, indicating that increases in these factors are associated with stronger and more decisive investment behavior.

Robo-Advisors (X1) produce a regression coefficient of 0.183, accompanied by a t-statistic of 2.045 and a significance value of 0.043. This finding indicates that a one-unit increase in the utilization of Robo Advisor services corresponds to a 0.183 increase in Sharia investment decision scores. The statistical significance of this relationship at the 5% level suggests that AI driven and algorithm-based advisory features embedded in FinTech platforms play an important role in simplifying complex investment information, reducing cognitive effort, and enhancing decision making efficiency among young investors. Consequently, the presence of Robo-Advisors stimulates greater participation in Sharia mutual fund investments by lowering informational and technical barriers to entry.

Risk Tolerance (X2) also exhibits a positive and statistically significant effect on investment decisions, as reflected by a coefficient of 0.276, a t-statistic of 2.101, and a significance level of 0.038. This result confirms that individuals with higher levels of risk tolerance tend to make more proactive and confident investment choices. Investors who are better able to cope with uncertainty and potential losses are more inclined to allocate funds to Sharia compliant financial instruments, even when faced with market volatility. This finding is consistent with established theories in investment behavior and behavioral finance, which emphasize risk tolerance as a fundamental determinant of investment participation and asset allocation decisions.

Trust (X3) emerges as the most influential predictor in the regression model, with a coefficient of 0.492, a t-statistic of 3.215, and a significance value of 0.002. The magnitude of this coefficient highlights the dominant role of trust in shaping Sharia investment decisions within FinTech based platforms. High levels of trust encompassing perceptions of platform security, data privacy, transparency, institutional credibility, and compliance with Sharia principles significantly enhance investors' willingness to rely on digital investment services. This underscores trust as a critical driver in the adoption and continued use of digital financial technologies, particularly among Generation Z investors who are highly engaged with technology driven financial services.

The overall explanatory power of the model is supported by a coefficient of determination ( $R^2$ ) of 0.628, indicating that 62.8% of the variation in Sharia investment decisions is jointly explained by Robotic Advisor, Risk Tolerance, and Trust. The remaining 37.2% of the variance is attributable to other factors not included in the model, such as financial literacy, income levels, religiosity, prior investment experience, or market conditions. Furthermore, the F-test result of 14.541 with a significance level of 0.000 confirms that the regression model is statistically robust and that the independent

variables collectively exert a significant influence on Sharia mutual fund investment decisions.

Overall, the regression analysis confirms that Robo Advisors significantly enhance Sharia investment decisions among Generation Z investors in Jakarta, Risk Tolerance positively shapes investment behavior through psychological readiness, and Trust represents the most dominant factor influencing investment decisions. Collectively, these findings highlight the importance of integrating technological innovation, individual risk characteristics, and trust perceptions in understanding and shaping the investment behavior of young investors in the digital era. From both academic and practical perspectives, the results suggest that the effectiveness and sustainability of digital Sharia investment platforms depend not only on advanced technological features but also on users' confidence and behavioral preparedness.

## 6. Conclusion

This study concludes that Sharia mutual fund investment decisions among Generation Z in Jakarta are significantly driven by the integration of technological and psychological determinants. Multiple linear regression analysis confirms that Robo-Advisors (X1), Risk Tolerance (X2), and Trust Level (X3) simultaneously and partially exert a positive and significant influence on investment decisions (Y). Empirically, Trust Level emerges as the most dominant determinant with a regression coefficient of 0.492, followed by Risk Tolerance (0.276) and Robo-Advisors (0.183). The model demonstrates robust predictive capacity, evidenced by a Coefficient of Determination ( $R^2$ ) of 0.628, indicating that the research model accounts for 62.8% of the variance in the subjects' investment decisions.

The results of this study formulate several strategic recommendations for industry practitioners. For Sharia FinTech Service Providers, Given the dominant role of trust, digital platforms must prioritize explicit Sharia compliance transparency (prominent DSN MUI certification) and strengthen cybersecurity protocols to maintain institutional integrity. For Investment Managers, The development of Robo-Advisor features should move beyond profit optimization to include personalized risk-education modules tailored to the investors' psychological profiles, thereby mitigating decisional hesitation.

## 7. Research Limitations

Several limitations must be considered when interpreting the results of this study: (1) Geographical Generalizability : The focus on the Jakarta region may result in a sample that does not fully represent the behavior of Generation Z in areas with lower digital penetration rates. (2) Temporal Dimensions : The cross-sectional approach constrains the study's ability to capture the dynamic evolution of investment behavior amidst rapid advancements in AI technology. (3) Model Capacity : Approximately 37.2% of the

variance in investment decisions is influenced by exogenous variables not captured in this model, such as religiosity, social influence, or in depth Sharia financial literacy.

## 8. Recommendations for Future Research

Based on the identified limitations, future research is encouraged to incorporate Religiosity and Social Influence as moderating variables to deepen the understanding of the intrinsic motivations of Sharia investors, conduct comparative studies across different geographical scales example urban vs. Rural or generations Gen Z vs Millennials to validate the stability of the model, and employ longitudinal or mixed methods approaches to qualitatively explore the underlying reasons for the dominance of trust over purely technological sophistication.

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