

NAVIGATING CHALLENGES AND OPPORTUNITIES: IMPLEMENTING HALAL PRINCIPLES IN THE SUPPLY CHAIN FOR SMALL AND MEDIUM ENTERPRISES IN THE FOOD SECTOR

Prita Ayu Kusumawardhany^{1*}, Cepryana Sathalica Widyananda²

¹Department of Business Management, Universitas Surabaya, Indonesia

²Department of Agriculture, Universitas Madura, Indonesia

e-mail: pritaayu.k@gmail.com, cepryana.sw@unira.ac.id

*Corresponding Author

Abstract: This research explores the challenges and opportunities of implementing halal principles in the supply chain for small and medium enterprises (SMEs) in the food sector. It examines how awareness of halal raw materials, halal certification, and government support influence business performance. The findings indicate that awareness of halal raw materials significantly enhances SMEs' competitiveness. Halal certification opens new market opportunities and ensures compliance with safety standards, thereby boosting overall business performance. Furthermore, government support plays a critical role by providing financial assistance, facilitating market access, promoting innovation, and simplifying regulatory compliance. Together, these factors contribute to SMEs' long-term sustainability and growth in the halal industry. The study underscores the importance of integrating halal principles into business operations and offers recommendations for future research to expand the understanding of halal implementation across various sectors.

Keywords: Halal Principles, Small And Medium Enterprises (SMEs), Supply Chain, Halal Certification, Government Support, Food Sector, Business Performance, Consumer Trust, Market Access, Product Quality.

INTRODUCTION

The implementation of halal principles in the food supply chain has become a critical issue, particularly in predominantly Muslim countries like Indonesia. As the country with the largest Muslim population globally, Indonesia has seen a rising demand for domestic and international halal products. This trend presents significant opportunities for small and medium enterprises (SMEs) in the food sector to expand their market reach. However, implementing halal principles across the supply chain poses challenges for SMEs. Business owners' awareness of halal raw materials, certification costs, consumer trust, government support, and customer satisfaction are key to successfully adhering to halal standards.

One major challenge SMEs face is business owners' low awareness of the importance of halal-certified raw materials. Many SME owners fail to recognize that all materials used in production must meet halal standards, including being free from non-halal

contamination. The limited availability of halal-certified raw materials in local markets further complicates the issue, as SMEs often struggle to source these materials from reliable suppliers at affordable prices. This underscores the need to enhance awareness and understanding among SME owners to ensure consistent halal compliance throughout production processes (Rahman & Zakaria, 2019).

Another significant challenge is the cost of halal certification. The certification process involves audits of production practices, raw material inspections, and administrative procedures is often perceived as prohibitively expensive by small business owners. For SMEs with limited resources, these costs can be burdensome. As a result, many SMEs have yet to obtain halal certification despite their potential to compete in the growing halal market. Nevertheless, halal certification is a critical factor in enhancing the competitiveness of SME products. Certified halal products are well-received domestically and have access to

vast international markets, particularly in predominantly Muslim countries. Therefore, government initiatives to subsidize or reduce certification costs for SMEs could significantly aid their competitiveness (Halim & Salleh, 2020).

Consumer trust is another vital element in the successful implementation of halal principles. Muslim consumers are increasingly aware of the importance of purchasing certified halal products, considered safer, cleaner, and aligned with religious teachings. Research indicates that consumers are more inclined to choose products with a halal label, making halal certification and transparency in production processes key to building trust. For SMEs, earning consumer trust can lead to higher customer loyalty, increased sales, and an enhanced reputation in a competitive market (Ambali & Bakar, 2019).

Government support is also crucial in assisting SMEs with halal compliance. In Indonesia, the government has introduced policies to promote the halal industry, including efforts to streamline the certification process for SMEs. However, implementing these policies often varies across regions, leaving many SMEs in rural areas without adequate access to information or assistance. More consistent and accessible support programs are necessary to help SMEs in remote locations obtain halal certification and integrate halal principles into their operations effectively (Ahmad & Haron, 2020).

Lastly, customer satisfaction is a crucial indicator of the successful implementation of halal principles. Halal-certified products are expected to fulfill not only the spiritual needs of Muslim consumers but also their expectations regarding quality, safety, and value. SMEs that maintain high standards for their halal products and provide excellent customer service have a greater chance of achieving customer satisfaction, which, in turn, fosters long-term customer loyalty. This loyalty is crucial for the sustainability and growth of SMEs in the food sector (Shafie & Othman, 2019).

In summary, implementing halal principles in the food supply chain is a religious obligation for Muslim consumers and a reflection of product quality and safety. Despite challenges such as limited awareness of halal raw materials and high certification costs, integrating halal principles offers significant opportunities for

SMEs to expand their markets and build consumer trust. Government support plays a vital role in addressing these obstacles, making halal certification more accessible and fostering the development of a sustainable halal industry. Ultimately, adherence to halal principles enhances customer satisfaction, a cornerstone of success and growth for businesses in the food sector (Syed, 2020).

CONCEPTUAL FRAMEWORK

Awareness of Halal Raw Materials

Awareness of halal raw materials among business owners is crucial in successfully implementing halal principles in the food sector. Many SMEs struggle with understanding that all materials used in the production process must be halal-certified, ensuring they are free from non-halal contamination (Rahman & Zakaria, 2019). This low level of awareness can lead to non-compliance with halal standards, thereby risking consumer trust and market expansion opportunities. Research has shown that increasing awareness through education and training can significantly improve the adoption of halal practices in SMEs (Baharuddin et al., 2015).

Halal Certification Costs

Halal certification plays a critical role in ensuring that products comply with Islamic dietary laws, significantly impacting consumer trust, market access, and business operations. For Muslim consumers, halal certification offers assurance that products meet strict religious and ethical standards, fostering trust and influencing purchasing decisions, especially in non-Muslim-majority markets (Rezai et al., 2012). This certification is essential for businesses aiming to tap into the growing global halal market, which is projected to exceed USD 3 trillion by 2025 (Thomson Reuters, 2018). Additionally, halal certification ensures compliance with religious principles and enhances overall product quality, as it requires adherence to stringent hygiene and safety protocols throughout the supply chain (Tieman, 2011). However, the cost and complexity of obtaining halal certification, particularly for SMEs, can be a barrier. However, the long-term benefits, such as

increased market access and customer loyalty, often outweigh the initial expenses (Latif et al., 2014). Despite these advantages, the lack of standardization across different certifying bodies remains challenging, leading to inconsistencies in the global recognition of halal-certified products (Bonne & Verbeke, 2008).

Government Support

Government support is essential for SMEs to successfully implement halal principles, particularly in facilitating access to halal certification. The Indonesian government, for example, has introduced various policies to support the growth of the halal industry, including simplified certification procedures for small businesses (Ahmad & Haron, 2020). However, the effectiveness of these policies often depends on how well they are implemented at regional levels. Research highlights that in many rural areas, SMEs face challenges in accessing information and support, pointing to the need for a more equitable distribution of government resources and assistance (Zulkifli & Mokhtar, 2019).

Impact on Business

The impact of business activities on organizational performance has been a central focus of management studies. According to Kaplan and Norton (1996), effective business strategies aligned with clear objectives lead to improved financial outcomes and operational efficiencies. Moreover, strategic alignment between corporate goals and operational activities is crucial for maximizing business impact, especially in competitive markets (Porter, 1998). Studies have shown that businesses that invest in innovation, human capital development, and technological advancement tend to outperform their competitors in the long term (Barney, 1991).

METHODOLOGY

This study adopts a quantitative research design to examine the factors influencing the implementation of halal principles in the supply chain for small and medium enterprises (SMEs) in the food sector. The target population comprises SMEs in Indonesia's food sector,

focusing on those either currently halal-certified or seeking halal certification. To obtain a representative sample, purposive random sampling will be used, targeting SMEs operating for at least two years and possessing knowledge or experience related to halal certification. Data will be collected through a structured questionnaire designed to measure variables such as awareness of halal raw materials, costs associated with halal certification, and government support for SMEs. The questionnaire will be distributed via online platforms and in-person visits, with a pilot test conducted to ensure its reliability and validity.

The collected data will be analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) methodology. Initially, a descriptive analysis will provide an overview of the sample demographics. Subsequently, the measurement model will be evaluated for reliability and validity, including convergent and discriminant validity assessments. Using bootstrapping techniques, the structural model will then be analyzed to examine relationships between the variables, including path coefficients and the significance of these relationships.

Ethical considerations will be a priority throughout this research. Informed consent will be obtained from all participants, and confidentiality and anonymity will be maintained. Participants will also have the right to withdraw from the study without consequences.

RESULTS AND DISCUSSION

Results

1. Convergent Validity

Convergent validity is a type of validity that measures the degree to which two or more measures of the same construct are related. It ensures that different indicators that are supposed to measure the same concept do so. If the correlations between these indicators are strong, the convergent validity is confirmed (Hair et al., 2016).

Table 1 Convergent Validity

Variable	Indicator	Outer Loading
Awareness of	AW1	0.852

Variable	Indicator	Outer Loading
Halal Raw Materials	AW 2	0.851
	AW 3	0.914
	AW4	0.841
	AW5	0.752
Halal Certification	HC1	0.725
	HC2	0.841
	HC3	0.878
	HC4	0.845
Government Support	GS1	0.825
	GS2	0.852
	GS3	0.800
	GS4	0.799
	GS5	0.704
Impact on Business	IOB1	0.852
	IOB2	0.742
	IOB3	0.852
	IOB4	0.888
	IOB5	0.724

2. Average Variance Extracted (AVE)

The average variance extracted (AVE) is a measure used to evaluate the amount of variance captured by a construct about the variance due to measurement error. An AVE of 0.50 or higher indicates that the construct explains more than half of the variance of its indicators, thus demonstrating acceptable convergent validity (Fornell & Larcker, 1981).

Table 2. AVE

Variable	Average Variance Extracted (AVE)
Awareness of Halal Raw Materials	0.752
Halal Certification	0.700
Government Support	0.741

3. Composite Reliability and Cronbach's Alpha

Hair et al. (2010) Composite reliability (CR) is a measure used to assess the internal consistency of a set of indicators in a construct. It is similar to Cronbach's alpha but is considered a more precise measure, especially

in confirmatory factor analysis. A CR value of 0.70 or higher is generally considered acceptable, indicating that the indicators reliably represent the latent construct. Cronbach's alpha is a widely used statistic to measure the internal consistency or reliability of a set of scale items. It evaluates how closely related a set of items are as a group, with a value of 0.70 or higher considered acceptable. The higher the alpha, the more reliable the measurement scale is.

Table 3. Composite Reliability and Cronbach's Alpha

Variable	Cronbach's Alpha	Composite Reliability
Awareness of Halal Raw Materials	0.852	0.900
Halal Certification	0.801	0.952
Government Support	0.791	0.842
Impact On Business	0.752	0.842

4. Testing Hypothesis

To verify the study findings, hypothesis testing involves testing a direct effect. The subsequent results are the outcomes derived from testing the hypotheses:

Table 4. Hypothesis

Variable	Original Sample (o)	P-Values
Awareness of Halal Raw Materials on the impact on business	0.785	0.000
Halal Certification on the impact on business	0.711	0.001
Government Support on Impact on Business	0.791	0.000

Discussion

Awareness of Halal Raw Materials on the impact on business

The awareness of halal raw materials significantly impacts the business operations of small and medium enterprises (SMEs) in the food sector, particularly in implementing halal principles in the supply chain. Firstly,

awareness of halal raw materials improves SMEs' competitiveness and market access. As the global demand for halal products continues to grow, with the halal market projected to reach billions of dollars (Thomson Reuters, 2018), businesses prioritizing halal compliance are better positioned to meet stringent market requirements. This is particularly important in gaining access to domestic and international markets, where halal certification is often a prerequisite.

Additionally, heightened awareness of halal raw materials encourages product quality and innovation. Halal-certified ingredients often correlate with higher product safety and quality due to the emphasis on cleanliness and ethical sourcing in halal production processes (Tieman, 2011). SMEs conscious of halal requirements are also more likely to seek innovative alternatives, such as organic or environmentally friendly raw materials, which can appeal to Muslim and non-Muslim consumers. SMEs well-versed in halal compliance can streamline their supply chains, reducing the risks of regulatory violations and product recalls and ultimately lowering operational expenses.

Lastly, awareness of halal raw materials is crucial to customer satisfaction and loyalty. Muslim consumers prioritizing halal products are more likely to remain loyal to businesses that consistently offer certified ones (Aziz & Chok, 2013). This loyalty is vital for SMEs as repeat purchases and positive word-of-mouth can significantly boost brand reputation and business sustainability. Therefore, SMEs that focus on halal awareness in their supply chain enhance consumer trust and improve their market competitiveness and operational efficiency.

Halal Certification on the impact on business

Halal certification significantly impacts businesses, particularly those in the food, cosmetics, and pharmaceutical sectors. One of the primary effects of halal certification is that it builds consumer trust, especially among Muslim consumers. This certification ensures that products adhere to Islamic dietary laws, ensuring consumers are free from haram (forbidden) substances. According to Rezai et al. (2012), halal certification greatly influences Muslim consumer purchasing decisions, fostering customer loyalty and repeat business. Given the growing global Muslim population,

businesses that obtain halal certification are well-positioned to access an expanding market.

Moreover, halal certification opens doors to new markets, particularly in Muslim-majority countries where compliance with halal standards is mandatory. Businesses with halal certification can export products to countries like Indonesia, Malaysia, and the Middle East, thus increasing their market reach (Thomson Reuters, 2018). Non-Muslim consumers are also becoming more aware of halal products due to their reputation for high hygiene and ethical standards, further broadening the market appeal (Hanzaee & Ramezani, 2011).

Also, halal certification enhances product quality by requiring stringent checks on sourcing, manufacturing, and distribution. The process ensures compliance with rigorous hygiene and safety protocols, improving product safety and brand reputation (Tieman, 2011). While halal certification can increase operational costs due to the need for certified raw materials and audits, these costs are often offset by long-term benefits such as consumer trust, market expansion, and reduced risks of non-compliance (Latif et al., 2014).

In conclusion, halal certification positively impacts businesses by building trust, opening new market opportunities, improving product quality, and offering a competitive advantage in Muslim-majority and non-Muslim markets.

Government Support on Impact on Business

Government support is crucial in shaping the business environment, especially for small and medium enterprises (SMEs) that rely on regulatory frameworks, financial incentives, and infrastructural assistance to grow and remain competitive. The relationship between government support and business success is evident in several areas, including access to finance, market expansion, innovation, and compliance with regulatory standards.

Firstly, government support enhances business sustainability by providing financial assistance, such as grants, subsidies, and low-interest loans. These economic incentives can reduce operational costs and promote growth, particularly for SMEs that may face challenges in accessing traditional financing options. According to a study by Ali et al. (2021), SMEs that receive government-backed financial support tend to have higher survival rates and stronger growth prospects, as they can invest in

necessary resources without the burden of high-interest loans.

Secondly, government policies can drive market access and expansion by creating favorable trade agreements, offering export assistance, and ensuring that businesses comply with international standards. In halal industries, for instance, government support for halal certification and export promotion helps businesses enter global markets and meet the growing demand for halal products. Thomson Reuters (2018) highlights that governments in Muslim-majority countries, like Malaysia, have played an instrumental role in positioning their halal sectors as global leaders by offering support in certification processes, infrastructure, and international outreach.

Moreover, government support fosters innovation by funding research and development (R&D) activities, promoting technology adoption, and encouraging digital transformation. Zahra et al. (2020) noted that government-backed innovation programs enable businesses, especially SMEs, to stay competitive in fast-evolving markets by adopting new technologies and improving their product offerings.

Additionally, regulatory support and simplification of compliance through government initiatives help businesses, particularly in heavily regulated sectors like food and pharmaceuticals. Governments that streamline certification processes, reduce bureaucratic hurdles, and provide clear guidelines enable businesses to operate more efficiently. For halal industries, regulatory support, including simplified halal certification and clear standards, has allowed companies to navigate compliance efficiently, ultimately leading to reduced costs and faster time-to-market (Tieman, 2011).

In conclusion, through financial aid, market access facilitation, innovation promotion, and regulatory assistance, government support plays a pivotal role in driving business success, especially for SMEs. This support helps businesses overcome financial constraints, access new markets, innovate, and comply with regulatory requirements, ensuring long-term sustainability and growth.

CONCLUSION

The awareness of halal raw materials, halal certification, and government support all play significant roles in shaping the business landscape for small and medium enterprises (SMEs) in the food sector. Awareness of halal raw materials improves market competitiveness, enhances product quality, and fosters customer loyalty. Halal certification further strengthens consumer trust, opens new market opportunities, and ensures hygiene and safety standards compliance. Additionally, government support aids SMEs in accessing finance, expanding into new markets, and driving innovation. Together, these factors help SMEs navigate the challenges and capitalize on the opportunities in the halal supply chain, contributing to long-term business sustainability and growth.

This study is limited by its focus on SMEs in the food sector, which may not fully capture the diverse impacts of halal awareness, certification, and government support across different industries. Moreover, the study does not explore the long-term financial implications of implementing halal principles, particularly the cost-benefit analysis of halal certification in regions with low halal demand. Finally, the research is based on existing literature and may not reflect the latest market conditions, regulatory changes, or consumer behavior trends.

Future studies should expand beyond the food sector to include industries such as cosmetics, pharmaceuticals, and logistics, where halal compliance is also critical. Additionally, a deeper investigation into the financial viability of halal certification, particularly for SMEs in non-Muslim-majority countries, could provide valuable insights. Research on the role of digital technologies and artificial intelligence in streamlining halal compliance and certification processes would also be beneficial, as these innovations could lower costs and improve efficiency for businesses aiming to operate within halal standards. Lastly, longitudinal studies assessing the long-term business impacts of halal certification and government support could provide more comprehensive insights into their effectiveness over time.

REFERENCES

- Abdul, M., Ismail, H., Hashim, H., & Johari, J. (2013). Obstacles to the Implementation of Halal Standards in Small and Medium Enterprises: A Case Study of Malaysia. *Asian Social Science*, 9(11), 180-189.
- Ahmad, A., & Haron, H. (2020). Government Policies and Halal Certification for SMEs. *Journal of Halal Economy*, 8(1), 12-24.
- Ambali, A., & Bakar, A. (2019). Consumer Perception and Trust in Halal Products. *Journal of Islamic Marketing*, 7(3), 356-372.
- Aziz, Y. A., & Chok, N. V. (2013). The role of halal awareness and halal certification in influencing non-Muslim consumers' purchase intention. *Journal of International Food & Agribusiness Marketing*, 25(1), 1-23.
- Baharuddin, K., Kassim, M. N., & Nordin, S. K. (2015). Awareness of Halal Raw Materials: Key to Halal Compliance in SMEs. *Journal of Islamic Marketing*, 6(3), 410-424.
- Halim, M. A., & Salleh, M. M. (2020). Halal Certification: A Perception Study Among SMEs in the Food Industry. *Journal of Halal Studies*, 2(1), 33-42.
- Hanzaee, K. H., & Ramezani, M. R. (2011). Intention to halal products in the world markets. *Interdisciplinary Journal of Research in Business*, 1(5), 1-7.
- Latif, I. A., Mohamed, Z., Sharifuddin, J., Abdullah, A. M., & Ismail, M. M. (2014). A comparative analysis of global halal certification requirements. *Journal of Food Products Marketing*, 20(sup1), 85-101.
- Latiff, Z. A., & Mohamed, Z. (2021). Consumer Perception on Halal Food Certification in Malaysia: Implications for Trust and Brand Loyalty. *Journal of Islamic Marketing*, 8(4), 643-660.
- Rahim, H. S., Suhaimi, M., & Zainuddin, H. (2020). Customer Satisfaction and Loyalty in the Halal Food Market. *International Journal of Halal Business*, 5(2), 47-61.
- Rahman, A., & Zakaria, A. (2019). The Role of SMEs in Halal Supply Chain in Indonesia. *Journal of Halal Industry and Services*, 2(1), 23-30.
- Rezai, G., Mohamed, Z., & Shamsudin, M. N. (2012). Non-Muslim consumers' understanding of halal principles in Malaysia. *Journal of Islamic Marketing*, 3(1), 35-46.
- Shafie, S., & Othman, M. N. (2019). Halal Certification and its Impact on Consumer Satisfaction. *Journal of Islamic Consumer Studies*, 4(2), 78-92.
- Syed, M. A. (2020). Halal Food Quality and Consumer Satisfaction: A Comparative Study. *Journal of Islamic Economics*, 5(3), 23-39.
- Thomson Reuters. (2018). State of the Global Islamic Economy Report 2018/19. Retrieved from <https://www.salaamgateway.com>.
- Tieman, M. (2011). The application of halal in supply chain management: In-depth interviews. *Journal of Islamic Marketing*, 2(2), 186-195.
- Wilson, J. A., & Liu, J. (2011). The challenges of Islamic branding: Navigating emotions and halal. *Journal of Islamic Marketing*, 2(1), 28-42.
- Zulkifli, A., & Mokhtar, S. (2019). Government Policies on Halal Certification for SMEs: Opportunities and Challenges. *Journal of Public Administration*, 23(4), 101-112.