

# Developing Islamic financial literacy in improving Islamic financial behavior towards the financial well-being of MSMEs: The moderating effect of e-payment usage

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## ABSTRACT

### Introduction

As the country with the largest Muslim population in the world, Indonesia has the potential to develop the financial welfare of MSMEs as a driver of economic growth. However, studies on the financial well-being of MSMEs from an Islamic finance perspective are limited.

### Objectives

This study discusses the impact of Islamic financial literacy and Islamic financial behavior on the financial well-being of MSMEs, with e-payment usage as a moderating variable.

### Method

This study used a quantitative approach with a sample of 200 culinary MSMEs in Semarang, Indonesia. Data collection was carried out using questionnaires, and data analysis was carried out using the partial least squares structural equation modelling technique.

### Results

The dimensions of Islamic financial literacy (Islamic financial knowledge, financial skills, and self-efficacy) have a significant positive effect on Islamic financial behavior. Islamic financial knowledge has no significant effect on financial well-being of MSMEs, whereas financial skills and self-efficacy have a significant positive effect. Islamic financial behavior has a significant positive effect on financial well-being of MSMEs. E-payment usage does not moderate the relationship between Islamic financial knowledge and financial skills towards Islamic financial behavior.

### Implications

This study shows the importance of Islamic financial literacy and Islamic financial behavior to improving the financial welfare of MSMEs in Indonesia. The government and Islamic finance stakeholders in Indonesia need to continue to improve Islamic financial literacy and the Islamic financial behavior of society.

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**Originality/Novelty**

This study contributes to the development of Islamic financial literacy and Islamic financial behavior as part of efforts to improve the financial welfare of MSMEs.

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**INTRODUCTION**

Micro, small, and medium enterprises (MSMEs) have played an important role in improving the Indonesian economy. Indonesian MSMEs can reach 99% of all business units, contributing 60.5% of the gross national product and 96.9% of employment. The Coordinating Ministry for Economic Affairs of the Republic of Indonesia in 2021 stated that Indonesia has the potential to develop a digital economy for MSMEs, which is large and continues to grow. However, the number of MSMEs connected to the digital ecosystem or halal certification is still relatively low compared with the number of MSMEs as a whole. Data from the Ministry of Cooperatives and SMEs for 2022, of the approximately 65 million MSMEs, only 17.25 million or approximately 26.5% of MSMEs are connected to the digital ecosystem. This figure certainly needs to be increased in line with the development of people's acceptance and preferences for online shopping. In 2020–2021, as many as 93.3% of MSMEs experienced a decline in sales (Bank Indonesia 2022). This is due to the hassle of managing finances and a lack of knowledge in responding to a decline in sales. Financing is also very important for MSMEs to drive growth and prosperity (Wasiuzzaman, 2020).

The welfare of an entrepreneur depends on his financial well-being. Financial well-being is a condition in which a person can fulfill his obligations in the future by providing financial security and can make choices to enjoy life (Kempson et al., 2017). Financial well-being requires the ability to manage financial transactions, avoid financial shocks and the ability to direct the achievement of financial goals (Singh 2022). However, the uncertainty of economic conditions has an impact on decision-making, resulting in MSMEs facing financial welfare challenges. The challenges faced by MSMEs include personal financial bankruptcy, health problems, and early retirement. Therefore, MSMEs that already have good financial prosperity are better prepared to face challenges. Previous research shows that subjective financial well-being can increase with financial literacy (Mahdzan, 2023; Philippas & Avdoulas, 2020; Younas et al., 2019).

Financial literacy is an important factor in economic growth. As Indonesia's population is predominantly Muslim, it must be in line with an Islamic lifestyle with an awareness of increasing Islamic financial literacy. Islamic financial literacy is an obligation for every Muslim to achieve success in this world and the hereafter (Ayub,

2017). Therefore, MSMEs must have sufficient financial knowledge and priorities for financial allocation to direct their ideal behavior. Financial literacy is also the main driver of financial well-being (Philippas & Avdoulas, 2019). The existence of Islamic financial literacy will strengthen the foundation of ethics and morality in financial management towards prosperity. Islamic financial literacy has three dimensions: knowledge of Islamic finance, financial skills, and self-efficacy (Osman et al., 2023). Islamic financial knowledge explains how any business or transaction involving wealth must be conducted according to Islamic principles (Rahim et al., 2016), especially prohibitions on gambling, interest, and uncertainty. Knowledge about finances affects a person's financial well-being (Younas et al., 2019). Financial skills are key elements of financial literacy. This skill can be applied to all types of financial decision-making. Social cognitive theory places self-efficacy in the context of social learning involving the individual, environment, and interactions between the two (Bandura, 1986). Self-efficacy, as a belief in the ability to face situations without being overwhelmed, is related to motivation, optimism, perseverance, and resilience (Gist & Mitchell, 1992; Park & Folkman, 2014). Higher levels of self-efficacy are correlated with financial well-being (CFPB, 2018).

Previous research shows that there is a research gap between financial literacy and well-being. High financial literacy has a positive effect on financial well-being (Philippas & Avdoulas, 2020; Younas et al., 2019). However, financial literacy has a negative impact on financial well-being (Mahdzan, 2023). This negative impact is because the more someone knows about their finances, the more worried and dissatisfied they feel about their financial condition. In addition, the impact of financial literacy on financial well-being can be insignificant due to low-income factors, where access to finance is limited (Johnson & Sherraden, 2007). Previous research has not examined the relationship between Islamic financial literacy, especially Islamic financial knowledge and skills, and self-efficacy in improving financial well-being. However, current financial literacy has developed in a more specific direction regarding religiosity (Sevriana et al., 2022). Seeing that doing business was exemplified by Prophet Muhammad SAW as his job.

Based on the research gap and business phenomena in this study, mediation is needed in the form of the role of Islamic financial behavior. The existence of this role provides financial welfare for MSMEs influenced by behavior. Developing positive financial behavior will require saving, keeping track of spending, and being careful with money, all of which will assist a person in achieving optimal financial well-being (Rahman et al., 2021). In line with this, financial behavior has a positive influence on financial well-being (Mahdzan, 2023). Looking at Muslim-majority countries, there are still many who shop with installment schemes (Balushi et al., 2018; Lebdaoui & Chetioui, 2021; Warsame & Ileri, 2016). Therefore, it is necessary for Islamic financial behavior to provide good Islamic financial literacy development to improve financial welfare.

This research also needs to expand the role of digitalization in the form of e-payments. Further analysis is required to determine whether the use of e-payments in

MSMEs can strengthen the relationship between Islamic financial literacy and Islamic financial behavior. Indonesia has great potential to strengthen its economic growth by optimizing the role of digital finance in MSMEs with the spread of e-payment. Therefore, this study first tests and analyzes the influence of Islamic financial literacy (using the dimensions of Islamic financial knowledge, financial skills, and self-efficacy) on financial well-being through the mediation of Islamic financial behavior. Second, testing and analyzing the use of e-payments can strengthen the relationship between Islamic financial literacy and Islamic financial behavior. This research aims to improve financial welfare through Islamic financial behavior, Islamic financial literacy, and the use of E-payment in MSMEs. It is hoped that this research will contribute to the development of Islamic financial literacy and behavior in improving the financial welfare of MSMEs and providing a positive view of using e-payment.

## LITERATURE REVIEW

The financial welfare of MSMEs is an important research focus to provide better and more inclusive knowledge and offer future research directions (Safitri et al., 2022; Setiyani & Solichatun, 2019). According to Brüggen et al. (2017), financial well-being is the ability to maintain current standards of living and financial freedom as well as a form of anticipation. This means that MSMEs must be able to control the expenses between business and personal needs to achieve their financial goals. According to Ali et al. (2020), to achieve good financial growth for MSMEs, the right financial infrastructure, behavior, and workforce are needed. This financial well-being can be a measure of the level of financial health of MSME players, which shows the level of security of life of MSMEs so that they can provide financial protection to prevent bankruptcy (She et al., 2022).

Financial well-being can also be influenced by the financial behavior of MSME players. According to a study by Awang et al. (2016), Sharia-based MSMEs must be able to accept Sharia financial principles. In this research, Islamic financial behavior has become an important concept in the financial discipline. Islamic financial behavior arises because of faith and beliefs in doing good in achieving needs and income. According to Andarsari & Ningtyas (2019), if MSMEs have wise financial behavior, this can support their business to grow every year. MSMEs have a significant impact on business leading to profitable institutions (Vashist et al., 2021).

This study combines the findings of Warmath & Zimmerman (2019) that there are three dimensions of financial literacy: knowledge, skills, and self-efficacy. Financial literacy is the ability to gather the information necessary to make financial decisions. In addition, they are confident in building useful or cognitive financial knowledge (Warmath & Zimmerman, 2019). This means that MSMEs with higher financial expertise show a good attitude (Aydin & Selcuk, 2019). Islamic finance knowledge addresses how any business or transaction involving wealth or money should be carried out according to Islamic principles (Rahim et al., 2016). Consequently, the higher the knowledge of Islamic finance, the greater the desire to behave well in order to be able to achieve financial prosperity. Warmath & Zimmerman (2019) state that financial

skills are a person's ability to evaluate and carry out achievements. Self-efficacy in Islamic finance refers to the notion that a person can master skills that are in accordance with Sharia. MSMEs with good Islamic financial literacy can develop themselves to manage adequate financial prosperity.

Islamic financial literacy is becoming increasingly important in the MSME finance. The basic definition of Islamic financial literacy in MSMEs is the competence of MSMEs in managing money, according to Sharia. Research on Islamic financial literacy and Islamic financial behavior has not been followed up in previous studies. This study assumes that when MSME actors are able to understand Islamic financial literacy (knowledge of Islamic finance, financial skills, self-efficacy), their Islamic financial behavior will improve. Therefore, MSMEs who are financially knowledgeable and skilled will further develop Islamic financial behavior. Based on this description, the proposed hypothesis is as follows:

H1: Islamic financial knowledge has a significant positive effect on Islamic financial behavior.

H2: Financial skills have a significant positive effect on Islamic financial behavior.

H3: Self-efficacy has a significant positive effect on Islamic financial behavior.

Financial literacy is very important in helping someone manage money independently and make proper financial plans (Theodora & Marti'ah, 2016). Knowledge and understanding regarding personal finance will influence good and wise financial decision making (Gunardi et al., 2017). Whereas Osman et al. (2023) state that financial skills can develop a positive attitude towards financial management that leads to financial well-being. A person's high financial literacy has a positive effect on their financial well-being (Philippas & Avdoulas, 2019; Younas et al., 2019). The existence of Islamic financial literacy will strengthen the foundation of ethics and morality in managing finances for prosperity. Based on this description, the proposed hypothesis is as follows:

H4: Islamic financial knowledge has a significantly positive effect on financial wellbeing.

H5: Financial skills have a significantly positive effect on financial well-being.

H6: Self-efficacy has a significantly positive effect on financial wellbeing.

Islamic financial behavior refers to the activities of MSME actors related to financial management. Islamic financial behavior is positive or the principle of muamalat. MSME actors who exhibit Islamic financial behavior are more financially responsible, such as recording and controlling expenses, setting financial goals, planning for the financial future, and saving and paying bills on time. This is in accordance with previous research (Dew & Xiao, 2014).

Financial behavior is a predictor of financial well-being (Brüggen et al., 2017; Fu, 2020; Netemeyer et al., 2018). Mahdzan (2023) states that financial behavior has a positive effect on financial well-being. In addition, positive financial behaviors, such as

practicing good credit, savings, and cash management, can improve individual economic and overall well-being (Mahdzan et al., 2019). Based on this description, the proposed hypothesis is as follows:

H7: Islamic financial behavior has a significant positive effect on financial well-being.

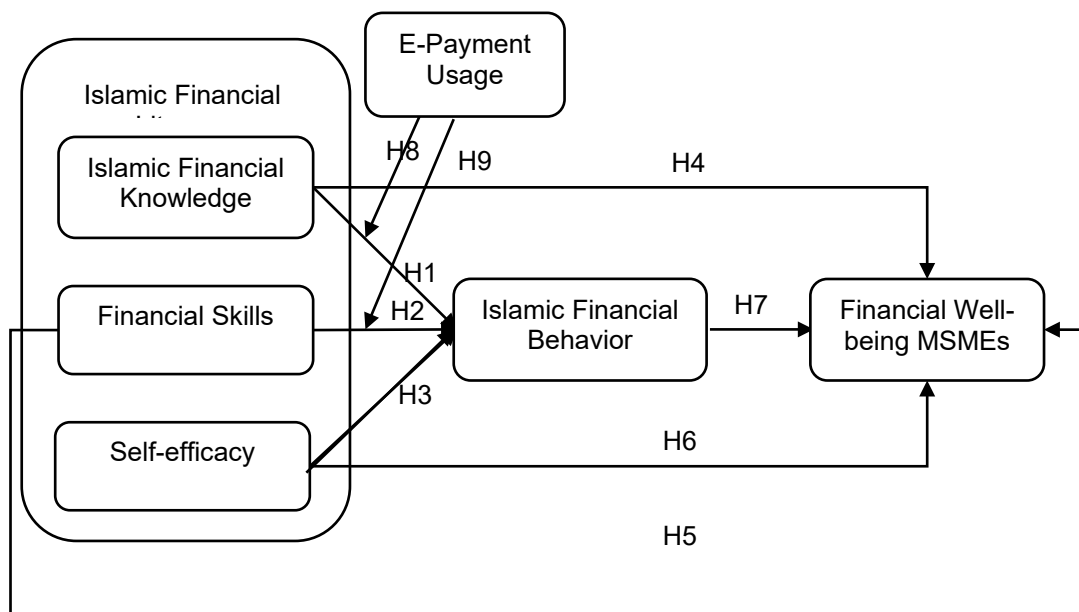
Using the e-payment method has many benefits, such as reducing the risk of carrying cash, reducing theft, increasing flexibility, and unlimited access. Liao & Yang (2020) stated that e-payment provides convenience. Therefore, this study assumes that the use of e-payments strengthens the relationship between Islamic financial knowledge and financial skills in Islamic financial behavior. Based on this description, the proposed hypothesis is as follows:

H8: The use of e-payments can moderate the effect of Islamic finance knowledge on Islamic financial behavior.

H9: The use of e-payments cannot moderate the effect of financial skills on Islamic financial behavior.

**Figure 1**

*Research Model*



Source: Primary data.

## METHOD

This study uses a quantitative approach with an explanatory research type. This type of research is explanatory research, meaning that it emphasizes the relationship between research variables by testing hypotheses, the description of which contains descriptions, but the focus lies on the relationship between variables (Widodo, 2017). The data sources for this study included primary and secondary data. This research data collection method used a questionnaire that asked respondents to visit them

individually. A questionnaire or list of questions is a set of questions that is logically related to the research problem, and each question is an answer that has meaning in testing the hypothesis.

The population of this study was obtained from the MSMEs in Semarang City. The sampling method was purposive sampling, which uses certain sampling criteria. The criteria used were food or culinary MSMEs in Semarang City that have been operating their businesses for at least one year. According to Industry & Micro Business data, by 2022, the number of MSMEs in the culinary sector in Semarang City will reach 3,031. This indicates that the number of MSMEs in the culinary sector of Semarang City was sufficient. The sample size refers to opinion (Hair, 1992), which states that the sample size is an indicator multiplied by 5 to 10, or a minimum of 100 respondents from food or culinary MSMEs in Semarang City. The data analysis technique used in this research uses the Structural Equation Model (SEM) technique with partial least squares (PLS) with SmartPLS 3 software.

## RESULTS

### Descriptive Statistics

The population of this study was MSMEs in Semarang City. Data were collected through a questionnaire from 200 culinary MSMEs in Semarang City. This study also provides a general description of the respondents to the questionnaire and the characteristics of the respondents based on gender and the length of time the MSME has been operating. The majority of the respondents had been selling for a long time, so they provided good information. Table 1 provides a general description of the respondents.

**Table 1**

*Description of Respondents*

Variable	Category	Frequency	%
Gender	Mani	87	43,50%
	Woman	113	56,50%
How long has MSME been in operation?	< 1 Tahun	4	100%
	1 - 5 Tahun	108	2,00%
	> 5 tahun	88	54,00%

Source: Primary data.

### Analysis and Empirical Results

Data analysis for this research used Partial Least Square-Structural Equational Modeling (PLS-SEM) modeling software based on the SmartPLS 3. The outer model analysis aims to assess how the construct measures latent variables as in Table 2. Evaluation of the outer model by testing internal convergent validity (outer loading and AVE), consistency reliability (Cronbach's alpha and composite reliability), and discriminant validity (HTMT). The outer loading values, Cronbach's alpha, rho\_A, and composite reliability are said to be ideal if the loading factor value is > 0.7, indicating

that the indicator is valid in measuring the construct. When the AVE value is  $> 0.50$ , the construction can explain an average of at least 50% of the item variance (Chin, 1998).

**Table 2***Measurement of The Constructs*

Variable	Item		Outer Loading
Islamic Financial Knowledge (IFK) (Osman et al. 2023; Warmath and Zimmerman 2019)	IFK1	I feel the benefits of business with financial management that complies with sharia provisions	0.783
	IFK2	I can separate assets, liabilities, income and expenses of sharia-based businesses	0.742
	IFK3	I can set short, medium and long term financial goals	0.722
	IFK4	My business income source is guaranteed halal	0.756
	IFK5	I know and understand financing procedures at sharia banks	0.713
	IFK6	My business does not violate sharia provisions	0.725
Financial Skills (FS) (CFPB, 2018; Osman et al., 2023; Warmath & Zimmerman, 2019)	FS1	I have the intention to use e-payments continuously in my business	0.724
	FS2	I can analyze financial reports so that it can make business decisions easier	0.752
	FS3	I can participate in controlling the results of financial reports for better decision making	0.778
	FS4	I am familiar with financial investments and understand the risks well	0.778
	FS5	I have sufficient financial information data to make financial decisions	0.720
Self-Efficacy (SE) (CFPB, 2018; Osman et al., 2023; Warmath & Zimmerman, 2019)	SE1	I can solve my business financial problems for discrepancies in financial statements	0.752
	SE2	I am able to manage my business finances efficiently	0.717
	SE3	My business was able to survive and face challenges during and after the crisis	0.743
	SE4	I am able to adjust business changes with the use of e-payments	0.734
	SE5	My business has collaborated with government or private parties	0.726
	SE6	I am able to attract investors to invest in my business	0.726
Islamic Financial Behavior (IFB) (Dinc et al. 2021)	IFB1	I separate income generation based on own capital and financing	0.763
	IFB2	My business is able to generate assets for future investment	0.746
	IFB3	I am able to minimize the use of financing	0.718
	IFB4	My business income is stored in Sharia banking	0.739
	IFB5	I am able to record finances using applications/software	0.765
E-Payment Usage (EP) (Mahdzan 2023)	EP1	E-payment is easy to use in my business	0.764
	EP2	E-payment systems are much easier than traditional payments	0.764
	EP3	I feel comfortable using e-payment	0.752
	EP4	Using e-payment makes the transaction process in my	0.708



		business more accurate	
	EP5	I feel safe about using E-payment	0.762
	FWB1	I have available funds to meet my business operational needs	0.775
Financial	FWB2	I can afford the equipment my business needs	0.713
Well-being	FWB3	My business profits continue to increase	0.730
(FWB)	FWB4	My business can achieve short-term financial goals (e.g. purchasing raw materials and production equipment)	0.753
(Mahdzan 2023; Mahdzan et al., 2019)	FWB5	My business can achieve long-term financial goals (e.g. buying a kiosk or shop)	0.761
	FWB6	I have at least three months saved for my business emergencies	0.729

Source: Primary data.

**Table 3**

*Reliability and Validity Indicators*

Variable	Cronbach's Alpha	rho_A	Composite Reliability	AVE	Information
IFK	0.835	0.838	0.879	0.548	Reliable
FS	0.806	0.808	0.866	0.564	Reliable
SE	0.828	0.829	0.874	0.537	Reliable
IFB	0.801	0.803	0.863	0.557	Reliable
EP	0.808	0.815	0.866	0.563	Reliable
FWB	0.838	0.839	0.881	0.553	Reliable

Source: Primary data.

Based on Table 3, the results of the outer loading values, Cronbach's alpha, rho\_A, and composite reliability  $> 0.70$  means that all variables and indicators of this study have good reliability and are valid. Meanwhile, an AVE value  $> 0.50$  means that each indicator in this research can describe the variable.

The structural model is evaluated using the R-square for the dependent construct, the Stone-Geisser Q-square test for  $Q^2$  predictive relevance, the significance test of the structural path parameter coefficients, and hypothesis testing. According tot (Hair, Ringle, and Sarstedt 2011) the R-square value shows the ability of the endogenous variable to predict the model, namely 0.75 = strong, 0.50 = moderate, 0.50 = weak. The results of the R-squared test are explained in Table 4.

**Table 5**

*R-Square*

	R Square	R Square Adjusted
FWB	0.978	0.978
IFB	0.825	0.820

Source: Primary data.

The R-squared value of financial well-being is 0.978, indicating that the latent variable of financial well-being has a strong predictive ability. Meanwhile, the R-

squared value of Islamic financial behavior is 0.825, meaning that the Islamic financial behavior variable has a strong predictive ability.

According to Ghozali and Latan (2015), a value of  $Q^2 > 0$  indicates that the model has predictive relevance, whereas  $Q^2 < 0$  indicates that the model has less predictive relevance. Table 5 shows  $Q^2 > 0$ , indicating that the quality of the structural model in this study is appropriate or a fit model. The results of the Q-square test are shown in Table 5 and are as follows:

**Table 6**

*Q-Square*

	<b>SSO</b>	<b>SSE</b>	<b>Q<sup>2</sup> (=1-SSE/SSO)</b>
IFK	1,200,000	1,200,000	
FS	1,200,000	1,200,000	
SE	1,000,000	1,000,000	
IFB	1,000,000	552,590	0.447
EP	1,000,000	1,000,000	
FWB	1,200,000	563,193	0.531

Source: Primary data.

The hypothesis significance test was carried out using the bootstrapping menu on SmartPLS 3.0, by looking at the path coefficient table in the t-statistics and  $\rho$ -values column. Testing this hypothesis uses a significance criterion of  $\rho$ -value  $< 0.05$  or a significance value of 5%. The results of the inner model analysis are presented in Table 6 and Figure 2.

**Table 7**

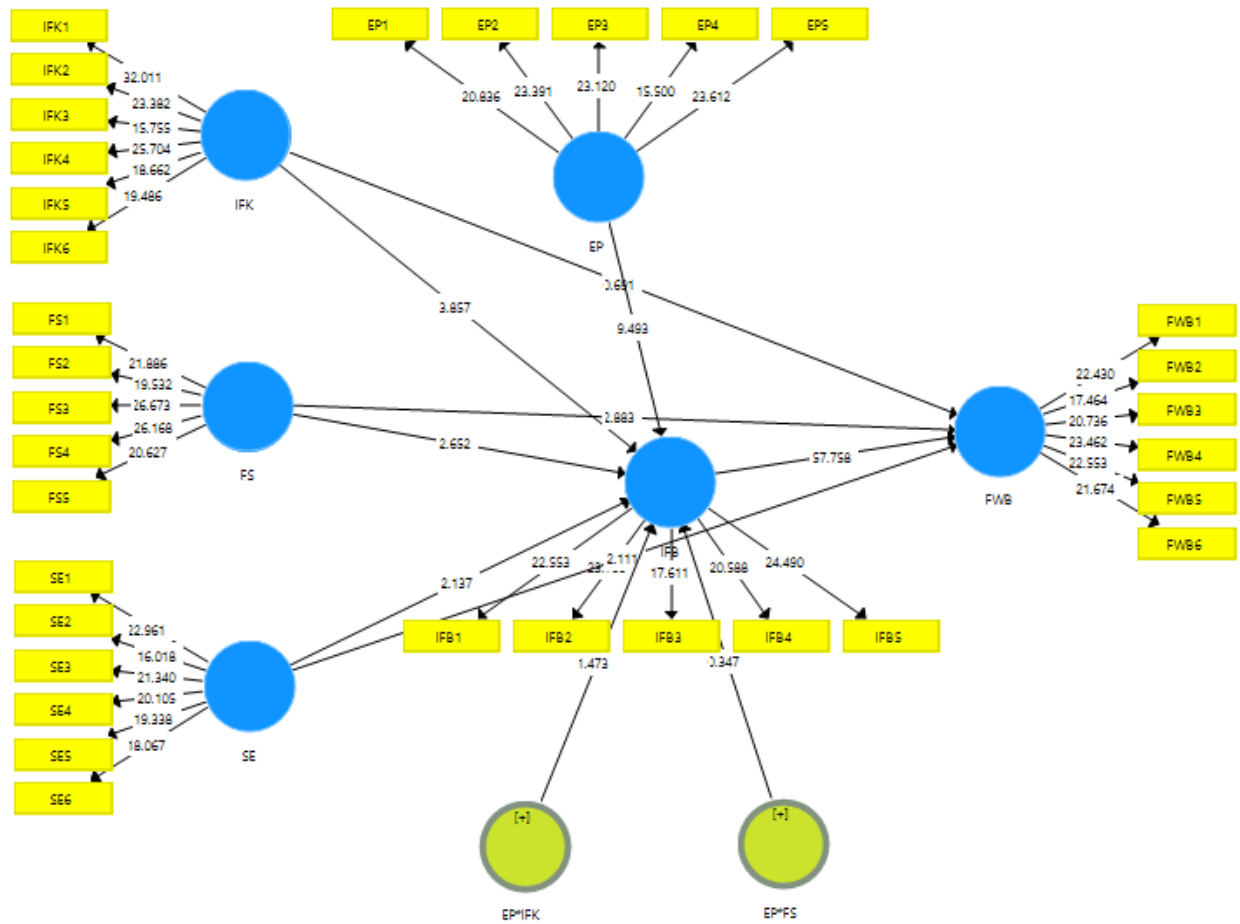
*Inner Model Analysis Results*

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Deviation (STDEV)	P Values
H1 IFK → IFB	0.220	0.220	0.057	3.857	0.000
H2 FS → IFB	0.124	0.125	0.047	2.652	0.008
H3 SE → IFB	0.100	0.100	0.047	2.137	0.033
H4 IFK → FWB	0.012	0.013	0.018	0.691	0.490
H5 FS → FWB	0.047	0.047	0.016	2.883	0.004
H6 SE → FWB	0.027	0.028	0.013	2.111	0.035
H7 IFB → FWB	0.926	0.925	0.016	57.758	0.000
H8 EP*IFK → IFB	0.058	0.059	0.039	1.473	0.141
H9 EP*FS → IFB	-0.014	-0.016	0.041	0.347	0.728
EP → IFB	0.573	0.571	0.060	9.493	0.000

Source: Primary data.

**Figure 2**

*Inner Model Analysis Results*



Source: Primary data.

The results of the analysis show that Islamic financial knowledge ( $O = 0.220$ ;  $0.000 < 0.05$ ), financial skills ( $O = 0.124$ ;  $0.008 < 0.05$ ), and self-efficacy ( $O = 0.100$ ;  $0.033 < 0.05$ ) have a significant positive effect on the behavior of Islamic finance, H1, H2, and H3 are accepted. Islamic financial knowledge ( $O = 0.012$ ;  $0.490 > 0.05$ ) has no significant effect on financial well-being; therefore, H4 is rejected. Financial skills ( $O = 0.047$ ;  $0.004 < 0.05$ ) and self-efficacy ( $O = 0.027$ ;  $0.035 < 0.05$ ) had a significant positive effect on financial well-being; thus, H5 and H6 were accepted. Islamic financial behavior ( $O = 0.926$ ;  $0.000 < 0.05$ ) has a significant positive effect on financial well-being, so H7 is accepted. The use of e-payments does not moderate the effect of Islamic finance knowledge on Islamic financial behavior ( $O = 0.058$ ;  $0.141 < 0.05$ ). The use of e-payments is also unable to moderate the effect of financial skills on Islamic financial behavior ( $O = -0.014$ ;  $0.728 < 0.05$ ). This study found that the use of e-payments had a significant positive effect on Islamic financial behavior ( $O = 0.573$ ;  $0.000 > 0.05$ ).

## DISCUSSION

This research examines and analyzes the development of the relationship between the dimensions of Islamic financial literacy (Islamic financial knowledge, financial skills, self-efficacy) and Islamic financial behavior, use of e-payment, and financial welfare of MSMEs in Semarang City. Therefore, this research seeks to develop Islamic financial literacy to improve Islamic financial behavior towards the financial prosperity of MSMEs and to determine the involvement of e-payments in Islamic financial literacy on Islamic financial behavior.

The findings of this study state that the dimensions of Islamic financial literacy (Islamic financial knowledge, financial skills, and self-efficacy) have a significant positive effect on Islamic financial behavior. This means that MSME players can understand Islamic financial literacy (Islamic financial knowledge, financial skills, and self-efficacy), thereby improving their Islamic financial behavior. In Islam, businesspeople who implement Islamic financial behavior will develop attitudes based on the principles of *muamalah* stated in Islam, namely justice, transparency, prohibition of usury, prohibition of *gharar*, and everything that is prohibited (Rahim et al., 2016). Therefore, it can be said that MSMEs have good literacy, so that MSME actors can implement behavior based on Islamic muamalat principles. This means that MSMEs have broader knowledge and wisdom regarding comprehensive financial behavior, especially from an Islamic perspective. When MSME actors have a good knowledge of Islamic finance, their positive behavior contributes to decision-making in their business. These results also show that MSME actors have good financial skills that impact Islamic financial behavior. MSME actors also show good self-efficacy, which influences Islamic financial behavior. This raises the optimism, persistence, and resilience of MSME actors (Gist & Mitchell, 1992; Park & Folkman, 2014).

Furthermore, this study found that Islamic financial literacy in the knowledge dimension of Islamic finance has no significant effect on financial well-being. Even though the regression coefficient has a positive sign, which shows that there is a tendency for better knowledge of Islamic finance to improve financial welfare, the research results show that there is insufficient evidence that better knowledge of Islamic finance will improve financial welfare. Thus, knowledge of Islamic finance is insufficient to explain the welfare of MSMEs. The insignificant impact of financial literacy on financial well-being is consistent with previous research (Johnson & Sherraden, 2007). According to Osman et al. (2023), knowledge of Islamic finance, which is not significant to financial well-being, is caused by a lack of specific information about Sharia financial transactions and services, even though they already know Sharia transactions. These findings reinforce the notion that there is a gap between what is known and what is directly practiced in the business.

Islamic financial literacy, in the dimensions of financial skills and self-efficacy, has a significant positive effect on financial well-being. This means that Islamic financial literacy, especially the dimensions of financial skills and self-efficacy in MSMEs, can improve financial welfare. The results of this study are in line with those of previous

studies (Philippas & Avdoulas, 2020; Younas et al., 2019) that financial literacy has a significant effect on financial well-being. According to Al-Awlaqi & Aamer (2023) Financial literacy must be instilled in order to be able to influence financial decisions. Therefore, the community, especially MSME actors with good financial skills, are more likely to be able to maintain their financial well-being while complying with Islamic principles (Yusfiarto et al., 2022). Ideal financial well-being provides a perspective from which MSMEs can learn sound Islamic financial literacy. Self-efficacy in Islamic finance refers to the notion that a person can master skills that are in accordance with Shariah (Amin et al., 2017). Higher levels of self-efficacy are correlated with financial well-being (CFPB, 2018).

According to Sharia, Islamic financial behavior is a personal activity related to financial management. This study shows that Islamic financial behavior has a significant positive effect on financial well-being. This means that MSME players are more financially responsible (for example, saving for the future, recording expenses, and having a long-term financial plan) for increasing their financial well-being. The significant positive relationship between Islamic financial behavior and financial well-being is in accordance with previous research findings (Mahdzan, 2023; Mahdzan et al., 2019). This relationship underscores the importance of being responsible for financial matters to ensure higher financial satisfaction, confidence, and control over MSME finances.

The second research objective is to investigate whether the use of e-payments strengthens or weakens the effect of Islamic financial knowledge and financial skills on Islamic financial behavior. The results of the moderation analysis of these two hypotheses show a weakening relationship. The eighth hypothesis is rejected, and the use of e-payments cannot moderate the influence of knowledge of Islamic finance on Islamic financial behavior. This means that the use of e-payments does not support Islamic financial knowledge in motivating Islamic financial behavior in MSMEs. Furthermore, the ninth hypothesis was rejected, and the use of e-payments was also unable to moderate the influence of financial skills on Islamic financial behavior. This means that the use of e-payments does not support financial skills in improving Islamic financial behavior. These results suggest that MSMEs require more information about the use of e-payments. However, further results found that the use of e-payments has a significant positive effect on Islamic financial behavior. Even though the use of e-payment cannot moderate the relationship between Islamic financial knowledge and financial skills on Islamic financial behavior, the use of e-payment can increase Islamic financial behavior. Therefore, digitization in the form of e-payments plays an important role for MSME players.

## CONCLUSION

Islamic financial literacy is considered as an important component for economic growth, especially in Muslim-majority countries. However, few studies focus on Islamic financial literacy. Therefore, this study examines and analyzes the relationship development dimensions of Islamic financial literacy (knowledge of Islamic finance,

financial skills, and self-efficacy) with Islamic financial behavior, use of e-payments, and financial welfare of MSMEs in Semarang City. The results of the analysis state that H1, H2, H3, H5, H6, and H7 are accepted, while H4, H8, and H9 are rejected. Therefore, this study contributes to the development of Islamic financial literacy and financial behavior in improving the financial welfare of MSMEs. Even though the use of e-payment cannot moderate the relationship between Islamic financial knowledge and financial skills on Islamic financial behavior, the use of e-payment can increase Islamic financial behavior.

The implication of this research is to help Islamic financial literacy (Islamic financial knowledge, financial skills, self-efficacy) and Islamic financial behavior gain a better understanding of the financial welfare of MSMEs in identifying potential areas for future research. In addition, there is a need to identify and develop the use of e-payments in order to provide appropriate marketing and financial education efforts to strengthen Islamic financial literacy in improving Islamic financial behavior. Therefore, Islamic financial knowledge, financial skills, self-efficacy, Islamic financial behavior, and the use of e-payments need to be developed to achieve the goal of better financial welfare for MSMEs.

This study had several limitations. First, the research is cross-sectional, meaning that it cannot explain changes in MSME behavior. Future research can re-analyze the changes in MSME behavior. Second, the distribution of this questionnaire was only addressed to MSMEs in Semarang City, so it was still within a limited scope. Future research could expand the research sample to a wider scope, such as MSMEs, throughout Indonesia.

### Author Contributions

Conceptualization	A.S.R., E.S., & R.N.	Resources	A.S.R., E.S., & R.N.
Data curation	A.S.R., E.S., & R.N.	Software	A.S.R., E.S., & R.N.
Formal analysis	A.S.R., E.S., & R.N.	Supervision	A.S.R., E.S., & R.N.
Funding acquisition	A.S.R., E.S., & R.N.	Validation	A.S.R., E.S., & R.N.
Investigation	A.S.R., E.S., & R.N.	Visualization	A.S.R., E.S., & R.N.
Methodology	A.S.R., E.S., & R.N.	Writing – original draft	A.S.R., E.S., & R.N.
Project administration	A.S.R., E.S., & R.N.	Writing – review & editing	A.S.R., E.S., & R.N.

All authors have read and agreed to the published version of the manuscript.

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### Institutional Review Board Statement

The study was approved by Program Studi Manajemen (S1), Universitas Sains dan Teknologi Komputer, Semarang, Indonesia.

### Informed Consent Statement

Informed consent was obtained before respondents answered the questions.

## Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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## Conflicts of Interest

The authors declare no conflicts of interest.

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