



## FINANCIAL LITERACY AS A MODERATING VARIABLE IN THE PERFORMANCE OF HALAL FOOD MSMES: PLS-SEM APPROACH

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**Abstract:** *This study aims to analyze the effects of operational management, human resource quality, business capital, product innovation, and product pricing on the performance of halal food MSMEs in Padangsidimpuan City, with financial literacy as a moderating variable. This study employs a quantitative approach using a questionnaire survey administered to halal food MSME actors selected through purposive sampling. The data were analyzed using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method. The results indicate that operational management, business capital, product pricing, and financial literacy have positive and significant effects on MSME performance. Meanwhile, product innovation has a significant negative effect on MSME performance, and human resource quality does not have a significant effect. The moderation analysis reveals that financial literacy only strengthens the relationship between product innovation and MSME performance, while it does not moderate the relationship between operational management, human resource quality, business capital, and product pricing with MSME performance. These findings highlight that financial literacy serves as an important strategic capability in optimizing the benefits of innovation for improving MSME performance. Therefore, strengthening financial literacy should focus on financial planning, capital management, and innovation-based decision-making supported by financial information to enhance the sustainability and competitiveness of halal food MSMEs.*

**Keywords:** *financial literacy; MSME performance; product innovation; operational management; business capital*

**Abstract:** *Penelitian ini bertujuan menganalisis pengaruh manajemen operasional, kualitas sumber daya manusia, modal usaha, inovasi produk, dan harga produk terhadap kinerja UMKM makanan halal di Kota Padangsidimpuan dengan literasi keuangan sebagai variabel moderasi. Penelitian menggunakan pendekatan kuantitatif melalui survei kuesioner kepada pelaku UMKM makanan halal yang dipilih menggunakan purposive sampling. Data dianalisis menggunakan metode Partial Least Square–Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa manajemen operasional, modal usaha, harga produk, dan literasi keuangan berpengaruh positif dan signifikan terhadap kinerja UMKM. Sebaliknya, kualitas sumber daya manusia tidak berpengaruh signifikan, sedangkan inovasi produk berpengaruh negatif dan signifikan terhadap kinerja UMKM. Pada*



*pengujian moderasi, literasi keuangan hanya terbukti memperkuat hubungan antara inovasi produk dan kinerja UMKM, sementara tidak memoderasi hubungan variabel lainnya. Temuan ini menegaskan bahwa literasi keuangan berperan penting dalam mengoptimalkan dampak inovasi terhadap peningkatan kinerja usaha. Oleh karena itu, penguatan literasi keuangan perlu difokuskan pada perencanaan keuangan, pengelolaan modal, dan pengambilan keputusan inovatif berbasis informasi keuangan guna mendukung keberlanjutan dan daya saing UMKM makanan halal.*

**Keywords:** literasi keuangan; kinerja UMKM; inovasi produk; manajemen operasional; modal usaha

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## BACKGROUND

Micro, Small, and Medium Enterprises (MSMEs) are a strategic sector in the Indonesian economy due to their significant contribution to Gross Domestic Product (GDP) and labor absorption (Aswad et al., 2025). MSMEs have proven to be able to support the national economy, especially in crisis conditions, because of their flexible nature and adaptive to market changes (Buchdadi et al., 2020). The Ministry of Cooperatives and SMEs noted that MSMEs account for more than 60% of the national GDP and absorb around 97% of the workforce, so that the sustainability of MSMEs is a key factor in inclusive economic development (Wahyuningrum & Wibowo, 2025).

At the regional level, North Sumatra Province has more than 1.16 million MSME units spread across 33 districts/cities. However, the distribution of the number of MSMEs is still uneven. Padangsidempuan City is recorded to have only 11,712 MSMEs in 2024, placing it 31st out of 33 districts/cities in North Sumatra (Discoperindag Padangsidempuan, 2024). This data shows that although Padangsidempuan has great economic potential, the development of MSMEs in this region is still relatively lagging behind other regions.

In addition to the relatively small number, the growth of MSMEs in Padangsidempuan City has also fluctuated in the last five years. In 2020, there were 16,925 MSMEs, but there was a sharp decline in 2021 to 10,041 units. Although the number of MSMEs has increased gradually to reach 11,712 units in 2024, this condition indicates structural problems that affect the sustainability and performance of MSMEs in the area (BPS Padangsidempuan, 2024).

One of the MSME sectors that has great potential in Padangsidempuan City is halal food MSMEs. With a Muslim population of 216,060 out of a total of 240,067 residents, the need for halal food products is the main need of the local community (BPS Padangsidempuan City, 2024). This makes the halal food sector not only an economic opportunity, but also a strategic sector that contributes to meeting the basic needs of the community.



However, the magnitude of this potential has not been fully balanced with the optimal performance of halal food MSMEs. Studies show that MSMEs still face limitations in operational management (Aswad et al., 2025; Wibowo & Patmarina, 2024), human resource quality (Arulrajah, 2017), capital (Lystia et al., 2022; Zulfa et al., 2024), as well as the ability to innovate products in a sustainable manner (Tania & Pratama, 2025). This condition makes it difficult for MSMEs to increase productivity and competitiveness, especially in the midst of increasingly fierce market competition.

In addition to these internal factors, low financial literacy is a crucial problem faced by MSME actors (Suryanto & Rasmini, 2018). The lack of understanding related to financial management, business registration, capital planning, and investment decision-making has caused MSME actors to not be able to optimize the resources they have (Kustiani et al., 2025; Rini et al., 2025). Several empirical studies show that financial literacy has a positive effect on the performance of MSMEs, because it helps business actors in managing risks and increasing business efficiency (Cuandra & Angela, 2021)

Despite this, most previous studies still place financial literacy as an independent or mediating variable. Previous studies have primarily examined financial literacy as an independent variable affecting MSME performance (Buchdadi et al., 2020; Wati et al., 2025) or as a mediating mechanism linking financial access and business outcomes. However, limited studies have investigated its moderating role in strengthening the effects of internal business resources on MSME performance. Studies that test financial literacy as a moderating variable in strengthening the relationship between internal business factors and MSME performance are still limited, especially in the halal food MSME sector in areas such as Padangsidempuan City (Annisa & Gurning, 2024). In fact, conceptually, financial literacy has the potential to strengthen the effectiveness of product innovation, capital management, and operational management.

In the perspective of the Resource-Based View (RBV), the performance and competitive advantage of businesses are highly determined by the ability of business actors to manage their internal resources, both physical and non-physical (Dela et al., 2024). Financial literacy, human resources, and managerial capabilities are intangible resources that have an important role in improving the performance of MSMEs in a sustainable manner (Tania & Pratama, 2025). Without this capacity strengthening, MSMEs will find it difficult to develop even though they have large market opportunities.

Based on these conditions, strengthening the managerial and financial capabilities of halal food MSMEs in Padangsidempuan City has become increasingly important. Enhancing



financial literacy, operational management, and product innovation capabilities is expected to improve the ability of MSME actors to manage their businesses more effectively and professionally. Such efforts may help bridge the gap between the considerable market potential of halal food MSMEs and their still-suboptimal business performance.

The novelty of this study lies in extending the Resource-Based View (RBV) framework by positioning financial literacy as a strategic capability that moderates the relationship between internal business resources and halal food MSME performance. This approach not only makes a theoretical contribution to the development of MSME studies based on Resource-Based View, but also has practical urgency as the basis for formulating study programs that are more targeted and based on the real needs of MSMEs in Padangsidempuan City.

## LITERATURE REVIEW

### Background Theory

Resource-Based View (RBV) is a theory that explains that the competitive advantage and performance of an organization are largely determined by the ability to manage internal resources effectively and sustainably (Barney, 1991). These resources include tangible assets such as capital and technology, as well as intangible assets such as human resources, managerial capabilities, and knowledge. In the context of MSMEs, RBV emphasizes that the limitations of business scale can be balanced by the management of internal resources that are unique and difficult for competitors to replicate (Lukovszki et al., 2020).

Halal food MSMEs have special characteristics because they are not only required to produce quality products, but also must meet halal standards in the production process (Sukardani et al., 2018). Therefore, the management of internal resources such as operational management, human resource quality, business capital, product innovation, product pricing, and financial literacy are key factors in improving the performance of MSMEs in a sustainable manner (Nudin et al., 2024).

MSME performance describes the level of success of the business in achieving the goals that have been set, both from financial and non-financial aspects (Rahman et al., 2022). MSME performance indicators generally include increased profits (Sanistasya et al., 2019), expansion of marketing areas (Enshassi et al., 2025), labor absorption (Adiatma et al., 2025), and business capital growth (Farida et al., 2022). Good performance reflects the ability of MSMEs to manage resources optimally and adapt to changes in the business environment



## **Hypothesis Development**

### **MSME Operational Management and Performance**

Operational management plays an important role in managing the process of transforming inputs into outputs efficiently and effectively. The implementation of good operational management can increase productivity, reduce production costs, maintain product quality, and speed up production process time (Kristanto et al., 2022). Previous research has shown that operational management has a positive and significant effect on the performance of MSMEs because it is able to increase business efficiency and competitiveness (Stuart & Stuart, 2024).

**H1:** Operational management has a positive effect on the performance of halal food MSMEs

### **Human resource quality and Performance of MSMEs**

Human resources are strategic assets in determining the success of MSMEs. The human resource quality that include physical, intellectual, and spiritual aspects affects productivity, creativity, and decision-making ability in business (Zulfa et al., 2024). Quality human resources enable MSMEs to manage their businesses in a more professional and adaptive manner. Several empirical studies have found that the human resource quality has a positive effect on the performance of MSMEs (Arulrajah, 2017).

**H2:** The human resource quality has a positive effect on the performance of halal food MSMEs.

### **Business Capital and MSME Performance**

Business capital is an important factor that determines the continuity and growth of MSMEs. Adequate capital availability allows business actors to increase production capacity, expand the market, and innovate products (Sektianingsih & Mahmud, 2024). Previous research has shown that business capital has a positive influence on the performance of MSMEs, because it supports smooth operations and business development (Lystia et al., 2022; Zulfa et al., 2024).

**H3:** Business capital has a positive effect on the performance of halal food MSMEs

### **Product Innovation and MSME Performance**

Product innovation is an effort to create added value through the development of quality, variety, and product design that suits consumer needs. Continuous innovation enables MSMEs to maintain competitiveness and increase sales (Alvincia & Noviansius, 2024). Several studies



show that product innovation has a positive effect on the performance of MSMEs, because it is able to attract consumer interest and expand market share (Tania & Pratama, 2025).

**H4:** Product innovation has a positive effect on the performance of halal food MSMEs

### **Product pricing and MSME Performance**

Product pricing are one of the strategic factors in influencing consumer purchase decisions. Pricing that is in accordance with the quality, benefits, and purchasing power of consumers can increase sales volume and business performance (Lystia et al., 2022). Previous research has shown that competitive product pricing have a positive effect on the performance of MSMEs, especially in price-sensitive markets (Suhardi et al., 2023).

**H5:** Product pricing have a positive effect on the performance of halal food MSMEs

### **Financial Literacy and MSME Performance**

Financial literacy reflects an individual's ability to understand and manage finances effectively, including financial record-keeping, capital planning, and investment decision-making (Wahyuningrum & Wibowo, 2025). A good level of financial literacy helps MSME actors manage cash flow and minimize business risks. Several studies have found that financial literacy has a positive effect on the performance of MSMEs (Buchdadi et al., 2020; Wati et al., 2025).

**H6:** Financial literacy has a positive effect on the performance of halal food MSMEs

### **Financial Literacy as a Moderating variable**

Financial literacy plays an important role in determining the effectiveness of managing MSMEs' internal resources. Business actors with good financial literacy have higher abilities to manage cash flow, control costs, and make rational business decisions, thus having an impact on improving the performance of MSMEs (Purwanti, 2012).

Several previous studies have shown that financial literacy can strengthen the relationship between internal business factors and MSME performance. Suryanto & Rasmini (2018) found that financial literacy strengthens the influence of innovation and business strategies on the performance of MSMEs. Kristanto et al. (2022) also stated that financial literacy helps MSME actors improve operational management efficiency and pricing accuracy.

In addition, Kristanto et al. (2022) revealed that financial literacy supports the development of the human resource quality and the more productive use of business capital.



MSME actors with adequate financial understanding tend to be able to allocate capital efficiently and assess business risks better (Tania & Pratama, 2025).

**H7:** Financial literacy moderates the influence of operational management on the performance of halal food MSMEs.

**H8:** Financial literacy moderates the influence of the human resource quality on the performance of halal food MSMEs.

**H9:** Financial literacy moderates the influence of business capital on the performance of halal food MSMEs.

**H10:** Financial literacy moderates the influence of product innovation on the performance of halal food MSMEs.

**H11:** Financial literacy moderates the influence of product pricing on the performance of halal food MSMEs.

## RESEARCH METHODS

This study employs a quantitative research approach to examine the factors affecting the performance of halal food Micro, Small, and Medium Enterprises (MSMEs) in Padangsidempuan City, with financial literacy as a moderating variable. The research focuses on halal food MSME actors who actively operate their businesses in Padangsidempuan City. The selection of this research location was based on the potential development of the halal food sector and the challenges faced by MSMEs in improving business performance.

The sampling technique used in this study was purposive sampling, in which respondents were selected based on specific criteria relevant to the research objectives (Ascarya & Tekdogan, 2022). The criteria for selecting respondents were: (1) halal food MSMEs that are actively operating, (2) businesses that have been operating for at least one year, and (3) business owners or managers who are directly involved in managing business activities. These criteria were applied to ensure that respondents had sufficient experience and knowledge regarding business operations and financial management.

The sample size was determined based on the minimum sample requirement for Partial Least Squares Structural Equation Modeling (PLS-SEM). Following the indicator-to-sample ratio approach, the minimum sample size was calculated based on the total number of indicators used in the research model. This study consists of 27 measurement indicators; therefore, the minimum sample size required was 135 respondents. A total of 135 valid questionnaires were collected and used for further analysis.

Data were collected using a structured questionnaire distributed to halal food MSME actors. The questionnaire was measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Before the main survey was conducted, a pilot test involving 30 MSME respondents was carried out to evaluate the clarity, validity, and reliability of the questionnaire items. The final questionnaire was distributed through Google Forms and supported by MSME community networks to increase the effectiveness of data collection (Amira & Nurhayati, 2019).

The research instrument was developed based on previous studies and consisted of seven latent variables: operational management, human resource quality, business capital, product innovation, product pricing, financial literacy, and MSME performance. The operational definitions and measurement indicators of each variable are presented in Table 1.

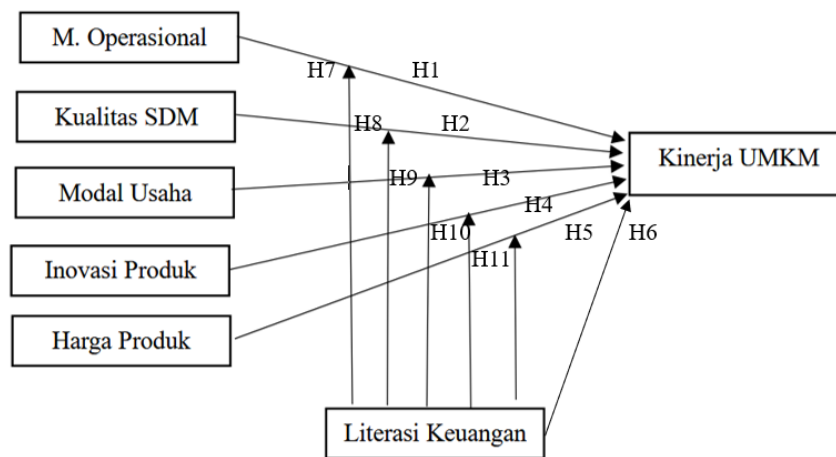
**Table 1. Operational Definition of Variables**

<b>Variable</b>	<b>Operational Definition</b>	<b>Indicators</b>
Operational Management (X1)	The ability of MSMEs to manage business operations effectively and efficiently to improve productivity and competitiveness.	Production planning, operational efficiency, quality control, inventory management, and production process management
Human Resource Quality (X2)	The capability and competence of MSME owners/managers in managing business activities.	Knowledge, skills, experience, and managerial capability
Business Capital (X3)	The availability and utilization of financial resources to support business continuity and development.	Capital adequacy, capital utilization, financing access, and business expansion capability
Product Innovation (X4)	The ability of MSMEs to create and develop products according to market needs.	Product development, product variation, creativity, and product improvement
Product Pricing (X5)	The strategy of determining product prices based on cost, quality, and consumer purchasing power.	Price suitability, price competitiveness, affordability, and price flexibility
Financial Literacy (Z)	The ability of MSME actors to understand and manage financial information for business decision-making.	Financial knowledge, financial planning, bookkeeping ability, and financial decision-making

(Primary Data Processing, 2026)

The collected data was analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with the help of SmartPLS 3 software. This method was chosen because it is able to test complex models with moderate sample sizes and supports the analysis of

reflective latent variables. The analysis was carried out in two stages, namely the measurement model (outer model) to test the validity and reliability of the construct through the value of the loading factor, Average Variance Extracted (AVE), composite reliability, and Cronbach alpha; and structural models (inner models) to test the relationships between variables through the values of  $R^2$ ,  $f^2$ ,  $Q^2$ , and t-statistics from bootstrapping results. In addition, the test of the effect of financial literacy moderation was carried out to determine its role in strengthening the relationship between independent variables and the performance of halal food MSMEs.



**Figure 1. Research Models** (Research Data, 2026)

## RESULTS AND DISCUSSION

### Demographic Data Analysis

Respondent characteristic information is presented in a single demographic table that includes gender, sub-district address, education level, and type of halal certification. Respondents were dominated by women (61.48%), respondents were evenly distributed in the sub-districts with the largest concentration in South Padangsidempuan. Most of them have Diploma/Bachelor's education, and the majority of MSMEs still use a self-declare scheme for halal certification.

**Table 2. Respondent Demographics**

Characteristic	Frequency	Percentage (%)
<b>Genders</b>		
Male	52	38,52
Female	83	61,48
Total	135	100
<b>Districts</b>		
South Padangsidempuan	32	23,70
North Padangsidempuan	26	19,26

Characteristic	Frequency	Percentage (%)
Padangsidimpuan Angkola Julu	22	16,30
East Padangsidimpuan	22	16,30
Padangsidimpuan Hutaimbaru	19	14,07
West Padangsidimpuan	14	10,37
<b>Total</b>	<b>135</b>	<b>100</b>
<b>Final Education</b>		
High School/Equivalent	43	31,85
Diploma/Bachelor (D3/S1)	56	41,48
Postgraduate (S2/S3)	14	10,37
Others	22	16,30
<b>Total</b>	<b>135</b>	<b>100</b>
<b>Business Duration</b>		
< 1 year	26	19,26
1–3 years	33	24,44
3–6 years	42	31,11
> 6 years old	34	25,19
<b>Total</b>	<b>135</b>	<b>100</b>
<b>Types of Halal Certification</b>		
Self-declared	86	63,70
BPJPH Certification	49	36,30
<b>Total</b>	<b>135</b>	<b>100</b>

(Primary Data Processing, 2026)

### Measurement Model Analysis

In this study, the measurement model was evaluated using the Partial Least Squares (PLS) approach to ensure that each indicator is able to accurately represent the measured construct. The results of the analysis showed that the entire construct met the reliability criteria, with Cronbach's alpha values ranging from 0.805 to 0.884 and the Composite Reliability (CR) between 0.872 to 0.915, all of which had exceeded the minimum limit of 0.70. In addition, convergent validity was also achieved, as shown by the indicator's strong outer loading value, which ranged from 0.750 to 0.915, as well as the Average Variance Extracted (AVE) value between 0.631 to 0.766, which was above the reference value of 0.50 (Hair et al., 2017). These findings confirm that all indicators in this research model are valid and reliable in measuring the proposed construct.

**Table 3. Outer Model Results**

Variable	Code	Loadings	Ket
<b>Operational Management (X1)</b> (Cronbach's $\alpha = 0.884$ ; CR = 0.915; AVE= 0.683)	X1.1	0,862	Valid
	X1.2	0,809	
	X1.3	0,776	

Variable	Code	Loadings	Ket
	X1.4	0,814	
	X1.5	0,867	
<b>Human resource quality (X2)</b> (Cronbach's $\alpha = 0.845$ ; CR = 0.906; AVE = 0.763)	X2.1	0,839	Valid
	X2.2	0,915	
	X2.3	0,865	
<b>Business Capital (X3)</b> (Cronbach's $\alpha = 0.850$ ; CR = 0.899; AVE = 0.689)	X3.1	0,856	Valid
	X3.2	0,827	
	X3.3	0,819	
	X3.4	0,818	
<b>Product Innovation (X4)</b> (Cronbach's $\alpha = 0.847$ ; CR = 0.907; AVE = 0.766)	X4.1	0,880	Valid
	X4.2	0,905	
	X4.3	0,838	
<b>Product Price (X5)</b> (Cronbach's $\alpha = 0.849$ ; CR = 0.898; AVE = 0.689)	X5.1	0,862	Valid
	X5.2	0,867	
	X5.3	0,750	
	X5.4	0,836	
<b>Financial literacy (Z)</b> (Cronbach's $\alpha = 0.868$ ; CR = 0.910; AVE = 0.717)	Z.1	0,759	Valid
	Z.2	0,823	
	Z.3	0,802	
	Z.4	0,793	
<b>MSME Performance (Y)</b> (Cronbach's $\alpha = 0.805$ ; CR = 0.872; AVE = 0.631)	Y1	0,834	Valid
	Y2	0,871	
	Y3	0,874	
	Y4	0,807	

(Primary Data Processing, 2026)

The validity of the discriminant was tested using the Fornell–Larcker criterion, which shows that the square root value of AVE in each construct is greater than its correlation with other constructs. These results confirm that all variables in the model have good discriminant validity and are able to adequately distinguish one construct from another.

**Table 4. Fornell-Larcker Criterion Results**

	X1	X2	X3	X4	X5	Y	Z
X1	0,826						
X2	0,685	0,874					
X3	0,631	0,609	0,830				
X4	0,561	0,699	0,551	0,875			
X5	0,744	0,863	0,587	0,689	0,830		
Y	0,788	0,698	0,654	0,482	0,769	0,794	
Z	0,616	0,472	0,503	0,315	0,533	0,746	0,847

(Primary Data Processing, 2026)

### Structural Model Analysis

The determination coefficient (R-square) is used to assess the model's ability to explain variations in endogenous variables. Based on Table 5, the MSME Performance variable has an R-square value of 0.811 and an adjusted R-square of 0.799, which is included in the strong category ( $\geq 0.75$ ). These findings show that the exogenous variables in the model are able to explain 81.1% of the variation in MSME performance, so the model has high predictive ability.

**Table 5. R-Square Test Results (R2)**

	<b>R- Square</b>	<b>R-Square Adjusted</b>
<b>MSME Performance</b>	0,811	0,799

(Primary Data Processing, 2026)

Furthermore, the effect size ( $f^2$ ) in Table 6 shows that the influence between variables is in the small to large category. Operational management and product innovation have a small influence, the human resource quality, business capital, and product pricing are in the medium category, while financial literacy shows the largest influence ( $f^2 = 0.358$ ). This confirms the dominant role of financial literacy in improving the performance of MSMEs.

**Table 6. Effect Size Results**

<b>Variable</b>	<b><math>f^2</math></b>	<b>Criteria</b>
Operational Management (X1)	0,112	Small
Human resource quality (X2)	0,286	Medium
Business Capital (X3)	0,148	Medium
Product Innovation (X4)	0,072	Small
Product Price (X5)	0,192	Medium
Financial Literacy (Z)	0,358	Large

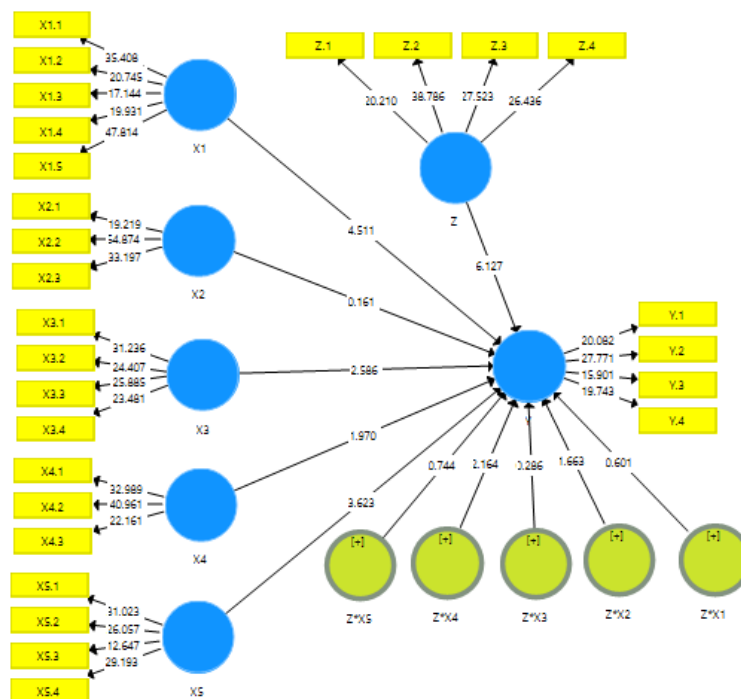
(Primary Data Processing, 2026)

Hypothesis testing was carried out using the bootstrapping method on SmartPLS with t-statistical criteria of  $> 1.65$  and p-value  $< 0.05$  (Hair et al., 2017). The test results showed that operational management, business capital, product pricing, and financial literacy had a positive effect on the performance of MSMEs, while the human resource quality did not have a positive effect. Product innovation also affects the performance of MSMEs. In the moderation test, financial literacy only moderated the influence of product innovation on MSME performance, while other moderation relationships were not proven.

**Table 7. Path Coefficients Results**

Direct Influence					
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 -> Y	0,296	0,303	0,066	4,511	0,000
X2 -> Y	0,015	0,000	0,091	0,161	0,872
X3 -> Y	0,149	0,149	0,057	2,586	0,010
X4 -> Y	-0,106	-0,101	0,054	1,970	0,049
X5 -> Y	0,371	0,382	0,102	3,623	0,000
Z -> Y	0,332	0,322	0,054	6,127	0,000
Indirect Influence					
Z*X1 -> Y	0,043	0,052	0,071	0,601	0,548
Z*X2 -> Y	-0,158	-0,143	0,095	1,663	0,097
Z*X3 -> Y	0,014	0,004	0,049	0,286	0,775
Z*X4 -> Y	0,094	0,092	0,044	2,164	0,031
Z*X5 -> Y	0,078	0,063	0,104	0,744	0,457

(Primary Data Processing, 2026)



**Figure 2. Structural Models (Research Data, 2026)**

## Discussions

### Operational Management and MSME Performance

Operational management represents an important internal capability that determines how effectively MSMEs utilize their resources to achieve better performance. From the perspective



of the Resource-Based View (RBV), operational capability is considered a strategic resource because it enables businesses to improve efficiency, maintain product quality, reduce unnecessary costs, and optimize production processes. In the context of halal food MSMEs, effective operational management is particularly important because business continuity depends on the ability to manage production activities, maintain consistency of product quality, and respond to consumer demand.

This finding is consistent with previous studies by Stuart O'Neill (2024) and Kristanto et al. (2022), which emphasize that effective operational management contributes to improving MSME productivity and competitiveness. The implication of this finding is that MSME development programs should not only provide financial support but also strengthen operational capabilities through managerial training, production planning, and efficiency improvement.

### **Human Resource Quality and MSME Performance**

Human resource quality is generally considered a strategic intangible resource within the RBV framework because knowledge, skills, and experience can become sources of competitive advantage. However, the contribution of human resources to business performance depends on the ability of organizations to transform individual capabilities into effective business practices.

In the context of halal food MSMEs, human resource quality may not automatically improve performance because many MSMEs are still characterized by family-based management systems and informal business practices. Business owners may rely more on practical experience than formal education or managerial knowledge. This finding provides a different perspective from Arulrajah (2017), who stated that human resource capability contributes significantly when supported by an adequate organizational system. Therefore, improving MSME performance requires not only improving individual skills but also strengthening managerial systems and business professionalism.

### **Business Capital and MSME Performance**

Business capital is an important resource that supports MSME growth and sustainability. According to RBV, financial resources provide the foundation for businesses to expand operational activities, increase production capacity, and respond to market opportunities. Adequate capital allows MSMEs to maintain business continuity and develop their competitive position.



This finding supports Zulfa et al. (2024), who stated that capital availability contributes positively to small business development. However, capital resources need to be managed effectively because the availability of financial resources alone does not guarantee long-term success. The practical implication is that MSME empowerment programs should combine capital access with financial management assistance to ensure that capital is used strategically.

### **Product Innovation and MSME Performance**

Product innovation is recognized as an important capability for creating differentiation and competitive advantage. From the RBV perspective, innovation can become a valuable resource when it is effectively managed and aligned with market needs. However, innovation does not always produce immediate performance improvement, particularly for small businesses with limited resources.

In halal food MSMEs, innovation activities may require additional investment in product development, packaging, quality improvement, and marketing. Without adequate planning and market evaluation, innovation may increase operational costs without generating proportional benefits. This finding supports Tania & Pratama (2025), who explain that innovation effectiveness depends on supporting business capabilities. Therefore, MSMEs need to develop innovation strategies that consider financial capacity, consumer preferences, and market opportunities.

### **Product Pricing and MSME Performance**

Product pricing represents a strategic capability that reflects the ability of MSMEs to balance internal cost considerations with external market conditions. In the RBV framework, pricing capability can become a competitive resource because effective pricing decisions help businesses create customer value while maintaining profitability.

For halal food MSMEs, appropriate pricing is important because consumers consider both product quality and affordability. This finding supports Suhardi et al. (2023), who emphasize that competitive pricing strategies contribute to business competitiveness. The implication is that MSME actors need to improve their ability to determine prices based on production costs, consumer purchasing power, and market competition.

### **Financial Literacy and MSME Performance**

Financial literacy is an important knowledge-based capability that supports effective resource management. From the RBV perspective, financial literacy represents an intangible



resource that enables MSME actors to make better decisions regarding financial planning, cost control, risk management, and business development.

This finding is consistent with Wati et al. (2025) and Buchdadi et al. (2020), who highlight the important role of financial literacy in improving MSME performance and sustainability. The implication is that financial literacy should be considered a fundamental capability for MSME development because it helps business actors maximize the value of available resources.

### **Financial Literacy as a Moderating Variable**

The moderating role of financial literacy provides an important contribution to understanding how internal resources generate business value. Based on RBV, resources do not create competitive advantage independently but require complementary capabilities that allow them to be utilized effectively.

Financial literacy strengthens the value of product innovation because financially capable MSME actors are better able to evaluate innovation costs, manage risks, and determine whether innovation decisions provide economic benefits. This indicates that financial literacy functions as an enabling capability that increases the effectiveness of innovation resources.

However, financial literacy does not necessarily strengthen all internal resource relationships. Operational management, business capital, and pricing decisions may depend more on technical experience, market conditions, and managerial practices. Therefore, the role of financial literacy is context-dependent and should be integrated with other business capabilities.

Overall, this study confirms the RBV perspective by showing that MSME performance is not only determined by the availability of resources but also by the capability to manage and combine those resources effectively. For halal food MSMEs, strengthening financial literacy, operational capability, innovation management, and strategic decision-making should become integrated priorities to achieve sustainable competitiveness.

### **CONCLUSION**

This study concludes that operational management, business capital, product pricing, and financial literacy are important factors that contribute to improving the performance of halal food MSMEs. Meanwhile, human resource quality does not significantly determine MSME performance, indicating that individual capability needs to be supported by effective managerial systems and business practices. An important finding of this study is that product



innovation has a negative effect on MSME performance. This finding challenges the general assumption that innovation always generates better business outcomes and indicates that innovation activities may reduce performance when they are not supported by adequate market evaluation, cost management, and financial planning.

Furthermore, this study reveals that financial literacy functions as a selective moderating capability rather than a general strengthening factor. Financial literacy only strengthens the relationship between product innovation and MSME performance, suggesting that financial knowledge enables MSME actors to transform innovation activities into better business outcomes through effective cost evaluation, risk management, and decision-making. However, financial literacy does not strengthen the relationship between other internal resources and MSME performance, indicating that the contribution of resources depends on the specific context in which they are applied.

Theoretically, these findings extend the Resource-Based View (RBV) by demonstrating that internal resources do not automatically create competitive advantage unless supported by complementary capabilities. This study contributes to the MSME literature by highlighting the importance of financial literacy as an enabling capability that enhances the value of innovation resources, while also showing that innovation requires strategic management to generate positive performance outcomes.

Practically, the findings suggest that MSME development programs should move beyond providing capital support and focus on strengthening operational management, financial literacy, and innovation management capabilities. For halal food MSME actors, innovation strategies should be accompanied by financial planning, cost evaluation, and market-oriented decision-making to ensure that innovation contributes to sustainable business performance.

Future research is recommended to examine other strategic capabilities, such as digital marketing capability, entrepreneurial orientation, technology adoption, and business resilience, as well as to apply qualitative approaches to explore the deeper mechanisms behind innovation decisions and MSME performance improvement.

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