

Financial Responsibility Among Muslim Youth in Surabaya: A Gender-Based Multi-Group Analysis

Marsya Marru Atus^{1*}, Shafa Regina Amelia², Yan Putra Timur³

¹⁻³Ekonomi Islam, Universitas Negeri Surabaya, Indonesia

*Author correspondence: marsya.23238@mhs.unesa.ac.id

Abstract. The rapid expansion of Islamic finance underscores the growing need for responsible financial behavior among young Muslims. This research investigates how Parental Guidance and Self-esteem shape Sharia Financial Attitude and, ultimately, Financial Responsibility among Muslim youth in Surabaya, while also examining whether these relationships differ by gender. Using a quantitative survey of 104 respondents aged 17–25 years (37 males and 67 females), data were analyzed through Partial Least Squares–Structural Equation Modeling (PLS–SEM). Measurement invariance was verified via the MICOM procedure before Partial Least Squares–Multi-Group Analysis (PLS–MGA) compared path coefficients across gender groups. Findings reveal that Parental Guidance and Self-esteem significantly strengthen Sharia Financial Attitude, which in turn significantly predicts Financial Responsibility. Direct effects of Parental Guidance and Self-esteem on Financial Responsibility prove non-significant, confirming full mediation. Multi-group analysis detects no statistically significant differences in any structural path between male and female respondents. These results indicate that the psychological mechanisms underlying financial responsibility function similarly across gender in this urban Muslim setting, providing practical guidance for developing inclusive Islamic financial education programs.

Keywords: Financial Responsibility; Gender; Parental Guidance; Self-esteem; Sharia Financial Attitude.

1. INTRODUCTION

The Islamic finance industry has demonstrated substantial growth in recent years, indicating the increasing relevance of financial practices that comply with Sharia principles. Global Islamic financial assets reached approximately USD 3.96 trillion in 2022/2023 and are projected to increase to USD 5.94 trillion in 2024/2025, with an annual growth rate of around 9% since 2020. This development highlights the growing importance of promoting responsible financial practices within Muslim communities, particularly among younger generations (Jayanti et al., 2026). In Indonesia, where the Muslim population represents a significant proportion of the population, strengthening a Sharia-oriented financial mindset among young people has become an important concern for policymakers and educators (Wijaya et al., 2024).

Despite the development of Islamic finance, responsible financial management remains a challenge among Indonesian Muslim youth. Generation Z constitutes approximately 27.94% of Indonesia's population and possesses financial characteristics that are influenced by technological development, digital platforms, and changing consumption patterns. The extensive use of digital financial services and online shopping provides young people with greater access to financial products, but it may also increase exposure to impulsive consumption and lifestyle-driven spending. Nabila et al. (2023) describe financial attitude as an individual's tendency to evaluate financial matters, which can influence financial management, budgeting, and decision-making. However, financial attitudes among Indonesian

youth do not always demonstrate consistent patterns, suggesting that financial behavior is shaped by various internal and external factors (Sabri et al., 2023).

Family environment represents one of the important external factors in the development of financial attitudes. Parental Guidance refers to the financial knowledge, values, experiences, and behavioral examples communicated by parents to their children through both direct and indirect forms of financial socialization. Abu Bakar & Abu Bakar (2020) found that parental influence plays an important role in shaping children's perspectives toward financial matters, even when compared with influences from formal education and peers. Furthermore, Jorgensen and Savla (2010) emphasized the importance of parental financial communication in developing financial behavior among youth.

Financial responsibility represents an individual's ability to manage financial resources appropriately through activities such as budgeting, saving, controlling expenditures, fulfilling financial obligations, and avoiding unnecessary debt (Preece et al., 2023). The development of such responsibility is particularly important during young adulthood because this period involves a gradual transition toward greater financial independence. Psychological factors may also contribute to the way young individuals respond to financial situations. Self-esteem refers to an individual's subjective evaluation of personal worth and competence (Hashmi et al., 2021). found that self-esteem is significantly associated with financial well-being among young adults, while lower self-esteem has been linked to financial avoidance and excessive spending (Kim & Chatterjee, 2013).

In the Islamic context, financial management is guided by values that encourage moderation, responsibility, and accountability (Timur et al., 2025a). Three relevant principles are amanah, tawakkul, and qana'ah. Amanah emphasizes the responsibility to manage wealth appropriately, tawakkul reflects reliance upon Allah accompanied by effort, and qana'ah encourages contentment with lawful sustenance (Timur et al., 2024). These values discourage excessive consumption. The prohibition of wasteful expenditure is also emphasized in Qur'an Surah Al-Isra (17:26-27). Accordingly, Sharia Financial Attitude can be understood as an individual's evaluation and orientation toward financial matters based on Islamic principles.

Although previous research has examined parental influence, psychological factors, and financial behavior, limited evidence exists on whether the relationships between these factors and financial responsibility are consistent across gender groups. Behavioral finance literature suggests that men and women may demonstrate different tendencies in financial decision-making (Barber & Odean, 2001; Croson & Gneezy, 2009). The existing research gap

therefore lies in the lack of comparative analysis concerning gender differences within the proposed financial behavior model among Muslim youth in Surabaya.

To address this gap, the present study employs Partial Least Squares-Multi-Group Analysis (PLS-MGA) to compare the proposed structural relationships between male and female Muslim youth in Surabaya. The main objective is to examine the relationships among Parental Guidance, Self-esteem, Sharia Financial Attitude, and Financial Responsibility, while determining whether these relationships differ between male and female respondents.

2. THEORETICAL REVIEW

Financial Responsibility

Financial responsibility describes an individual's capability to manage financial resources in a prudent and sustainable manner. It includes preparing a budget, controlling expenditures, maintaining savings, fulfilling financial obligations, and avoiding unnecessary debt (Preece et al., 2023). In the context of Islamic finance, financial responsibility has a broader meaning because financial activities are expected to comply with Islamic values. Wealth is viewed as an amanah that should be managed appropriately and not used excessively. The principle is reflected in the Qur'anic guidance in Surah Al-Isra (17:26-27).

Parental Guidance

Parental Guidance refers to the process through which parents introduce financial knowledge, values, attitudes, and behavioral patterns to their children. Gudmunson & Danes (2011), through the Family Financial Socialization Theory, explain that family interaction plays an important role in shaping children's financial attitudes and behaviors. Abu Bakar & Abu Bakar (2020) found that parental influence can play an important role in shaping children's financial perspectives compared with influences from schools and peers. Jorgensen & Savla (2010) emphasized that financial discussions and practical experiences during adolescence contribute to financial behavior during young adulthood. Thus, the hypotheses that build in this study are:

H1: Parental Guidance has a positive and significant effect on Sharia Financial Attitude.

H3: Parental Guidance has a positive and significant effect on Self-esteem.

H4: Parental Guidance has a positive and significant effect on Financial Responsibility.

Self-esteem

Self-esteem refers to an individual's evaluation of their own worth, competence, and personal value. Hashmi et al. (2021) demonstrated that self-esteem is significantly associated with the financial well-being of young adults, particularly in relation to financial security and

financial anxiety. In contrast, individuals with lower self-esteem may become more vulnerable to financial avoidance, impulsive consumption, and external social influences (Kim & Chatterjee, 2013). Therefore, the next hypotheses are:

H2: Self-esteem has a positive and significant effect on Sharia Financial Attitude.

H5: Self-esteem has a positive and significant effect on Financial Responsibility.

Sharia Financial Attitude

Financial attitude refers to an individual's psychological tendency, beliefs, and evaluation toward financial matters (Adiputra & Patricia, 2020). In this research, the concept is developed into Sharia Financial Attitude, which incorporates Islamic principles amanah, tawakkul, and qana'ah into an individual's evaluation and management of financial matters. A Muslim youth who possesses a positive Sharia Financial Attitude is expected to demonstrate greater consideration of Islamic values when making decisions concerning spending, saving, investing, and managing financial obligations. Therefore, the following hypothesis is proposed:

H6: Sharia Financial Attitude has a positive and significant effect on Financial Responsibility.

Gender Differences in Financial Behavior

Gender is an important demographic characteristic that may be associated with differences in financial attitudes and behavior (Lutfi et al., 2023; Timur et al., 2027). Barber & Odean (2001) found differences in investment behavior associated with gender and suggested that men tend to display higher levels of financial overconfidence. Croson & Gneezy (2009) also discussed gender differences in economic preferences, including differences in attitudes toward risk. In this study, male and female respondents are analyzed separately using PLS-MGA to determine whether the relationships among the constructs differ significantly between the two gender groups.

Family Financial Socialization Theory

The theoretical foundation of this research is primarily related to Family Financial Socialization Theory (Gudmunson & Danes, 2011), which explains how individuals acquire financial knowledge, attitudes, and behavioral patterns through interactions within their family environment. Parents have an important role in preparing children to become financially independent. When combined with Islamic values and individual psychological characteristics such as self-esteem, these processes are expected to contribute to the development of a positive Sharia Financial Attitude, which subsequently supports Financial Responsibility (Putri et al., 2023). Based on the theoretical review and the formulated hypotheses, the research model is presented in Figure 1.

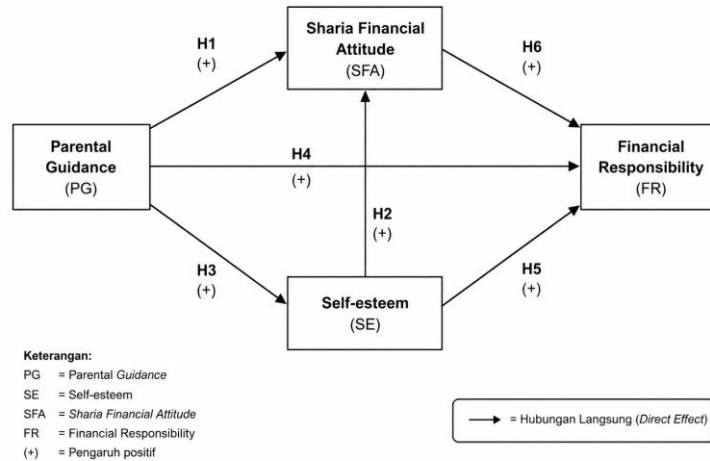


Figure 1. Theoretical Review.

3. METHOD

A quantitative survey design was adopted. The target population comprised Muslim individuals aged 17-25 years living in Surabaya who had experienced parental involvement in personal financial matters and were already making at least some financial decisions independently. Data were collected through an online questionnaire (Google Forms) using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

After data cleaning, 104 usable responses remained (37 males / 35.6% and 67 females / 64.4%). Most participants (76%) still received their primary income from parents. Measurement scales were adapted from established sources: Parental Guidance, Self-esteem, Sharia Financial Attitude, and Financial Responsibility items contextualized to Islamic principles of moderation and accountability.

Analysis was performed in SmartPLS 4. The measurement model was evaluated for indicator reliability, internal consistency, convergent validity, and discriminant validity. The structural model was assessed through path coefficients, R^2 , f^2 , and model fit (SRMR). Measurement invariance was examined using the MICOM procedure. Once the required invariance conditions were satisfied, PLS-MGA with permutation testing was conducted to compare structural paths between male and female groups.

4. RESULT AND DISCUSSION

Sample Profile

Table 1 presents the demographic characteristics of the respondents.

Table 1. Respondent Profile.

Variable	Category	n	%
Gender	Female	67	64.4
	Male	37	35.6
Monthly income	< Rp500,000	29	27.9
	Rp500,000 - 1,000,000	38	36.5
	Rp1,000,000 - 2,000,000	22	21.2
Main income source	Parents	79	76.0
	Salary / wages	28	26.9
	Business	16	15.4

Source: Survey data (2026).

Full Structural Model

Figure 1 illustrates the complete structural model obtained from PLS-SEM analysis, including the outer loadings of each indicator and the path coefficients between the latent variables.

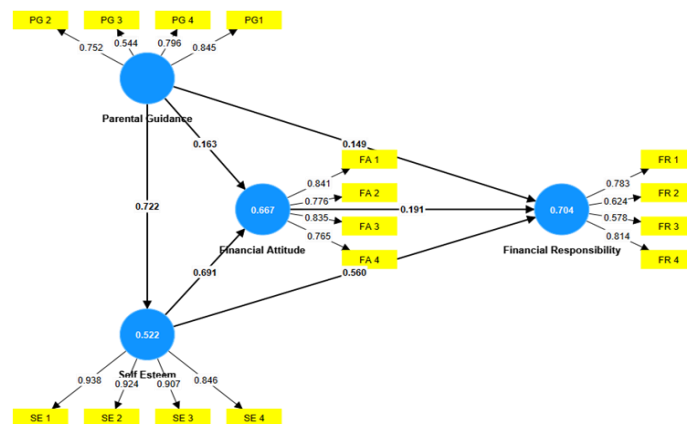


Figure 2. Full Structural Model.

Measurement Model Assessment

Table 2 presents the outer loadings. The items were developed in line with the conceptual definitions in the literature review.

Table 2. Outer Loadings.

Construct	Indicator Statement	Code	Loading
Financial Responsibility	I feel responsible for managing my finances in line with Islamic teachings	FR1	0.858
	I avoid excessive spending (israf) in daily life	FR2	0.597
	I set aside part of my income for religious purposes (zakat, infaq, or charity)	FR3	0.556
Parental Guidance	My parents taught me the importance of managing finances according to Sharia principles	PG1	0.718

Self-esteem	My parents raised me with Islamic values such as trustworthiness and not being wasteful with money	PG2	0.677
	I often discuss halal financial management with parents	PG3	0.805
	I am confident in managing my finances according to Islamic values	SE1	0.893
	I feel capable of making financial decisions that comply with Sharia principles	SE2	0.828
	I sense a responsibility to manage my finances as a Muslim	SE3	0.841
Sharia Financial Attitude	I am confident I can solve financial problems without violating Sharia rules	SE4	0.815
	Managing finances in accordance with Sharia principles is very important in my life	FA1	0.797
	I hold a positive view toward halal and interest-free financial activities	FA2	0.773
	I consider the halal aspect before engaging in any financial transaction	FA3	0.762
	Financial planning is part of a Muslim's responsibility	FA4	0.778

Source: Primary data processed with SmartPLS 4.

Most indicators produced outer loadings above the recommended 0.70 threshold. A few items (FR2, FR3, and PG2) recorded lower values yet remained above 0.40 and were retained to preserve theoretical content.

Table 3. Model Fit.

Index	Saturated model	Estimated model
SRMR	0.094	0.094
d_UIS	0.922	0.922
d_G	0.372	0.372
Chi-square	211.760	211.760
NFI	0.690	0.690

Source: SmartPLS 4 output.

Table 4. R-square Values.

Construct	R-square	R-square adjusted
Sharia Financial Attitude	0.687	0.681
Financial Responsibility	0.498	0.483
Self-esteem	0.301	0.294

Source: SmartPLS 4 output.

The model accounts for 68.7% of the variance in Sharia Financial Attitude, 49.8% in Financial Responsibility, and 30.1% in Self-esteem. Cronbach's alpha ranged from 0.730 to 0.873, composite reliability from 0.717 to 0.909, and AVE from 0.541 to 0.713. Discriminant validity was supported by HTMT ratios below 0.85.

Structural Model Results (Pooled Sample)

Table 5 reports the standardized path coefficients and hypothesis decisions for the full sample.

Table 5. Structural Path Estimates and Hypothesis Decisions.

Relationship	β	t	p	Decision
Parental Guidance → Sharia Financial Attitude	0.284	3.990	<0.001	Supported
Self-esteem → Sharia Financial Attitude	0.638	9.703	<0.001	Supported
Parental Guidance → Self-esteem	0.549	7.660	<0.001	Supported
Parental Guidance → Financial Responsibility	0.103	1.084	0.279	Not supported
Self-esteem → Financial Responsibility	0.222	1.542	0.123	Not supported
Sharia Financial Attitude → Financial Responsibility	0.445	3.246	0.001	Supported

Note: FA = Financial Attitude. Source: SmartPLS 4 output.

Four of the six hypotheses are supported. Parental Guidance and Self-esteem significantly shape Sharia Financial Attitude, which in turn significantly influences Financial Responsibility. The direct paths from Parental Guidance and Self-esteem to Financial Responsibility are non-significant, indicating that their influence operates mainly through the attitudinal mediator. This mediation pattern is consistent with Noh (2022), who modeled self-esteem as a mediator linking parental financial teaching to financial attitudes and behaviors, and with Widjayanti et al. (2025), who found that financial attitude mediates the relationship between financial literacy and financial behavior.

Measurement Invariance Assessment (MICOM)

Before comparing structural paths across gender, measurement invariance was evaluated using the MICOM procedure. Step 2 results are presented in Table 6.

Table 6. MICOM Step 2 - Compositional Invariance.

Construct	Original correlation	Correlation permutation mean	5.0%	Permutation p value
Financial Attitude	0.998	0.998	0.996	0.296
Financial Responsibility	0.998	0.985	0.959	0.943
Parental Guidance	0.967	0.979	0.941	0.181
Self Esteem	1.000	0.999	0.998	0.743

Source: SmartPLS 4 MICOM output.

All permutation p-values exceed 0.05, indicating that compositional invariance is established for every construct. This satisfies a key prerequisite for meaningful multi-group comparison.

Gender Comparison via PLS-MGA

Having established compositional invariance, group-specific path estimates were compared using permutation-based PLS-MGA (Table 7)

Table 7. Path Coefficient Comparison between Male and Female Groups.

Path	Male β	Female β	Difference	p-value	Significant?
Sharia Financial Attitude → Financial Responsibility	0.191	0.653	-0.462	0.154	No
Parental Guidance → Sharia Financial Attitude	0.163	0.234	-0.071	0.706	No
Parental Guidance → Financial Responsibility	0.149	-0.037	0.186	0.328	No
Parental Guidance → Self-esteem	0.722	0.489	0.234	0.072	No
Self-esteem → Sharia Financial Attitude	0.691	0.673	0.018	0.881	No
Self-esteem → Financial Responsibility	0.560	0.165	0.395	0.224	No

Note: Difference = Male β - Female β . p-values are two-tailed permutation results ($\alpha = 0.05$).

None of the six path differences reaches statistical significance. Although some coefficients appear numerically different (for example, the attitude-to-behavior link is stronger among females), the formal tests indicate that these gaps could have arisen by chance.

Discussion of Findings

The pooled-sample results portray a clear mediation pattern: parental guidance and self-esteem first cultivate a favorable Sharia-oriented financial attitude, which then translates into more responsible financial conduct. Direct effects on responsibility remain weak once attitude is controlled. This pattern is consistent with Noh (2022), who specifically modeled self-esteem as a mediator linking parental financial teaching to college students' financial attitudes and behaviors. It is also in line with Widjayanti et al. (2025), who demonstrated that financial attitude serves as a key mediating mechanism between financial literacy and financial behavior, and with Sabri et al. (2023), who noted that attitudes toward money are primarily shaped by family members and are closely linked to subsequent financial behavior and well-being.

The absence of significant gender differences can be interpreted in light of the local context and existing theory. Family Financial Socialization Theory (Gudmunson & Danes, 2011) posits that parents are the primary agents transmitting financial knowledge, values, and behavioral patterns. In the Surabaya Muslim youth context, both young men and young women appear to internalize similar family messages about managing money according to Islamic ethics-particularly amanah (trustworthiness), qana'ah (contentment), and the avoidance of israf (wastefulness). When parents emphasize these shared religious-financial values, the subsequent attitudinal and behavioral pathways may converge rather than diverge by gender.

In addition, most respondents in this study still depend financially on their parents (76%). Under such conditions, the influence of parental guidance and the formation of self-esteem are likely to follow comparable routes for both sexes, reducing the scope for gender-based differentiation. Although prior behavioral finance research has documented gender differences in overconfidence and risk preferences (Barber & Odean, 2001; Croson & Gneezy, 2009), those differences do not appear to translate into significantly different structural paths in the present model. The relatively modest male subsample ($n = 37$) also reduces statistical power; the near-significant result for Parental Guidance $\rightarrow$ Self-esteem ($p = 0.072$) suggests that a larger, more balanced sample might reveal subtle differences that the current data lack the power to detect.

Practically, these findings imply that Islamic financial-education initiatives aimed at urban Muslim youth need not be sharply differentiated by gender. Programs that strengthen positive Sharia financial attitudes—whether through family dialogue, confidence-building activities, or explicit instruction in Islamic financial principles—are likely to benefit young men and young women in comparable ways, consistent with the central role of attitude identified by Noh (2022) and Widjayanti et al. (2025). Related studies on digital Islamic finance and Generation Z behavior also underscore the importance of attitude formation in technology-mediated financial contexts (Timur et al., 2025b; Timur et al., 2025c).

5. CONCLUSION

This study examined the effects of Parental Guidance and Self-esteem on Sharia Financial Attitude and Financial Responsibility among Muslim youth in Surabaya, and tested whether those effects vary by gender. The results show that both Parental Guidance and Self-esteem significantly enhance Sharia Financial Attitude, which in turn significantly promotes Financial Responsibility. Once attitude is controlled, the direct effects of Parental Guidance and Self-esteem on Financial Responsibility become non-significant, supporting a full-mediation interpretation. Multi-group analysis reveals no statistically significant differences in any structural path between male and female respondents. These findings indicate that the psychological processes converting family influence and personal self-worth into responsible financial behavior operate similarly across gender in this context. The study contributes to the Islamic behavioral-finance literature by demonstrating the robustness of the attitude-mediated model across gender groups within an Indonesian urban Muslim sample.

Parents, educators, and policymakers can design financial-literacy programs that emphasize the cultivation of sound Sharia financial attitudes for youth of both sexes rather than

developing markedly different curricula. This study is limited by the relatively small male subsample and its cross-sectional design. Future research would benefit from larger and more gender-balanced samples, longitudinal designs, and the inclusion of additional constructs such as financial knowledge and depth of religious observance.

REFERENCES

- Abu Bakar, M. Z., & Abu Bakar, S. A. (2020). Parental financial socialisation: Pathways to positive financial behaviour. *International Journal of Academic Research in Business and Social Sciences*, 10(6), 55–70. <https://doi.org/10.6007/IJARBS/v10-i6/7260>
- Adiputra, I. G., & Patricia, E. (2020). The effect of financial attitude, financial knowledge, and income on financial management behavior. *Proceedings of the Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2019)*, 107–112. <https://doi.org/10.2991/assehr.k.200515.019>
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*, 116(1), 261–292. <https://doi.org/10.1162/003355301556400>
- Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, 47(2), 448–474. <https://doi.org/10.1257/jel.47.2.448>
- Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues*, 32(4), 644–667. <https://doi.org/10.1007/s10834-011-9275-y>
- Hashmi, F., Aftab, H., Martins, J. M., Mata, M. N., Qureshi, H. A., Abreu, A., & Mata, P. N. (2021). The role of self-esteem, optimism, deliberative thinking and self-control in shaping the financial behavior and financial well-being of young adults. *PLoS ONE*, 16(9), e0256649. <https://doi.org/10.1371/journal.pone.0256649>
- Jayanti, R. D., Timur, Y. P., & Rifqi, M. (2026). Analysis of the Success of the BSI Mobile Service Information System Among Generation Z Using the DeLone and McLean Method. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*, 7(4), 3354–3370. <https://doi.org/10.47467/elmal.v7i4.10344>
- Jorgensen, B. L., & Savla, J. (2010). Financial literacy of young adults: The importance of parental socialization. *Family Relations*, 59(4), 465–478. <https://doi.org/10.1111/j.1741-3729.2010.00616.x>
- Kim, J., & Chatterjee, S. (2013). Childhood financial socialization and young adults' financial management. *Journal of Financial Counseling and Planning*, 24(1), 61–79.
- Lutfi, B. A., Prasetyo, A., Timur, Y. P., & Rifqi, M. (2023). Exploring Gender Differences in Determinants of Bank Aladin Sharia Adoption : a Multi-Group Analysis Approach. *Jurnal Ekonomi Dan Bisnis Airlangga*, 33(1), 40–52. <https://doi.org/10.20473/jeba.V33I12023.40-52>
- Nabila, F. S., Fakhri, M., Pradana, M., Kartawinata, B. R., & Silvianita, A. (2023). Measuring financial satisfaction of Indonesian young adults: A SEM-PLS analysis. *Journal of Innovation and Entrepreneurship*, 12, 16. <https://doi.org/10.1186/s13731-023-00281-4>

- Noh, M. (2022). Effect of parental financial teaching on college students' financial attitude and behavior: The mediating role of self-esteem. *Journal of Business Research*, 143, 298–304. <https://doi.org/10.1016/j.jbusres.2022.01.054>
- Preece, G. L., Kiss, D. E., & MacDonald, M. (2023). Development of a Responsible Financial Behaviors Index. *Journal of Financial Counseling and Planning*, 34(2). <https://doi.org/10.1891/JFCP-2022-0046>
- Putri, C. S., Herianingrum, S., Ramadhanty, R. P., Zubaid, N. L., & Timur, Y. P. (2023). Relationship between Islamic bank consumptive financing and gross regional domestic product in Indonesia, 2016-2020. *Journal of Islamic Economics Lariba*, 9(1), 97–114. <https://doi.org/10.20885/jielariba.vol9.iss1.art6>
- Sabri, M. F., Anthony, M., Law, S. H., Rahim, H. A., Burhan, N. A. S., & Ithnin, M. (2023). Impact of financial behaviour on financial well-being: Evidence among young adults in Malaysia. *Journal of Financial Services Marketing*, 29, 788–807. <https://doi.org/10.1057/s41264-023-00234-8>
- Timur, Y. P., Masrizal, & Trianto, B. (2025b). Factors influencing adoption of e-payments by microenterprises' owners in Indonesia. *Journal of Modelling in Management*, 20(6), 2054–2085. <https://doi.org/10.1108/JM2-09-2024-0305>
- Timur, Y. P., Ridlwan, A. A., Fikriyah, K., & Susilowati, F. D. (2025c). Two years of digital Sharia bank in Indonesia, what do consumers think?: A sentiment analysis using machine learning. *Multidisciplinary Science Journal*, 7(6), 2025273. <https://doi.org/10.31893/multiscience.2025273>
- Timur, Y. P., Ridlwan, A. A., Fikriyah, K., Susilowati, F. D., & Rofiqo, A. (2024). Understanding Public Perceptions of Digital Sharia Pawnshops in Indonesia: A Sentiment Analysis with Machine Learning. 2024 International Conference on Sustainable Islamic Business and Finance (SIBF), 177–185. <https://doi.org/10.1109/SIBF63788.2024.10883859>
- Timur, Y. P., Ridlwan, A. A., Fikriyah, K., Susilowati, F. D., Canggi, C., & Nurafini, F. (2024). How should Bank Syariah Indonesia respond to cyber-attacks? Churn, sentiments, and emotions analysis with machine learning. *Journal of Islamic Economics Lariba*, 10(1), 439–470. <https://doi.org/https://doi.org/10.20885/jielariba.vol10.iss1.art24>
- Timur, Y. P., Ridlwan, A. A., Fikriyah, K., Susilowati, F. D., Rofiqo, A., Wijaya, M. W., & Muhammad, A. S. (2027). QRIS as a digital payment: Gender differences and adoption perspectives among Generation Z through multi-group analysis. *Multidisciplinary Science Journal*, 9(1), 2027095. <https://doi.org/10.31893/multiscience.2027095>
- Timur, Y. P., Ridlwan, A. A., Rahim, S. A., Fikriyah, K., Susilowati, F. D., Canggi, C., Nurafini, F., & Badrul Munir, M. B. (2025a). Determinants of Muslim investors in investing through green sukuk retail: an extended pro-environmental planned behavior approach. *Journal of Islamic Marketing*, 16(8), 2403–2432. <https://doi.org/10.1108/JIMA-07-2024-0286>
- Widjayanti, C. E., Adawiyah, W. R., & Sudarto. (2025). Financial literacy innovation is mediated by financial attitudes and lifestyles on financial behavior in MSME players. *Journal of Innovation and Entrepreneurship*, 14, 57. <https://doi.org/10.1186/s13731-025-00525-5>

Wijaya, H. R., Hati, S. R. H., Ekaputra, I. A., & Kassim, S. (2024). The impact of religiosity and financial literacy on financial management behavior and well-being among Indonesian Muslims. *Humanities and Social Sciences Communications*, 11, 830. <https://doi.org/10.1057/s41599-024-03309-6>