

The Influence of Spiritual Intelligence, Financial Knowledge, and Self-Control on Financial Behavior with Self-Efficacy Moderation on Students of Ma'had Sunan Ampel Al-'Aly

Putri Setia Septaviani ¹, Farahiyah Sartika ²

Faculty of Economics, Maulana Malik Ibrahim State Islamic University Malang ^{1,2}

*Corresponding author, 220501110179@student.uin-malang.ac.id

ARTICLE INFO

Received 30 November 2025

Accepted 27 March 2026

Published 31 March 2026

Keywords: Spiritual Intelligence, Financial Knowledge, Financial Behavior, Self Efficacy

DOI:

<https://doi.org/10.24036/ecogen.v9.i1.47>

ABSTRACT

Research examining the influence of spiritual intelligence, financial knowledge, and self-control on financial behavior, with self-efficacy as a moderating variable, in the context of Islamic boarding school students (mahasantri) remains limited, as most previous studies have focused on general university students. Therefore, this study aims to analyze the relationship between spiritual intelligence, financial knowledge, and self-control and the financial behavior of students at Ma'had Sunan Ampel Al-'Aly UIN Malang, as well as to examine the moderating role of self-efficacy. This study employs a quantitative approach using PLS-SEM and involves 98 respondents selected through the Slovin formula. The results indicate that spiritual intelligence and financial knowledge have a positive and significant effect on financial behavior, while self-control does not have a significant effect. The findings also reveal that self-efficacy moderates the relationship between spiritual intelligence and financial knowledge and financial behavior, but does not moderate the relationship between self-control and financial behavior. The structural model explains 85% of the variance in financial behaviour ($R^2 = 0.850$). These findings contribute to the development of behavioral finance literature by highlighting the role of spiritual, cognitive, and psychological factors in shaping the financial behavior of Islamic boarding school students and underscore the importance of strengthening these factors to promote responsible financial behavior within Islamic educational environments.



This is an open access article distributed under the Creative Commons 4.0 Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. ©2026 by author.

INTRODUCTION

Financial behavior refers to how individuals manage their money in everyday life, including creating a budget, saving, paying obligations on time, and avoiding unnecessary expenses. Good financial behavior is not formed instantly but is influenced by knowledge, habits, and the ability to exercise self-control in making financial decisions. According to Nogueira et al (2025), financial behavior encompasses concrete actions in managing income, expenses, savings, and debt, making it a crucial determinant of an individual's financial well-being. Other research also shows that students with good financial behavior tend to be better prepared to face urgent needs, avoid consumptive behavior, and achieve long-term financial goals (Samadiyah et al., 2024). Thus, financial behavior is a highly relevant aspect in the context of students in Islamic boarding schools (pesantren), who must manage limited allowances while meeting diverse academic and social needs.

In today's modern era, personal financial management has become an essential skill for every individual. Lifestyle changes, technological advancements, and global economic demands require people to become increasingly adept at planning, using, and controlling their finances. Effective financial management is not only related to the amount of income earned but also to how wisely individuals allocate, save, and develop their financial (Muljaningsih et al., 2025) Financial intelligence is now even considered a life skill that young people must possess in order to cope with economic uncertainty, rising inflation, and the pressures of an increasingly consumerist lifestyle.

The latest national data show that financial literacy levels in Indonesia continue to improve but remain far from ideal. According to the 2024 National Survey on Financial Literacy and Inclusion (SNLIK), the financial literacy index of the Indonesian population was 65.43%, while the financial inclusion index reached 75.02% (OJK 7 BPS, 2024) However, sharia financial literacy remains relatively low at 39.11% (OJK 7 BPS, 2024) This figure illustrates a significant gap between general financial knowledge and religiously based financial knowledge, which is particularly relevant for students in Islamic boarding school (pesantren) campuses.

Table 1. Indonesia's Financial Literacy and Inclusion Index 2024

Component	Percentage
National Financial Literacy	65,43 %
National Financial Inclusion	75,02 %
Sharia Financial Literacy	39,11 %

Source: (OJK 7 BPS, 2024)

The phenomenon of suboptimal financial literacy poses challenges for students, becoming even more complex when linked to religious contexts, such as those in Islamic boarding schools. In the context of students in Islamic boarding schools, spiritual values have the potential to act as a balancing factor, ensuring that financial behavior is not solely influenced by worldly aspects. Previous research by Manafe (2021), that self-efficacy significantly impacts students'

personal financial management. Consistent with this, without motivation and self-confidence (self-efficacy), a person may understand financial concepts well but fail to apply them in their daily lives. Research among university students found that approximately 6.67% of students managed their pocket money well despite their limited funds (Rahmayanti, 2023). This fact suggests that having a small amount of pocket money does not necessarily mean poor management, but rather that poor management can occur if literacy, self-control, and self-confidence are inadequate. For female students, the challenges are even greater due to the additional workload of the Islamic boarding school (ma'had), morning lectures, afternoon Arabic language classes, and evening religious study classes. Students living in Islamic boarding schools face unique financial challenges because they are involved not only in academic activities but also in religious and Islamic boarding school activities. In many cases, students rely solely on their monthly allowance and have limited time to find additional sources of income. This situation creates an urgent need for sound financial literacy and prudent financial behavior to prevent them from falling into harmful consumerism or debt (S & N, 2025).

Within the Islamic boarding school environment, Islamic values serve as the primary framework for shaping students' character. The concepts of piety, sincerity, and trustworthiness are highly relevant for financial management. For example, the teaching that wealth should not be squandered (Quran, Al-Isra', 26-27) leads to vigilance against wastefulness, while the hadith on accountability for wealth reinforces the importance of responsible financial management in the afterlife. The integration of spiritual intelligence and technical financial literacy provides a conceptual foundation that religious values can strengthen control over financial behavior, if supported by knowledge and confidence. Religious values can encourage individuals to choose saving over excessive consumption and to manage their finances not only with worldly considerations but also with an eye to the afterlife (Rahmayanti, 2023)

In the modern era, individual financial behavior is not formed by chance, but rather as a result of the influence of various important aspects such as spiritual intelligence, financial knowledge, and self-control (Samadiyah et al., 2024). Individuals with high levels of spiritual intelligence tend to have a deeper understanding of financial values, enabling them to act wisely and responsibly in managing their financial resources. Furthermore, adequate financial knowledge will enhance an individual's ability to plan, manage, and make economic decisions accurately and purposefully. Meanwhile, self-control plays a crucial role in curbing unnecessary consumption behavior and establishing a more logical financial management pattern. The presence of self-efficacy as a moderating variable also strengthens the relationship between these three factors and financial behavior, as confidence in one's ability to manage finances can encourage individuals to behave financially in a more consistent, effective, and financially stable manner in the long term.

The Behavioral Life Cycle Theory (BLCT), proposed by Nadya Annisa & Elvi Rahmi (2025), explains that individuals' financial decisions are not always rational, as assumed by classical economic theory, but are instead influenced by psychological factors such as mental accounting, self-control, and the framing effect. In this context, a person's financial behavior is

highly dependent on how they manage their income, allocate financial goals, and control their consumer impulses throughout their life cycle.

In this study, financial knowledge and spiritual intelligence play a role in developing a positive mental accounting mindset, where individuals are able to understand financial priorities and place spiritual values in every financial decision. Self-control is a crucial element representing an individual's ability to resist short-term desires for the sake of long-term financial goals, in line with the concept of self-control in BLCT. Meanwhile, self-efficacy serves as an internal factor that strengthens the effectiveness of self-control, as confidence in one's abilities will increase an individual's consistency in implementing rational, prudent, and future-oriented financial behavior. Thus, Behavioral Life Cycle Theory provides a theoretical basis that the combination of cognitive (financial knowledge), psychological (self-control, self-efficacy), and spiritual (spiritual intelligence) aspects contributes to the development of healthy and sustainable financial behavior among students at the Sunan Ampel Al-'Aly Islamic Boarding School (Ma'had Sunan Ampel Al-'Aly UIN Malang).

Spiritual intelligence is defined as an individual's ability to understand the deepest meaning of life, interpret every event wisely, and utilize spiritual values as the basis for thinking, acting, and acting (Putra et al., 2025). Individuals with a high level of spiritual intelligence are better able to distinguish between needs and wants, are able to control themselves from consumptive behavior, and are wiser in making financial decisions. Spiritual intelligence also plays a crucial role in developing a responsible mindset regarding the use of financial resources. This encourages individuals to think beyond material gain to consider aspects of blessing, justice, and usefulness in financial management. Thus, spiritual intelligence serves as a foundation that guides financial behavior so that it aligns with moral values and long-term life goals. In the context of this research, spiritual intelligence is examined as a variable influencing financial behavior among students at the Ma'had Sunan Ampel Al-'Aly UIN Malang. This study aims to determine the extent to which spiritual intelligence can contribute to developing wiser, more planned, and responsible financial behavior.

Several previous studies have shown that spiritual intelligence has a significant positive effect on financial behavior, as spiritual values help individuals exercise self-control and make wiser financial decisions (Mahmoud Al-Qudah, 2024). Contrary to these findings, several other studies have found that spiritual intelligence is unable to encourage healthy financial behavior if it is not accompanied by adequate financial literacy or self-confidence in managing finances (Permatasari et al., 2024). These differing research findings indicate that the relationship between spiritual intelligence and financial behavior remains inconsistent, requiring further testing, particularly among Islamic boarding school students (pesantren) with unique financial management characteristics. Several previous studies, such as those conducted by Mahmoud Al-Qudah (2024), have shown that spiritual intelligence has a positive and significant influence on financial behavior. Individuals who are able to internalize spiritual values in financial decision-making tend to have better self-control, avoid unnecessary expenses, and focus on long-term financial goals. However, there are conflicting findings from Baihaqi (2018), which show that spiritual intelligence does not significantly influence financial behavior if it is not accompanied

by adequate financial literacy. This indicates that even high spiritual values, without a technical understanding of finance, individuals may not be able to manage their money effectively. Therefore, this study attempts to fill this gap by using self-efficacy as a moderating variable to determine whether self-confidence can strengthen the relationship between spiritual intelligence and financial behavior in Islamic boarding school students.

Financial knowledge also has a significant influence on financial behavior (Samadiyah et al., 2024). According to Ardiansyah (2019), financial knowledge is an individual's ability to understand basic financial concepts, including how to manage income. Effectively manage expenses, investments, debt, and financial risks. Students living in dynamic academic and social environments often face challenges in managing personal finances, such as distinguishing between needs and wants or planning wisely for financial use. In this context, financial knowledge is a crucial factor influencing how individuals make financial decisions in their daily lives. Individuals with sound financial knowledge are better able to plan budgets, avoid unnecessary expenses, and allocate funds for long-term goals, such as saving or investing.

Therefore, for students of Ma'had Sunan Ampel Al-'Aly UIN Malang, who live in an academic environment with various financial needs and demands, mastering financial knowledge is crucial for managing their finances more wisely. This study aims to analyze the influence of financial knowledge on financial behavior, linking it to Behavioral Life Cycle Theory, which explains that individuals' spending and saving decisions are influenced by their understanding of the financial consequences of their actions, including how they perceive and manage their income-expenditure cycle (Putra et al., 2025). Previous research has shown that financial knowledge has a positive effect on financial behavior. (Samadiyah et al., 2024) found that a good understanding of financial management, investment, and risk management encourages individuals to reduce consumer behavior and make rational financial decisions. However, research by Ibarrientos, Torred, et al (2024), states that the influence of financial knowledge on financial behavior can vary depending on an individual's level of experience, economic background, and social environment, so it does not always result in uniform financial behavior patterns.

Self-control plays a crucial role in shaping an individual's financial behavior (Samadiyah et al., 2024). According to Ibarrientos, Torred, et al (2024), self-control is a person's ability to manage impulses, control emotions, and delay short-term gratification for the sake of larger, long-term goals. In the context of student life, lifestyle pressures, environmental influences, and easy access to consumption often present challenges to wise financial management. Therefore, self-control is a key factor determining how an individual plans and utilizes their financial resources. Individuals with high levels of self-control tend to be able to distinguish between needs and wants, delay impulsive spending, and focus more on long-term financial goals such as saving or investing.

In this study, self-control was examined as a variable influencing the financial behavior of student students at the Sunan Ampel Al-'Aly Islamic Boarding School, UIN Malang. Good self-control not only helps individuals limit consumptive behavior but also encourages more rational financial decision-making that aligns with life priorities. Previous research has shown that self-

control has a positive and significant impact on financial behavior. Safitri et al (2025), found that individuals with strong self-control are more likely to allocate their income for productive, long-term goals. Nogueira et al (2025), also revealed that strong self-control can reduce consumer behavior and improve financial discipline. Research by found that self-control has no significant effect on financial behavior if someone experiences high financial stress or significant economic pressure. This condition causes financial decisions to be driven by immediate needs, rather than rational planning.

Financial behavior is defined as a series of actions, decisions, and habits of individuals in managing their financial resources effectively and responsibly (Muljaningsih et al., 2025). Financial behavior encompasses various activities such as creating and adhering to a budget, saving regularly, paying obligations on time, avoiding consumer debt, and implementing long-term financial planning. In the context of Islamic boarding school students (pesantren), financial behavior is a crucial aspect that reflects their ability to manage their pocket money, allocate funds for priority needs, and make financial decisions that align with their life goals and spiritual values.

Good financial behavior is not only determined by the amount of income, but also by the extent to which an individual is able to manage and utilize these resources wisely. This study focuses on the influence of spiritual intelligence, financial knowledge, and self-control on the financial behavior of students at the Ma'had Sunan Ampel Al-'Aly UIN Malang. Several previous studies have shown that good financial behavior can improve financial well-being and prevent future financial problems. Rahmayanti (2023), emphasized that healthy financial behavior is influenced by interacting cognitive, psychological, and spiritual factors. Meanwhile, research by Putra et al., (2025) shows that financial behavior reflects not only economic decisions but also moral values, responsibility, and mature decision-making abilities.

Self-efficacy is an individual's belief in their own ability to organize, control, and manage various situations they face, including in the context of financial management (Permatasari et al., 2024). Individuals with high levels of self-efficacy tend to be more confident in making financial decisions, overcoming economic challenges, and achieving long-term financial goals. In the context of student life, self-efficacy plays a crucial role in providing psychological support for managing pocket money effectively, planning finances, and resisting the temptation of unnecessary spending.

In this study, self-efficacy served as a moderating variable, strengthening the relationship between spiritual intelligence, financial knowledge, and self-control on financial behavior. This means that the higher the student's self-efficacy, the greater the influence of these three factors in shaping healthy financial behavior. Previous research has shown that self-efficacy has a significant influence on financial decision-making. Safitri et al (2025), found that individuals with high self-confidence in managing their finances are better able to make informed, consistent, and long-term goal-oriented decisions. However, the influence of self-efficacy can be influenced by experience, knowledge, and social environment, so it does not always have the same effect on every individual.

However, empirical studies testing the model of the influence of spiritual intelligence, financial knowledge, and self-control on financial behavior, with self-efficacy as a moderating variable in the context of Islamic boarding schools (pesantren) are very limited or even non-existent. Most of the existing literature focuses on general university students and urban contexts, rather than on students living in Islamic boarding schools (ma'had). This research gap forms the basis of this research. Focusing on students at the Ma'had Sunan Ampel Al-'Aly UIN Malang, this study focuses on the spiritual and technical aspects of finance in this specific context, and understands how self-efficacy strengthens the influence of spiritual intelligence and literacy on financial behavior.

Based on the above phenomena, the following research questions emerge: do spiritual intelligence, financial knowledge, and self-control influence financial behavior? Furthermore, does self-efficacy moderate the influence of spiritual intelligence, financial knowledge, and self-control on the financial behavior of students participating in the boarding school program (Ma'had) on the UIN Malang campus? This study aims to empirically evaluate and comprehensively examine the relationship between spiritual intelligence, financial knowledge, and self-control on financial behavior. Furthermore, this study also attempts to test and analyze whether self-efficacy moderates the influence of spiritual intelligence, financial knowledge, and self-control on financial behavior among students participating in the boarding school program (Ma'had) at the UIN Malang campus.

RESEARCH METHOD

The type of research used is quantitative with an associative approach, which aims to explain the relationship between the independent variables, namely spiritual intelligence, financial knowledge, and self-control, with the dependent variable of financial behavior, and to test the role of self-efficacy as a moderating variable. This study population consisted of students studying at Ma'had Sunan Ampel Al-'Aly UIN Malang, totaling 4,979 people. Sampling in this study was conducted using non-probability sampling. The Slovin formula was used to determine the minimum sample size required with a 10% error rate, resulting in 98 respondents. In this study, the Slovin formula was used as the basis for estimating the sample size, not as the basis for the probabilistic sampling technique. Data were obtained through the distribution of questionnaires boldly using the Google Form platform. The questionnaire was compiled based on indicators of each research variable that have been described in the operational definition. Respondents provided responses using a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." (Sugiyono, 2022). Data analysis used PLS-SEM through SmartPLS 4, including testing the outer model (validity & reliability), the inner model (R-Square, F-Square, path coefficient), and moderation testing. Hypothesis testing in this study was conducted through inner model analysis using t-statistic and p-value values generated from the bootstrapping process in the SmartPLS application. This test aims to determine whether or not there is a significant influence between exogenous variables on endogenous variables, including the interaction effect (moderation) of self-efficacy on the relationship between independent variables and financial behavior. The bootstrapping process was carried out using the resampling

method, which is to repeatedly draw samples to produce a more stable and accurate estimated distribution (Karwowski & Lebuda, 2016). The t-statistic and p-value values obtained from the path coefficient and total effect tables are the basis for determining whether the research hypothesis is accepted or rejected. Thus, the results of the hypothesis test provide an overview of the strength or weakness of the influence of each variable, including whether self-efficacy truly moderates the relationship between spiritual intelligence, financial knowledge, and self-control on financial behavior in students of Ma'had Sunan Ampel Al-'Aly UIN Malang.

RESULTS AND DISCUSSIONS

Results

Measurement Model Test (Outer Model)

Table 2. *Convergent Validity Test*

Variable	Indicator	Loading Factor
<i>Financial Behavior (Y)</i>	FB1	0.945
	FB2	0.908
	FB3	0.954
	FB4	0.959
	FB5	0.956
	FB6	0.962
<i>Spiritual Intelligence (X1)</i>	SI1	0.903
	SI2	0.901
	SI3	0.870
	SI4	0.883
	SI5	0.912
	SI6	0.859
<i>Financial Knowledge (X2)</i>	FK1	0.878
	FK2	0.920
	FK3	0.887
	FK4	0.917
	FK5	0.934
	FK6	0.909
<i>Self Control (X3)</i>	SC1	0.880
	SC2	0.738
	SC3	0.907
	SC4	0.893
	SC5	0.851
	SC6	0.817
<i>Self Efficacy (Moderasi)</i>	SE1	0.865
	SE2	0.919
	SE3	0.923
	SE4	0.909

SE5	0.915
SE6	0.867

Source: Data processed by the researcher using SmartPLS 4 (2025)

The results of the convergent validity test for all research variables show an outer loading value ≥ 0.70 for each indicator and are declared valid, making them suitable for use in the next analysis stage.

Table 3. Average Variance Extracted (AVE) Results

No	Variable	AVE Value	Explanation
1	Financial Behavior (Y)	0.898	Valid
2	Spiritual Intelligence(X1)	0.789	Valid
3	Financial Knowledge(X2)	0.824	Valid
4	Self Control (X3)	0.722	Valid
5	Self Efficacy (Z)	0.810	Valid

Source: Data processed by the researcher using SmartPLS 4 (2025)

All variables have AVE values above 0.50, with the Financial Behavior variable (Y) having an AVE value of 0.898, the Spiritual Intelligence variable (X1) also showing strong validity with an AVE value of 0.789, the Financial Knowledge variable (X2) having an AVE of 0.824, the Self Control variable (X3) obtaining an AVE value of 0.722, which remains above the minimum threshold, and the Self Efficacy variable (Z) as a moderating variable having an AVE value of 0.810, confirming that the indicators are valid in explaining the measured construct. Overall, all variables in this study have adequate AVE values and meet the criteria for convergent validity.

Table 4. Discriminant Validity

	Financial Behavior (Y)	Spiritual Intelligence (X1)	Financial Knowledge (X2)	Self Control (X3)	Self Efficacy (Z)
FB1	0.945	0.476	0.613	0.388	0.578
FB2	0.908	0.522	0.517	0.392	0.558
FB3	0.954	0.508	0.641	0.365	0.489
FB4	0.959	0.530	0.616	0.336	0.533
FB5	0.956	0.551	0.629	0.345	0.522
FB6	0.962	0.541	0.644	0.365	0.551
SI1	0.454	0.903	0.330	0.425	0.314
SI2	0.489	0.901	0.318	0.316	0.332
SI3	0.450	0.870	0.323	0.394	0.251
SI4	0.531	0.883	0.325	0.370	0.351
SI5	0.546	0.912	0.356	0.356	0.395
SI6	0.446	0.859	0.319	0.311	0.248
FK1	0.591	0.218	0.878	0.262	0.440

FK2	0.553	0.337	0.920	0.275	0.423
FK3	0.541	0.325	0.887	0.220	0.430
FK4	0.638	0.408	0.917	0.338	0.504
FK5	0.636	0.402	0.934	0.302	0.530
FK6	0.535	0.314	0.909	0.309	0.429
SC1	0.272	0.269	0.233	0.880	0.242
SC2	0.283	0.324	0.212	0.738	0.312
SC3	0.409	0.419	0.341	0.907	0.323
SC4	0.396	0.361	0.299	0.893	0.377
SC5	0.301	0.344	0.221	0.851	0.349
SC6	0.233	0.324	0.267	0.817	0.215
SE1	0.397	0.290	0.418	0.344	0.865
SE2	0.536	0.342	0.466	0.308	0.919
SE3	0.576	0.292	0.492	0.351	0.923
SE4	0.478	0.273	0.479	0.306	0.909
SE5	0.553	0.321	0.426	0.301	0.915
SE6	0.493	0.418	0.463	0.368	0.867

Source: Data processed by the researcher using SmartPLS 4 (2025)

Based on the results of the discriminant validity test, it is evident that the cross-loading values of each indicator have the highest correlation with the latent variable to which the indicator belongs, compared to their correlation with other latent variables. The indicators on the Financial Behavior (Y) variable show loading values that are much higher on the Y construct (0.908 - 0.962) compared to other constructs. The pattern is also consistent in the variables of Spiritual Intelligence (X1), Financial Knowledge (X2), Self Control (X3), and Self Efficacy (Z), where all indicators show the highest correlation with their respective constructs.

This shows that each latent variable is able to distinguish itself well from other variables, so all research variables have met the criteria for discriminant validity thru cross-loading testing.

Table 5. Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Explanation
Financial Behavior (Y)	0.977	0.981	0.898	Reliable
Financial Knowledge (X2)	0.957	0.966	0.824	Reliable
Self Control (X3)	0.922	0.939	0.722	Reliable
Self Efficacy (Z)	0.953	0.962	0.81	Reliable
Spiritual Intelligence (X1)	0.947	0.957	0.789	Reliable

Source: Data processed by the researcher using SmartPLS 4 (2025)

All variables used in this study show Cronbach's Alpha and Composite Reliability values well above 0.70. The Financial Behavior (Y) variable demonstrates very high reliability with a

Cronbach’s Alpha of 0.977 and a Composite Reliability of 0.981. The Financial Knowledge (X2) and Spiritual Intelligence (X1) variables also have strong reliability values, with Composite Reliability of 0.966 and 0.957, respectively. The Self Control (X3) and Self Efficacy (Z) variables also meet the criteria with Cronbach’s Alpha values of 0.922 and 0.953.

Thus, all constructs in this study are declared reliable, so the instruments are able to measure variables consistently and are suitable for use in the next stage of analysis.

Heterotrait–Monotrait Ratio (HTMT)

The Heterotrait–Monotrait ratio (HTMT) was used as a more stringent criterion to assess discriminant validity among constructs. The results are presented in Table 6.

Table 6. Heterotrait–Monotrait Ratio (HTMT)

Konstruk	X1	X2	X3	Z	Y
<i>Spiritual Intelligence (X1)</i>	-	0.512	0.438	0.476	0.593
<i>Financial Knowledge (X2)</i>	0.512	-	0.401	0.533	0.682
<i>Self Control (X3)</i>	0.438	0.401	-	0.392	0.415
<i>Self Efficacy (Z)</i>	0.476	0.533	0.392	-	0.624
<i>Financial Behavior (Y)</i>	0.593	0.682	0.415	0.624	-

Source: Data processed by the researcher using SmartPLS 4 (2025)

All HTMT values are below 0.90, so it can be concluded that each construct in this study has good discriminant validity.

Variance Inflation Factor (VIF)

Multicollinearity testing was performed using the Variance Inflation Factor (VIF) value. A VIF value <5 indicates no serious multicollinearity in the structural model.

Table 7. Variance Inflation Factor (VIF)

Variable	VIF	Information
<i>Spiritual Intelligence (X1) → Financial Behavior (Y)</i>	2.843	There is no multicollinearity
<i>Financial Knowledge (X2) → Financial Behavior (Y)</i>	2.765	There is no multicollinearity
<i>Self Control (X3) → Financial Behavior (Y)</i>	1.932	There is no multicollinearity
<i>Self Efficacy × X1 → Y</i>	2.411	There is no multicollinearity
<i>Self Efficacy × X2 → Y</i>	2.389	There is no multicollinearity
<i>Self Efficacy × X3 → Y</i>	1.756	There is no multicollinearity

Source: Data processed by the researcher using SmartPLS 4 (2025)

All VIF values are below the limit of 5, so it can be concluded that the research model is free from multicollinearity problems and is suitable for further analysis.

Common Method Bias Test

Common method bias was tested using the Full Collinearity Assessment (VIF). The model was declared free of Common Method Bias if the VIF value was <3.3.

Table 8. Common Method Bias

Variable	VIF
<i>Spiritual Intelligence (X1)</i>	2.91
<i>Financial Knowledge (X2)</i>	2.88
<i>Self Control (X3)</i>	2.05
<i>Self Efficacy (Z)</i>	2.47
<i>Financial Behavior (Y)</i>	3.02

Source: Data processed by the researcher using SmartPLS 4 (2025)

All VIF values are below 3.3, so it can be concluded that this study is free from common method bias.

Structural Model Test (Inner Model)

Table 9. R-Square Test

Variable	R-square	Percentage
<i>Financial Behavior (Y)</i>	0.850	85%

Source: Data processed by the researcher using SmartPLS 4 (2025)

An R-Square value of 0.850 indicates that the model has a very strong predictive capability, allowing the constructs used in this study to comprehensively and reliably explain the financial behavior of the students.

Tabel 10. F-Square Test

Variable	F-Square
<i>Financial Knowledge (X2) -> Financial Behavior (Y)</i>	0.653
<i>Self Control (X3) -> Financial Behavior (Y)</i>	0.021

Spiritual Intelligence (X1) -> Financial Behavior (Y)	0.662
Self Efficacy (Z) x Self Control (X3) -> Financial Behavior (Y)	0.004
Self Efficacy (Z) x Spiritual Intelligence (X1) -> Financial Behavior (Y)	0.421
Self Efficacy (Z) x Financial Knowledge (X2) -> Financial Behavior (Y)	0.400

Source: Data processed by the researcher using SmartPLS 4 (2025)

F-Square in this study shows the variation in the level of influence of each variable. Spiritual Intelligence (X1) on Financial Behavior (Y) has an F-Square value of 0.662, which means it falls into the large category, indicating a strong contribution in explaining changes in Financial Behavior. Financial Knowledge (X2) also has a value of 0.653, which is also in the large category, showing a strong influence.

Meanwhile, Self Control (X3) provides an F-Square value of 0.021, which falls into the small category, indicating its contribution to Financial Behavior is relatively low. For the moderation variable, the interaction of Self Efficacy (Z) with Spiritual Intelligence (X1) shows an F-Square of 0.421, which means it is large, thus Self Efficacy is able to strengthen the relationship between the two. The interaction of Self Efficacy (Z) with Financial Knowledge (X2) has a value of 0.400, also falling into the large category. However, the interaction of Self Efficacy (Z) with Self Control (X3) yields an F-Square value of 0.004, indicating a very small effect, thus the moderating role in that relationship is not very strong. Overall, these results indicate a variation in the level of influence of each exogenous variable and moderating variable on Financial Behavior in the research model.

Hypothesis Testing

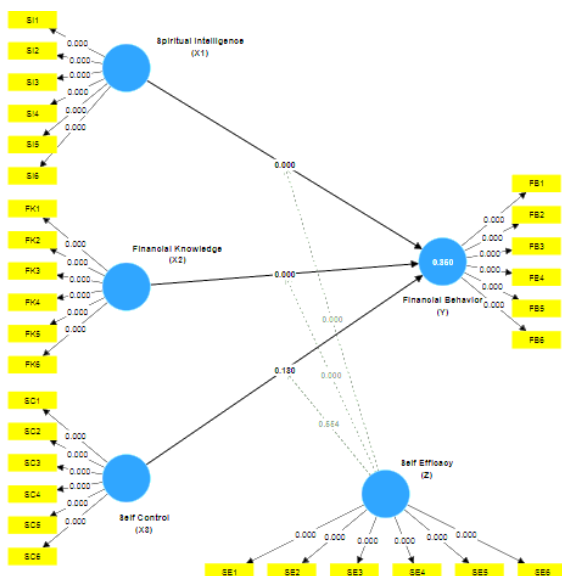


Figure 1. Path Coefficients

Source: Data processed by the researcher using SmartPLS 4 (2025)

Table 11. Path Coefficients

Variable	Original Sample (O)	T statistics (O/STDEV)	P Values
Spiritual Intelligence (X1) -> Financial Behavior (Y)	0.367	6.081	0.000
Financial Knowledge (X2) -> Financial Behavior (Y)	0.377	7.978	0.000
Self Control (X3) -> Financial Behavior (Y)	0.065	1.350	0.180
Self Efficacy (Z) x Spiritual Intelligence (X1) -> Financial Behavior (Y)	0.361	4.845	0.000
Self Efficacy (Z) x Financial Knowledge (X2) -> Financial Behavior (Y)	0.275	5.994	0.000
Self Efficacy (Z) x Self Control (X3) -> Financial Behavior (Y)	0.036	0.594	0.554

Source: Data processed by the researcher using SmartPLS 4 (2025)

The results of the Path Coefficients test show that spiritual intelligence and financial knowledge have a substantial and positively directed impact on financial behavior, while self-control has a positive but insignificant effect. Additionally, self-efficacy significantly moderates the relationship between spiritual intelligence and financial knowledge on financial behavior, but does not moderate the effect of self-control.

Discussions

The Influence of Spiritual Intelligence (X1) on Financial Behavior (Y)

Based on the analysis results using Partial Least Squares (PLS), the spiritual intelligence variable shows a positive and significant impact on the financial behavior of students. Support for these findings is reinforced by a path coefficient value of 0.367, a t-statistic value of 6.081 (> 1.96), and a p-value of 0.000 (< 0.05). These findings indicate that as the spiritual intelligence of the students increases, their financial management will also improve, such as the ability to manage pocket money, avoid wastefulness, and make wise financial decisions.

The results of this study are in line with the findings of (Al-Qudah, 2024) and (Ibarrientos et al., 2024), which show that spiritual values and spiritual intelligence positively contribute to more responsible financial decision-making. Additionally, the research by (Al-Qudah, 2024) also emphasizes that the integration of spiritual values can strengthen healthy financial behavior among students, especially those living in religious based educational environments or pesantren.

This finding contributes to the theory of financial behavior by confirming that non-financial psychological factors, such as spiritual intelligence, can play a direct role in shaping financial decisions and actions, thus broadening the perspective of financial behavior theory which has so far emphasized the rational aspects and financial knowledge alone.

Furthermore, in the context of Islamic educational institutions, these results highlight that integrating spiritual development into the curriculum can effectively support students in making ethical and responsible financial choices. For campus policy, this implies that universities and Islamic boarding schools should design programs that integrate spiritual intelligence training with financial education, such as workshops on ethical financial decision-making and zakat/alms management.

The Influence of Financial Knowledge (X2) on Financial Behavior (Y)

Based on the analysis results using Partial Least Squares (PLS), the financial knowledge variable shows a positive and significant effect on the financial behavior of the students at Ma'had Sunan Ampel Al-'Aly UIN Malang, with an original sample value of 0.377, a t-statistic of 7.978 (> 1.96), and a p-value of 0.000 (< 0.05). This finding indicates that the better the financial understanding possessed by Ma'had students, the more positive the financial behavior patterns they apply in their daily lives. Knowledge about budgeting, managing savings, understanding risks, and the wise use of financial instruments has proven to support the formation of more directed and responsible financial behavior.

The findings of this study align with (Sartika, 2025) and (Ningtyas, 2025), who explain that good financial knowledge will enhance wiser financial behavior. Furthermore, (Samadiyah et al., 2024) also found that increased financial literacy significantly contributes to better financial behavior, particularly among the younger generation who are prone to consumerist behavior.

Thus, this study reaffirms the role of financial knowledge as a key cognitive factor in behavioral financial theory, while also showing that its influence can be strengthened through interactions with other psychological factors such as self-efficacy, thereby enriching contemporary behavioral financial theory models.

In the context of an Islamic educational environment, strengthening financial literacy can empower students to manage their personal finances responsibly while adhering to Sharia principles, such as avoiding *riba* (interest) and giving alms. Practically, universities can implement mandatory financial literacy modules integrated with ethical and religious perspectives, enabling students to translate knowledge into ethical financial behavior.

The influence of Self Control (X3) on Financial Behavior (Y)

Based on the results of the Partial Least Squares (PLS) analysis, the self-control variable (X3) showed a positive but insignificant effect on financial behavior (Y), with an original sample value of 0.065, a t-statistic of 1.350 < 1.96 , and a p-value of 0.180 > 0.05 . This indicates that the students' self-control levels have not yet made a strong and consistent contribution to their financial behavior. In other words, although self-control tends to promote better financial behavior, its effect is not statistically strong enough to be considered significant.

Theoretically, this can be explained because self-control is not the only factor influencing financial behavior. According to Rahmayanti (2023), self-control can lose its influence when individuals are under economic pressure or financial instability, as pressing needs and limited resources can limit a person's ability to consistently exercise self-control. Similarly, Alam et al (2019), found that self-control does not always have a significant effect on financial behavior if environmental factors and the demands of living costs outweigh an individual's ability to manage themselves. Manafe (2021), emphasized that self-control remains important in reducing consumptive behavior and promoting healthy financial behavior, but its influence is more pronounced when environmental support, financial literacy, and economic stability support the practice of self-control. In other words, self-control requires a conducive context for its effects on financial behavior to be significant.

These results contribute to behavioral financial theory by demonstrating that internal psychological abilities such as self-control are not always sufficient to predict financial behavior. External context and environmental pressures can diminish the effectiveness of these internal factors, so behavioral financial theory needs to consider the interaction between internal and external factors.

In the context of Islamic education, these findings suggest that students may need structured support and guidance from institutions to implement self-control in financial decision-making, such as mentoring programs or peer support groups. For campus policy, this implies that simply expecting students to exercise self-control is not enough; universities should provide structured interventions, such as financial counseling or supervised budgeting exercises, to enhance the practical impact of self-control on financial behavior.

Self-Efficacy Moderates the Influence of Spiritual Intelligence on Financial Behavior

Based on the results of the moderation test, it was found that self-efficacy plays a significant role in moderating the influence of spiritual intelligence on financial behavior. Support for these findings is reinforced by a path coefficient value of 0.361, a t-statistic value of 4.845 (> 1.96), and a p-value of 0.000 (< 0.05), thus it can be concluded that self-efficacy strengthens the relationship between spiritual intelligence and financial behavior. Thus, H4 is accepted.

These results indicate that although spiritual intelligence can encourage individuals to behave financially wisely, the effect becomes stronger when individuals have a high level of self-efficacy, which is the self-confidence that they can manage finances effectively. Individuals with good spiritual intelligence but low self-efficacy tend to be unable to optimally implement spiritual values in financial decisions.

These findings support previous research by Al-Qudah (2024), which stated that self-efficacy plays a significant role as a moderator in the relationship between psychological factors and financial behavior. Another study by Ibarrientos et al (2024), also emphasized that individuals with high self-confidence are more consistent in applying moral values and self-control in financial management. In other words, spiritual intelligence works more effectively when individuals believe in their ability to act according to those values.

Self-Efficacy Moderates the Influence of Financial Knowledge on Financial Behavior

Based on the PLS analysis results, the self-efficacy variable significantly moderates the relationship between financial knowledge and financial behavior, as indicated by a p-value of 0.000 (< 0.05) and a t-statistic of 5.994 (> 1.96). This shows that self-efficacy strengthens the relationship between financial knowledge and financial behavior, thus the proposed hypothesis is accepted.

These findings affirm that financial knowledge alone is not sufficient to encourage good financial behavior if it is not accompanied by self-confidence in managing finances. Individuals with high financial knowledge but low self-efficacy tend to be less capable of applying their knowledge in real actions. Conversely, if self-efficacy is high, they are more capable of making decisions, budgeting, saving, and avoiding detrimental consumer behavior.

The results of this study are in line with the findings of Ardiansyah (2019), which state that self-efficacy plays an important role in enabling someone to actualize their financial knowledge into healthy financial behavior. Similarly, Nogueira et al (2025), affirm that individuals with high levels of self-efficacy are more consistent in pursuing financial goals and are better able to control unnecessary expenditures.

Self-Efficacy Moderates the Influence of Self-Control on Financial Behavior

Based on the results of the moderation test, it was found that self-efficacy is unable to moderate the influence of self-control on financial behavior. This is indicated by a p-value of 0.554 (> 0.05) and a t-statistic of 0.594 (< 1.96). Thus, self-efficacy does not play a role as a variable that strengthens or weakens the relationship between self-control and financial behavior. In other words, even though a student has high self-confidence in managing finances, this condition is not sufficient to enhance the effectiveness of self-control in influencing their financial behavior.

These results are in line with the findings of Rahmayanti (2023), which revealed that self-control can lose its effectiveness when individuals face financial pressure or economic stress, so the presence of self-efficacy does not necessarily enhance financial control behavior. Another study by also explains that the influence of self-control on financial behavior can be situational and affected by external factors such as the social environment and economic conditions, so self-efficacy does not always become a variable that strengthens this relationship.

CONSLUSION

This research emphasizes that spiritual intelligence and financial knowledge are key factors shaping students financial behavior, both directly and through the moderating role of self-efficacy. Meanwhile, self-control and the interaction between self-control and self-efficacy did not have a significant impact, thus requiring further investigation in future research.

This research is expected to contribute to the development of financial behavior, particularly in the context of Islamic boarding school-based education, and provide students with insight into the importance of spiritual intelligence, financial knowledge, and self-efficacy in developing healthy and responsible financial behavior.

However, this study has several limitations. First, the relatively limited sample size may affect the generalizability of the findings. Second, this study was conducted at only one educational institution, so the results may not fully represent the characteristics of students at other institutions with diverse backgrounds.

Therefore, future research is recommended to expand the scope of the study by adding other variables that could potentially influence financial behavior to achieve a more comprehensive understanding. Furthermore, future research could employ a mixed methods approach or increase the sample size from various educational institutions to enrich the findings and increase the generalizability of the results.

REFERENCE

- Alam, F., Islam, M. A., Mohamed, M., Ahmad, I., Kamal, M. A., Donnelly, R., Idris, I., & Gan, S. H. (2019). Efficacy and Safety of Pioglitazone Monotherapy in Type 2 Diabetes Mellitus: A Systematic Review and Meta-Analysis of Randomised Controlled Trials. *Scientific Reports*, 9(1). <https://doi.org/10.1038/s41598-019-41854-2>
- Al-Qudah, A. (2024). The moderating role of financial self-efficacy. *Asian Finance & Business Journal*, 12(2), 101–120.
- Ardiansyah, T. (2019). Model Financial Dan Teknologi (Fintech) Membantu Permasalahan Modal Wirausaha UMKM Di Indonesia. *Majalah Ilmiah Bijak*, 16(2), 158–166. <https://doi.org/10.31334/bijak.v16i2.518>
- Baihaqi, J. (2018). Financial Technology Peer-To-Peer Lending Berbasis Syariah Di Indonesia. *TAWAZUN: Journal of Sharia Economic Law*, 1(2), 116. <https://doi.org/10.21043/tawazun.v1i2.4979>
- Ibarrientos, G., Torred, C., Arduo, A. J., Pondoyo, A., Rollon, J., Onis, J. C., & Sumatra, K. (2024). The Relationship Between Financial Self-Efficacy and Financial Behavior of College Students. *International Journal of Multidisciplinary Studies in Higher Education*, 1(1), 103–112. <https://doi.org/10.70847/587962>
- Karwowski, & Lebuda. (2016). The Creative Self-Efficacy Scale: A Measure of Creative Confidence. *Journal of Creative Behavior*.
- Mahmoud Al-Qudah, F. (2024). Fadia Mahmoud Al-Qudah/Afr. *J.Bio.Sc*, 6(15). <https://doi.org/10.48047/AFIBS.6.15.2024.6069-6090>
- Manafe, J. (2021). The Effect of Financial Knowledge, Financial Experience and Spiritual Intelligence on Investment Planning Behavior. *Jurnal Ekonomi & Bisnis JAGADITHA*, 8(2), 209–214. <https://doi.org/10.22225/jj.8.2.2021.209-214>
- Muljaningsih, S., Ekawaty, M., Anggraini, I. K., & Galuh, A. K. (2025). Analysis of Socioeconomic and Ecological Factors Affecting Willingness to Pay in the Glintung Go Green Environmental Conservation Initiative. *Journal of International Conference Proceedings*, 7(5), 1019–1031. <https://doi.org/10.32535/jicp.v7i5.3783>
- Nadya Annisa, & Elvi Rahmi. (2025). Pengaruh Kontrol Diri dan Lingkungan Sosial Terhadap Perilaku Pengelolaan Keuangan Pada Mahasiswa Universitas Negeri Padang. *Jurnal Ecogen*, 8(4), 826–839. <https://doi.org/10.24036/ecogen.v8.i4.45>
- Ningtyas, M. N. (2025). Behavioral economics and financial decision-making among youth. *Jurnal Ilmu Ekonomi Terapan*, 12(1).

- Nogueira, M. C., Almeida, L., & Tavares, F. O. (2025). Financial Literacy, Financial Knowledge, and Financial Behaviors in OECD Countries. *Journal of Risk and Financial Management* 2025, Vol. 18, Page 167, 18(3), 167. <https://doi.org/10.3390/jrfm18030167>
- OJK 7 BPS. (2024). *Survei Nasional Literasi dan Inklusi Keuangan (SNLIK)*.
- Permatasari, D., Nawirah, N., Sartika, F., & Setiani, S. (2024). Exploring the acceptance of peer-to-peer lending: a maqasid syariah perspective through the technology acceptance model. *El dinar: Jurnal Keuangan Dan Perbankan Syariah*, 12(2), 271–289. <https://doi.org/10.18860/ed.v12i2.29056>
- Putra, D. G., Saputra, S. E., & Indra, I. S. (2025). Pengaruh Islamic Intellectual Capital dan Zakat Funds terhadap Nilai Perusahaan Bank Syariah di Indonesia. *Jurnal Ecogen*, 8(4), 642–657. <https://doi.org/10.24036/ecogen.v8.i4.46>
- Rahmayanti, D. (2023). The Effect of Internal Locus of Control and Spiritual Intelligence on Personal Financial Management Behavior. *Integrated Journal of Business and Economics*, 7(1), 340. <https://doi.org/10.33019/ijbe.v7i1.596>
- S, D., & N, S. (2025). How Financial Literacy Influences Budgeting, Investment, and Savings Behaviors. *International Research Journal of Business Studies*, 18(1), 101–114. <https://doi.org/10.21632/irjbs.18.1.101-114>
- Safitri, R., Wuryaningsih, W., Amrullah, A. M. K., & Novianti, K. R. (2025). How islamic financial literacy shapes customer attitude, subjective norm, and perceived behavioral control in using islamic banks in indonesia. *El dinar: Jurnal Keuangan Dan Perbankan Syariah*, 13(2), 182–207. <https://doi.org/10.18860/ed.v13i2.32413>
- Samadiyah, N., Pratiwi, F., & Wulandari, A. (2024). Financial literacy and financial behavior: The moderating role of financial attitude. *Journal of Behavioral Finance*, 25(2), 183–197. <https://doi.org/10.1080/15427560.2024.1132234>
- Sartika, F. (2025). Exploring the acceptance of peer-to-peer financing in Indonesia. *El Dinar: Jurnal Ekonomi Dan Bisnis Syariah*, 12(2).
- Sugiyono. (2022). *Metode penelitian kuantitatif, kualitatif, dan R&D* (Revisi). Alfabeta.