

## HALAL LOGISTIC IN INDONESIAN CULINARY MSMEs. AN INTERSECTION BETWEEN OPERATIONAL PERFORMANCE AND SHARIA LAW

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**Abstract:** Halal logistics has become a critical component in ensuring compliance with Sharia law, particularly in the culinary Micro, Small, and Medium Enterprises (MSMEs) sector in Indonesia. This study explores the intersection between operational performance and sharia law adherence, emphasizing the role of halal logistics practices. Using a quantitative approach, this research examines the impact of halal certification, supply chain traceability, and halal risk management on the operational performance of culinary MSMEs. Data were collected from 292 Culinary MSMEs across Indonesia through structured surveys and analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS). The findings are expected to provide empirical evidence on the mediating role of halal logistics practices, demonstrating their significance in enhancing operational efficiency while maintaining Sharia compliance. This research offers practical insights for policymakers and business practitioners in fostering sustainable halal supply chains within the culinary sector, contributing to Indonesia's broader halal economy development.

**Keywords:** Halal logistics, operational performance, culinary MSMEs, sharia law.

### Introduction

The global halal industry has witnessed significant growth, driven by the expanding Muslim population and increasing consumer demand for halal-certified products. According to the State of the Global Islamic Economy Report, the halal market was valued at over USD 7 trillion and is expected to reach USD 10 trillion by 2030, with a compound annual growth rate (CAGR) of 5.5% (DinarStandard, 2022). This growth extends beyond Muslim-majority countries, as consumers worldwide are showing interest in halal products due to their perceived quality, safety, and ethical production practices (Alserhan, 2020). The halal concept encompasses various sectors, including food, cosmetics, pharmaceuticals, and logistics, making it a critical component of the global economy.

The halal food and beverage sector represents a substantial portion of the global halal economy. It was valued at approximately USD 1.19 trillion in 2022 and is projected to reach USD 2.08 trillion by 2032, growing at a CAGR of 5.73% (Inkwood Research, 2023). This growth trend is not limited to Muslim-majority countries; non-Muslim countries are also capitalizing on the halal market by adopting halal-friendly policies and infrastructure to cater to the growing demand (Export Development Canada, 2023). The rising awareness of halal standards among consumers and businesses has driven the need for more robust halal logistics systems to ensure compliance and integrity throughout the supply chain (Tieman & van der Vorst, 2012).

Indonesia, as the country with the largest Muslim population, holds a strategic position in the halal industry. The Indonesian government has implemented comprehensive halal

certification regulations to support the development of the halal sector, aiming to position the country as a global leader (ASEAN Briefing, 2023). The halal product assurance law (Law No. 33 of 2014) mandates halal certification for food, beverages, and other consumables, which has encouraged businesses to adopt halal-compliant practices (BPJPH, 2022). However, despite government support, challenges persist in achieving full compliance across Indonesia's diverse business landscape, particularly in the Micro, Small, and Medium Enterprises (MSMEs) sector.

MSMEs play a crucial role in Indonesia's economy, contributing significantly to employment and GDP, especially in the culinary industry. However, halal compliance among these enterprises remains a challenge due to limited financial and operational resources, lack of awareness, and insufficient supply chain traceability mechanisms (Hakimah et al., 2021). Ensuring halal logistics practices within MSMEs is essential to maintaining the integrity of halal products and boosting their competitiveness in the market (Wahab et al., 2020). Addressing these logistical challenges will be vital for improving operational efficiency and sustainability within the sector.

This study aims to investigate the relationship between halal logistics practices and operational performance within Indonesian culinary MSMEs, emphasizing the intersection between sharia law and business operations. Key focus areas include halal certification, supply chain traceability, and adherence to Islamic principles as drivers of operational efficiency. By analyzing these factors, the research seeks to provide actionable insights for MSMEs, policymakers, and industry stakeholders to strengthen halal logistics frameworks and ensure sustainable growth in Indonesia's halal economy.

## **Literature Review**

### ***Halal Certification***

Halal certification serves as a formal acknowledgment that products comply with Islamic dietary laws, ensuring they are permissible for consumption by Muslim consumers. For Micro, Small, and Medium Enterprises (MSMEs), obtaining halal certification can significantly enhance brand trust and consumer perception of quality. A study by Fitri and Sudarmiati (2022) found that halal certification positively influences innovative performance in MSMEs, suggesting that certified businesses are more likely to engage in product and process innovations to maintain compliance and meet consumer expectations.

However, the impact of halal certification on financial performance is subject to debate. Research by Giyanti and Indriastiningsih (2019) indicated no significant difference in profit margins before and after obtaining a halal certificate or between certified and non-certified MSMEs. This finding suggests that while halal certification may bolster brand image and consumer trust, it does not automatically translate into immediate financial gains. Therefore, MSMEs should consider halal certification as part of a broader strategy to enhance market competitiveness rather than a standalone solution for financial improvement.

Halal certification plays a crucial role in shaping halal logistics practices by ensuring that all activities along the supply chain comply with Islamic guidelines. Obtaining halal certification encourages businesses to implement rigorous controls over sourcing, handling, storage, and transportation of goods to maintain their halal integrity (Tieman & van der Vorst, 2012). Certified businesses are required to follow stringent halal standards, which necessitate adopting structured logistics practices, including product segregation, hygiene management, and proper documentation.

Moreover, halal certification provides a framework that helps MSMEs improve their logistical processes by instilling a culture of compliance and operational excellence (Zailani et al., 2015). When businesses acquire halal certification, they are more likely to adopt practices that align with halal logistics requirements, thus ensuring end-to-end compliance. This suggests

that halal certification serves as a driving force behind the development and implementation of effective halal logistics practices.

**H1: Halal certification has a positive impact on halal logistics practices.**

### ***Supply Chain Traceability***

Supply chain traceability refers to the ability to track and verify the history, location, and application of products throughout the supply chain. In the context of halal products, effective traceability systems are crucial to ensure compliance with halal standards from sourcing to consumption. Trisna and Mukti (2022) developed a halal traceability model using a Causal Loop Diagram (CLD) approach for MSMEs in Indonesia, highlighting the importance of stakeholder roles and business processes in maintaining halal integrity.

Implementing robust traceability systems can be challenging for MSMEs due to limited resources and technological capabilities. However, advancements in digital technologies, such as blockchain, offer promising solutions. By providing an immutable ledger of transactions, blockchain can enhance transparency and trust in halal supply chains, thereby supporting MSMEs in overcoming traceability challenges and ensuring product authenticity.

Supply chain traceability improves efficiency by enabling businesses to track product movement and verify compliance with halal standards (Ab Talib & Hamid, 2014). Implementing traceability systems can reduce errors, improve process efficiency, and enhance overall operational performance (Zulfakar et al., 2018).

However, the successful implementation of traceability systems requires investment in technology and training. MSMEs that lack financial and technical resources may face challenges in adopting traceability solutions, which could hinder their operational performance improvements (Kamaruddin et al., 2013). Therefore we develop hypothesis:

**H2: Supply chain traceability positively influences operational performance.**

### ***Risk Management***

Risk management involves identifying, assessing, and mitigating risks that could compromise the halal status of products. For MSMEs, especially in the culinary sector, effective risk management is essential to prevent contamination and ensure compliance with halal standards. A study by Tieman and van der Vorst (2012) proposed a framework for halal food supply chain integrity, emphasizing the need for comprehensive risk management practices to maintain consumer trust and market access.

Despite its importance, many MSMEs struggle with implementing formal risk management systems due to resource constraints and lack of expertise. Capacity-building initiatives, such as training programs and government support, are vital to equip MSMEs with the necessary skills and knowledge to manage halal-related risks effectively. Such efforts can help MSMEs enhance their operational performance and adhere to halal standards, thereby improving their competitiveness in the market.

Risk management practices help MSMEs identify and mitigate potential non-compliance issues that could harm their reputation and operational performance (Zailani et al., 2015). By implementing risk management strategies, MSMEs can enhance product quality and operational efficiency.

On the other hand, inadequate risk management can lead to operational disruptions and loss of consumer trust. MSMEs need to adopt proactive risk assessment frameworks to maintain compliance and competitiveness in the halal market (Tieman, 2011). Therefore we develop hypothesis:

**H3: Risk management positively affects operational performance.**

### *Adherence to Islamic Principles*

Adherence to Islamic principles in business operations extends beyond halal certification and encompasses ethical practices, transparency, and social responsibility. For MSMEs, aligning business practices with Islamic values can enhance reputation and foster consumer loyalty. Hakimah et al. (2021) explored the influence of halal literacy on the commitment of Indonesian culinary MSMEs to halal practice standards, finding that knowledge, attitudes, and spirituality of business owners significantly impact their adherence to halal practices.

However, achieving full adherence to Islamic principles can be challenging due to varying interpretations and the dynamic nature of business environments. Continuous education and engagement with Islamic scholars and halal certification bodies are essential to ensure that MSMEs remain compliant and responsive to evolving standards and consumer expectations.

Adherence to Islamic principles ensures that businesses operate ethically and comply with halal requirements, influencing their logistics practices (Ali et al., 2017). MSMEs that align their operations with Islamic values are more likely to implement halal logistics practices, such as segregation of halal and non-halal goods and maintaining hygiene standards (Tieman, 2011).

However, challenges may arise due to varying interpretations of Islamic principles across different regions and industries. MSMEs must seek guidance from Islamic scholars and halal certification bodies to ensure that their logistics practices align with religious expectations and regulatory requirements (Ab Talib et al., 2015). Therefore we develop hypothesis

**H4: Adherence to Islamic principles positively influences halal logistics practices.**

### *Halal Logistics Practices*

Halal logistics practices involve managing the movement, storage, and handling of products in a manner that preserves their halal integrity. This includes segregation of halal and non-halal products, sanitation procedures, and compliance with halal standards throughout the supply chain. Tieman and van der Vorst (2012) emphasized that effective halal logistics are critical for maintaining product integrity and consumer trust.

Implementing halal logistics practices can be particularly challenging for MSMEs due to limited resources and infrastructure. However, adopting these practices can open access to broader markets and enhance operational performance. Government initiatives and industry collaborations play a crucial role in supporting MSMEs to develop and maintain halal logistics systems, thereby contributing to the overall growth of the halal industry.

The implementation of halal logistics practices ensures the integrity and quality of products, which enhances customer satisfaction and operational efficiency (Zulfakar et al., 2018). Proper segregation, handling, and storage techniques reduce the risk of cross-contamination, thus maintaining halal compliance (Tieman, 2011).

However, challenges such as cost, resource limitations, and lack of infrastructure may impede MSMEs' ability to fully adopt halal logistics practices. Strategic collaboration with logistics providers and regulatory bodies can help overcome these barriers and enhance operational performance (Ab Talib et al., 2015). Therefore we develop hypothesis:

**H5: Halal logistics practices positively affect operational performance.**

### *Operational Performance*

Operational performance refers to the efficiency and effectiveness of an organization's processes in delivering products or services. For MSMEs in the halal industry, operational performance is influenced by factors such as halal certification, supply chain traceability, risk management, and adherence to Islamic principles. Fitri and Sudarmiatin (2022) found that

while halal certification positively affects innovative performance, it does not directly impact financial performance, indicating that operational improvements may not immediately translate into financial gains.

Enhancing operational performance requires a holistic approach that integrates halal compliance with overall business strategies. Investments in technology, employee training, and process optimization are essential to improve efficiency and meet halal standards. Such efforts can lead to long-term benefits, including increased customer satisfaction, market expansion, and sustainable business growth.

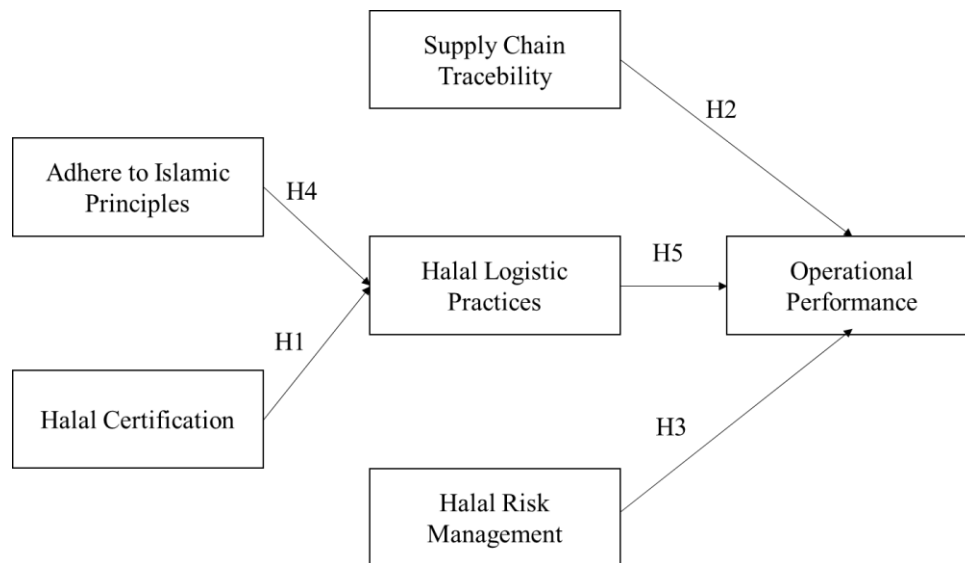


Fig 1. Research Model

**Method**

This research was carried out in Indonesia, concentrating on micro, small, and medium-sized firms as the topics of investigation. Small enterprises are favored due to their significant reliance on numerous economies, especially in emerging nations. The predominant number of organizations worldwide are small enterprises, which are essential for stimulating global economic growth and creating new job possibilities. Consequently, small enterprises in Indonesia will be pivotal in propelling the nation's future economic growth (Tambunan, 2022).

This study utilizes a quantitative research methodology to investigate the correlation between halal logistics and the operational performance of culinary micro, small, and medium-sized companies (MSMEs) in Indonesia. The study used a structured questionnaire as the principal data collecting tool, aimed at obtaining comprehensive information on operational performance, halal risk management, halal logistics practices, supply chain traceability, halal certification, and compliance with Islamic principles. The questionnaire items were created using recognized scales from the available literature, so ensuring both validity and reliability. A pilot test was performed with a limited sample of MSMEs to enhance the questionnaire and guarantee its clarity and relevance. Subsequent to the pilot test, the completed questionnaire was disseminated to a wider cohort of MSMEs across diverse sectors in Indonesia.

This research solely employed primary data and adopted a cross-sectional temporal framework. The selections encompassed Indonesian creative industry. Questionnaires were employed as a survey tool to collect data for this investigation. The research paradigm is positivist since it can be statistically analyzed and employs a rigorously designed data

collection method, such as a survey. The question utilizes a Likert scale from 1 to 5, where "1" signifies "Strongly Disagree" and "5" denotes "Strongly Agree". The researchers employed non-probability sampling to identify the study respondents. This methodology is regarded as the most efficacious means of obtaining quantitative survey data from a designated sample (Hameed et al., 2018). The data gathering process entailed distributing structured questionnaires to a sample of 292 Indonesian MSMEs. The questionnaires were disseminated via online platforms and in-person visits to cater to respondents' preferences and enhance the response rate. Respondents were generally owners, managers, or senior executives with extensive understanding of their firm's halal logistics processes and operational performance. The data collection phase lasted three months, during which follow-ups and reminders were issued to enhance participation. The study sought to promote truthful and precise responses from participants by guaranteeing confidentiality and anonymity. Table 1 below presents the profile of the respondents in this investigation.

**Table 1.** Respondents' Profile

Parameters		Number	Percentage
Business Size	Micro-sized Businesses	152	52.05
	Small-sized Businesses	89	30.47
	Medium-sized Businesses	51	17.46
TOTAL		292	100%
Position	CEO/Owner	194	66.44
	Manager/Supervisor	54	18.55
	Employee	44	15.01
TOTAL		292	100%

To assess the degree of consensus among responders for each item or statement, we utilized a five-point Likert scale. This scale varied from 1, denoting "strongly disagree," to 5, denoting "strongly agree." The measuring markers for each variable were adjusted according to previous research:

**Operational Performance (OP)**

Operational performance denotes the efficacy and efficiency of company processes in securing competitive advantages.

Measurement Item:

1. Reduction in operational costs (Gunasekaran et al., 2017).
2. Enhancement in delivery dependability and velocity (Beamon, 1999).
3. Improvement in inventory management efficacy (Chopra & Meindl, 2019).

**Risk Management (RM)**

Risk management involves the identification, evaluation, and alleviation of potential hazards that may affect business operations.

Measurement Items:

1. Identification of potential halal risks within supply chain operations (Tieman & van der Vorst, 2012).
2. Execution of risk mitigation techniques (Zulfakar et al., 2014).
3. Availability of contingency plans for halal-related incidents (Khan et al., 2018).

**Halal Logistics Practices (HL)**

Halal logistics techniques encompass the implementation of halal principles in the management of transportation, warehousing, and inventory.  
Measurement Criteria:

1. Distinction between halal and non-halal products in logistics operations (Tieman, 2013).
2. Adherence to halal requirements in logistics and storage (Zailani et al., 2015).
3. Implementation of cleanliness and hygiene protocols in halal logistics (Ab Talib & Hamid, 2014).

### ***Traceability in Supply Chains (TS)***

Supply chain traceability guarantees transparency in monitoring the flow of halal products from origin to consumer.

Measurement Criteria:

1. Capability to trace and authenticate origins of halal products (Soon et al., 2017).
2. Accessibility of real-time data for the surveillance of halal products (Koh et al., 2016).
3. Utilization of technology (e.g., blockchain, RFID) for halal traceability (Salah et al., 2019).

### ***Halal Certification (HC)***

Halal certification is the official acknowledgment that items and processes adhere to halal criteria.

Measurement Criteria:

1. Possession of authentic halal certification from accredited bodies (Tieman et al., 2013).
2. Adherence to halal regulatory standards (Ab Talib et al., 2015).
3. Influence of halal certification on customer confidence and market accessibility (Ali et al., 2017).

### ***Adherence to Islamic Principles (IP)***

This concept pertains to compliance with Islamic ethical, legal, and operational standards in business practices. Measurement Components:

1. Corporate dedication to Islamic ethics and principles (Wilson & Liu, 2011).
2. Execution of Shariah-compliant financial and operational methodologies (Abdullah et al., 2018).
3. Promoting employee cognizance and compliance with Islamic business principles (Aoun & Tournois, 2015).

The gathered data underwent analysis through structural equation modeling-partial least squares (SEM-PLS) utilizing the Smart PLS version 3.3.3 application. SEM-PLS is a powerful statistical method that facilitates the concurrent analysis of various relationships and the evaluation of intricate models, rendering it highly appropriate for this investigation. The analysis commenced with a confirmatory factor analysis (CFA) aimed at validating the measurement model, thereby ensuring the reliability and validity of the constructs (Hair et al., 2017). Following this, the structural model underwent evaluation to determine the direct and indirect impacts of halal logistics on the operational performance of MSMEs. The findings shed light on the robustness and importance of the connections among the variables, reinforcing the study's hypotheses and presenting meaningful implications for managers of MSMEs and policymakers.

**Result and Discussion**

A variety of criteria are utilized to evaluate the quality of the measurement model. The findings in Table 2 demonstrate that the standardized outer factor loadings, utilized to evaluate the convergent validity of the created items, are exceptionally good. The loadings above the threshold value of 0.70 ( $p < 0.001$ ), as indicated by Hair et al. (2017). Table 3 indicates that the composite reliability (CR) exceeds 0.7, and the Cronbach alpha (CA) surpasses 0.6, demonstrating that all variables possess adequate internal reliability. The AVE score of 0.664 exceeds the requisite cut-off of 0.5 (Hair et al., 2017), signifying compliance with the criteria for convergent validity. Additionally, we utilized the Fornell and Larcker (1981) criterion to evaluate discriminant validity.

Collecting data from specialized creative fields through a self-report questionnaire often results in considerable procedural diversity. This variance generates a measurement bias that may lead to inaccurate conclusions (Ng et al., 2019). Consequently, it is essential to evaluate the existence of common technique bias. The intrinsic inclination to answer questionnaire items in a socially acceptable way may lead to common method bias, resulting in variables displaying a degree of shared variance (Kock, 2015). A Variance Inflation Factor (VIF) score greater than 5 indicates significant collinearity and implies that a model may be affected by common method bias (Kock, 2015). Assume that all Variance Inflation Factors (VIFs) derived from an extensive collinearity assessment are equal to or less than 5. This suggests that the model is unaffected by frequent method bias (Kock, 2015). Furthermore, comprehensive testing for multicollinearity was performed, revealing that the variance inflation factors (VIFs) remained below the permitted limit of 5 (Kock, 2015). According to prior research findings, the commonly employed method of Variance was not an issue in this survey-based study, and the model lacks any common technique bias.

**Table 2.** Factor Loading

Items	Operation Performance	Halal Logistics	Risk Management	Supply Traceability	Chain	Halal Certification	Islamic Principle
OP1	0.831						
OP2	0.841						
OP3	0.771						
HL1		0.882					
HL2		0.787					
HL3		0.795					
RM1			0.796				
RM2			0.884				
RM3			0.855				
TS1				0.916			
TS2				0.947			
TS3				0.946			
HC1						0.880	
HC2						0.846	
HC3						0.789	
IP1							0.802
IP2							0.776
IP3							0.759

**Table 3.** Measurement Model

Construct	Item	Composite Reliability	Cronbach Alpha	AVE	VIF
	OP1	0.877	0.790	0.704	1.986

Operation Performance	OP2				1.658
	OP3				1.565
Halal Logistics	HL1	0.955	0.800	0.877	3.337
	HL2				4.179
	HL3				4.018
Risk Management	RM1	0.855	0.752	0.664	1.383
	RM2				1.699
	RM3				1.570
Supply Chain Traceability	TS1	0.883	0.800	0.715	1.575
	TS2				2.126
	TS3				1.770
Halal Certification	HC1	0.923	0.789	0.822	1.832
	HC2				1.934
	HC3				1.959
Islamic Principle	IP1	0.898	0.765	0.775	3.556
	IP2				3.409
	IP3				3.782

Stone Geisser's Q2 is often utilized as a metric since R2 just conveys information regarding predictions made within the sample (Geisser, 1974; Stone, 1974). A greater Q2 value (Q2>0) signifies a reduced disparity between anticipated and actual values, hence affirming the precision and pertinence of the model's forecasts (Chin, 1998). Furthermore, Hair et al. (2017) proposed an additional criterion: a Q2 value exceeding 0.00, 0.25, and 0.50 signifies poor, moderate, and high predictive importance of the PLS path model, respectively. The PLS-SEM results indicated that the endogenous variables possessed a R<sup>2</sup> value exceeding 0.50 but below 0.75, categorizing them as moderate. The Q2 findings demonstrated that the MSME's Operational Performance (Q square = 0.407) possessed a commendable capacity to forecast the route model. The outcomes are presented in Table 4.

**Table 4 Predictive relevance based on R<sup>2</sup> and Q<sup>2</sup>**

	R Square	R Square Adjusted	Q <sup>2</sup> = (1-SSE/SSO)	Predictive Relevance
<b>Operation Performance</b>	0.534	0.530	0.407	Yes
<b>Halal Logistic Practices</b>	0.406	0.404	0.364	Yes

The bootstrapping method was utilized to evaluate the relevance of the route coefficients through 5000 sub-samples. This study analyzes five different hypotheses. All of the hypotheses have been confirmed using hypothesis testing at a significance level of 0.05. Table 5 presents the results of hypothesis testing.

**Table 5 Hypothesis Testing**

Hypotheses	Original Sample/β	p-Value	Decision
H1 Halal certification → halal logistics practices	0.225	0.001*	<b>Accepted</b>
H2 Supply chain traceability → operational performance.	0.464	0.001*	<b>Accepted</b>
H3 Risk management → operational performance	0.325	0.001*	<b>Accepted</b>
H4 Adherence to Islamic principles → halal logistics practices	0.445	0.001*	<b>Accepted</b>
H5 Halal logistics practices positively → operational performance	0.379	0.001*	<b>Accepted</b>

**Note(s):** \*significant p < 0.05

The findings of this study confirm the significant role of halal certification in shaping halal logistics practices. The results indicate that businesses that obtain halal certification are more likely to implement structured halal logistics processes, such as segregation of halal and

non-halal products, hygiene control, and compliance with transportation and storage standards. This aligns with previous research by Tieman and van der Vorst (2012), which emphasized that certification acts as a regulatory mechanism ensuring that businesses maintain halal integrity throughout the supply chain. Furthermore, the study supports the argument by Zailani et al. (2015) that halal certification not only facilitates compliance with Islamic law but also enhances logistical efficiency by enforcing standardized operating procedures. These findings highlight the importance of halal certification as a prerequisite for effective halal logistics implementation in Indonesian culinary MSMEs.

The study also confirms that supply chain traceability and risk management significantly impact operational performance. Businesses that employ robust traceability systems, such as blockchain or RFID technology, experience improved operational efficiency, reduced errors, and enhanced consumer trust, as suggested by Salah et al. (2019). Moreover, effective risk management practices, including halal risk assessments and mitigation strategies, contribute to maintaining product integrity and preventing non-compliance risks (Tieman, 2013). These findings validate the importance of transparency and proactive risk management in ensuring the sustainability and competitiveness of halal businesses. MSMEs that integrate traceability and risk management into their logistics operations benefit from greater consistency in service delivery, reduced supply chain disruptions, and improved financial performance, as supported by previous studies (Awan et al., 2019).

Furthermore, adherence to Islamic principles and ethical practices was found to positively influence halal logistics practices and operational performance. MSMEs that prioritize Islamic values, such as fairness, integrity, and social responsibility, tend to adopt halal logistics measures more rigorously. This aligns with research by Wilson and Liu (2011), which states that businesses committed to Islamic principles are more likely to implement halal-compliant operations. Additionally, ethical business practices, such as fair labor treatment and environmental responsibility, were found to enhance overall operational performance by fostering consumer trust and brand loyalty (Wahab et al., 2020). These results suggest that embedding Islamic principles into business operations is not only a religious obligation but also a strategic approach that strengthens the long-term sustainability and market competitiveness of halal MSMEs in Indonesia.

### **CONCLUSION**

This study examines the relationship between halal logistics practices, operational performance, and compliance with Islamic principles within Indonesian culinary MSMEs. The findings confirm that halal certification, supply chain traceability, and adherence to Islamic principles significantly influence the adoption of halal logistics practices, while risk management and ethical business practices positively impact operational performance. These results emphasize that compliance with halal regulations not only ensures religious adherence but also enhances supply chain efficiency, risk mitigation, and market competitiveness. By integrating structured halal logistics measures, MSMEs can strengthen consumer trust and improve overall business performance.

The implications of this research extend to both business practitioners and policymakers. For MSME owners, the study highlights the need to prioritize halal certification, traceability systems, and ethical business conduct as core components of their operational strategies. Implementing transparent supply chain practices and proactive risk management frameworks can improve product integrity and efficiency, leading to enhanced customer satisfaction and profitability. Additionally, businesses should recognize the strategic advantage of adhering to Islamic principles, as ethical conduct fosters long-term sustainability and brand loyalty.

From a policy perspective, the results suggest that government agencies and halal regulatory bodies should provide greater support to MSMEs in adopting halal logistics

practices. This can be achieved through financial incentives, training programs, and technological advancements that facilitate compliance with halal standards. Furthermore, strengthening halal certification frameworks and risk management guidelines will enhance the credibility and efficiency of halal supply chains in Indonesia. Future research should explore the role of emerging technologies, such as blockchain and IoT, in improving traceability and ensuring end-to-end halal compliance.

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