



## Understanding Pain Points in Halal Chicken Supply Chains: The Type D Slaughterhouse Experience

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### Abstract

This study investigates the pain points of Chicken Halal Supply Chain Management (CHSCM) in Indonesia, with a focus on the experiences of a certified Type D poultry slaughterhouse (RPA) in Yogyakarta. Using a qualitative approach, data were collected through in-depth interviews with a halal academic expert and the RPA operator, and were analyzed thematically against the framework of halal supply chain principles. The findings reveal a persistent gap between regulatory ideals and operational realities. Critical issues include the limited competence of slaughterers, high pre-slaughter mortality during transport, lack of cold chain infrastructure, and unhygienic post-slaughter handling. Certification is perceived by operators as costly and administratively burdensome, while consumer demand remains divided between modern segments that require certification and traditional markets that prioritize affordability and freshness. These pain points not only compromise halal assurance but also pose risks to public health and economic sustainability. The study concludes that targeted interventions, such as structured training, simplified certification procedures, collaborative cold chain solutions, and the adoption of traceability mechanisms, are essential to strengthen halal poultry supply chains in Indonesia.

**Keywords:** *Halal Supply Chain, Chicken Poultry, Certification, Sustainability, Type D Slaughterhouse*

### INTRODUCTION

The global halal industry has experienced rapid growth over the past two decades. Halal products are no longer viewed solely as a religious obligation for Muslims, but also as a quality standard associated with hygiene, food safety, and sustainability. Non-Muslim consumers increasingly associate the halal label with trust and food safety, thereby broadening the appeal of halal markets at the global level (Bonne & Verbeke, 2008; Dinar Standard, 2023). Indonesia, with the world's largest Muslim population, holds a strategic position to lead the halal industry. However, this significant potential has not been fully realized due to various structural, technical, and behavioral constraints that continue to limit halal implementation on the ground.

As a regulatory measure, the Indonesian government enacted Law No. 33 of 2014 on Halal Product Assurance (UU JPH), which mandates halal certification for a wide range of consumer products. This policy was further reinforced by Government Regulation No. 42 of 2024, which stipulates that halal requirements must cover the entire supply chain, starting from upstream inputs such as feed, medicine, and vaccines, through slaughtering processes in poultry slaughterhouses, to distribution to end consumers. Normatively, this regulation represents a significant milestone in safeguarding the halal integrity of products. However, its implementation has created new challenges, particularly for small and medium-sized enterprises (SMEs), which often face limitations in capital, technology, and digital literacy (Ab Talib et al., 2025; Nickerson & Menon Nandialath, 2019).

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Poultry meat serves as a strategic commodity that illustrates the complexity of the halal supply chain in Indonesia. The halal poultry supply chain begins at the farm level, passes through intermediaries, enters the RPA, and continues through distribution channels to traditional markets, restaurants, hotels, and households. Each node in this supply chain contains potential vulnerabilities to halal integrity: from uncertain feed inputs, slaughtering techniques that may not fully comply with Islamic law, mixing of halal and non-halal products during transportation, to the absence of adequate cold chain facilities (Farouk, 2013; Zailani et al., 2015).

A number of previous studies have highlighted these challenges. Masudin et al. (2024) employed the fuzzy best-worst method to identify key risk factors in halal supply chains, particularly related to slaughtering and distribution. Sari and W (2023) identified more than 20 critical risk points in the Indonesian poultry supply chain, including packaging and transportation practices. Zailani et al. (2015) emphasized that the main challenges in halal supply chains are not only technical in nature but also stem from weak coordination among stakeholders.

Similarly, Tieman (2011) underscored the importance of integrated halal value chain management from upstream to downstream to ensure consistent halal assurance. International scholarship has also underscored the relevance of these issues. Awan et al. (2015) pointed out the lack of consumer and business awareness regarding halal assurance systems, while Ab Talib et al. (2025) emphasized the limitations of SMEs in adopting technology-based traceability systems. A previous article published in OPSI also highlighted the importance of vulnerability mapping and risk mitigation, stressing the need for NFSC, blockchain, and IoT integration to strengthen halal traceability. Nevertheless, most of these studies remain focused on ideal frameworks centered on technology and regulation, while empirical experiences of halal SMEs on the ground have been relatively underexplored.

In reality, critical points in the halal supply chain are rooted in the pain points encountered by business actors in their daily operations. Complex and costly certification processes, annual audits that are often administrative in nature, limited digital literacy, simple distribution methods without refrigeration, consumer preferences for fresh rather than frozen poultry, and thin profit margins all represent lived realities that shape the gap between regulatory ideals and on-the-ground practices (Bonne & Verbeke, 2008; Nickerson & Menon Nandialath, 2019)

Accordingly, this article offers a different perspective by highlighting the narrative pain points of a certified poultry slaughterhouse (RPA) in Yogyakarta. The objective of this study is to identify the main challenges faced by halal SMEs in carrying out certification and day-to-day operations, and to analyze their implications for the sustainability of the halal poultry supply chain in Indonesia.

## LITERATURE REVIEW

### Halal Supply Chain Management

Supply Chain Management (SCM) is recognized as a fundamental approach in modern management that regulates the flow of products, information, and financial resources from suppliers to end consumers. Beyond logistics activities such as transportation and warehousing, SCM emphasizes collaboration and integration to improve efficiency, responsiveness, and value creation (Mentzer et al., 2001). In the food sector, the importance of SCM is heightened by the perishable nature of products such as poultry, which require a reliable cold chain to maintain quality and safety (Aung & Chang, 2014).

Halal Supply Chain Management (HSCM) extends this concept by embedding Islamic principles across all stages of the chain, from procurement and production to storage and distribution. Its purpose is to ensure that products remain halal and thayyib until they reach consumers, combining operational efficiency with religious compliance (Aliyanti et al., 2022). The

core principles of HSCM include segregation, traceability, and certification ([Kurniawati & Cakravastia, 2023](#)). Segregation ensures clear separation between halal and non-halal products. Traceability provides transparency at every stage of the chain, while certification serves as formal assurance of compliance with Islamic law.

The implementation of HSCM is particularly critical in the poultry industry. Chicken, as the most widely consumed source of protein in Indonesia, requires strict monitoring throughout the chain to maintain halal integrity. The concept of Chicken Halal Supply Chain Management (CHSCM) highlights three main stages. The pre-slaughtering stage involves ensuring animal health, halal feed, and proper welfare conditions, including minimizing stress during transportation ([Mohamed et al., 2020](#)). The slaughtering stage represents the most critical point, requiring that the act be performed by a competent Muslim in accordance with Islamic law, which simultaneously preserves religious compliance and promotes food safety ([Noordin et al., 2014](#)). The post-slaughtering stage encompasses hygienic processing, cold chain storage, and distribution with strict segregation to prevent contamination, supported by traceability technologies such as barcodes or RFID ([Aliyanti, 2022](#)).

Overall, HSCM strengthens consumer trust in halal products by guaranteeing religious adherence while ensuring hygiene, safety, and quality. In the Indonesian context, where poultry is central to everyday consumption, the consistent application of HSCM is not only a matter of regulatory compliance but also a strategic imperative for maintaining market confidence.

### **Challenges in Implementing Chicken Halal Supply Chain Management**

The effectiveness of Halal Chicken Supply Chain Management (HCSCM) relies not only on regulations and certification but also on stakeholder awareness and behavior. Awareness refers to understanding halal principles, while behavior reflects how consistently practices follow these principles ([Tieman, 2011](#)). Misalignment between the two undermines halal integrity.

In poultry farming, attention is often limited to slaughtering, with feed, husbandry, and animal welfare during transport frequently overlooked due to cost pressure and limited knowledge (Magsi). In poultry slaughterhouses (RPA), workers understand religious obligations, but face inconsistencies caused by production demand, inadequate training, and weak supervision (Samori, Suryawan). In distribution and logistics, segregation and traceability are often sacrificed for cost efficiency, raising the risk of commingling ([Kurniawati & Cakravastia, 2023](#)). At the consumer level, preferences vary; some demand certification, while others prioritize affordability and freshness ([Mohamed et al., 2020](#)).

Overall, the gap between awareness and behavior across the supply chain represents a central challenge for HCSCM and forms the basis of the pain points identified in this study.

### **Pain Points in Chicken Halal Supply Chain Management**

Previous studies indicate that the implementation of Chicken Halal Supply Chain Management (CHSCM) continues to encounter several obstacles that can be understood as pain points. These challenges are multidimensional, encompassing regulatory, infrastructural, stakeholder behavioral, and consumer behavioral aspects. The literature suggests that such pain points do not emerge at a single stage but are dispersed throughout the halal chicken supply chain.

Several studies highlight the critical role of regulation and oversight. Magsi observes that the dissemination of halal standards has not adequately reached all supply chain actors, particularly those operating on a smaller scale. Furthermore, weak monitoring mechanisms make it difficult to enforce halal regulations consistently, resulting in a gap between established standards and actual practices in the field.

Infrastructural limitations also represent a major pain point identified in prior research. Bachtiar notes that the cold chain system in poultry distribution is not always maintained effectively. Traceability mechanisms remain limited, and facilities for segregating halal and non-halal products are often unavailable. These deficiencies increase the risk of cross-contamination and undermine the integrity of halal assurance.

From the perspective of stakeholder behavior, several studies underscore the presence of a gap between knowledge and practice. Suryawan reports that farmers, slaughterhouse workers, and distributors generally understand halal principles, yet their actual behavior does not consistently reflect these standards. Economic pressures and entrenched operational habits significantly contribute to widening this gap.

Consumer behavior further constitutes an important dimension of pain points within CHSCM. Samori documents that while some consumers are highly critical of halal certification, others prioritize affordability and product availability. Such variations shape business incentives; when consumer demand for halal products is inconsistent, the commitment of supply chain actors to uphold halal standards tends to weaken.

Overall, prior literature demonstrates that pain points in CHSCM arise from the interplay of weak regulatory enforcement, infrastructural shortcomings, inconsistent stakeholder practices, and heterogeneous market dynamics. These findings provide a crucial foundation for understanding how the challenges interact and compound across the halal chicken supply chain.

## RESEARCH METHOD

This study adopted a qualitative approach to explore the pain points in the practice of Chicken Halal Supply Chain Management (CHSCM). The approach was considered appropriate because the halal supply chain is a complex phenomenon that requires contextual understanding from both practitioners and experts. The informants consisted of an academic expert in halal studies and a representative from a Type D poultry slaughterhouse (RPA), both of whom were purposively selected based on their experience and expertise.

Data were collected through in-depth interviews, with the questions focusing on the main challenges in implementing the halal chicken supply chain. These covered the stages of pre-slaughtering, slaughtering, and post-slaughtering, as well as supporting and inhibiting factors such as regulations, infrastructure, stakeholders' behavior, and consumer demand.

The data were analyzed using thematic analysis, which comprised transcription, coding, categorization, and the identification of themes that captured the main pain points. These themes were subsequently interpreted in relation to the conceptual framework of the halal supply chain and prior literature. To ensure validity, source triangulation was applied, and the findings were verified with the informants.

## FINDINGS AND DISCUSSION

Results should be clear and concise. Discussion should explore and elaborate on the significance of the results of the work, not repeat them. Avoid extensive citations and discussion of published literature. Chicken Halal Supply Chain Management (CHSCM) refers to a supply chain system designed to safeguard both the halal integrity and the quality of poultry products across the stages of pre-slaughtering, slaughtering, and post-slaughtering. Previous studies highlight several critical points within CHSCM, including the use of halal inputs, slaughtering in accordance with Islamic principles, segregation of halal and non-halal products, and the implementation of cold chain logistics (Tieman, 2011; Zailani et al., 2015). However, the present study reveals a gap between these ideal standards and the realities observed in practice. While critical points are clearly defined, industry players continue to face multiple pain points that hinder consistent

compliance with regulations.

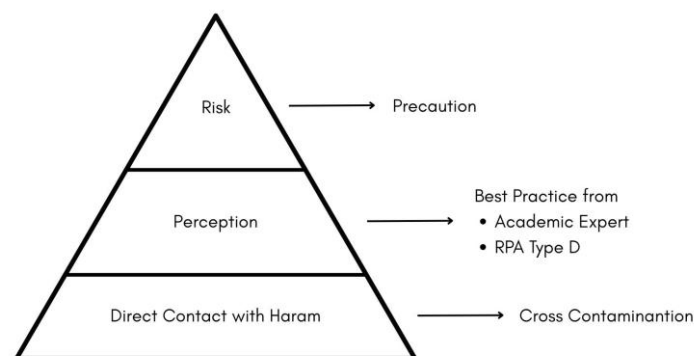
Insights from an academic expert in halal studies underscore that the rules of slaughtering (*rukun al-dhabh*) constitute the most fundamental aspect of CHSCM. The five essential conditions, ensuring the animal is halal, confirming that it is alive at the time of slaughter, reciting the Basmala, using a sharp knife, and severing the three main channels in the neck, are indispensable for halal assurance. Earlier research has stressed the importance of slaughterers' competence and adherence to these procedures (Bonne & Verbeke, 2008; Farouk, 2013). However, the present findings reveal deviations in practice due to the limited competence of newly trained slaughterers and insufficient supervision. This demonstrates a notable divergence from previous studies, which tend to regard human actors merely as executors of procedure, whereas this study highlights them as a critical source of risk in maintaining halal integrity.

The interview with a Type D poultry slaughterhouse (RPA) revealed the complex realities of CHSCM implementation at the operational level. Although halal certification is recognized as important, it is frequently perceived as costly, bureaucratic, and overly focused on administrative documentation. In certain cases, expired certificates were replaced by "borrowing" certification from other facilities. This contrasts with prior studies (Ab Talib et al., 2025), which present certification as a central mechanism for building consumer trust. The findings of this study suggest that for small- and medium-scale RPAs, certification is often regarded more as an administrative burden than as an instrument of quality assurance.

In addition, the transportation of live chickens emerged as a significant vulnerability. Chickens were transported in overcrowded crates on pick-up trucks, leaving them highly susceptible to stress, injury, or even death before slaughter. In some instances, unloading was conducted by throwing the chickens onto the ground, which further increased the risk of pre-slaughter mortality. Such practices stand in stark contrast to the emphasis placed on animal welfare in the halal supply chain literature (Al-shami & Abdullah, 2023). Pre-slaughter mortality automatically renders the animal non-halal, underscoring this as a critical operational weakness.

Post-slaughter observations also revealed unhygienic practices. Carcasses were often placed directly on the floor before further processing, creating substantial opportunities for cross-contamination with *Najis* (impurities). This finding diverges from studies such as Tieman (2011), which emphasize the importance of strict segregation throughout the halal supply chain. Furthermore, the absence of cold chain infrastructure, combined with consumer preference for fresh rather than frozen chicken, contradicts the literature that positions cold chain as a fundamental mechanism for quality assurance (Masudin et al., 2024).

The findings can be mapped onto the three foundational elements of halal supply chain management: risk, perception, and direct contact with haram.



**Figure 1.** Pain Points in CHSCM Foundations

Source: Adapted from (Tieman, 2011)

First, risk is reflected in the limited competence of slaughterers, transportation practices leading to pre-slaughter mortality, and the lack of cold chain facilities. Previous research has predominantly emphasized risks at the point of slaughter (Bonne & Verbeke, 2008), whereas this study demonstrates that risks arise as early as pre-slaughtering and persist through distribution.

Second, perception highlights the divergent viewpoints of stakeholders. Regulators regard certification as an instrument of compliance, while Type D RPA operators view it primarily as an administrative burden. Consumers are similarly divided: modern market segments demand certification, while traditional consumers prioritize price and freshness over formal halal assurance. This finding differs from earlier studies that often portray certification as a universal driver of consumer trust (Zailani et al., 2015).

Third, direct contact with haram arises from unhygienic post-slaughter practices, such as placing carcasses on the floor, as well as inadequate segregation during distribution. While earlier studies emphasize the role of tracking and segregation systems in preventing contamination (Tieman, 2011), this study demonstrates that routine practices in small-scale operations expose halal products to heightened risks of contamination due to weak infrastructure and poorly enforced standard operating procedures.

**Table 1.** Dimensions and Pain Points of CHSCM

| Dimension                 | Indicator                       | Pain Points                                                                                                                                                                 |
|---------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Risk                      | Competence of slaughterers      | Limited skills, failure to recite basmalah, improper cutting, use of blunt knives                                                                                           |
|                           | Transportation of live chickens | Overcrowded crates, stress, injury, pre-slaughter mortality, rough handling (throwing)                                                                                      |
|                           | Cold Chain facilities           | Absence of cold storage/transport                                                                                                                                           |
| Perception                | Regulatory perspective          | Certification as compliance requirement                                                                                                                                     |
|                           | RPA operators' perspective      | Certification seen as costly, bureaucratic, administrative burden, borrowing certificates                                                                                   |
|                           | Consumer perspective            | Market segmentation <ul style="list-style-type: none"> <li>• Modern markets demand certification</li> <li>• Traditional consumers prioritize price and freshness</li> </ul> |
| Direct Contact with Haram | Pre-slaughter mortality         | Dead chicken mixed with halal slaughtered ones                                                                                                                              |
|                           | Segregation during distribution | Lack of segregation                                                                                                                                                         |
|                           | Post-slaughter handling         | Carcasses placed on the floor, risk of contamination with najis                                                                                                             |

In sum, the findings indicate that the pain points in CHSCM in Indonesia are multidimensional, encompassing technical challenges, regulatory burdens, infrastructural shortcomings, and consumer behavior. These insights extend the existing literature by demonstrating that barriers to implementation are not confined to policy or technology but are

equally embedded in day-to-day operational practices and the perceptions of small-scale practitioners, dimensions that have been comparatively underexplored in prior studies.

This study's findings affirm that, beyond regulatory and technological aspects, human factors are a crucial element in maintaining halal integrity, particularly regarding the competence and behavior of slaughterers. The practical implications are that regulators need to simplify the certification process so that it does not become merely an administrative burden, while small-scale RPAs can overcome their limitations through collaborative efforts, such as cooperatives to share cold chain facilities and training. On the consumer side, education is necessary so that preferences for fresh poultry align with greater awareness of health and halal risks. The identified pain points also affect sustainability, ranging from economic losses caused by pre-slaughter mortality to public health risks due to the absence of cold chain facilities. Therefore, mitigation strategies such as competency training, the adoption of simple traceability tools, and incentives for SMEs are essential steps to bridge the gap between normative regulations and daily practices.

## CONCLUSIONS

This study concludes that Chicken Halal Supply Chain Management (CHSCM) in Indonesia is hindered by interrelated challenges spanning human competence, infrastructure, regulation, and consumer behavior. Limited skills and supervision of slaughterers, high pre-slaughter mortality, absence of cold chain facilities, and unhygienic handling practices compromise both halal integrity and food safety. Certification, while intended to assure compliance, is often viewed by small-scale RPAs as costly and bureaucratic, highlighting the need for simplification and supportive regulation. Consumer preferences further complicate the system, as modern markets demand certification while traditional markets prioritize affordability and freshness. To strengthen halal assurance, interventions are needed in the form of structured training, collaborative cold chain facilities, simplified certification procedures, and the adoption of accessible traceability tools.

## LIMITATIONS & FURTHER RESEARCH

The study is limited to one Type D slaughterhouse and an academic informant, which constrains the generalizability of findings. Broader research should examine multiple RPAs across regions and integrate mixed-method approaches for stronger validation. Future studies could also investigate the role of digital technologies, such as blockchain, QR-based systems, or mobile platforms, in addressing traceability gaps. Comparative research across different halal-producing countries may provide valuable lessons for harmonizing policies and best practices, thereby advancing both the sustainability and credibility of halal poultry supply chains.

## REFERENCES

- Ab Talib, M. S., Rubin, L., & Khor Zhengyi, V. (2025). Qualitative research on critical issues in halal logistics. *Journal of Emerging Economies and Islamic Research*, 1(2), 131–150. <https://doi.org/10.24191/jeeir.v1i2.127>
- Aliyanti, F. E. (2022). The implementation of halal supply chain management on processed meat products in Yogyakarta. *Journal of Islamic Economics Lariba*, 8(1), 15–32. <https://doi.org/10.20885/jielariba.vol8.iss1.art2>
- Aliyanti, F. E., Kariim, L., & Mauluddin, Y. (2022). The implementation of halal supply chain management on processed meat products in Yogyakarta. *Journal of Islamic Economics Lariba*, 8(1), 15–32. <https://doi.org/10.20885/jielariba.vol8.iss1.art2>
- Al-Shami, H. A., & Abdullah, S. (2023). Halal food industry certification and operation challenges and manufacturing execution system opportunities: A review study from Malaysia. *Materials Today: Proceedings*, 80, 3607–3614.

- <https://doi.org/10.1016/j.matpr.2021.07.331>
- Aung, M. M., & Chang, Y. S. (2014). Traceability in a food supply chain: Safety and quality perspectives. *Food Control*, 39, 172–184. <https://doi.org/10.1016/j.foodcont.2013.11.007>
- Awan, H. M., Siddiquei, A. N., & Haider, Z. (2015). Factors affecting halal purchase intention: Evidence from Pakistan's halal food sector. *Management Research Review*, 38(6), 640–660. <https://doi.org/10.1108/MRR-01-2014-0022>
- Bonne, K., & Verbeke, W. (2008). Muslim consumer trust in halal meat status and control in Belgium. *Meat Science*, 79(1), 113–123. <https://doi.org/10.1016/j.meatsci.2007.08.007>
- Dinar Standard. (2023). *Unlocking opportunity: State of the global Islamic economy report* (pp. 1–40). Dinar Standard. <https://salaamgateway.s3.us-east-2.amazonaws.com/special-coverage/sgie22/pdf/State%20of%20the%20Global%20Islamic%20Economy%20Report%202022%20-%20Eng.%20Summary%20-%20.pdf>
- Farouk, M. M. (2013). Advances in the industrial production of halal and kosher red meat. *Meat Science*, 95(4), 805–820. <https://doi.org/10.1016/j.meatsci.2013.04.028>
- Kurniawati, D. A., & Cakravastia, A. (2023). A review of halal supply chain research: Sustainability and operations research perspective. *Cleaner Logistics and Supply Chain*, 6, 100096. <https://doi.org/10.1016/j.clscn.2023.100096>
- Masudin, I., Zuliana, P. E., Utama, D. M., & Restuputri, D. P. (2024). Assessment and risk mitigation on halal meat supply chain using fuzzy best–worst method (BWM) and risk mitigation number (RMN). *Journal of Islamic Marketing*, 15(3), 842–865. <https://doi.org/10.1108/JIMA-08-2022-0240>
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2), 1–25. <https://doi.org/10.1002/j.2158-1592.2001.tb00001.x>
- Mohamed, Y. H., Abdul Rahim, A. R., & Ma'aram, A. (2020). The effect of halal supply chain management on halal integrity assurance for the food industry in Malaysia. *Journal of Islamic Marketing*, 12(9), 1734–1750. <https://doi.org/10.1108/JIMA-12-2018-0240>
- Nickerson, C., & Menon Nandialath, A. (2019). The impact of religious salience on purchase intentions: Evidence from the UAE. *Journal of Islamic Marketing*, 11(6), 1339–1350. <https://doi.org/10.1108/JIMA-01-2019-0005>
- Noordin, N., Noor, N. L. M., & Samicho, Z. (2014). Strategic approach to halal certification system: An ecosystem perspective. *Procedia – Social and Behavioral Sciences*, 121, 79–95. <https://doi.org/10.1016/j.sbspro.2014.01.1110>
- Sari, T. M., & W, D. (2023). Risk assessment and mitigation strategy in the halal broiler supply chain. *Jurnal Riset Ilmu Teknik*, 1(1), 13–24. <https://doi.org/10.59976/jurit.v1i1.5>
- Tieman, M. (2011). The application of halal in supply chain management: In-depth interviews. *Journal of Islamic Marketing*, 2(2), 186–195. <https://doi.org/10.1108/17590831111139893>
- Zailani, S., Kanapathy, K., Iranmanesh, M., & Tieman, M. (2015). Drivers of halal orientation strategy among halal food firms. *British Food Journal*, 117(8), 2143–2160. <https://doi.org/10.1108/BFJ-01-2015-0027>