

POST-CERTIFICATION GOVERNANCE: AN EXAMINATION OF INSPECTORIAL OVERSIGHT AND BUSINESS COMMITMENT IN ACEH'S HALAL REGULATORY FRAMEWORK

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Abstract

This study examines the effectiveness of the LPPOM MPU Aceh supervision system in ensuring business operators' post-certification commitment to halal certification. The background to the research is the phenomenon of inconsistent compliance by business operators with halal standards, as revealed by the 2023 inspection, which found that 26.4% of 87 businesses in Banda Aceh did not meet halal standards despite holding valid certificates. This study employs a descriptive qualitative approach, combining primary data from in-depth interviews with LPPOM MPU Aceh officials, halal auditors, and business operators, alongside secondary data from supervision reports and relevant regulations. The research findings indicate that LPPOM MPU Aceh implements a multi-layered supervision mechanism through routine and unannounced inspections, with 39 auditors overseeing 900–1,000 business units. Practices on the ground face complex challenges, including a limited auditor-to-business operator ratio (1:23–26), a lack of operational funding, and a gap in business operators' understanding of the principles of the Halal Assurance System (SJPH), which reduces the effectiveness of supervision by 20–30% with coverage of only 60–70% of priority targets. Violations identified include the use of non-certified ingredients, cross-contamination, and non-compliance with product composition requirements. This study concludes that although the supervision system based on Aceh Qanun No. 8 of 2016 has served as a structured compliance framework, its effectiveness requires improvement through digital transformation grounded in risk *management*, institutional capacity building, and the development of a more adaptive supervision model tailored to SME characteristics.

Keywords: Halal System, Islamic Economic Law, LPPOM MPU Aceh and Post-Certification Compliance

INTRODUCTION

Economic and trade globalisation has introduced new dynamics in the consumption patterns of Muslim communities worldwide. Products of various types, brands, and countries of origin are now easily accessible to consumers; however, behind this convenience lies a fundamental concern about the halal status of the products they consume. The United Nations, through the *Food and Agriculture Organisation* (FAO), notes that the global food industry is experiencing significant growth, with a market value of USD 2.3 trillion by 2024 and serving over 1.9 billion Muslim consumers worldwide.¹ This growth not only highlights the vast economic potential of the halal sector but also underscores the urgency of protecting Muslim consumers' rights to access products that align with their religious beliefs.

Indonesia, as the country with the world's largest Muslim population – approximately 229 million people, or 87% of the total population – has a constitutional responsibility to ensure the availability of halal products for its citizens.² This commitment is realised through the enactment of Law No. 33 of 2014 on Halal Product Assurance (JPH Law), which mandates halal certification for all products circulating in Indonesia. Article 44 of the JPH Law explicitly states: "Products entering, circulating, and being traded within the territory of Indonesia must be halal certified." The implementation of this Act is reinforced by the establishment of the Halal Product Guarantee Agency (BPJPH) under the Ministry of Religious Affairs, which collaborates with the Indonesian Ulema Council (MUI) through the Institute for the Assessment of Food, Medicines, and Cosmetics (LPPOM MUI) to carry out halal audits and certification.³ This regulation marks a paradigm shift in halal assurance in Indonesia from a *voluntary* to a *mandatory* system, affirming the state's commitment to protecting the rights of Muslim consumers.

Data from the Halal Product Guarantee Agency shows that by 2024, 678,432 products had obtained halal certification across various industrial sectors, including food and beverages, medicines, cosmetics, and chemical and biological products.⁴ However, the real challenge lies not merely in achieving

¹ Food and Agriculture Organization (FAO), "Global Halal Food Market Report 2024" (United Nations, 2024).

² Mian N. Riaz and Muhammad M. Chaudry, *Halal Food Production* (Boca Raton: CRC Press, 2004), 15–23.

³ Ministry of Religious Affairs of the Republic of Indonesia, *Implementation of the Halal Product Guarantee Law* (Jakarta: Ministry of Religious Affairs of the Republic of Indonesia, 2019), 12–18.

⁴ Halal Product Guarantee Agency, "BPJPH Performance Report 2024" (Jakarta: BPJPH, 2024), 34.

certification, but in the sustainability of businesses' commitment to maintaining halal standards and the certificates obtained. Research conducted by Azis and Chok found that 32% of halal-certified products in traditional markets in Indonesia were subject to cross-contamination with non-halal ingredients during distribution, indicating a gap between certification's formal guarantees and on-the-ground practices.⁵

The phenomenon of inconsistent adherence to halal standards following certification is a critical issue that threatens the integrity of the halal product assurance system as a whole. Factors influencing business operators' non-compliance with halal standards post-certification include a lack of understanding of the principles of the halal assurance system, weak management commitment to allocating resources for maintaining the halal system, a lack of consistent external oversight by the competent authorities, and economic pressures that drive business operators to take shortcuts that compromise halal standards.⁶ The consumer protection dimension within the halal assurance system must also not be overlooked. Law No. 8 of 1999 on Consumer Protection, in Article 8(h), explicitly prohibits business operators from producing and trading goods that do not comply with halal production requirements, as indicated by the 'halal' statement on the label. When a business operator affixes a halal label to a product but fails to maintain halal standards, this constitutes not only an ethical breach but also a legal violation that may be categorised as an unfair business practice and consumer fraud.⁷

Aceh Province has a unique context for implementing Indonesia's halal product assurance system. As the only province that *fully* implements Islamic Sharia law in accordance with Law No. 11 of 2006 on the Government of Aceh, Aceh has special authority to regulate and oversee the administration of various aspects of its people's lives, including halal product assurance. This authority is realised through Qanun No. 8 of 2016 on the Halal Product Assurance System, which provides a legal basis for the administration of the halal assurance system at the provincial level. The existence of this specific

⁵ Yuhanis Abdul Aziz and Nyen Vui Chok, "The Role of Halal Awareness, Halal Certification, and Marketing Components in Determining Halal Purchase Intention Among Non-Muslims in Malaysia: A Structural Equation Modelling Approach," *Journal of International Food & Agribusiness Marketing* 25, no. 1 (2013): 1-23.

⁶ Norizah Noordin, Mardziah Hashim, Zainal Samicho, and Marzuki Osman, "Value Chain of the Halal Certification System: A Case Study of the Malaysian Halal Industry," *European and Mediterranean Conference on Information Systems* (2014): 1-1

⁷ Abdul Raufu Ambali and Ahmad Naqiyuddin Bakar, "Public Awareness of Halal Foods and Products: Potential Issues for Policy-Makers," *Procedia – Social and Behavioural Sciences* 121 (2014): 3-25.

regulation reflects the Aceh Government's commitment to making halal assurance an integral part of implementing Islamic Sharia in the public sphere.⁸

Within the institutional structure of halal assurance in Aceh, the Aceh Ulama Consultative Council (MPU) plays a central and strategic role. Unlike other regions in Indonesia where halal certification is entirely under the authority of the BPJPH and the central LPPOM MUI, Aceh Qanun No. 8 of 2016 grants authority to the MPU of Aceh through the MPU's Food, Medicines, and Cosmetics Research Institute (LPPOM MPU Aceh) to carry out the functions of certifying and supervising halal products, particularly for Micro, Small, and Medium Enterprises (MSMEs) in Aceh. Article 12(2) of the Qanun states: "The MPU is authorised to carry out the registration, certification and labelling of Halal Products, as well as to provide guidance to business operators regarding the implementation of the Halal Assurance System (SJPH)." This authority positions MPU Aceh as *the leading sector* within the province's halal assurance ecosystem, with responsibilities extending not only to the certification stage but also to the post-certification supervision phase to ensure business operators' adherence to halal standards.

Cases of halal standard violations uncovered in Aceh highlight the urgency of strengthening the post-certification monitoring system. The 2023 report by the MPU Aceh LPPOM Integrated Team revealed concerning findings: of the 87 food processing businesses inspected in the Banda Aceh region, 23 (26.4%) were found no longer to meet halal standards despite holding valid halal certificates. The violations identified included the use of food additives not certified as halal, cross-contamination from shared equipment with non-halal products, and discrepancies between the product composition and the information stated on the certificate.⁹ The most shocking case was the raid on a satay vendor in Baitussalam District who used rotten meat as a raw ingredient, which not only violated the principle of halal but also the principle of good quality (*thayyib*), threatening consumer health and tarnishing the image of Aceh's halal products as a whole.¹⁰ Findings from the Banda Aceh Food and Drug Supervisory Agency (BPOM) identifying hazardous substances such as formalin and borax in Aceh noodles sold at

⁸ Government of Aceh, Aceh Qanun No. 8 of 2016 on the Halal Product Assurance System (Banda Aceh: Government of Aceh, 2016).

⁹ LPPOM MPU Aceh, "Report on the Results of the 2023 Integrated Team Inspection" (Banda Aceh: LPPOM MPU Aceh, 2023), 28–35.

¹⁰ "Rotten Meat Sold for Satay, Traders in Baitussalam Raided," *Serambi Indonesia*, 15 August 2023.

several locations further underscore the weaknesses in supervision and the lack of commitment among business operators to ensuring halal certification and food safety.

In an interview, Deni, Chairman of LPPOM MPU Aceh, revealed a deeper perspective on the complexity of halal supervision issues in Aceh. According to him, the greatest challenge lies not in the certification stage, but in ensuring the sustainability of business operators' commitment after the certificate is obtained. "Halal is not merely about the certificate," he stated, "but about how the systems and processes used can ensure the halal status of products on an ongoing basis. There are still many traders, particularly street vendors, who engage in fraudulent practices in the management and distribution of food, despite the sanctions that have been established." This statement highlights that the halal certifications issued so far cover only a small fraction of the product ecosystem circulating in society, and even among those that have been certified, non-compliance persists due to inadequate awareness-raising, understanding, and supervision. This situation highlights a gap between normative regulations and their implementation on the ground, which requires systemic improvements in oversight mechanisms.¹¹

An effective monitoring system is a prerequisite for the continued credibility of the halal assurance system. Tieman emphasised that halal monitoring must be proactive, comprehensive, risk-based, collaborative, and both punitive and *educational*. The operational system of the LPPOM MPU Aceh plays a vital role in ensuring that businesses continue to comply with halal assurance requirements following certification. As the body responsible for the halal certification process in Aceh, LPPOM MPU Aceh must effectively monitor businesses and products circulating in the community. The success of this system is crucial in determining the level of public trust in the halal status of marketed products. Although qanuns and regulations support the implementation of halal certification in Aceh, the reality on the ground shows that post-certification business compliance with halal guarantees remains suboptimal. Many businesses do not yet fully understand the importance of maintaining the halal status of their products on an ongoing basis; therefore, a supervision system is required that can enhance their awareness and commitment.

Based on the above, this study aims to analyse the operational system of LPPOM MPU Aceh supervisors regarding business owners' commitment to

¹¹ Interview with Deni Candra, Chair of LPPOM MPU Aceh, Banda Aceh, 10 January 2025.

adhering to post-certification halal guarantees. Specifically, this study will examine how the supervision system encourages business owners' commitment to maintaining product halal standards, analyse the effectiveness of supervision mechanisms in reducing violations, and identify the constraints and supervision strategies applied in maintaining the consistency of business owners' commitment to the Halal Product Guarantee (SJPH) as stipulated in Aceh Qanun No. 8 of 2016. It is hoped that the results of this study will provide a theoretical contribution to the development of knowledge on halal governance and a practical contribution to improving the supervision system in Aceh, as well as serving as a reference for other regions developing halal product assurance systems based on local wisdom and religious values.

DATA AND METHODS

This study is a qualitative study using a descriptive approach to comprehensively examine the supervisory system implemented by LPPOM MPU Aceh in maintaining business owners' commitment to fulfilling halal assurance post-certification. This approach was used because the issues under examination relate not only to normative or regulatory aspects, but also to field supervision practices as well as the responses and behaviour of business operators after obtaining halal certification.

The data used in this study consists of primary and secondary data. Primary data was obtained through in-depth interviews with the management of LPPOM MPU Aceh, halal auditors, and business operators who already hold halal certificates. In addition, primary data was also obtained through direct observation of the implementation of post-certification halal supervision. Secondary data, meanwhile, was derived from official institutional documents, supervision reports, data on findings of violations, and relevant statutory provisions, such as Aceh Qanun No. 8 of 2016 and Law No. 8 of 1999 on Consumer Protection.

Data collection techniques included interviews, observations, and documentary studies. Interviews were conducted using a semi-structured approach to gather information on the patterns and mechanisms of supervision, the challenges faced in their implementation, and the efforts undertaken by LPPOM MPU Aceh to encourage business owners' commitment to post-certification halal assurance. Observations were conducted to directly assess the compliance of business operators' management and production practices with halal standards.

FINDING AND DISCUSSION

A. The Operational System of LPPOM MPU Aceh Supervisors in Post-Certification Halal Supervision

The post-certification halal supervision system is the most critical stage in maintaining the integrity of halal product guarantees issued by the authorised body. A halal certificate that has been issued is not a permanent guarantee but rather a commitment that must be upheld continuously through effective supervisory mechanisms.¹² This supervision is carried out through two main mechanisms: routine inspections conducted on a scheduled basis to verify ongoing compliance, and unannounced inspections (*surveillance audits*) conducted in response to indications of violations or consumer complaints to prevent concealed violations or manipulative behaviour in the run-up to scheduled inspections.¹³ These two mechanisms complement one another to ensure that businesses consistently implement the Halal Production Process (PPH) in accordance with the commitments stated in their certification applications.

Halal supervision in Indonesia is regulated through a tiered regulatory framework that grants authority to the BPJPH as the primary regulator, whilst the LPPOM MUI acts as the designated Halal Inspection Body (LPH) responsible for conducting on-site technical inspections. In Aceh, Aceh Qanun No. 8 of 2016 on the halal product assurance system provides a stronger legal basis than in other regions, as it mandates halal certification for all food and beverage products produced and traded within the Aceh region. The sanctions that may be imposed on business operators found to have violated halal regulations vary, ranging from written warnings and the temporary suspension of halal certificates to the permanent revocation of halal certificates, accompanied by administrative and criminal penalties in accordance with applicable laws and regulations.¹⁴

An effective monitoring system requires an approach that is not only punitive but also educational and preventive. Monitoring accompanied by continuous guidance is more effective in improving business operators' compliance than an approach that relies solely on sanctions. In this context,

¹² Hayyun Durrotul Faridah, "Halal Certification in Indonesia: History, Development, and Implementation," *Journal of Halal Product and Research*, Vol. 2, No. 2, p. 441.

¹³ M. S. Al Munawar et al., "Implementation of the Halal Product Assurance System (SJPH) in Micro, Small and Medium Enterprises (MSMEs) in the Food and Beverage Sector," *Journal of Community Service*, Vol. 8 No. 2, pp. 45–48.

¹⁴ BPJPH, "Manual on the Halal Product Assurance System," (Jakarta: Ministry of Religious Affairs of the Republic of Indonesia, 2022), pp. 45–48.

the role of halal auditors becomes highly strategic, not merely as compliance inspectors but also as consultants providing technical solutions to businesses in implementing halal standards practically and sustainably.

The aspects generally examined during halal audits include the traceability of raw materials to ensure that all ingredients used hold valid halal certificates, observation of the production process to verify the implementation of halal *standard operating procedures* (SOPs), inspection of Halal Production Process (HPP) documentation, including records of raw material purchases and staff training, evaluation of storage and packaging systems to prevent cross-contamination, and verification of halal labels on finished products. All these aspects must be ensured to align with the commitments made by the business operator in their halal certification application, and any deviations must be properly documented to serve as the basis for corrective actions or sanctions if necessary.

According to an interview with the chairman of LPPOM MPU Aceh, the current monitoring system involves 39 accredited halal auditors overseeing approximately 900 to 1,000 halal-certified businesses across Aceh. The number of businesses requiring supervision continues to rise following the implementation of Aceh Qanun No. 8 of 2016 on the Halal Assurance System, which mandates halal certification for food and beverage products produced and traded in Aceh. The high supervision ratio—one halal auditor for every 23 to 26 business units—indicates a shortage of supervisory resources relative to the steadily increasing number of businesses.

The division of supervision areas follows the administrative boundaries of districts and cities in Aceh, with a primary focus on economic hubs such as Banda Aceh and Sabang, which have a high concentration of businesses. This organisational structure is designed to ensure equitable coverage of supervision despite existing human resource limitations. However, more remote areas or those with limited accessibility face challenges in achieving adequate inspection frequency, potentially leading to disparities in compliance levels between regions.

The supervision planning procedure begins with the preparation of an annual plan by LPPOM MPU Aceh based on data on certified businesses obtained from internal databases and coordination with BPJPH. Prioritisation uses PPH risk management, including production volume, history of violations, and public complaints. This risk-based approach enables more efficient allocation of supervisory resources by giving greater attention to high-risk businesses.

The frequency of inspections averages 2-4 times per year for each business operator, with variations depending on risk category and business scale. Business operators in the high-risk category, or those with a history of violations, receive more intensive supervision at least 4 times per year, whilst operators with a good track record and low risk may be inspected twice a year.

The aspects examined during each inspection activity cover various dimensions of the halal assurance system. According to an interview with the chairman of LPPOM MPU Aceh, the main aspects include raw materials, production processes, documentation of PPH and Halal SOPs, storage and packaging, and laboratory testing and staff training. Raw material checks include verification of halal certificates from *suppliers*, compliance of material specifications with those listed in the certification application documents, and the system for recording and storing traceability documents. Observations of the production process are conducted to ensure there is no cross-contamination between haram and najis materials, adequate production segregation, and consistent implementation of SOPs.

The documentation system for inspection results has adopted digital technology by using standard BPJPH formats, with inspection reports uploaded via the SISJEHALAL application or the internal platform of LPPOM MPU Aceh. This digitalisation not only speeds up the reporting process but also facilitates *real-time* monitoring of business operators' compliance status. Each inspection finding is categorised into three levels based on its severity. Major findings constitute the most serious violations, such as contamination with impure substances or prohibited ingredients requiring immediate action—including product *recalls*—for example, the use of pork gelatine; minor findings cover labelling discrepancies or minor documentation issues that can be rectified within 30 days; and observations are non-critical improvement suggestions, such as enhancing *hygiene standards*.

Failure to address major findings may result in the suspension or revocation of the halal certificate. Minor findings are generally related to administrative or documentation issues that do not directly threaten the product's halal status but still require correction to ensure the halal assurance system functions properly; businesses are given 30 days to rectify them. Observations typically relate to opportunities for improvement in *hygiene*, process efficiency, or the capacity of the halal assurance system, thereby strengthening business compliance.

Table 1. Profile of the LPPOM MPU Aceh Monitoring System

Indicator	Data
Number of Auditors/Inspectors	39
Number of Certified Businesses	900–1,000 units
Ratio of Supervisors to Certified Businesses	1: 23–26
Inspection Frequency	2–4 times per year per business
Inspection Method	Scheduled and unannounced
Documentation System	Digital (SISJEHALAL/LPPOM Platform)
Findings Categories	Major, Minor, Observations

Source: Primary Data, Results of an Interview with the Chair of LPPOM MPU Aceh, 2026

Based on data obtained from interviews, the working system of LPPOM MPU Aceh inspectors has demonstrated an organised structure with a clear division of tasks and standardised procedures. However, the ratio of inspectors to businesses, at 1:23–26, indicates insufficient capacity to conduct effective supervision. Effective supervision ideally requires more intensive support; a lower ratio would allow supervisors to provide more in-depth guidance and conduct stricter monitoring. This limitation could create gaps in the scope of supervision, particularly for businesses in remote areas or those in the low-risk category, which may not receive adequate attention.

B. Business Owners' Commitment to Maintaining Halal Assurance Post-Certification

Business operators' commitment to halal assurance is a crucial factor in ensuring the successful implementation of the Halal Product Assurance System. This commitment is not merely reflected in the possession of a halal certificate, but is fundamentally rooted in the consistent application of halal production processes and daily operations.¹⁵ Business operators' commitment is influenced by various factors, including their level of understanding of the Halal Product Assurance (HPA) system and their perception of the

¹⁵ Aisyah Khoirunnisa et al., "Analysis of Management Compliance with the Indonesian Halal Assurance System," *Journal of Social Science Research*, Vol. 4, No. 4, (2024), p. 2045

effectiveness of the existing oversight system. In the context of the halal industry, commitment is not merely compliance with regulations but the internalisation of Sharia values across all aspects of business operations.

Business operators' literacy regarding the Halal Product Assurance Act (JPH) varies; large-scale businesses tend to have a better understanding than SMEs. This disparity affects the quality of Halal Product Assurance System (SJPH) implementation; businesses with a good understanding tend to have more comprehensive documentation systems, more standardised operational procedures, and more adequate internal audit capacity. Factors such as the education level of owners or management, access to training programmes, and support from relevant institutions are key variables influencing business operators' literacy regarding the halal assurance system.

Business operators' motivation to maintain halal commitments can be categorised into intrinsic motivation stemming from religious awareness and sharia responsibility, and extrinsic motivation driven by market demands, competitive advantage, and regulatory compliance to avoid sanctions.¹⁶ Business operators with strong intrinsic motivation tend to be more consistent in upholding halal standards even without strict supervision, as they view halal compliance as integral to their worship and the blessings of their business.¹⁷ Conversely, business operators driven solely by extrinsic motivation are more prone to deviations when supervision weakens or when significant economic pressures arise.

Implementing halal commitments in SMEs faces different challenges than in large-scale businesses. Limited financial resources, restricted managerial capacity, and limited access to training and mentoring programmes constitute structural barriers that affect the consistency of halal assurance system implementation.¹⁸ Nevertheless, SMEs with owners and management who possess a strong religious understanding can overcome these limitations by applying a simple yet effective halal assurance system with innovation and creativity. This indicates that values and beliefs can compensate for material resource constraints in maintaining product halal commitment.

¹⁶ Jasmien, "The Challenges of Halal Certification for MSMEs in Indonesia," Vol. 3, No. 2, pp. 412-425.

¹⁷ Yamilla Yasenia, "The Effectiveness of Halal Certification on Compliance among Food and Beverage SMEs," *Undergraduate Thesis*, IAIN Ponorogo, 2024, pp. 45-52.

¹⁸ M. S. Al Munawar et al., "Implementation of the Halal Product Assurance System (SJPH) in Food and Beverage Micro, Small and Medium Enterprises (MSMEs)," *Journal of Community Service*, Vol. 8, No. 2, pp. 441

The economic benefits of halal certification are also a key factor influencing business operators' commitment. A halal certificate serves not only to fulfil regulatory obligations but also to enhance a product's competitiveness in both domestic and international markets.¹⁹ Muslim consumers, who *are* increasingly *aware* of halal issues, tend to choose halal-certified products; thus, halal certification can expand market access, boost consumer confidence, and ultimately increase sales. However, for micro and small businesses, the costs of meeting halal assurance system standards often pose a significant barrier, affecting their level of commitment to maintaining consistency in post-certification implementation.

The role of continuous mentoring and capacity building is crucial to maintaining business owners' commitment, particularly for MSMEs with limited technical and managerial capacity. An effective mentoring programme focuses not only on administrative and documentation aspects but also on strengthening substantive understanding of the philosophy and principles of halal, transferring technical knowledge on halal risk management, and building internal audit capacity. Continuous and adaptive mentoring tailored to the specific conditions of business operators has proven more effective at enhancing commitment than generic, *one-off training* approaches. In this context, the *self-declaration* mechanism applied to micro-businesses also requires intensive mentoring to ensure that business operators truly understand and consistently implement halal standards.²⁰

Based on interviews with LPPOM MPU Aceh supervisors, the level of business commitment in Aceh shows a positive trend. According to the Chair of LPPOM MPU Aceh, the level of commitment among business operators in Aceh is generally high due to the support of Aceh Qanun No. 8 of 2016, which mandates halal certification, with the majority of MSMEs complying despite challenges in understanding the requirements. This statement indicates that strong local regulations significantly contribute to the development of a culture of compliance among business operators.²¹

Data obtained by the author from interviews indicates that approximately 80–85% of business operators consistently adhere to the established halal assurance standards, whilst 15–20% have committed minor

¹⁹ Syarikat, "Implementation of the Halal Product Assurance System in Micro and Small Enterprises," Vol. 8, No. 1, pp. 67–78.

²⁰ Jimsya, "Analysis of the Implementation of Self-Declared Halal Certification for Micro and Small Business Operators," Vol. 6, No. 2, pp. 234–245.

²¹ Results of an interview with staff from the Supervision Division of LPPOM MPU Aceh, Banda Aceh, 15 January 2026.

violations that can be rectified through guidance. This relatively high level of compliance is attributable to the effectiveness of the existing monitoring system and the strict administrative sanctions as stipulated in the Aceh Qanun.

Table 2. Compliance Rates of Halal-Certified Businesses in Aceh

Compliance Category	Percentage
Consistently Compliant	80–85
Has Committed Minor Violations	15–20

Source: Primary data from interviews with the Chair of LPPOM MPU Aceh, 2026.

The three most common types of violations include the use of raw materials without clear halal labelling, cross-contamination between halal and non-halal products within production facilities, and incomplete halal standard operating procedures (SOPs). The supervisory body LPPOM MPU Aceh provided concrete examples, such as a food-processing SME in Banda Aceh that used cooking oil without halal *traceability*, and a poultry slaughterhouse in North Aceh that failed to segregate cutting tools. Large-scale businesses are more committed to having a comprehensive halal certification system, whilst SMEs are hindered by costs and human resources constraints. LPPOM MPU Aceh has previously revoked halal certificates from two to three businesses due to serious violations.

The perspective of business operators corroborates the inspectors' findings. Information from one operator of the 'Kripik Renyah Aceh' SME, which has held a halal certificate for two years, states that the company has a written policy on halal commitment, which is communicated through *briefings* held every two weeks. All raw materials hold halal certificates, and the company has never been tempted to use cheaper ingredients without halal guarantees, as halal compliance is a blessing for the business. To prevent cross-contamination, the company ensures production areas are dedicated solely to halal ingredients, uses dedicated equipment, and requires staff to wear clean work attire.²²

The company has written Standard Operating Procedures (SOPs) covering everything from raw material receipt to packaging, with an internal halal supervision team overseeing the production process. Internal audits are conducted independently every six months. Informants stated that the

²² Interview with Ahmad Fauzi, Halal-Certified MSME Operator of Aceh Crispy Chips, Banda Aceh, 19 January 2025.

primary motivations are religious (worship) factors and meeting the demands of the Muslim market. When asked whether halal standards would be maintained without supervision, informants affirmed that they would be upheld because they are tied to religious belief. This statement confirms that commitment to halal is an internalised value, not merely a response to external pressure.

Findings from both perspectives reveal an interesting convergence. Supervisors noted a relatively high compliance rate (80–85%), though challenges remain amongst SMEs. The business operators interviewed demonstrated a very strong commitment profile, with a comprehensive halal assurance system and strong religious motivation. The main drivers of commitment are an understanding of Islamic law, clear market benefits, and consistent law enforcement through the Aceh Qanun. Barriers include high costs for SMEs, a lack of accessible training programmes, and supervision that has not yet optimally reached all business operators. Differences in commitment between large enterprises and SMEs indicate the need for different approaches to capacity building.

C. Effectiveness of the Supervisory System in Relation to Business Commitment

The effectiveness of halal supervision can be measured by its ability to prevent violations, improve business operator compliance, and maintain consumer confidence in halal-certified products. Effectiveness is assessed not only by quantitative measures such as the frequency of inspections or the number of violations found, but also by qualitative measures such as changes in business operators' behaviour, improved understanding of the halal assurance system, and the internalisation of halal values within business operations.²³ Good and effective supervision creates an environment conducive to business operators voluntarily upholding their halal commitments, rather than merely out of fear of sanctions.

Effective supervision requires a balanced approach between control functions and guidance functions. A punitive approach can lead to resistance and defensive behaviour from business operators, whilst overly permissive supervision can lower compliance levels.²⁴ Thus, the ideal supervision system

²³ Yamilla Yasenia, "The Effectiveness of Halal Certification on Compliance among MSMEs in the Food and Beverage Sector," Undergraduate Thesis, IAIN Ponorogo, pp. 45–52.

²⁴ El-Hisbah, "Legal Certainty in the Supervision of Halal Product Certification in Indonesia," Vol. 15, No. 1, pp. 89–92.

integrates educational, preventive, and corrective approaches in proportion to the characteristics and maturity level of the business operators. Supervision accompanied by continuous guidance has proven more effective at improving long-term compliance than an approach that relies solely on sanctions.

The frequency and methods of supervision are key factors in determining effectiveness. Regular supervision at appropriate intervals can create a deterrent effect, encouraging business operators to maintain consistency in implementing the halal assurance system. However, an excessively high frequency of supervision can impose an administrative and operational burden on business operators, particularly SMEs with limited resources.²⁵ Conversely, an overly infrequent inspection schedule may create loopholes for businesses to commit non-compliance between inspection periods. Consequently, the determination of inspection frequency must take into account the business's risk category, compliance history, and the complexity of production processes.

A combination of scheduled and unannounced inspections is an effective strategy for ensuring genuine compliance. Scheduled inspections provide businesses with the opportunity to properly prepare documentation and ensure that all procedures are carried out in accordance with standards, thereby enabling a comprehensive verification process.²⁶ Meanwhile, unannounced inspections serve as a controlled mechanism to ensure that the compliance demonstrated during scheduled inspections is genuinely implemented in day-to-day operations. Unannounced inspections also have a psychological effect, encouraging businesses to maintain consistent implementation of the halal assurance system at all times, not just in the period leading up to scheduled inspections.

The sanctions system in place also influences the effectiveness of supervision. Sanctions that are disproportionate, inconsistent, or too lenient can create the perception that violations are tolerated. An effective sanctions system applies the principle of gradation, in which the severity of the sanction aligns with the severity of the violation.²⁷ For minor violations, such as incomplete documentation, sanctions may consist of a warning and a grace period for rectification. For moderate violations, such as minor discrepancies

²⁵ Syarikat, "Implementation of the Halal Product Assurance System in Micro and Small Enterprises," Vol. 8, No. 1, pp. 67-78.

²⁷ BPJPH, "Manual on the Halal Product Assurance System," Jakarta: Ministry of Religious Affairs of the Republic of Indonesia, pp. 45-48, 2022.

in PPH implementation, sanctions may include a temporary suspension of the certificate until the discrepancies are rectified. Meanwhile, for serious violations, such as the use of prohibited substances or contamination with impurities, revoking the halal certificate is the appropriate measure to uphold the integrity of the halal assurance system.

The impact of supervision on changes in business behaviour is a key indicator of the effectiveness of the supervision system. Effective supervision not only leads to temporary compliance but also drives sustainable behavioural change by enhancing understanding and awareness. These changes can be observed across various aspects, such as improvements to documentation systems, enhanced quality of staff training, strengthened operational procedures, and increased investment in halal assurance infrastructure.²⁸ Supervision accompanied by constructive *feedback* and knowledge transfer can shift business operators' perception of supervision, transforming it from what was initially viewed as a burden into an opportunity for improvement and capacity building. The learning effects arising from the supervision process can enhance business operators' ability to manage the halal assurance system independently.

Based on interviews with supervisors at LPPOM MPU Aceh, the current supervision system demonstrates a relatively high level of effectiveness, though it still faces several challenges. Informants rated the system's effectiveness as reasonably good, despite the ongoing challenges. The current effectiveness rating for the supervision system ranges from 7 to 8 out of 10. The rationale for this assessment is that consistent routine inspections, supported by robust Aceh Qanun regulations, have successfully improved business operators' compliance. However, the limited number of supervisory staff means coverage has not yet optimally reached all business operators, leaving gaps that need to be addressed.²⁹

Changes in business behaviour before and after the implementation of routine supervision are highly significant. The Chairman of LPPOM MPU Aceh explained that before the routine supervision system was implemented, many businesses neglected raw material traceability and tended to underestimate the importance of halal documentation. This situation changed drastically after routine supervision was consistently applied. The majority of business operators now implement the Halal Assurance System more fully

²⁸ Alfies Ahmad A. Ghani, "Assistance with the halal product process in micro and small enterprises in Ponorogo," *Jurnal Aksi Afirmasi*, Vol. 4, No. 2, pp. 234–248

²⁹ Interview

and comprehensively, including conducting regular internal training for their staff. The data indicate a 30–40% reduction in minor findings over the past two years, suggesting an improvement in business operators' capacity and understanding of halal assurance standards.

Findings on the correlation between inspection frequency do show positive results, but they also expose a worrying gap. Businesses inspected four times a year demonstrate a 90% compliance rate. Meanwhile, those inspected only 1–2 times a year show significantly lower compliance. However, the worrying fact is that only around 30–40% of businesses receive inspections four times a year. The remainder, particularly micro-scale SMEs and businesses in remote areas, receive only 1–2 inspections, or even fewer, in a year. This situation creates disparities in the effectiveness of inspections across regions and business scales.

Table 3. Correlation between Inspection Frequency and Compliance Levels

Inspection Frequency	Compliance Rate	Coverage of Businesses
Frequent (4 times/year)	90% compliant	30–40%
Rarely (1–2 times a year)	Low	60–70
Impact of Staffing Shortages	↓ 20–30% Effectiveness ↓ 20–30%	Remote areas

Source: Primary Data, Results of Interviews with LPPOM MPU Aceh Supervisors, 2026

From the business operators' perspective, views on the effectiveness of supervision are ambivalent. According to an interview with Ahmad Fauzi, an operator of the Aceh Crispy Chips SME, supervision has made them more disciplined in maintaining halal standards. Yet, he also criticised certain aspects deemed ineffective. One of the main criticisms is the inconsistency in the frequency of supervision. In the first year of certification, they received three visits, but in the second year, only one. This uncertainty regarding the schedule makes it difficult for business operators to plan for continuous improvement and leads them to make last-minute preparations ahead of anticipated inspections.³⁰

³⁰ Interview with Ahmad Fauzi, Halal-Certified MSME Operator of Aceh Crispy Chips, Banda Aceh, 19 January 2025.

Overall, the research findings indicate that the effectiveness of halal supervision is not yet fully optimal. On the one hand, intensive supervision has proven capable of improving business operators' compliance, as reflected in reduced minor violations and high compliance rates among businesses subject to routine supervision. However, structural limitations, such as an unideal ratio of inspectors to businesses, result in disparities in the intensity of supervision across regions and business scales, particularly for micro-scale SMEs and businesses in remote areas. Furthermore, the implementation of halal standards has economic consequences, including increased production costs that are not always accompanied by a rise in profit margins, thereby potentially becoming a burden for businesses that lack strong inflation resilience. These findings indicate that business compliance is driven not only by religious values but also by market pressures; consequently, the sustainability of compliance cannot be ensured by relying solely on moral awareness but requires consistent supervision, continuous guidance, and fair regulatory enforcement to create a level *playing field* for all businesses.

D. Challenges in Post-Certification Halal Oversight and Their Impact on Halal Assurance

Challenges in the post-certification halal supervision system can be categorised into structural challenges related to limitations in institutional resources and infrastructure, and operational challenges arising from technical implementation in the field.³¹ Structural challenges include an insufficient number of inspectors relative to the number of businesses requiring supervision, budgetary constraints on mobility and operational supervision, and technological infrastructure limitations hindering a more efficient supervision system. These challenges are systemic in nature and require policy intervention to be fundamentally addressed.

Limited human resources are the most critical constraint, directly impacting the effectiveness of supervision. An unfavourable supervision-to-business ratio results in uneven supervision frequency, where certain businesses receive intensive supervision whilst the majority receive only minimal oversight.³² This situation creates unequal treatment that may foster

³¹ M. S. Al Munawar et al., "Implementation of the Halal Product Assurance System in MSMEs to Enhance Product Competitiveness," *Journal of Community Empowerment Learning (JP2M)*, Vol. 4, No. 1 (2023), pp. 165–176.

³² Dina Kusumaningsih, "The Supervisory Role of the BPJPH Regarding Halal Certification for Processed Food Products from SMEs," *Leglitas: Scientific Journal of Law*, Vol. 8, No. 2.

a perception of unfairness among businesses. Furthermore, excessive workloads on supervisors can reduce the quality of inspections as the time available for each visit becomes limited.

Geographical constraints pose a distinct challenge for supervision across vast regions with varying transport infrastructure. Business operators in remote areas or regions with difficult access tend to receive infrequent supervision due to the high costs and time required to travel.³³ This situation creates a *blind spot* in the supervision system, where business operators in certain areas are practically untouched by routine supervision and thus rely entirely on their own awareness and internal commitment to maintain halal standards.

The operational challenges businesses face in maintaining their halal commitment following certification are wide-ranging. Fluctuations in the prices of halal-certified raw materials create a dilemma between upholding halal standards and maintaining product price competitiveness.³⁴ When the price of certified materials rises significantly while competitors use cheaper, uncertified materials, the pressure to deviate from halal standards intensifies, particularly for SMEs with slim profit margins. Limited access to *suppliers* of halal-certified raw materials, particularly for specialised ingredients or small volumes, also presents a common operational challenge.

The impact of limited oversight on business operators' commitment is multidimensional. At the systemic level, limited oversight can reduce the *deterrent* effect that should encourage sustained compliance. Business operators who are rarely or never monitored may develop the perception that violations will not be detected, thereby reducing their motivation to maintain standards.³⁵ This impact is particularly significant for businesses with extrinsic compliance motivation—that is, motivation based on sanctions—whilst businesses with intrinsic motivation rooted in religious values tend to be more resilient to the limitations of oversight.

Limitations in the monitoring system also affect the level *playing field* in business competition. When some businesses face strict monitoring whilst

³³ Aulia Rachman and Maisyarah Rahmi Hasan, "Problems in the Implementation of Self-Declared Halal Certification in Indonesia from the Perspective of Maqasid Syariah," *Al Qalam: Journal of Religious and Social Sciences*, Vol. 19, No. 2.

³⁴ Aji Juminio, Z. E., et al., "A Study of Free Halal Certification (SEHATI) Using a Self-Declaration Scheme at the Dapur Mimi SME," *Journal of Halal Food Science*, Vol. 5, No. 1, pp. 6–15

³⁵ LPPOM MUI, "General Guidelines for the LPPOM-MUI Halal Assurance System," (Jakarta: LPPOM MUI, 2008).

others escape scrutiny, competitive unfairness arises, whereby compliant businesses bear higher compliance costs without any guarantee that their competitors are also compliant.³⁶ This situation can create disincentives for compliance; businesses that were initially committed begin to question the benefits of maintaining halal standards if their competitors can deviate without consequences. The long-term impact of this situation is the erosion of trust in the halal certification system as a whole.³⁷

Based on interviews with the Chair of LPPOM MPU Aceh, the main challenges in implementing supervision are fundamental and systemic. The most critical challenge is the limited number of supervisory staff. With only 39 active supervisors, they must oversee 900 to 1,000 halal-certified businesses across the entire province of Aceh. Under current conditions, each supervisor must handle a workload far exceeding their optimal capacity, which impacts the quality and frequency of inspections.³⁸

Operational constraints represent the second major obstacle severely limiting the effectiveness of supervision. The Chair of LPPOM MPU Aceh explained that the budget allocation for supervisory activities is often insufficient to conduct optimal field visits, particularly for businesses located in remote areas. Transport, accommodation, and other operational costs for reaching areas such as Southwest Aceh, Aceh Singkil, or Subulussalam are very high and can consume a large portion of the available budget. Consequently, supervision priorities tend to be given to businesses located in urban areas or those that are easily accessible, whilst businesses in remote areas receive only sporadic visits or none at all in a year.

Coordination challenges between agencies also constitute a significant operational barrier. Interview findings also indicate that whilst there is a conceptual division of roles between LPPOM MPU Aceh, BPJPH, the Department of Industry, and other relevant agencies, in practice, coordination often fails to function optimally. There are cases where the same business operator receives visits from various agencies without proper coordination, whilst other business operators are not subject to any supervision at all. The lack of an information system that enables data sharing and coordination of

³⁶ Halal Product Guarantee Agency, "General Guidelines of the Ministry of Religious Affairs' Halal Product Guarantee Agency (BPJPH)," 2019.

³⁷ Hayyun Durrotul Faridah, "Halal Certification in Indonesia: History, Development, and Implementation," *Journal of Halal Product and Research*, Vol. 2, No. 2, pp. 68–67.

³⁸ Interview with Deni Candra, Chair of LPPOM MPU Aceh, Banda Aceh, 10 January 2025.

inspection schedules results in low overall efficiency for the inspection system. Inspection effectiveness is reduced by approximately 20–30% compared to what could be achieved with adequate resources, with inspection coverage reaching only 60–70% of the businesses that should be prioritised.

Table 4. Main Obstacles to Supervision and Their Impact

Type of Challenge	Current Situation	Impact on Effectiveness
Limited Human Resources	39 supervisors for 900–1,000 (ratio 1:13–26)	Effectiveness reduced by 20–30%, coverage limited to 60–70% of priorities
Budget Constraints	Insufficient to reach remote areas	Remote areas are rarely or never covered by supervision
Weak Coordination	No integrated information system	Duplication or gaps in supervision

Source: Primary data, results of interviews with LPPOM MPU Aceh supervisors, 2026

From the business operators' perspective, the operational challenges of maintaining halal commitments post-certification vary widely. Fluctuations in the prices of halal-certified raw materials pose the most significant challenge, as they are generally sold at 15–25% higher prices than non-certified materials. Business operators provided a concrete example: when the price of cooking oil rose sharply, the price difference between halal-certified and non-certified oil reached 30–35%, creating a significant temptation to switch to cheaper ingredients. Administrative and documentation burdens are also perceived as onerous, particularly for micro-scale businesses with limited administrative resources. The record-keeping system required to maintain the traceability of raw materials is highly detailed and time-consuming.

The findings of this study reveal the complexity of the challenges faced within the post-certification halal supervision system. Structural constraints, such as a shortage of human resources—with a staff-to-inspection ratio of 1:23–26—and budgetary limitations, have systemic consequences, including a 20–30% reduction in effectiveness and coverage that reaches only 60–70% of priority areas. Geographical disparities in supervision create significant *blind spots* in remote areas, where businesses receive virtually no oversight. From the business operators' perspective, operational challenges include

fluctuations in the prices of certified ingredients (15–35% more expensive), the burden of continuous training with 4–5 sessions per year, administrative tasks consuming 10–15% of working time, and resistance to changes in work culture, creating constant pressure on halal compliance. The cumulative impact of these limitations is the creation of competitive unfairness, where compliant businesses bear a heavier burden whilst non-compliant ones can slip through without consequences, which in the long term may erode trust in the halal assurance system. Recommendations from businesses for the digitalisation of the halal consultation system indicate that the solution lies not only in adding resources but also in more efficient, responsive system innovations that address businesses' needs.

CONCLUSION

Based on the findings of this study, it can be concluded that LPPOM MPU Aceh faces significant challenges in carrying out its supervisory functions regarding businesses' commitment to maintaining halal standards post-certification, despite having a strong legal foundation through Aceh Qanun No. 8 of 2016 on the Halal Product Assurance System. Field findings indicate that of the 87 food processing businesses inspected in the Banda Aceh region in 2023, 23 businesses (26.4%) no longer met halal standards despite holding valid halal certificates, with violations including the use of food additives not certified as halal, cross-contamination resulting from the shared use of equipment with non-halal products, and discrepancies between the product composition and that stated on the certificate. Limited supervisory resources constitute the primary structural constraint, with only 8 auditors overseeing 342 certified SMEs across the entire Aceh region, compounded by an inspection system that still relies on manual methods without adequate digital support, meaning supervision can be carried out only 1–2 times per year for each business operator.

This study reveals a gap between the normative provisions in regulations and their implementation on the ground, where the complexity of the issues lies not only in the institutional capacity of the supervisory body but also in internal factors within the businesses themselves, such as limited understanding of the principles of the Halal Product Assurance System (SJPH), the financial burden of maintaining halal standards – which is 15–35% higher – and resistance to changes in work culture. The main contribution of this research lies in identifying the urgent need for a transformation of the supervision system from a manual and reactive approach towards a proactive,

digital technology-based system, with strategic recommendations including strengthening the institutional capacity of LPPOM MPU Aceh through the addition of auditors and specialised investigators, the development of an integrated halal supervision information system, improved coordination with relevant stakeholders for more effective enforcement of sanctions, and the strengthening of continuous education and mentoring programmes for business operators; all of which can serve as a model for a more responsive, accountable, and sustainable halal supervision system within the context of the implementation of Islamic Sharia in Aceh and the national halal product assurance system.

BIBLIOGRAPHY

- Abdul Raufu Ambali and Ahmad Naqiyuddin Bakar, "Public Awareness of Halal Foods and Products: Potential Issues for Policy-Makers," *Procedia-Social and Behavioral Sciences* 121 (2014): 3–25.
- Aisyah Khoirunnisa et al., "Analysis of Management Compliance with the Indonesian Halal Assurance System," *Journal of Social Science Research*, Vol. 4, No. 4, (2024), p. 2045
- Aji Juminio, Z. E., et al., "A Study of Free Halal Certification (SEHATI) Using a Self-Declaration Scheme at the Dapur Mimi MSME," *Jurnal Ilmiah Pangan Halal*, Vol. 5, No. 1, pp. 6–15
- Alfies Ahmad A. Ghani, "Supporting the halal certification process for micro and small enterprises in Ponorogo," *Jurnal Aksi Afirmasi*, Vol. 4, No. 2, pp. 234–248
- Aulia Rachman and Maisyarah Rahmi Hasan, "Problems with the Implementation of Self-Declared Halal Certificates in Indonesia from the Perspective of Maqasid Syariah," *Al Qalam: Journal of Religious and Social Sciences*, Vol. 19, No. 2.
- Halal Product Guarantee Agency, "BPJPH Performance Report 2024" (Jakarta: BPJPH, 2024), 34.
- Halal Product Guarantee Agency, "General Guidelines of the Ministry of Religious Affairs' Halal Product Guarantee Agency (BPJPH)," 2019.
- BPJPH, "Halal Product Guarantee System Manual," Jakarta: Ministry of Religious Affairs of the Republic of Indonesia, pp. 45–48, 2022.
- BPJPH, "Halal Product Assurance System Manual," (Jakarta: Ministry of Religious Affairs of the Republic of Indonesia, 2022), pp. 45–48.

- Dina Kusumaningsih, "The Supervisory Role of the BPJPH Regarding Halal Certificates for Processed Food Products from SMEs," *Leglitas: Scientific Journal of Law*, Vol. 8, No. 2.
- El-Hisbah, "Legal Certainty of Halal Product Assurance Supervision in Indonesia," Vol. 15, No. 1, pp. 89-1-2.
- Food and Agriculture Organization (FAO), "Global Halal Food Market Report 2024" (United Nations, 2024).
- Results of an interview with staff from the Supervision Division of LPPOM MPU Aceh, Banda Aceh, 15 January 2026.
- Hayyun Durrotul Faridah, "Halal Certification in Indonesia: History, Development, and Implementation," *Journal of Halal Product and Research*, Vol. 2, No. 2, p. 441.
- Hayyun Durrotul Faridah, "Halal Certification in Indonesia: History, Development, and Implementation," *Journal of Halal Product and Research*, Vol. 2, No. 2, pp. 68-67.
- Jasmien, "The Challenges of Halal Certification for MSMEs in Indonesia," Vol. 3, No. 2, pp. 412-425.
- Jimsya, "Analysis of the Implementation of Self-Declared Halal Certification for Micro and Small Business Operators," Vol. 6, No. 2, pp. 234-245.
- Ministry of Religious Affairs of the Republic of Indonesia, *Implementation of the Halal Product Guarantee Law* (Jakarta: Ministry of Religious Affairs of the Republic of Indonesia, 2019), 12-18.
- LPPOM MPU Aceh, "Report on the Results of the 2023 Integrated Team Supervision" (Banda Aceh: LPPOM MPU Aceh, 2023), 28-35.
- LPPOM MUI, "General Guidelines for the LPPOM-MUI Halal Assurance System," (Jakarta: LPPOM MUI, 2008).
- M. S. Al Munawar et al., "Implementation of the Halal Product Assurance System (SJPH) in Micro, Small and Medium Enterprises (MSMEs) in the Food and Beverage Sector," *Journal of Community Service*, Vol. 8, No. 2, pp. 441
- Mian N. Riaz and Muhammad M. Chaudry, *Halal Food Production* (Boca Raton: CRC Press, 2004), 15-23.
- Norizah Noordin, Mardziah Hashim, Zainal Samicho, and Marzuki Osman, "The Value Chain of the Halal Certification System: A Case Study of the Malaysian Halal Industry," *European and Mediterranean Conference on Information Systems* (2014): 1-1
- Government of Aceh, Aceh Qanun No. 8 of 2016 on the Halal Product Assurance System (Banda Aceh: Government of Aceh, 2016).

- Syarikat, "Implementation of the Halal Product Assurance System in Micro and Small Enterprises," Vol. 8, No. 1, pp. 67-78.
- Syarikat, "Implementation of the Halal Product Assurance System in Micro and Small Enterprises," Vol. 8, No. 1, pp. 67-78.
- Interview with Ahmad Fauzi, Halal-Certified MSME Operator of Keripik Renyah Aceh, Banda Aceh, 19 January 2025.
- Interview with Deni Candra, Chair of LPPOM MPU Aceh, Banda Aceh, 10 January 2025.
- Yamilla Yasenia, "The Effectiveness of Halal Certification on Compliance among MSMEs in the Food and Beverage Sector," *Undergraduate Thesis*, IAIN Ponorogo, 2024, pp. 45-52.
- Yamilla Yasenia, "The Effectiveness of Halal Certification on Compliance among MSMEs in the Food and Beverage Sector," *Undergraduate Thesis*, IAIN Ponorogo, pp. 45-52.
- Yuhanis Abdul Aziz and Nyen Vui Chok, "The Role of Halal Awareness, Halal Certification, and Marketing Components in Determining Halal Purchase Intention Among Non-Muslims in Malaysia: A Structural Equation Modelling Approach," *Journal of International Food & Agribusiness Marketing* 25, no. 1 (2013): 1-23.