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An Analysis of Islamic Financial Literacy, Financial Inclusion, and Accounting Information Systems on Financial Performance with Environmental Uncertainty as a Moderator

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Research aims: The aim of this research is to determine the effect of sharia financial literacy, financial inclusion, accounting information systems on financial performance with environmental uncertainty as a moderator.
Design/Methodology/Approach: This study uses a quantitative approach with a survey method on 108 respondents. This research is survey research among owners of halal-certified food MSMEs who are members of ASPIKMAS in Banyumas Regency.
Research findings: Based on the results of research and data analysis using SEM (Structural Equation Modeling) it shows that: (1) Sharia financial literacy has a negative effect on financial performance, (2) Financial inclusion has no effect on financial performance, (3) Accounting Information System has a positive effect on financial performance, (4) Environmental uncertainty does not moderate the influence of sharia financial literacy on financial performance, (5) Environmental uncertainty does not moderate the influence of financial inclusion on financial performance, (6) Environmental uncertainty strengthens the influence of accounting information systems on financial performance.
Conclusion: The implication of this research is that in an effort to improve the financial performance of MSMEs, business owners should pay attention to knowledge and understanding related to finance, access to financing, and accounting information systems in order to overcome environmental uncertainty that may occur in business. Efforts that can be made are to increase the optimal use of accounting information systems so that they can help business actors in making decisions. Future research is recommended to increase the sample size and examine other variables not explained in this study.
Keywords: Sharia financial literacy, Financial inclusion, Accounting Information System, Financial Performance, MSMEs

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INTRODUCTION

A major contributor to the nation's economic growth is the sector known as Micro, Small, and Medium Enterprises (MSMEs). According to Hilmawati & Kusumaningtias (2021), MSMEs can assist Indonesians who are unemployed or facing economic hardship. MSMEs in Indonesia account for 60.5% of the Gross Domestic Product (GDP) and 96.9% of the country's total employment (Kementerian Koordinator Bidang Perekonomian Republik Indonesia, 2022)..

MSME growth from 2018 to 2019 increased, according to data from the Central Statistics Agency processed by the Ministry of Cooperatives and SMEs (Kementerian Koperasi dan Usaha Kecil dan Menengah, 2019). The number of MSMEs in 2018 was 64,194,057, rising to 65,465,497 in 2019. MSME growth increased by 1.98% between 2018 and 2019. The number of large enterprises stood at 5,550 in 2018 and 5,637 in 2019. However, MSMEs still face challenges related to financial performance that can hinder business development, particularly food-related MSMEs in Banyumas Regency.

Based on interviews with several business owners who are members of the Association of Micro, Small, and Medium Enterprises in Banyumas Regency (ASPIKMAS), the challenges faced by MSMEs include limited financial literacy, difficulties in accessing business capital, and challenges in preparing financial statements.

The concept of Sharia financial literacy greatly helps MSMEs enhance their competitiveness in the halal market. Understanding and managing finances in accordance with Islamic Sharia principles involves, among other things, having a comprehensive understanding of Islamic financial regulations, making investments that comply with Islamic law, and managing financial risks appropriately. This is known as Sharia financial literacy.

Furthermore, financial inclusion has become a key focus for the government and financial institutions. The process of encouraging members of the public and the business community who previously lacked access to financial products and services to gain such access is known as financial inclusion. This includes providing microloans, savings accounts, insurance, and other financial services that enable SMEs to manage their finances more effectively. According to the OJK (2022), one of the challenges faced by SMEs is access to financing.

An effective modern accounting information system also plays a significant role in optimizing the financial performance of SMEs. A good accounting information system helps SMEs track expenses and revenue more efficiently. However, 90% of MSMEs still have a low level of awareness regarding the implementation of proper financial record-keeping. Consequently, many MSMEs are unable to sustain their businesses over the long term due to limited understanding of accounting (Rokhman, 2022).

In 2019, the number of MSMEs that had implemented online marketing systems was recorded at 3.79 million, or about 8% of the total number of MSMEs in Indonesia (Kemenkop UKM, 2019). These efforts were carried out in collaboration with the government with the aim of driving the transformation of MSMEs in Indonesia toward digitalization. However, the positive trend in e-commerce website traffic began to decline in early 2023.

COVID-19 is one type of environmental uncertainty. Environmental uncertainty refers to conditions involving changes in financial regulations, market fluctuations, shifts in consumer behavior, and environmental issues that increasingly influence the strategies and performance of MSMEs. Therefore, it is important to understand how these factors affect the financial performance of MSMEs and whether environmental uncertainty acts as a moderator in the relationship between the variables of Islamic financial literacy, financial inclusion, accounting information systems, and the financial performance of MSMEs.

According to Primasari et al. (2020), Banyumas Regency, with its relatively large area, has a relatively high rate of SME growth. However, this contrasts with the reality that SMEs are developing slowly, have low-quality human resources, and suffer from limited technological literacy. The findings of Primasari et al. (2021) indicate that SMEs in Banyumas Regency suffer from accounting deficiencies.

The halal food sector offers significant and continuously growing market opportunities. Halal certification labels are used to ensure that halal food products meet food safety standards. In October 2024, the government will mandate halal labeling for food and beverage products. This measure is intended to boost consumer confidence in the quality and safety of halal food products. Combined with these factors, halal food MSMEs possess their own distinct appeal and uniqueness, offering significant opportunities for business growth and sustainability.

The conceptual framework of this study is based on the Resource-Based View (RBV) theory as a framework to help understand how Islamic financial literacy, financial inclusion, and accounting information systems can be considered internal resources and capabilities that influence the financial performance of SMEs. Furthermore, this conceptual framework also integrates the concept of environmental uncertainty as a moderator in the relationship between these variables and financial performance. Essentially, the RBV posits that a company’s performance can be enhanced through the management of valuable internal resources and capabilities.

Some previous studies have yielded inconsistent results. Based on the background described above, no prior research has attempted to understand the complex interactions among Islamic financial literacy, financial inclusion, accounting information systems, financial performance, and environmental uncertainty in the context of MSMEs. Therefore, this study will examine the relationship between Islamic financial literacy, financial inclusion, accounting information systems, and the financial performance of MSMEs, as well as test the role of environmental uncertainty as a moderator in this relationship. This study differs from previous research in its independent variables and the inclusion of environmental uncertainty as a moderating variable.

LITERATURE REVIEW

Resource-Based View (RBV) Theory

The main principle of the RBV theory is that a business can only achieve long-term competitive advantage and superior performance if it can acquire valuable resources, possess capabilities that differ from those of its competitors, and have the ability to absorb and utilize those resources. According to the RBV, tangible and intangible resources within businesses and organizations can motivate them to develop strategies to achieve competitive advantage (Sari, 2020).

Sharia financial literacy can be considered a unique internal resource for MSMEs. MSMEs whose owners or staff possess high levels of sharia financial literacy have a competitive advantage in managing their finances in accordance with Islamic financial principles. Financial inclusion can also be considered a resource that supports MSME performance. RBV helps MSMEs understand how to leverage financial inclusion as an external resource. Accounting information systems are an important internal capability for MSMEs. This capability helps MSMEs effectively collect, analyze, and manage financial information.

Sharia Financial Literacy

The ability to make sound financial decisions that impact one's financial well-being is a key requirement for financial literacy. This requires a combination of awareness, expertise, skills, character, and behavior (OECD, 2020). Therefore, SME operators need to develop sound financial literacy in accordance with Islamic Sharia to ensure Sharia requirements are met (Dinc et al., 2021).

Sharia financial literacy is an understanding of financial management based on Sharia principles. Overall, the concept of Sharia financial literacy is the same as that of conventional financial literacy; the only difference lies in the financial products used. In Sharia financial literacy, financial products utilize contracts such as murabahah, mudharabah, wakalah, and so on.

Financial Inclusion

Financial inclusion is the process of providing access to various financial institutions, products, and services in accordance with the needs and capacity of the public, with the aim of improving public welfare (POJK, 2016). According to POJK No. 76, Article 12, the objectives of financial inclusion include: (a) improving public access to financial institutions, goods, and services through the involvement of Financial Services Providers (PUJK); (b) expanding the availability of financial services and/or products provided by PUJK in accordance with the needs and capabilities of the public; (c) increasing the use of financial services and/or products tailored to the needs and capabilities of individuals; (d) improving standards for the use of financial services and products in accordance with the needs and capabilities of the public.

Accounting Information System

An accounting information system is a system that provides access to information related to a company's transactions. Safeguarding the company's assets is one of the objectives of an accounting information system. The data processed by an accounting information system includes not only financial data but also non-financial data. Broadly speaking, an accounting information system not only provides a recording system but also delivers processed information that generates reliable data, which can then be used as the basis for further analysis regarding business development. Other benefits or objectives include facilitating access to credit from lenders, evaluating employee performance, and planning and controlling business activities (Riadi, 2022).

Financial Performance

Performance can be considered a measure of how well an entity has achieved its objectives. This performance is a result directly related to the organization's strategic goals, client satisfaction, and contributions to the economic context (Febriana & Sulhan, 2021). According to Laila & Sihotang (2022), the measurement of a company's performance as presented in the income statement is based on several factors directly related to financial performance. Net income is consistently used as the foundational component for other indicators.

Environmental Uncertainty

Environmental uncertainty is the inability of individuals or organizations to predict social or physical aspects that may influence how decision-makers behave within an organization. Business owners may face environmental uncertainty in the form of conditions that make it difficult for them to decide whether or not to take certain actions (Yolanda et al., 2020). Examples include rising raw material costs, technological advancements, changes in government regulations, market opportunities, political and economic uncertainty, and increased corporate competition (Wiska & Colin, 2021).

The Impact of Sharia Financial Literacy on Financial Performance

Sharia financial literacy refers to the understanding and knowledge that MSME actors possess regarding the principles of Sharia finance. Sharia financial principles include an understanding of the permissibility (halal) and impermissibility (haram) of investments, an understanding of profit-sharing systems, the use of capital in accordance with Sharia principles, and so on. According to the RBV theory, SME operators with high levels of Islamic financial literacy possess a competitive advantage in managing their finances. Therefore, SMEs are expected to make financial decisions that are more in line with Sharia principles.

Research findings by Aprayuda et al. (2022), Darmawan et al. (2021), Hilmawati & Kusumaningtias (2021), Maulana (2021), Sari et al. (2022), Sari et al. (2023) indicate that financial literacy has a positive influence on financial performance. Good financial literacy among business owners will improve the financial performance of their businesses. Based on the results of previous studies, it can be concluded that the first hypothesis to be tested is as follows:

H1 : Sharia financial literacy has a positive effect on the financial performance of MSMEs

The Effect of Financial Inclusion on Financial Performance

Financial inclusion refers to MSMEs' access to and participation in various financial services, such as bank accounts, credit, insurance, and investments. Good financial inclusion accommodates the financial needs of MSMEs and enables them to manage their funds more effectively. The Resource-Based View (RBV) theory explains that MSMEs that effectively utilize access to financing will increase their potential for greater business growth.

Research conducted by Aprayuda et al. (2022), Darmawan et al. (2021), Fomum & Opperman (2023), Hertadiani & Lestari (2021), Sari et al. (2022), and Timuneno et al. (2023) suggest that financial inclusion has a positive effect on financial performance. The higher the level of financial inclusion utilized by business actors, the greater the improvement in a company's financial performance. Therefore, the second hypothesis in this study is formulated as follows:

H2 : Financial inclusion has a positive effect on the financial performance of MSMEs

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The Effect of Accounting Information Systems on Financial Performance

An Accounting Information System refers to the use of information technology and accounting software to record, track, and report financial transactions and related information. The Resource-Based View (RBV) theory explains that MSMEs that optimally implement an accounting information system can manage their finances effectively to assist business owners in decision-making.

According to research conducted by Aditya & Wati (2022), Mulyatini et al. (2022), Putra et al. (2022), Riadi (2022), and Yuscintara & Hendrani (2022), accounting information systems have a positive effect on financial performance. Amalia (2023) argues that the adoption of an accounting information system has a positive and significant effect on the performance of SMEs. The effectiveness of an accounting information system will influence and improve an organization's financial performance. If the accounting information system is successful, the business will have access to adequate financial reports for business decision-making. Individual performance will also improve due to the company's ability to receive information quickly, easily, and with insight. As a result, the company's financial performance improves. Based on this explanation, this study proposes the third hypothesis as follows:

H3: Accounting information systems have a positive effect on the financial performance of MSMEs

The Role of Environmental Uncertainty in Moderating the Effect of Sharia Financial Literacy on Financial Performance

This uncertainty includes external uncertainties that MSMEs may face, such as market fluctuations, regulatory changes, or unstable economic conditions. According to the Resource-Based View (RBV) theory, managing internal resources is crucial for addressing the uncertainty that may arise. In uncertain situations, MSME owners with strong Islamic financial literacy will be better able to make financial decisions aligned with Sharia principles, manage risks wisely, and maintain financial stability. Environmental uncertainty will reinforce the role of Islamic financial literacy in achieving better financial performance.

SMEs with good Islamic financial literacy will be better able to identify and manage risks arising from environmental uncertainty. Business owners can use appropriate Islamic financial instruments to protect themselves from the risk of riba or other aspects that do not comply with Sharia principles. In situations of uncertainty, Sharia financial literacy becomes even more critical in influencing the profitability, sales growth, and liquidity of SMEs. This discussion supports the fourth hypothesis to be tested in this study, as follows.

H4: Environmental uncertainty amplifies the effect of Islamic financial literacy on the financial performance of MSMEs

The Role of Environmental Uncertainty in Moderating the Effect of Financial Inclusion on Financial Performance

Financial inclusion has a positive effect on the financial performance of MSMEs. However, this effect becomes stronger in situations of environmental uncertainty, where MSMEs require broader access to financial services to overcome external challenges. In uncertain situations, better access to financial services can help MSMEs manage risks and overcome external challenges. Environmental uncertainty, as a moderating variable, strengthens the role of financial inclusion in achieving better financial performance.

The results of a study conducted by Hasanah et al. (2021) show that environmental uncertainty strengthens the relationship between financial inclusion and the financial performance of MSMEs. In uncertain situations, better access to financial services has a more significant impact on the profitability, sales growth, and liquidity of MSMEs. Based on this description, the fifth hypothesis proposed in this study is as follows.

H5: Environmental uncertainty strengthens the effect of financial inclusion on the financial performance of MSMEs

The Role of Environmental Uncertainty in Moderating the Effect of Financial Inclusion on Financial Performance

This uncertainty encompasses external factors that may affect MSMEs, such as market changes, regulations, or unstable economic conditions. This moderating variable influences the relationship between accounting information systems and the financial performance of MSMEs. In situations of uncertainty, a good accounting information system can help MSMEs monitor transactions, plan finances, and control costs. The moderating variable of environmental uncertainty will strengthen the role of accounting information systems in achieving better financial performance.

According to research conducted by Holisoh & Putra (2022), environmental uncertainty strengthens the relationship between accounting information systems and the financial performance of MSMEs. In situations of uncertainty, an efficient accounting information system has a more significant impact on the profitability, sales growth, and liquidity of MSMEs. This explanation supports the sixth hypothesis to be tested in this study, as follows.

H6: Environmental uncertainty strengthens the influence of accounting information systems on the financial performance of MSMEs

Research Model

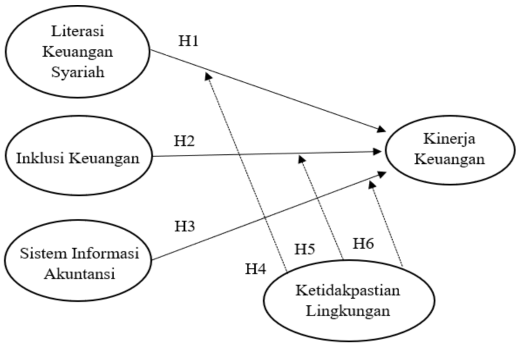

Figure 1. Research Model

METHODS

Research Population and Sample

The population used in this study consists of food MSMEs that are members of ASPIKMAS. This study employed purposive sampling. Purposive sampling is a sampling technique based on specific criteria. The criteria established for sampling are as follows: 1) Food MSMEs that are members of ASPIKMAS; 2) Have been in business for more than one year; and 3) Possess a halal logo.

Operational Definitions of Variables

Dependent Variables

Financial Performance

This variable is measured based on indicators adopted from a study conducted by Winbaktianur & Siregar (2021), consisting of the following four indicators: 1) Business Growth; 2) Total business revenue; 3) Total orders; and 4) Business Cash Position.

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Independent Variables

Sharia Financial Literacy

The measurement of indicators for this variable is based on the RBV model using a questionnaire adapted from Dinc et al. (2021). The three indicators of Islamic financial literacy are as follows: 1) Financial Attitudes; 2) Financial Behavior; and 3) Financial Knowledge.

Financial Inclusion

The research indicators used to measure this variable are based on POJK (2016) which states that financial inclusion can be measured using the four indicators listed below: 1) Access; 2) Usage; 3) Quality; and 4) Well-being.

Accounting Information Systems

This study uses four research indicators to measure the accounting information system variable. The following are the research indicators identified by Mauliansyah & Saputra (2019): 1) Utilization; 2) Supporting Facilities; 3) Security; and 4) Quality

Moderating Variables

Environmental Uncertainty

The following are three research indicators used by Nurfaizin (2023) to measure the environmental uncertainty variable in this study: 1) Uncertainty of influence; 2) Response Uncertainty; and 3) State Uncertainty.

Data Analysis Techniques

Measurement Model (Outer)

Validity Test

Convergent validity can be determined by two factors. First, it can be determined based on the factor loading values. If the p-value is less than 0.05, then the indicator is considered to meet the criteria. Second, it can be determined based on the AVE value. If the AVE value is ≥0.4, then the criteria for construct validity are met (Hair et al., 2021).

Reliability Test

Cronbach's alpha and composite reliability are used to evaluate the reliability of a system. If Cronbach's alpha and composite reliability are greater than 0.6, the system is considered reliable.

Structural (Inner) Model

There are ten indices of model fit and overall model quality provided, including average path coefficient (APC), average R-squared (ARS), adjusted average R-squared (AARS), average block variance inflation factor (AVIF), average full collinearity VIF (AFVIF), Goodness of Fit (GoF), Simpson's Paradox Ratio (SPR), R-squared Contribution Ratio (RSCR), Statistical Stress Ratio (SSR), and Nonlinear Bivariate Causality Directional Ratio (NLBCDR).

RESULTS AND DISCUSSION

Model Specification Test (Initial Model)

The initial model, tested using 5 variables with 59 indicators, yielded the following model.

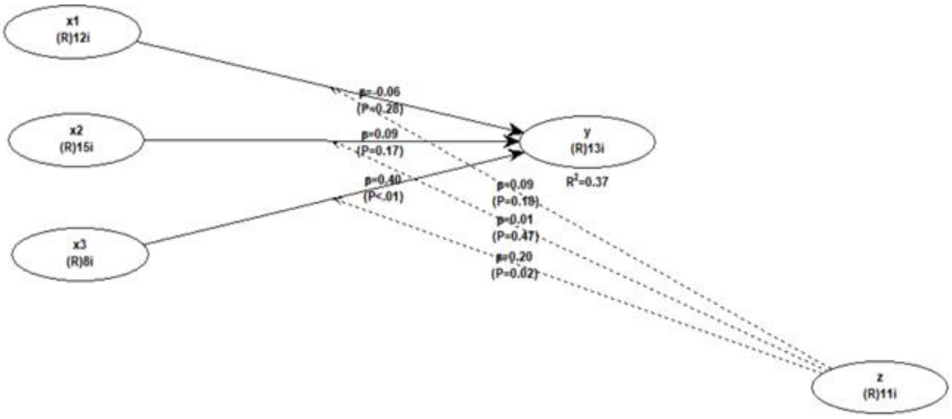

Figure 2. Initial Model
Sumber: Processed data (2026)

Validity Test

The concept of validity testing encompasses two aspects: convergent validity and discriminant validity. Both will be explained below.

Convergent Validity

Factor loadings and AVE values are the two factors that determine convergent validity. First, factor loadings (p-values). A p-value is considered acceptable if it is less than 0.05.

Table 1. Loading Factor from the Initial Model

Variabel	Indikator	Faktor *Loading*	Nilai P
LKS (X1)	X11	0,693	<0,001*
	X12	0,541	<0,001*
	X13	0,747	<0,001*
	X14	0,720	<0,001*
	X15	0,767	<0,001*
	X16	0,776	<0,001*
	X17	0,892	<0,001*
	X18	0,881	<0,001*
	X19	0,873	<0,001*
	X110	0,833	<0,001*
	X111	0,745	<0,001*
	X112	0,745	<0,001*
IK (X2)	X21	0,705	<0,001*
	X22	0,693	<0,001*
	X23	0,534	<0,001*
	X24	0,673	<0,001*
	X25	0,623	<0,001*
	X26	0,267	0,002*
	X27	0,497	<0,001*
	X28	0,527	<0,001*
	X29	0,689	<0,001*
	X210	0,397	<0,001*
	X211	0,532	<0,001*
	X212	0,689	<0,001*
	X213	0,551	<0,001*
	X214	0,675	<0,001*
	X215	0,593	<0,001*
SIA (X3)	X31	0,663	<0,001*
	X32	0,614	<0,001*
	X33	0,656	<0,001*
	X34	0,687	<0,001*
	X35	0,716	<0,001*
	X36	0,789	<0,001*
	X37	0,746	<0,001*
	X38	0,675	<0,001*
KK (Y)	Y11	0,695	<0,001*
	Y12	0,795	<0,001*
	Y13	0,438	<0,001*
	Y14	0,695	<0,001*
	Y15	0,690	<0,001*
	Y16	0,760	<0,001*

Variabel	Indikator	Faktor *Loading*	Nilai P
	Y17	0,641	<0,001*
	Y18	0,631	<0,001*
	Y19	0,626	<0,001*
	Y110	0,431	<0,001*
	Y111	0,603	<0,001*
	Y112	0,578	<0,001*
	Y113	0,363	<0,001*
KL (Z)	Z11	0,654	<0,001*
	Z12	0,699	<0,001*
	Z13	0,695	<0,001*
	Z14	0,608	<0,001*
	Z15	0,738	<0,001*
	Z16	0,855	<0,001*
	Z17	0,760	<0,001*
	Z18	0,710	<0,001*
	Z19	0,772	<0,001*
	Z110	0,744	<0,001*
	Z111	0,466	<0,001*

*Significant value p< 0,05
Sourse: Processed data

Based on the table above, all items show p-values less than 0.05. However, some items show factor *loadings* less than 0.55. Therefore, items X12, X23, X26, X27, X28, X210, X211, Y13, Y110, Y113, and Z111 need to be removed.

Table 2. Average Variance Extracted (AVE) for the Initial Model

Variabel	AVE
LKS (X1)	0,598*
IK (X2)	0,347
SIA (X3)	0,483*
KK (Y)	0,389
KL (Z)	0,499*

*Signifikan AVE values > 0,4
Source: Processed Data

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Discriminant Validity

Table 3. Square Root of AVE for Initial Model

	LKS (X1)	IK (X2)	SIA (X3)	KK (Y)	KL (Z)
LKS (X1)	**0,773***	0,734	0,554	0,314	0,361
IK (X2)	0,734	**0,589**	0,617	0,423	0,498
SIA (X3)	0,554	0,617	**0,695***	0,565	0,553
KK (Y)	0,314	0,423	0,565	**0,624***	0,582
KL (Z)	0,361	0,498	0,553	0,582	**0,707***

Square Root of AVE > Correlation between latent variables
Source: Processed data

As shown in Table 3, the square root of AVE is greater than the correlation between latent variables; therefore, the discriminant validity test for each variable is satisfied.

Model Measurement Test (Revised Model)

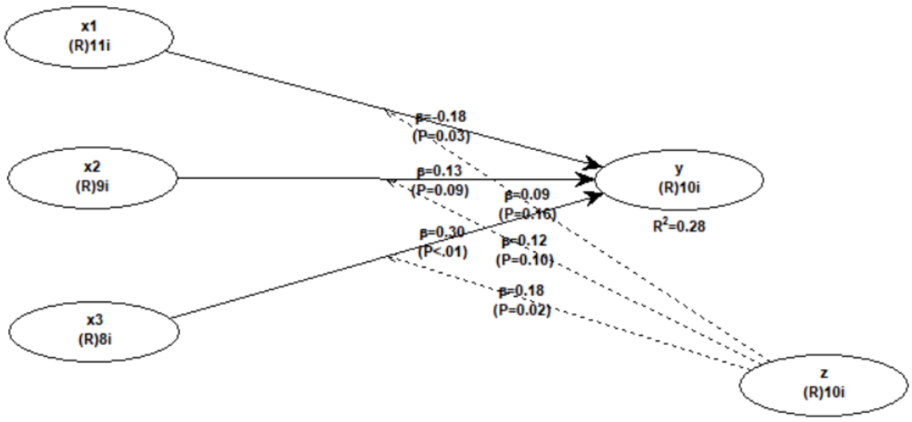

Figure 3. Revised Model
Source: Processed data

Validity Test

The concept of validity testing encompasses two aspects: convergent validity and discriminant validity. Both will be explained below.

Convergen Validity

Changes were made to the initial model because several survey items did not pass the test. One factor that can determine convergent validity is the factor loading value.

Table 4. Factor Loadings of the Revised Model

Variabel	Indikator	Faktor *Loading*	Nilai P
LKS (X1)	X11	0,693	<0,001*
	X13	0,731	<0,001*
	X14	0,726	<0,001*
	X15	0,769	<0,001*
	X16	0,774	<0,001*
	X17	0,903	<0,001*

	X18	0,889	<0,001*
	X19	0,886	<0,001*
	X110	0,835	<0,001*
	X111	0,737	<0,001*
	X112	0,743	<0,001*
IK (X2)	X21	0,731	<0,001*
	X22	0,739	<0,001*
	X24	0,704	<0,001*
	X25	0,630	<0,001*
	X29	0,749	<0,001*
	X212	0,693	<0,001*
	X213	0,550	<0,001*
	X214	0,664	<0,001*
	X215	0,629	<0,001*
SIA (X3)	X31	0,663	<0,001*
	X32	0,614	<0,001*
	X33	0,656	<0,001*
	X34	0,687	<0,001*
	X35	0,716	<0,001*
	X36	0,789	<0,001*
	X37	0,746	<0,001*
	X38	0,675	<0,001*
KK (Y)	Y11	0,716	<0,001*
	Y12	0,771	<0,001*
	Y14	0,721	<0,001*
	Y15	0,733	<0,001*
	Y16	0,802	<0,001*
	Y17	0,656	<0,001*
Variabel	**Indikator**	**Faktor *Loading***	**Nilai P**
	Y18	0,619	<0,001*
	Y19	0,578	<0,001*
	Y111	0,632	<0,001*
	Y112	0,552	<0,001*
KL (Z)	Z11	0,662	<0,001*
	Z12	0,695	<0,001*
	Z13	0,699	<0,001*
	Z14	0,620	<0,001*
	Z15	0,726	<0,001*
	Z16	0,858	<0,001*
	Z17	0,761	<0,001*
	Z18	0,714	<0,001*
	Z19	0,773	<0,001*
	Z110	0,753	<0,001*

*Significant at p < 0.05

Source: Processed data

Overall, the p-values in Table 4 are less than 0.05. This indicates the significance of the factor loadings and p-values.

Table 5. Average Variance Extracted (AVE) of the Revised Model

Variabel	AVE
LKS (X1)	0,629*
IK (X2)	0,461*
SIA (X3)	0,483*
KK (Y)	0,466*
KL (Z)	0,531*

*Significant AVE values > 0.4
Source: Processed data

Another factor that can be used to determine convergent validity is the AVE value. In Table 5, it can be seen that all variables show significant AVE values.

Discriminant Validity

Table 6. Square Root of AVE for the Revised Model

	LKS (X1)	IK (X2)	SIA (X3)	KK (Y)	KL (Z)
LKS (X1)	**0,793***	0,767	0,540	0,291	0,346
IK (X2)	0,767	**0,679**	0,581	0,345	0,362
SIA (X3)	0,540	0,581	**0,695***	0,501	0,555
KK (Y)	0,291	0,345	0,501	**0,683***	0,571
KL (Z)	0,346	0,362	0,555	0,571	**0,729***

Square Root of AVE > Correlation between latent variables
Source: Processed data (2025)

Based on Table 6, it is evident that the square root of AVE is greater than the correlation between latent variables; therefore, all items meet the criteria for discriminant validity..

Table 7. Combined Loadings and Cross Loadings of the Revised Model

	LKS (X1)	IK (X2)	SIA (X3)	KK (Y)	KL (Z)
X11	**0,693**	0,068	-0,022	-0,469	0,412
X13	**0,731**	-0,148	0,213	-0,002	0,190
X14	**0,726**	-0,233	-0,128	0,204	0,033
X15	**0,769**	0,129	0,039	-0,151	0,109
X16	**0,774**	-0,160	0,092	-0,025	-0,134

	LKS (X1)	IK (X2)	SIA (X3)	KK (Y)	KL (Z)
X17	**0,903**	-0,071	0,112	-0,096	-0,045
X18	**0,889**	-0,008	-0,020	-0,052	-0,032
X19	**0,886**	-0,117	-0,138	0,140	-0,016
X110	**0,835**	0,210	-0,063	-0,109	-0,047
X111	**0,737**	0,154	0,012	0,305	-0,258
X112	**0,743**	0,190	-0,090	0,255	-0,156
X21	0,504	**0,731**	-0,018	-0,134	-0,122
X22	0,531	**0,739**	-0,090	-0,042	0,156
X24	-0,191	**0,704**	-0,047	0,021	-0,217
X25	-0,092	**0,630**	-0,092	-0,011	0,176
X29	0,764	**0,749**	-0,063	-0,109	-0,047
X212	-0,271	**0,693**	0,062	0,045	0,121
X213	-0,369	**0,549**	-0,064	0,238	-0,097
X214	-0,720	**0,664**	0,009	-0,008	0,141
X215	-0,431	**0,629**	0,325	0,073	-0,116
X31	-0,179	0,597	**0,663**	-0,090	0,251
X32	-0,232	0,606	**0,614**	0,045	0,005
X33	0,255	-0,645	**0,656**	0,045	-0,172
X34	-0,060	0,006	**0,687**	-0,346	-0,007
X35	0,240	-0,381	**0,716**	0,100	-0,072
X36	0,025	-0,001	**0,789**	0,073	0,020
X37	0,014	-0,048	**0,746**	0,245	-0,243

	LKS (X1)	IK (X2)	SIA (X3)	KK (Y)	KL (Z)
X38	-0,099	-0,057	**0,675**	-0,106	0,245
Y11	0,027	-0,092	0,128	**0,716**	-0,091
Y12	0,023	-0,080	0,098	**0,771**	-0,193
Y14	0,224	-0,208	-0,005	**0,721**	-0,008
Y15	0,321	-0,158	-0,219	**0,733**	-0,070
Y16	-0,085	0,050	-0,134	**0,802**	-0,017
Y17	-0,048	0,005	0,077	**0,656**	-0,149
Y18	-0,433	0,420	-0,043	**0,619**	0,164
Y19	0,002	0,172	0,112	**0,578**	-0,047
Y111	-0,186	0,013	-0,347	**0,632**	0,456
Y112	0,089	-0,033	0,427	**0,552**	0,036
Z11	-0,118	-0,004	0,341	-0,100	**0,662**
Z12	0,081	-0,022	0,130	-0,186	**0,695**
Z13	-0,133	0,256	-0,019	-0,075	**0,699**
Z14	-0,170	0,092	-0,057	-0,091	**0,620**
Z15	0,305	-0,353	-0,407	0,165	**0,726**
Z16	0,029	-0,043	-0,099	0,093	**0,858**
Z17	-0,033	0,047	0,076	0,083	**0,761**
Z18	0,006	0,079	-0,154	-0,013	**0,714**
Z19	-0,142	0,118	0,209	-0,018	**0,773**
Z110	0,140	-0,143	0,003	0,085	**0,753**

Source: Processed data

Other factors that can be used to test discriminant validity include loadings and cross-loadings. Based on Table 7 above, it is evident that the loadings are greater than the cross-loadings.

Reliability Test

In the reliability test, the components used are the Cronbach's alpha and composite reliability values. Evidence that all items have met the reliability test is shown in the table below.

Table 8. Cronbach's Alpha and Composite Reliability of the Revised Model

Variabel	*Cronbach Alpha*	*Composite Reliability*
LKS (X1)	0,940*	0,949**
IK (X2)	0,852*	0,884**
SIA (X3)	0,846*	0,882**
KK (Y)	0,870*	0,896**
KL (Z)	0,900*	0,918**

**Cronbach alpha* > 0,6
**Composite reliability > 0,6
Sourcer: Data Analysis

Structural Model Test (Inner)

The relationships between latent variables will be determined through an inner test. The goodness-of-fit (GoF) of the entire model will be examined in the structural model testing..

Table 9. Model Fit and Quality Indices

Indikator	Nilai	P	Signifikansi/Kriteria	Status
APC	0,167	0,018	Diterima jika P < 0,05	Fit
ARS	0,278	<0,001	Diterima jika P < 0,05	Fit
AARS	0,235	<0,001	Diterima jika P < 0,05	Fit
AVIF	2,093		Diterima jika ≤ 5; idealnya ≤ 3,3	Fit
AFVIF	2,328		Diterima jika ≤ 5; idealnya ≤ 3,3	Fit
GoF	0,440		Diterima jika kecil ≥ 0,1; sedang ≥ 0,25; besar ≥ 0,36	Fit
SPR	0,833		Diterima jika ≥ 0,7; idealnya = 1	Fit
RSCR	0,819		Diterima jika ≥ 0,9; idealnya = 1	Kurang Fit
SSR	1,000		Diterima jika ≥ 0,7	Fit
NLBCDR	0,583		Diterima jika ≥ 0,7	Kurang Fit

Source : Analysis Data

The GoF value, as shown in Table 9, is 0.440. This indicates that the independent variables in this study account for 44.0% of the variation in the dependent variable.

Table 10. Path Coefficients

Variabel	Beta	P
LKS → KK	-0,18	0,03*
IK → KK	0,13	0,09
SIA → KK	0,30	<0,01*
KL*LKS	0,09	0,16
KL*IK	0,12	0,10
KL*SIA	0,18	0,02*

*Significante Value P < 0,05
Source: Data Analysis

Hypothesis 1 states that Islamic financial literacy has a positive effect on financial performance. Based on the results of the statistical test, it can be seen that the beta coefficient is-0.18 and the p-value is 0.03. Therefore, it can be concluded that the first hypothesis in this study is not supported. This implies that Islamic financial literacy has a negative effect on financial performance.

Hypothesis 2 states that financial inclusion has a positive effect on financial performance. Based on the statistical test, the beta coefficient is 0.13 and the p-value is 0.009. In conclusion, the second hypothesis in this study is not supported. This implies that financial inclusion does not affect financial performance.

Hypothesis 3 states that the accounting information system has a positive effect on financial performance. The results of the statistical test show a beta coefficient of 0.30 and a p-value of less than

0.01. The conclusion is that the third hypothesis in this study is supported. This means that the accounting information system has a positive and significant effect on financial performance. The better the accounting information system used, the better the resulting financial performance will be.

Hypothesis 4 states that environmental uncertainty moderates the effect of Islamic financial literacy on financial performance. Based on statistical tests, the beta coefficient is 0.09 and the p-value is 0.16. Since the p-value is greater than 0.05, the fourth hypothesis is not supported. The research results prove that environmental uncertainty does not moderate the effect of Islamic financial literacy on financial performance.

Hypothesis 5 states that environmental uncertainty moderates the effect of financial inclusion on financial performance. As shown in the table of statistical test results, the beta coefficient is 0.12 and the p-value is 0.10. It can be concluded that the fifth hypothesis in this study is not supported. This means that environmental uncertainty does not moderate the effect of financial inclusion on financial performance.

Hypothesis 6 states that environmental uncertainty moderates the effect of the accounting information system on financial performance. The table above shows that the beta coefficient is 0.18 with a p-value of 0.02. In conclusion, the sixth hypothesis is supported. The path coefficient results indicate that the effect of the accounting information system is moderated by environmental uncertainty.

CONCLUSION

Based on the research findings and discussion presented in the previous chapter, it can be concluded that Islamic financial literacy has a negative effect on the financial performance of halal food MSMEs in Banyumas Regency; financial inclusion has no effect on the financial performance of halal food MSMEs in Banyumas Regency; the accounting information system has a positive effect on the financial performance of halal food MSMEs in Banyumas Regency; environmental uncertainty does not moderate the effect of Islamic financial literacy on the financial performance of halal food MSMEs in Banyumas Regency; environmental uncertainty does not moderate the effect of financial inclusion on the financial performance of halal food MSMEs in Banyumas Regency; and environmental uncertainty strengthens the effect of accounting information systems on the financial performance of halal food MSMEs in Banyumas Regency.

This study limited the sample to MSMEs that hold halal certification and are members of ASPIKMAS. This may reduce the study's generalizability. During the distribution and completion of the questionnaires, some respondents were not accompanied by researchers, which could have resulted in questionnaires being filled out inconsistently with the statements.

The RSCR and NLBCDR values in the index were not statistically significant. The limitations of the MSME sample also stemmed from the respondents' varied backgrounds; consequently, a nonparametric analysis method such as PLS was employed. However, PLS has its own limitations, as it processes nearly all data without strict selection criteria.

The implications of this study are that, in an effort to improve the financial performance of MSMEs, business owners should focus on their financial knowledge and understanding, access to financing, and accounting information systems so they can navigate the uncertainties that may arise in their businesses. One approach is to optimize the use of accounting information systems to assist business owners in decision-making. Future research is recommended to increase the sample size and examine other variables not covered in this study.

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