Research Article
Halal Science

Halal Supply Chain Management (HSCM) in Traditional Poultry Markets: A Case Study of Wonokromo and Asem, Surabaya

Aan Supriyanto

[The author informations are in the declarations section. This article is published by ETFLIN in Halal Science, Volume 1, Issue 2, 2025, Page 37-42. DOI 10.58920/halal0102463]

Received: 27 September 2025
Revised: 27 November 2025
Accepted: 28 November 2025
Published: 19 December 2025

Editor: Siti Norida Wahab

Keywords: Halal supply chain, Halal certification, Consumer behavior.

Abstract: The rapid expansion of the halal economy has created challenges in ensuring compliance within traditional markets, where regulatory frameworks often diverge from everyday consumer practices. This study examines the implementation of Halal Supply Chain Management (HSCM) in two traditional poultry markets in Surabaya Wonokromo and Asem by assessing halal certification, operational practices, and consumer purchasing behavior. A qualitative case study design was applied using purposive sampling to recruit 20 participants, including farmers, distributors, slaughterhouse operators, retailers, and consumers. Data were collected through semi-structured interviews, systematic observations, and document analysis conducted between August and November 2019. The document analysis involved halal certificates, market permits, and regulatory guidelines, supporting triangulation of findings. Although the data were collected in 2019, they remain relevant because structural conditions in traditional markets and consumer purchasing patterns have not changed substantially in recent years. Findings show that Wonokromo Market uses slaughterhouses certified by the Majelis Ulama Indonesia (MUI), yet certification has minimal influence on buyer decisions. Most consumers prioritize freshness (72%), price (65%), and proximity (58%), while only 22% consider halal labels important. Asem Market, meanwhile, follows halal-compliant slaughtering practices despite lacking formal certification, largely due to low consumer demand and limited regulatory accessibility. The study concludes that halal certification enhances procedural credibility but has limited economic and behavioral impact in traditional markets, where trust is shaped primarily by cultural norms, vendor familiarity, and direct product assessment. Strengthening halal assurance systems therefore requires integrated strategies that combine consumer education, policy incentives, and more accessible certification mechanisms.

Introduction

Ensuring the integrity of halal products has become a critical concern in the global food supply chain (1). With an estimated 1.9 billion Muslims worldwide, the demand for halal-certified products is increasing significantly, extending beyond Muslim-majority countries to global markets where halal is associated with hygiene, safety, and ethical value (2). By 2025, the global halal economy is projected to surpass USD 3 trillion, with the food sector representing its largest component (3). Indonesia, home to the world's largest Muslim population, holds a strategic position in this market (4). However, despite its potential, the implementation of Halal Supply Chain Management (HSCM) in Indonesia remains uneven, particularly in traditional markets where poultry is one of the most consumed proteins (5). This gap between regulatory frameworks and market realities raises pressing questions about consumer trust, certification effectiveness, and the sustainability of halal assurance systems (6).

Although the Indonesian government has established Law No. 33 of 2014 on Halal Product Assurance to regulate halal certification, challenges persist in practice (7). Certification procedures remain fragmented, costly, and often inaccessible for small-scale market actors such as local slaughterhouses (8). Previous studies highlight that consumer purchasing behavior is rarely influenced by certification logos; instead, buyers rely on observable product attributes such as freshness, price, and proximity (9). This weakens the intended function of certification as an assurance mechanism and limits its economic value for producers (10). Traditional inspection-based systems also face limitations in managing complex supply chains, increasing the risk of non-compliance, fraudulent labeling,

and erosion of consumer confidence (11). Addressing these challenges requires both structural interventions and deeper understanding of how halal supply chains function in local markets.

Research on halal poultry supply chains in Indonesia and other Muslim-majority countries has documented persistent issues throughout the chain: from slaughterhouses to logistics, storage, and distribution. For instance, a recent study on halal meat supply chain integration for chicken demonstrated that implementing a formal Halal Traceability System (HTS) can improve control over halal integrity from farm to consumer, but such implementation remains rare among small-scale slaughterhouses (12). Another study analyzing risk factors in the halal chicken supply chain found that key vulnerabilities include insufficient cold-chain infrastructure, poor handling during transport, and inadequate adherence to slaughtering and storage standards (13). Moreover, contextual studies in wet-market and traditional retail settings reveal that even when halal standards exist formally, operational practices (hygiene, cross-contamination risks, informal slaughtering) often diverge significantly from formal requirements illustrating a substantial gap between halal certification frameworks and real market practices (14).

This study investigates the implementation of HSCM in two traditional poultry markets in Surabaya, namely Wonokromo and Asem, which represent distinct operational contexts. Wonokromo utilizes certified slaughterhouses under Majelis Ulama Indonesia (MUI) supervision, while Asem operates without formal certification but adheres to halal practices at the operational level. This market was selected due to its varying certification statuses, supply chain structures, and consumer characteristics, which collectively enable it to represent the diverse realities of HSCM implementation within traditional markets in large urban settings. By employing a qualitative case study approach, incorporating interviews, observations, and document analysis, this research explores the alignment between certification policies, consumer behavior, and market practices (15). The study contributes a state-of-the-art perspective by analyzing the interplay between formal regulatory frameworks and informal cultural norms, identifying gaps that limit the effectiveness of halal certification, and proposing pathways to strengthen the credibility and economic viability of halal supply chains in traditional markets.

Methodology

Study Design and Rationale

This study employed a qualitative case study design to investigate the implementation of Halal Supply Chain Management (HSCM) in two traditional poultry markets in Surabaya. A qualitative case study approach was chosen because it allows for in-depth exploration of real-world practices, social processes, and contextual influences within supply chains. The two selected markets Wonokromo (certified) and Asem (non-certified) represent contrasting regulatory environments and operational practices, offering a strategic basis for comparative analysis. Their differing governance structures and consumer reach strengthen their analytical relevance for examining halal assurance challenges in traditional markets.

Study Population and Sampling

The study population comprised poultry farmers, distributors, slaughterhouse operators, retailers, and consumers directly involved in the poultry supply chain. Purposive sampling was used to ensure adequate representation of key stakeholder groups. Participants were eligible for inclusion if they had at least one year of experience in poultry production, distribution, slaughtering, retail, or purchasing, were directly involved in practices influencing halal compliance, and were willing to participate by providing informed consent. Individuals who were not directly engaged in poultry handling or decision-making, as well as those unwilling to be recorded or interviewed, were excluded from the study.

A total of 20 participants were recruited: two farmers, three distributors, two slaughterhouse operators, eight retailers, and five consumers. The sample size aligns with the "*information power*" principle, which states that smaller qualitative samples are adequate when participants hold rich, relevant information and research aims are focused (16).

Data Collection Procedures

Data were collected between August–November 2019 through semi-structured interviews, direct observations, and document analysis. Interviews explored halal compliance practices, perceptions of certification, supply chain coordination, slaughtering processes, and consumer preferences. The interview guide consisted of four domains informed by prior HSCM research: halal awareness, slaughtering/handling practices, supply chain coordination, consumer decision-making. The guide was pilot-tested with two non-participant retailers to improve clarity and minimize interviewer bias. Interviews lasted 30–60 min and were audio-recorded with participant consent.

Data Analysis

Data analysis followed a descriptive qualitative approach. Interview transcripts and observational field notes were transcribed verbatim and coded inductively using NVivo 12 software. Emergent codes were grouped into thematic categories, focusing on three domains: halal assurance practices, supply chain coordination, and compliance with regulatory requirements. Triangulation across interviews, observations, and documents enhanced credibility and validity. Member checking was conducted with selected participants to verify interpretations. Direct observations were conducted using a standardized checklist covering, animal handling, transportation, slaughtering procedures, hygiene and sanitation, storage, display and selling practices. Repeating observations at different times allowed for capturing daily variations. Documents reviewed included halal guidelines, slaughterhouse permits, market regulations, and internal operational SOPs. This approach is consistent with prior Indonesian studies on halal supply chain mapping in food sectors, which combine interviews, observations, and document review to obtain a holistic understanding of halal assurance (17, 18). Although data were collected in 2019, the operational structure, regulatory environment, and supply chain mechanisms in both markets remained stable through 2024–2025, with no major modernization initiatives reported by local authorities. Therefore, the dataset remains relevant for analyzing persistent systemic challenges. Data were analyzed using an inductive descriptive qualitative approach.

Thematic analysis was conducted through several

systematic steps. The process began with familiarization with the transcripts and field notes to gain an overall understanding of the data. This was followed by initial open coding, where meaningful segments of text were identified and labeled. The generated codes were then grouped into broader categories, leading to the identification of preliminary themes. These themes were subsequently refined and clearly defined to ensure coherence and analytical depth. The final stage involved interpreting the findings and presenting them in a structured report.

Coding was conducted in NVivo 12. A second researcher independently coded 20% of the transcripts to ensure inter-coder agreement, and discrepancies were resolved through discussion. Triangulation was performed across interviews, observations, and document sources. An audit trail was maintained to enhance dependability, and reflexive notes were kept to minimize bias during interpretation. Eight participants participated in member checking. They reviewed summarized interpretations; disagreements were discussed, and all themes were revised until consensus was achieved.

Results

The study involved 20 respondents representing different nodes of the poultry supply chain, consisting of two farmers from Lumajang with seven to twelve years of experience, three distributors who routinely transported poultry to Surabaya, two slaughterhouse operators engaged in daily cutting activities, eight market vendors with five to fifteen years of selling experience, and five consumers who purchased chicken between two to five times per week. These characteristics ensured that insights were drawn from every critical point within the halal poultry supply chain. In Wonokromo Market, the poultry supply chain followed a structured flow beginning at the farm level in Lumajang, continuing with transportation by distributors, slaughtering in an MUI-certified slaughterhouse, and retail distribution to market vendors, as illustrated in **Figure 1**.

The certified slaughterhouse displayed the halal logo and adhered to established halal procedures. The operator emphasized compliance by stating, "*We have MUI training and a halal certificate. All cutting follows the standard*." Despite this formal structure, the data showed that certification did not strongly influence consumer buying decisions. Consumers largely assessed freshness, cleanliness, and stall appearance, rather than certification logos, when purchasing chicken. One consumer expressed, "*I look at freshness first. The halal logo is not something I usually check*." Vendors similarly affirmed that certification did not lead to an increase in customers, with one noting, *"The certificate doesn't affect buyer numbers. What they ask is whether it's fresh*." A similar pattern is observed in Asem Market, as illustrated in **Figure 2**.

In Asem Market, the supply chain followed a similar sequence of rearing, transport, slaughtering, and retail, but without formal halal certification. Nevertheless, operators performed slaughtering in accordance with Islamic principles. One operator explained, "*We slaughter according to syariah even without a certificate*." Vendors also stated that consumers rarely asked about certification and were more concerned with observable product qualities. Two main factors contributed to the absence of certification in Asem: limited access to certification services for small-scale operators and the minimal perceived economic benefit due to low consumer demand. As a result, Asem Market maintained operational halal compliance through practice and knowledge rather than through regulation or documentation.

Overall, the results highlight key differences between the two markets: Wonokromo implemented formal halal certification that did not significantly affect consumer preferences, while Asem applied halal practices informally yet consistently without certification. In both markets, consumers prioritized freshness, vendor trust, and price over certification, shaping how halal integrity was perceived and practiced.

Discussion

The analysis of the findings highlights important differences in the implementation of Halal Supply Chain Management (HSCM) between Wonokromo and Asem markets, as well as the broader challenges in aligning regulatory frameworks with consumer behavior.

HSCM in Wonokromo Market

Although Wonokromo Market has adopted halal certification through licensed slaughterhouses, the implementation has not produced the anticipated benefits for supply chain actors. Interviews revealed that certification, while formally compliant with Majelis Ulama Indonesia (MUI) standards, does not significantly influence consumer purchasing decisions. Instead, consumers consistently prioritize product freshness, price competitiveness, and proximity over the presence of a halal logo (19). As a result, slaughterhouse owners often perceive certification as burdensome rather than advantageous, since it involves additional administrative steps, training, and costs without yielding a corresponding increase in sales (20).

However, the present study shows that this pattern is not merely a matter of consumer preference but reflects a deeper structural misalignment between regulatory expectations and the realities of traditional markets. Interview excerpts illustrate this misalignment, for instance when a consumer stated, "*I look at freshness first; I don't really check the certificate*," and a vendor remarked, "*Certification doesn't increase buyers, they only ask whether it's fresh*." These data strengthen existing evidence that certification often fails to function as a market signal when buyers rely on sensory inspection and established trust relationships. Additionally, although Wonokromo follows a longer and more regulated supply chain flow, the presence of certification at the slaughterhouse level does not extend its influence downstream to consumer behavior.

This situation underscores a structural gap: certification is intended as a value-adding mechanism to ensure halal integrity, yet in practice it fails to translate into measurable market benefits (21). The weak responsiveness of consumers to certification can be partly attributed to entrenched cultural trust in vendors, direct inspection habits, and the assumption that poultry sold in Muslim-majority markets is inherently halal (22). Thus, even though the formal certification process reinforces compliance, its economic impact remains minimal, which in turn discourages wider adoption among small-scale slaughterhouse operators.

HSCM in Asem Market

In contrast, Asem Market does not implement formal halal certification. Nevertheless, its daily operations align closely with Islamic requirements. Poultry is raised, traded, and

slaughtered according to halal principles, including lawful transactions, recitation of *basmalah*, facing the qibla, and employing odd-numbered incisions during slaughter. These practices establish a functional assurance of halal integrity at the operational level, even without certification.

Interview data support this operational compliance: an operator explained, "*We always slaughter according to syariah even without a certificate,*" highlighting that halal integrity is upheld through practice rather than regulation. **Figure 2** also illustrates a shorter and more community-based supply chain flow, where slaughtering and distribution occur with minimal bureaucratic layers, allowing operational halal practices to be carried out consistently despite the lack of formal verification.

The reluctance of slaughterhouse owners in Asem to pursue certification is driven by two interrelated factors. First, regulatory constraints limit the authorization of local certification, thereby reducing accessibility for small operators. Second, there is insufficient consumer demand for certified poultry. Consumers in Asem, like those in Wonokromo, base their choices primarily on observable qualities such as freshness, price, and vendor reputation. Consequently, the absence of certification does not undermine their trust or purchasing behavior.

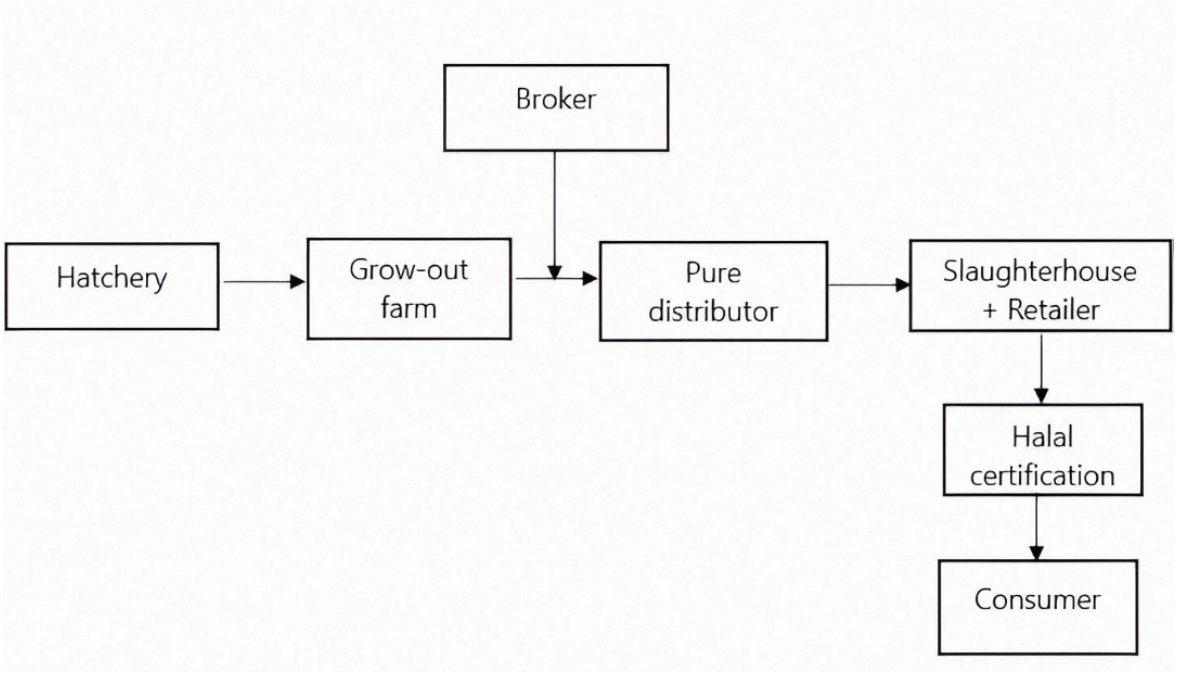

Figure 1. Chicken meat supply chain flow in Wonokromo Market, Surabaya.

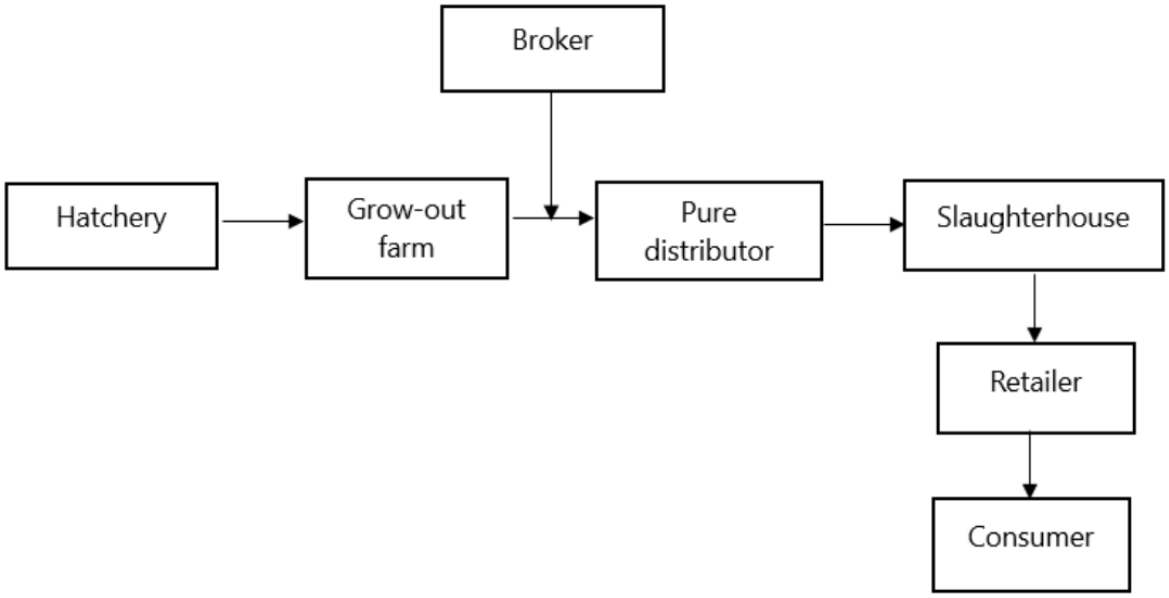

Figure 2. Chicken supply chain flow in Asem Market, Surabaya.

Consumer Behavior and Structural Barriers

The findings indicate that consumer behavior is the most critical variable influencing the limited effectiveness of HSCM in both markets. Habits of direct inspection, reliance on established vendor relationships, and sensitivity to price collectively outweigh the perceived assurance offered by certification (22). Distance and convenience further shape consumer decisions, as buyers often prefer poultry vendors located close to their residences, regardless of certification status.

These behavioral patterns are supported by interview evidence, such as when a consumer noted, "*I buy from the same vendor because I'm already familiar with them,*" indicating that habitual trust supersedes formal certification. This aligns with the broader halal consumer literature in which familiarity, affordability, and sensory cues consistently override certification logos as primary decision-making factors.

Additionally, certification introduces significant structural barriers for small-scale actors (23). The costs of training, compliance, and bureaucratic processing can be prohibitive, especially when consumer demand for certification remains weak (24). This dynamic produces a paradox: certification aims to protect consumers and strengthen market competitiveness, but without consumer awareness and demand, it imposes costs that reduce its attractiveness for market actors (25).

These findings also highlight several confounding variables that influence consumer perception and market outcomes, including income level, education, religious literacy, and the physical accessibility of vendors. These factors, though external to certification systems, shape the ways consumers assess halalness and explain why certification does not significantly shift purchasing patterns in either market.

Implications for Policy and Practice

These findings suggest that the effectiveness of halal certification in traditional markets depends not only on regulatory enforcement but also on consumer education and incentive structures. Without targeted awareness campaigns and supportive policies, such as subsidies for certification or simplified procedures, small-scale slaughterhouses are unlikely to perceive certification as economically viable (26). Furthermore, strengthening consumer trust in certification requires bridging the gap between symbolic assurance (logos, certificates) and tangible benefits (perceived freshness, quality, and safety) (27).

This study therefore reinforces the need for integrated policy strategies that address both supply-side and demand-side factors. Strengthening certification uptake requires reducing administrative burdens while simultaneously improving public understanding of the meaning and importance of halal certification. Only when both elements are aligned can certification play its intended role in enhancing halal integrity in traditional markets.

In sum, while both markets demonstrate adherence to halal practices, Wonokromo represents a formally certified but economically limited model, whereas Asem reflects informal but operationally compliant practices. The contrast illustrates the need for integrated strategies that simultaneously address consumer perceptions, regulatory accessibility, and the economic realities of traditional market actors.

Conclusion

This research demonstrates that the implementation of HSCM in Surabaya's traditional poultry markets varies significantly between formally certified systems and informal, practice-based approaches. Wonokromo represents a regulated model supported by MUI certification, whereas Asem shows consistent operational adherence to halal principles without formal authorization. The study finds that consumer purchasing behavior in both markets is driven more by practical considerations freshness, accessibility, and vendor trust than by certification status. These findings, based on data collected in 2019, reflect the regulatory and market conditions at that time and acknowledge the possibility of shifts in consumer awareness and certification policies in subsequent years. As a qualitative case study, the conclusions emphasize contextual interpretation rather than causal generalization, yet they highlight broader implications: enhancing halal assurance in traditional markets requires improving certification accessibility, increasing consumer literacy, and supporting small-scale supply-chain actors. Further studies involving more varied geographic contexts and updated regulatory environments are needed to determine the wider applicability of these insights.

Declarations

Author Informations

Aan Supriyanto ✉
Corresponding Author
Affiliation: Department of Management, Faculty of Islamic Economics and Business, Sunan Ampel State Islamic University, Surabaya - 60237, Indonesia.
Contribution: Data Curation, Formal analysis, Visualization, Writing - Original Draft, Writing - Review & Editing.

Conflict of Interest

The author declares no conflicting interest.

Data Availability

The unpublished data is available upon request to the corresponding author.

Ethics Statement

Ethical approval was not required for this study.

Funding Information

The author declares that no financial support was received for the research, authorship, and/or publication of this article.

References

1. Susilo J. A conceptual framework for the enhancement of the integrity of the halal food supply chain (HFSC): evidence Indonesia and Malaysia. Indonesian Journal of Halal Studies. 2024;1(1):15–30.

2. Market Research Indonesia. A deep dive into global halal industry landscape. Market Research Indonesia; 2024.

3. Toward FnB. Halal food market size, share and forecast analysis 2034. Toward FnB; 2025.

4. Qizwini J, Purnama DG. Future trends in halal food: how innovative Islamic business models are redefining the Indonesian market. Journal of Middle East and Islamic Studies. 2024;11(2): 1-22.

5. Hasan Z. Making Indonesia as integrated halal zone and world halal sector hub through the implementation of halal supply chain. Journal of

Islamic Economic and Business Research. 2021;1(1):1–14.

6. Topit Hidayat M, Witta R, History A. Halal certification and implications for MSMEs: a systematic literature review. Journal of Business Management and Islamic Banking. 2024;3(2):151–66.

7. Khoirunissa AF, Rahmawati A, Laela CH, Isnaeni S, Romlahayati Y. Implementation of Law Number 33 of 2014 concerning halal product assurance in Pekiringan village. Jurnal Abdisci. 2024;1(11):417–22.

8. Syamsu K. MSMEs are one of the most essential pillars of the Indonesian economy: how does halal certification play a role in the development of MSME businesses? LPPOM; 2025.

9. Asmara Sani A, Rahmayanti D, Kamal AH, Ilmiah D, Abdullah NB. Understanding consumer behavior: halal labeling and purchase intentions. Journal of Digital Marketing and Halal Industry. 2023;5(1):117-142.

10. Santosa CW, Fahma F, Damayanti RW. Effect of halal certification on logistic performance and financial performance. Jurnal Teknik Industri. 2022;24(2):117–28.

11. Saputra R, Jannah GPR, Sipahutar A, Hidayati N, Casim RM. Ensuring halal compliance in agrifood systems: a review of concepts, principles, and advanced technologies. Halal Studies and Society. 2025;2(2):1–3.

12. Siregar ML, Zahradika A. Halal traceability system (HTS) untuk integrasi halal meat supply chain (HMSC) terhadap proses industri daging ayam pada rumah potong hewan. Agroindustrial Technology Journal. 2023;7(1):74-87.

13. Widyaningsih DA, Nugroho AP. Manajemen risiko rantai pasok produk halal pada komoditas daging ayam. Jurnal Agroindustri Halal. 2024;10(1):144–51.

14. Risyaldi A, Nusran M, Lantara D. Studi produk halal daging ayam potong dengan pendekatan rantai pasok (supply chain) di Makassar. International Journal Mathla'ul Anwar of Halal Issues. 2021;1(1):40–8.

15. Setiana Saragih D, Syahbudi M, Ahmadi Bi Rahmani N. Analysis of community perceptions on halal certification for packaged food products. Jurnal Ekonomi Islam. 2024;15(2):1-16.

16. Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies. Qual Health Res. 2016;26(13):1753–60.

17. Citra DA, Widodo A, Merlinda S. Analisis supply chain bisnis kuliner halal UMKM kelurahan Tulusrejo. Jurnal Pendidikan Ekonomi dan Kewirausahaan. 2025;9(2):805.

18. Ratnaningtyas AH, Qurtubi, Kusrini E, Fariza R. Analysis of halal supply chain management in fried chicken restaurant using supply chain operation reference (SCOR) 12.0. Journal of Industrial Engineering and Halal Industries. 2022;3(1):20–5.

19. Nurwijayanto PR, Audia S, Setyawati D, Galih A, Sonalitha E. An examination of the impact of price level and halal certification on purchase decision of "Angkringan Food" MSMEs. Airlangga International Journal of Islamic Economics and Finance. 2024;7(2):119-132.

20. Nurhakim L, Business Management S, Sultan Muhammad Syafiuddin Sambas I. The influence of halal certification on slaughterhouses. COSMOS: Journal of Education, Economics, and Technology. 2024;1(2):1-7.

21. Cholil M, Mamduh MF, Pertiwi TD, Cipto DA, Herianingrum S. Exploring the economic benefits of the halal certification in international trade: a literature review. Sriwijaya International Journal of Dynamic Economics and Business. 2025:435–58.

22. Septiani D, Ridlwan AA. The effects of halal certification and halal awareness on purchase intention of halal food products in Indonesia. Indonesian Journal of Halal Research. 2020;2(2):55–60.

23. Fathoni MA, Priyatno PD, Faizi, Wiryanto FS, Rachbini W, Suryani. Unlocking barriers and strategies of halal certification for micro and small enterprises in Indonesia: analytic network process approach. Problems and Perspectives in Management. 2025;23(1):169–80.

24. Purwanto EH, Anggraeni P, Dewantoro A, Anggundari WC, Tampubolon BD. Recommendation of affordable halal certification fee. Halal Studies and Society. 2024;1(2):50–5.

25. Akbar Z, Wahyuningtiyas ASH, Isaskar R. The effect of certification and product knowledge on instant food purchasing decisions through halal awareness: the moderating role of religiosity. Journal of Consumer Sciences. 2025;10(1):1–26.

26. Gunawati DN, Amalta L, Damayanti CA, Puspitasari CF. A systematic review of the socio-economic impact of integrated halal assurance systems on microfarm sustainability in Southeast Asia. JAPSI (Journal of Agriprecision and Social Impact). 2025;2:320–38.

27. Topit Hidayat M, Witta SR. Halal certification and implications for MSMEs: a systematic literature review. Journal of Business Management and Islamic Banking. 2024;151–66.

Additional Information

How to Cite

Aan Supriyanto. Halal Supply Chain Management (HSCM) in Traditional Poultry Markets: A Case Study of Wonokromo and Asem, Surabaya. *Halal Science*. 2025;1(2):37-42

Publisher's Note

Open Access