The Role of Digital Financial Services and Sharia Financial Literacy in Improving SMEs Financial Performance

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Abstract

Digital transformation is changing how small and medium enterprises (SMEs) manage transactions and daily finances. Two forces stand out in this shift. The first is the expansion of digital financial services. The second is the strengthening of sharia financial literacy among business owners. This study examines how digital finance, digital payment, and sharia financial literacy jointly affect SMEs financial performance in Central Java, Indonesia. A quantitative design was applied using Structural Equation Modelling with Partial Least Squares (SEM-PLS). Primary data were collected from 142 SMEs owners in the culinary, fashion, and handicraft sectors through a structured questionnaire. The measurement model met the required validity and reliability thresholds. The structural model explained 67.9 percent of the variance in financial performance ($R^2 = 0.679$; adjusted $R^2 = 0.672$). Hypothesis testing shows that digital finance has a positive and significant effect on financial performance. Digital payment shows a positive but statistically non-significant effect. Sharia financial literacy emerges as the strongest predictor, with a positive and significant effect ($\beta = 0.547$, $t = 6.092$, $p = 0.000$). These findings indicate that SMEs financial performance depends less on payment technology alone. It depends more on the owner's capacity to apply digital finance wisely within an Islamic financial framework. This study contributes to the literature on digital transformation and Islamic finance. It offers empirical evidence from an underexplored SMEs population. It also offers practical direction for policymakers and financial institutions designing sharia-based digital literacy programs for SMEs.

***Keywords*:** Digital Finance, Digital Payment, Sharia Financial Literacy, Financial Performance

INTRODUCTION

Digital transformation is changing how Small, and Medium Enterprises (SMEs) manage daily transactions and finances. SMEs hold a strategic position in the Indonesian economy. Based on data from the Ministry of Cooperatives and Small and Medium Enterprises, this sector contributes about 61 percent to Gross Domestic Product (GDP). It also absorbs almost 97 percent of the national workforce (Ministry of SMEs and Cooperation, 2024). This large contribution has not been fully matched by adequate financial management capacity at the business level. Many SMEs owners still face constraints in financing access, financial recordkeeping, and product understanding. Digital financial services offer a relevant solution to these constraints. Digital finance allows business owners to obtain working capital faster through online financing platforms. Digital payment, such as the Quick Response Code Indonesian Standard (QRIS), simplifies transaction processes and sales recording (Pratiwi, et al., 2024). Both services work together with financial literacy as a prerequisite for proper technology use. Most SMEs owners in Indonesia run their businesses within a Muslim society. This society considers sharia principles important in transactions. Sharia financial literacy is a key capability that helps business owners understand profit sharing concepts, the prohibition of riba, and halal fund management. Djuwita, D. & Yusuf, A. A. (2018) found that low sharia financial literacy among SMEs directly affects weak business

planning and sustainability. This finding shows that sharia financial literacy is not merely a complement. It is a factor that determines the quality of financial decision making among business owners.

Previous studies generally discuss digital finance, digital payment, and conventional financial literacy separately. These studies rarely position sharia financial literacy as a variable with equal influence to digital variables. Daud et al., (2022) proved that digital finance and digital payment positively affect SMEs financial performance in Banten Province. However, that study did not include the sharia dimension relevant to the Indonesian context. Srisusilawati, P. et al., (2021) linked sharia financial literacy to SMEs performance. Yet their model did not simultaneously include digital finance and digital payment variables. This gap opens an opportunity for the present study to test all three variables together within one SEM-PLS framework. The research location is Central Java, a region rarely examined on this topic. This study aims to analyze the effect of digital finance, digital payment, and sharia financial literacy on SMEs financial performance. The results are expected to provide empirical references for academics, SMEs owners, and policymakers. These references may support the design of digital financial assistance programs aligned with sharia values.

Digital Finance

Digital finance refers to the use of digital technology to expand access and efficiency of financial services for business owners Umar, H. et al., (2024). This service includes payment, microfinancing, and investment accessible through internet based applications. Daud et al., (2022) proved that digital finance has a positive and significant effect on SMEs financial performance in Banten Province. This happens because digital finance speeds up transactions and reduces operational costs. Online lending platforms allow business owners to obtain working capital without lengthy conventional banking procedures. The presence of digital finance also expands SMEs market reach, previously limited to cash transactions at business locations. Easier access to capital and digital cash flow recording helps business owners make more measured financial decisions. Digital finance therefore not only improves operational efficiency. It also strengthens SMEs competitiveness amid an increasingly digital market.

Digital Payment

Digital payment is specifically facilitates electronic financial transactions. QRIS is one of the most widely used digital payment instruments among Indonesian SMESs. It works easily across different payment applications. Pratiwi et al., (2024) found that QRIS use affects the increase in SMEs sales turnover. This happens because QRIS speeds up transactions and expands payment method options for consumers. The convenience offered by digital payment does not always align with overall financial performance improvement. Some business owners use digital payment only as a transaction tool. They do not integrate it into business financial recording and planning. This condition opens the possibility that the effect of digital payment on financial performance may vary. It depends on how systematically business owners manage their digital transaction data.

Sharia Financial Literacy

Sharia financial literacy is a business owner's understanding of financial principles under Islamic law. This includes the prohibition of riba, profit sharing concepts, and halal fund management. Djuwita, D. & Yusuf, A. A. (2018) found that good sharia financial literacy helps SMEs owners make more directed and sustainable financial decisions. This understanding matters because most Indonesian SMEs operate within a Muslim community. This community considers halal aspects important in every transaction.

Srisusilawati, P. et al., (2021) proved that sharia financial literacy contributes to SMEs performance through improved business models aligned with sharia principles. Nugraha. et al., (2022) added that sharia financial literacy, together with government support and sharia fintech, plays a role in maintaining SMEs business sustainability. Setiawati, R. et al., (2018) confirmed that Islamic financial literacy is a validly measurable construct. It covers knowledge, attitude, and sharia financial behavior dimensions of business owners.

SMEs Financial Performance

SMEs financial performance in this study refers to business achievement reflected in revenue growth, cost efficiency, and cash flow stability. Rahadjeng. et al., (2023) showed that financial literacy and financial inclusion play an important role in driving SMEs business performance in Greater Malang. This finding strengthens the argument that SMEs financial performance is not solely determined by technology access. It also depends on business owners' capacity to understand and apply proper financial management principles.

Conceptual Framework and Hypotheses

Based on the literature review above, this study develops a conceptual framework. This framework connects digital finance, digital payment, and sharia financial literacy as independent variables. Financial performance of SMEs is positioned as the dependent variable.

H1: Digital finance affects financial performance.
H2: Digital payment affects financial performance.
H3: Sharia financial literacy affects financial performance.

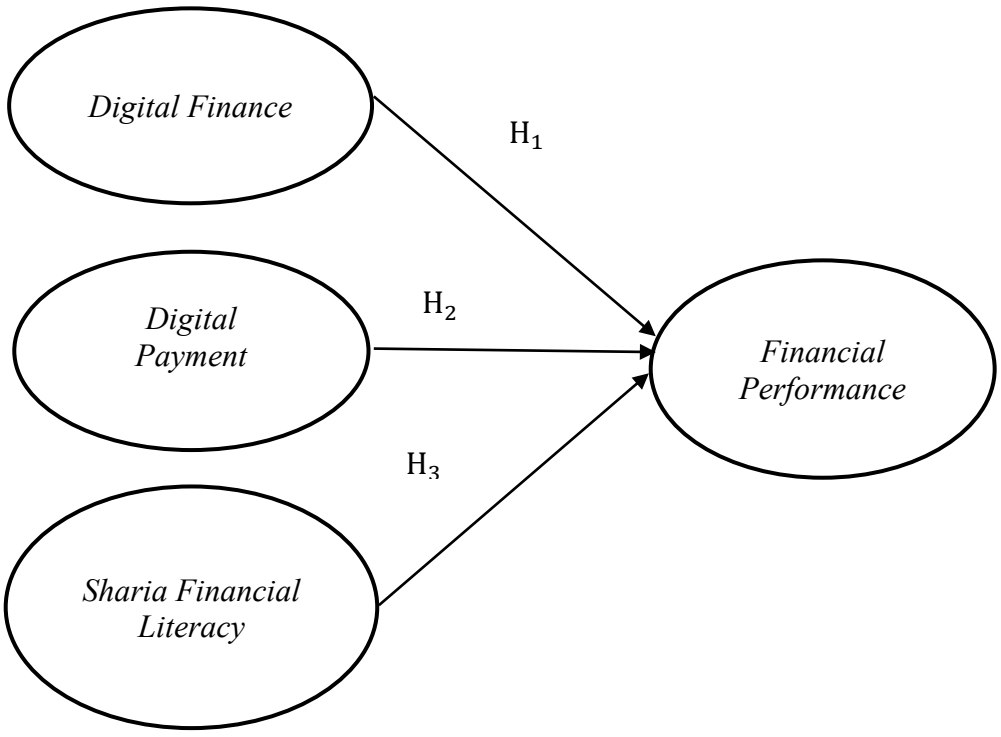


Figure 1. Research Empirical Model

RESEARCH METHODOLOGY

This study uses a quantitative approach with Structural Equation Modeling based on Partial Least Squares (SEM-PLS). Data were processed using SmartPLS version 3.0 software. This approach was chosen because it tests the measurement model and structural model simultaneously. It also suits research models with latent constructs and medium sample sizes. The research population consists of SMEs owners operating in Central Java. The research sample consisted of 142 respondents selected through purposive sampling. The criterion was business owners who had used at least one digital financial service in their operations. Respondents came from various business sectors, including food and beverage, fashion, and handicrafts.

Primary data were collected through a closed questionnaire using a five point Likert scale. The questionnaire consisted of indicators for digital finance, digital payment, sharia financial literacy, and financial performance. Each indicator was developed from constructs used in previous studies. These indicators were adjusted to the Indonesian SMEs context. Data analysis was conducted in two stages. The first stage evaluated the outer model to test indicator validity and reliability. The second stage evaluated the inner model to test relationships between latent variables and hypotheses.

RESULTS AND DISCUSSION

Outer Model

Convergent Validity Analysis

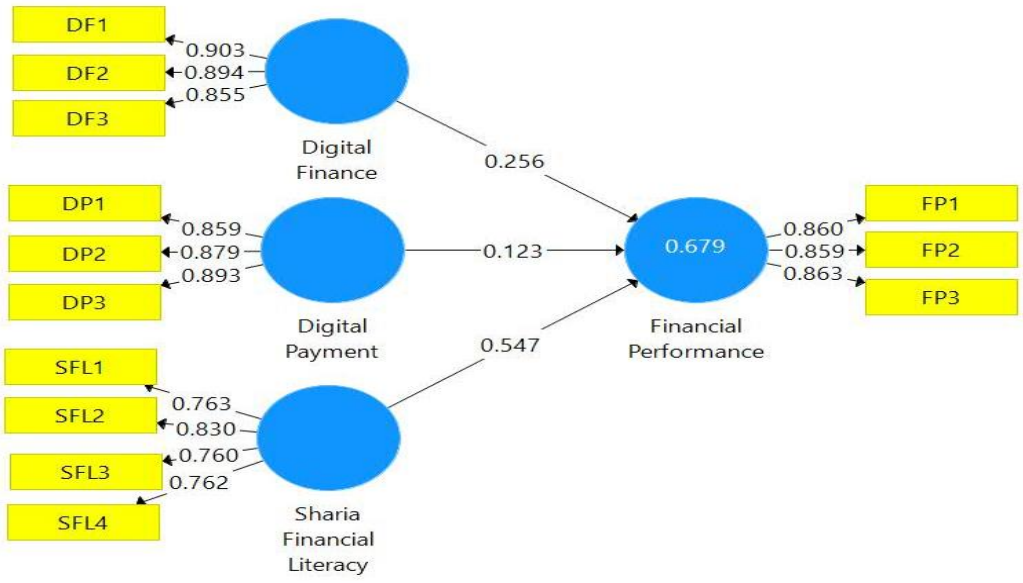


Figure 2. Path Model

Table 1. Outer Loading

	Digital Finance	*Digital Payment*	*Financial Performance*	*Sharia Financial Literacy*
DF1	0,903			
DF2	0,894			
DF3	0,855			
DP1		0,859		
DP2		0,879		
DP3		0,893		
FP1			0,860	
FP2			0,859	
FP3			0,863	
SFL1				0,763
SFL2				0,830
SFL3				0,760
SFL4				0,762

Table 1 shows that all indicators have outer loading values above 0.7. This value indicates that each indicator validly represents its measured construct. Therefore, all indicators are suitable for the next analysis stage (Hair. et al., 2019).

Discriminant Validity Test

Table 2. Cross Loadings

	Digital Finance	*Digital Payment*	*Financial Performance*	*Sharia Financial Literacy*
DF1	**0,903**	0,566	0,609	0,575
DF2	**0,894**	0,597	0,618	0,555
DF3	**0,855**	0,627	0,590	0,550
DP1	0,507	**0,859**	0,573	0,485
DP2	0,605	**0,879**	0,503	0,496
DP3	0,666	**0,893**	0,545	0,571
FP1	0,652	0,540	**0,860**	0,649
FP2	0,568	0,508	**0,859**	0,663
FP3	0,549	0,547	**0,863**	0,705
SFL1	0,455	0,450	0,552	**0,763**
SFL2	0,463	0,404	0,554	**0,830**
SFL3	0,524	0,379	0,589	**0,760**
SFL4	0,518	0,575	0,708	**0,762**

Table 2 shows that each indicator correlates more strongly with its own construct than with other constructs. This pattern is consistent across all indicators of digital finance, digital payment, financial performance, and sharia financial literacy. Therefore, the discriminant validity of the model is fulfille

Table 3. Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Digital Finance	0,782
Digital Payment	0,769
Financial Performance	0,741
Sharia Financial Literacy	0,607

Table 3 shows that the AVE value of all variables exceeds the minimum threshold of 0.50. Therefore, all constructs are declared valid (Fornell, C., & Larcker, 1981).

Table 4. Fornell-Larcker Criterion

	Digital Finance	*Digital Payment*	*Financial Performance*	*Sharia Financial Literacy*
Digital Finance	0,885			
Digital Payment	0,674	0,877		
Financial Performance	0,685	0,618	0,861	
Sharia Financial Literacy	0,633	0,590	0,782	0,779

Table 4 shows that the square root of AVE for each construct exceeds its correlation with other constructs. The square root of AVE for digital finance is 0.885. This value is higher than its correlation with other constructs, ranging from 0.633 to 0.685. A similar pattern applies to digital payment at 0.877, financial performance at 0.861, and sharia financial literacy at 0.779. This result confirms that the discriminant validity of the research model is fulfilled.

Reliability Analysis

Table 5. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	*Composite Reliability*
Digital Finance	0,861	0,862	0,915
Digital Payment	0,850	0,852	0,909
Financial Performance	0,825	0,825	0,895
Sharia Financial Literacy	0,785	0,788	0,861

Table 5 shows that the composite reliability value of all variables exceeds 0.7. Cronbach's Alpha values are also above 0.6. Both indicators show that the research instrument is reliable and consistent in measuring each construct (Hair. et al., 2019)

Inner Model

R-Square (R^2) Value

Table 6. R-Square (R^2)

	R Square	R Square Adjusted
Financial Performance	0,679	0,672

Table 6 shows an R Square value of 0.679. This means digital finance, digital payment, and sharia financial literacy together explain 67.9 percent of the variance in financial performance. The Adjusted R Square value of 0.672 corrects this figure for the number of variables and sample size. Therefore, this research model still has strong explanatory power (Chin, 1998). The remaining 32.1 percent is explained by other variables not included in this research model.

Hypothesis Analysis

Table 7. Direct Effect Hypothesis Test Results

	Original Sample (O)	*T Statistics* (|O/STDEV|)	*P Values*	Keterangan
Digital Finance -> Financial Performance	0,256	2,457	0,014	H1 Diterima
Digital Payment -> Financial Performance	0,123	1,321	0,187	H2 Ditolak
Sharia Financial Literacy -> Financial Performance	0,547	6,092	0,000	H3 Diterima

Table 7 presents a summary of the hypothesis testing results. Each hypothesis is discussed in the following section.

Effect of Digital Finance on Financial Performance

The test results show an estimated coefficient of 0.256. The t-statistic value is 2.457 with a p-value of 0.014. This t-statistic exceeds the critical value of 1.656. The p-value is smaller than 0.05. Therefore, H1 is accepted. This finding proves that digital finance has a positive and significant effect on SMEs financial performance.

This result aligns with Daud et al., (2022), Gregori, G. L., et all., (2015), Hendiarto, R. S., et al., (2021), who proved that digital finance improves SMEs financial performance through faster transactions and cost efficiency. The similar direction of influence in two different regions, Banten and Central Java, strengthens the argument that digital finance provides relatively consistent benefits for SMEs across various geographical contexts in Indonesia (Daud et al., 2022). Easier access to working capital through digital platforms allows business owners to respond to market opportunities more quickly. As a result, business revenue tends to increase along with the use of these services (Rombe, E., et al., 2021), (Prahiawan, W., et all., 2021).

Effect of Digital Payment on Financial Performance

The test results show an estimated coefficient of 0.123. The t-statistic value is 1.321 with a p-value of 0.187. This t-statistic is smaller than the critical value of 1.656. The p-value is greater than 0.05. Therefore, H2 is rejected. This finding shows that digital payment has no significant effect on SMES financial performance in this research sample.

This finding differs from Pratiwi, et al., (2024), who found that QRIS use increases SMEs sales turnover. This difference may be caused by how business owners in this study use digital payment. Most of them still use it only as a daily transaction tool. They do not integrate it into financial recording and planning. The convenience offered by digital payment does not automatically translate into better financial performance. This happens especially if business owners have not managed their digital transaction data systematically. This finding highlights that payment technology adoption needs financial management capacity to create a real impact on business performance.

Effect of Sharia Financial Literacy on Financial Performance

The test results show an estimated coefficient of 0.547. The t-statistic value is 6.092 with a p-value of 0.000. This t-statistic is far greater than the critical value of 1.656. The p-value is smaller than 0.05. Therefore, H3 is accepted. Sharia financial literacy proves to have a positive and significant effect on financial performance. It becomes the variable with the strongest influence among the three independent variables in this study.

This result strengthens the findings of Djuwita, D. & Yusuf, A. A. (2018), who stated that sharia financial literacy helps SMEs owners make better and more sustainable financial decisions. This finding also aligns with Srisusilawati, P. et al., (2021), who showed that sharia financial literacy contributes to SMEs performance through business model improvement. It further supports Nugraha. et al., (2022), who confirmed the role of sharia financial literacy in maintaining SMEs business sustainability. Understanding the prohibition of riba, profit sharing, and halal fund management appears to encourage business owners to prepare more careful and long term oriented financial planning.

The dominant influence of sharia financial literacy compared to digital finance and digital payment indicates something important. The success of SMEs financial digitalization is not sufficiently supported by technology availability alone. Business owners' capacity to understand sharia financial principles appears to be the foundation that determines how productively digital financial technology is used. This finding implies that SMEs assistance programs should combine sharia financial literacy training with digital financial service training. These two elements should not be treated as separate programs.

CONCLUSION

This study examines the effect of digital finance, digital payment, and sharia financial literacy on SMEs financial performance in Central Java. The analysis uses the SEM-PLS approach with 142 respondents. The results show that digital finance has a positive and significant effect on financial performance. Digital payment shows no significant effect in this research sample. Sharia financial literacy proves to be the strongest variable. This finding confirms the importance of understanding sharia financial principles in supporting SMEs financial performance. The three independent variables together explain 67.9 percent of the variance in SMEs financial performance. This indicates that the research model has strong explanatory power. This finding provides theoretical implications by expanding digital transformation studies on

SMEs. It does so by including the sharia financial literacy dimension, which has rarely been tested simultaneously with digital finance and digital payment variables.

Practically, this study recommends that financial institutions and local governments design assistance programs. These programs should combine sharia financial literacy training with digital financial service training for SMEs. This combination is expected to strengthen the sustainability of SMEs businesses in Central Java.

RECOMMENDATION

Future research is recommended to expand the study area beyond Central Java. This would help test whether these findings apply to other regions in Indonesia. Future studies could also add mediating variables, such as digital literacy or consumer trust. These variables may enrich understanding of SMEs financial performance determinants. Researchers could also consider moderating variables, such as business sector type or business age. These variables may reveal differences in how digital finance and sharia financial literacy interact. A longitudinal research design would help capture how digital finance adoption and sharia financial literacy change over time. This design may also show their long term effect on SMEs financial performance.

A qualitative approach, such as in-depth interviews with SMEs owners, could complement the quantitative findings of this study. This combination would provide richer insight into how sharia values shape financial decision making. Future research may also explore other Islamic finance constructs, such as trust in sharia institutions or halal certification awareness. These constructs may further strengthen the theoretical link between Islamic values and SMEs financial performance.

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