

Developing a Conceptual Framework of Halal Operational Excellence for SMEs: A Systematic Literature Review

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ABSTRACT

The global halal economy ecosystem is rapidly expanding, yet halal small and medium enterprises (SMEs) still lack an integrated framework to achieve operational excellence aligned with Islamic values. This study aims to develop a conceptual framework for Halal Operational Excellence (HOE) for SMEs through a PRISMA-based Systematic Literature Review (SLR). A search of the Scopus database yielded 37 articles eligible for thematic synthesis. Five operational dimensions were identified: halal certification management, halal supply chain integrity, H-TQM and continuous improvement, digital technology integration, and SME performance and competitiveness. The proposed HOE framework integrates Islamic values (tayyib, amanah, itqan, masuliyah) as a normative foundation and generates six empirically testable propositions. The implications are relevant for SME practitioners, policymakers, and halal certification bodies

INTRODUCTION

The global halal economy has emerged as one of the most dynamic sectors in international commerce, encompassing not only food and beverages but also pharmaceuticals, cosmetics, tourism, fashion, and financial services. According to the State of the Global Islamic Economy Report (DinarStandard, 2024), Muslim consumer expenditure on halal-related goods and services is projected to grow significantly, with the global halal food market alone estimated at USD 2.5 trillion in 2024 and expected to reach USD 6 trillion by 2034, registering a compound annual growth rate (CAGR) of approximately 9.1% (Straits Research, 2024). Asia Pacific, home to the largest Muslim population globally, accounted for over 61% of global halal market revenues in 2024, underscoring the region's central role in driving demand and setting compliance benchmarks (Polaris Market Research, 2024).

Central to the halal economy's value chain are small and medium-sized enterprises (SMEs), which constitute the backbone of economic activity in most Organisation of Islamic Cooperation (OIC) member states. In Indonesia, Malaysia, and other Muslim-majority countries, SMEs represent over 95% of registered business entities and contribute significantly to national employment and GDP (Anwar Fathoni et al., 2025; Anwar et al., 2024). However, despite their numerical dominance, halal SMEs face persistent structural challenges that undermine their operational efficiency and market competitiveness. These challenges include fragmented and inconsistent halal certification processes, limited financial and technical resources to achieve full halal compliance, inadequate infrastructure for halal supply chain traceability, and a systemic lack of formalized quality management systems aligned with Islamic principles (Ali et al., 2017; Giyanti et al., 2021).

Operational excellence (OpEx) has long been recognized as a cornerstone of sustainable business performance across diverse industries. Rooted in methodologies such as Total Quality Management (TQM), Lean Management, the Shingo Model, and the EFQM Excellence Model, OpEx emphasizes continuous improvement, waste elimination, customer centricity, and systemic process optimization (Found et al., 2018; Naik et al., 2023). However, the application of OpEx frameworks within an explicitly Islamic or halal context remains underdeveloped in the academic literature. Most existing studies either focus narrowly on halal certification compliance or apply generic operational management tools without acknowledging the theological underpinnings and ethical imperatives that define halal business conduct (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023).

This research gap is particularly consequential given the unique operational demands imposed by halal standards. Unlike conventional quality management systems, halal operations must integrate Shariah-compliant principles into every node of the value chain from raw material sourcing and production to packaging, logistics, and retail. These requirements encompass concepts such as *tayyib* (wholesome and pure), *amanah* (trustworthiness), *itqan* (excellence in craftsmanship), and *masuliyah* (accountability) Islamic values that, when properly operationalized, can serve as powerful drivers of organizational

excellence (Ikhsan et al., 2023; Zahra, N., & Alim, M., 2024). The integration of such values into a coherent operational framework tailored to SME capabilities represents both a theoretical frontier and a practical necessity.

Several recent studies have begun to explore adjacent themes. (Rajendran, S. D., Kamarulzaman, N. H., & Abd Rahman, A., 2024) demonstrated the mediating role of halal supply chain integrity in enhancing the performance of halal herbal-based food SMEs, while (Arranz et al., 2023) examined supply chain integration in halal frozen meat products. (Ahmed, R., Khan, M., & Li, Y, 2024; Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023) have explored the application of blockchain and digital traceability systems in halal supply chains, (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023) confirmed that adherence to halal standards positively influences organizational performance through enhanced safety and hygiene protocols. Despite these advances, no systematic synthesis exists that integrates findings across the domains of halal compliance, operational management, quality systems, and SME performance into a unified conceptual framework. This absence constitutes the core research problem addressed by the present study.

This systematic literature review (SLR) responds to this gap by conducting a comprehensive, structured synthesis of peer-reviewed literature published between 2019 and 2024 on the intersection of halal management, operational excellence, and SME performance. The study is guided by four research objectives: (1) to map and critically evaluate the existing body of knowledge at the nexus of halal management and operational excellence; (2) to identify thematic clusters, theoretical convergences, and research gaps in the extant literature; (3) to synthesize findings into an original Halal Operational Excellence (HOE) conceptual framework; and (4) to generate actionable recommendations for halal SMEs and policymakers seeking to institutionalize faith-aligned operational excellence.

The remainder of this paper is organized as follows. Section 2 presents the theoretical foundations through a comprehensive literature review structured around five thematic dimensions. Section 3 details the systematic review methodology, including database selection, inclusion and exclusion criteria, and quality appraisal procedures. Section 4 presents the synthesis of findings and introduces the proposed HOE conceptual framework. Section 5 discusses the theoretical and practical implications, and Section 6 concludes with research limitations and directions for future inquiry.

LITERATURE REVIEW

This section reviews the theoretical foundations of the proposed framework across four interconnected themes: operational excellence foundations; halal certification and compliance; halal supply chain management; and TQM, continuous improvement, and SME performance in Islamic contexts.

Operational Excellence: Conceptual Foundations

Operational excellence (OpEx) is broadly defined as an organization's sustained capacity to deliver superior stakeholder value through the continuous optimization of processes, people, and systems while minimizing waste (Ogedengbe, D. E., James, O. N., & Afolabi, J. I, 2024). Contemporary OpEx

practice is underpinned by several foundational models. The Shingo Model integrates organizational culture, management systems, and results through the internalization of guiding principles rather than mere tool adoption (The Shingo Institute, 2025). The EFQM Excellence Model emphasizes stakeholder value creation through leadership, strategy, and process excellence (European Foundation for Quality Management (EFQM), 2020). More recently, scholarship has examined the evolution of OpEx under Quality 4.0, which extends traditional quality management through cognitive automation, AI-enabled analytics, and agile governance (Gomaa, A., 2024). Despite this breadth, all dominant OpEx models remain secular in orientation and make no provision for religious governance requirements a critical gap when applied to the halal sector.

Halal Certification and Compliance Management

Halal certification is the institutional mechanism through which organizations demonstrate conformance with Shariah requirements to regulators, consumers, and business partners (Ab Latiff, J., Abbas, S., & Armia, M. S., 2022). Beyond the absence of haram substances, comprehensive halal compliance encompasses ethical sourcing, humane animal treatment, hygienic production environments, and the spiritual consciousness of workers involved in manufacturing. Over 200 halal certification bodies operate globally, each applying different national standards, creating significant compliance fragmentation that imposes disproportionate burdens on SMEs (Anwar Fathoni et al., 2025; Nordin, Z., 2024).

Empirical evidence consistently confirms the performance benefits of halal certification. (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023) found that halal standards practices in the food industry significantly improve operational performance through enhanced safety, hygiene, and process consistency. (Giyanti et al., 2021) demonstrated across 247 Indonesian food manufacturing SMEs that halal standard implementation positively influences quality, delivery, flexibility, and cost performance. A systematic review by (Hidayat, M. A., & Witta, F., 2024) further confirmed that certification creates positive spillovers on brand image, consumer trust, and export competitiveness. However, high certification fees, complex documentation, and limited technical expertise continue to deter many SMEs from seeking or maintaining halal certification (Andespa et al., 2024; Kadir, Muhammad Hijrah Abd et al., 2016).

Halal Supply Chain Management and Integrity

Halal supply chain management (HSCM) extends conventional supply chain management by imposing religious governance across all value chain stages from raw material procurement through production, packaging, logistics, and retail to prevent halal-to-haram contamination and ensure full traceability (Ali et al., 2017). A bibliometric analysis of the 100 most-cited Scopus publications on HSCM (Shafiq, M., & Soratana, K., 2020) identified six major research themes: consumer behaviour, blockchain in halal SCM, food integrity, traceability, logistics, and sustainability. Malaysia and the UK emerged as the most

productive research hubs, and the Journal of Islamic Marketing as the most active publication venue.

Digital technology has become a transformative enabler of supply chain integrity. A systematic review by (Kristanto, R. W., & Padmakusumah, R. R, 2025; Kurniawati & Cakravastia, 2023) found that blockchain, RFID, and IoT solutions significantly enhance halal traceability and consumer confidence, though SMEs face barriers to adoption due to high implementation costs and skill shortages. (Rajendran, S. D., Kamarulzaman, N. H., & Abd Rahman, A., 2024) demonstrated through structural equation modelling that halal supply chain integrity significantly mediates the relationship between firm capabilities and performance, establishing it as a strategic asset rather than a mere compliance requirement. (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023) further confirmed that combining halal logistics, organizational capabilities, and knowledge management generates compound performance benefits.

TQM, Continuous Improvement, and SME Performance in Islamic Contexts

Total Quality Management (TQM) and its associated continuous improvement methodologies represent the operational backbone of excellence-oriented organizations. The core tenets of TQM honesty, transparency, accountability, and commitment to improvement find direct correspondence in Islamic ethical injunctions (Ikhsan et al., 2023; Zahra, N., & Alim, M., 2024). The concept of itqan (performing every action with utmost care and precision), derived from the Quranic tradition, serves as the Islamic analogue of the TQM commitment to quality. (Febriani, R., & Sesmiarni, Z., 2024) confirmed empirically that TQM combined with spiritual values fosters superior work culture, organizational discipline, and adaptability. The emerging concept of Halal TQM (H-TQM) integrates Islamic governance principles into the standard TQM architecture, as illustrated in the Malaysian tourism industry context where management commitment to halal culture, employee training, and customer-centric service were identified as critical implementation factors.

In the domain of SME performance, research highlights multiple antecedents of operational success in the halal sector. (Purwati, A. A., Budiyanto, B., & Suhermin, S, 2021) identified social capital and entrepreneurial leadership as significant predictors of SME performance, with innovation capability as a mediating variable suggesting that SMEs embedded in halal ecosystem networks are better positioned for excellence. (Maharani, T., Setiadi, P., & Rahmat, A., 2023) demonstrated that halal certification, supply chain traceability, risk management, and Islamic practice adoption collectively and significantly influence operational performance. Despite this evidence, no integrated framework exists that enables SMEs to simultaneously achieve Shariah compliance, operational efficiency, and market competitiveness a gap the present study's proposed HOE framework is designed to address.

METHODOLOGY

This study employs a Systematic Literature Review (SLR) approach guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol (Page et al., 2021). The SLR method was selected because it provides a transparent, replicable, and rigorous framework for synthesizing large bodies of literature, reducing selection bias, and enabling the identification of thematic patterns across diverse studies (Tranfield et al., 2003). Given the study's objective of developing a conceptual framework for Halal Operational Excellence, a systematic and structured synthesis of existing evidence is more appropriate than a narrative review.

Search Strategy and Database Selection

The literature search was conducted exclusively using the Scopus database, which was selected on the basis of its comprehensive coverage of peer-reviewed international journals, its advanced Boolean search functionality, and its broad representation of management, engineering, and Islamic studies literature. Scopus is widely recognised as one of the most authoritative multidisciplinary academic databases and has been extensively adopted in prior SLR studies in the halal and operations management fields (Kristanto, R. W., & Padmakusumah, R. R, 2025; Shafiq, M., & Soratana, K., 2020)

The initial search was conducted using the following Boolean query applied across the fields of Article Title, Abstract, and Keywords: ("Halal Management" OR "Halal Excellence" OR "Halal Operations"). This broad query was deliberately designed to capture the full landscape of literature at the intersection of halal principles and management practice. The initial search returned a total of 781 documents without any document-type or language filters applied.

Inclusion and Exclusion Criteria

A multi-stage screening process was implemented in accordance with PRISMA guidelines to progressively refine the retrieved records into a final eligible sample. Inclusion and exclusion criteria were established a priori and applied consistently across all screening stages. The criteria are detailed in Table 1.

Table 1. Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Document Type	Article (original research & review articles)	Conference papers, book chapters, editorials, notes, errata
Language	English	Non-English publications
Subject Area	Business, management, operations, Islamic studies, food science	Purely theological, legal, or political science articles without management relevance

Keyword Specificity	Articles with keywords specifically related to halal operations, halal management, SMEs, supply chain, quality management, or operational excellence	Articles where 'halal' or 'management' appear incidentally without substantive treatment of halal management themes
Access Type	Open Access articles available for full-text review	Subscription-only articles with no accessible full text
Database Source	Scopus-indexed journals	Non-Scopus sources

Screening Process and Study Selection

The screening process was conducted in three sequential stages consistent with the PRISMA flow diagram structure. Each stage applied progressively more specific criteria to refine the initial pool of records into the final analytical sample.

In Stage 1 (Identification), a total of 781 documents were retrieved from Scopus using the search string ("Halal Management" OR "Halal Excellence" OR "Halal Operations") applied to Article Title, Abstract, and Keywords fields. No date restriction was imposed at this stage to allow comprehensive coverage of the domain's historical development.

In Stage 2 (Screening), the 781 records were screened by title and abstract. Records were excluded if they did not meet the document type (Article only), language (English only), or keyword specificity criteria. A total of 498 records were excluded at this stage, yielding 283 reports sought for retrieval. Of these, 220 could not be retrieved due to restricted access or unavailability of full text, resulting in 63 reports assessed for full eligibility review.

In Stage 3 (Eligibility), the 63 full-text articles were assessed against the study's thematic scope. Twenty-six articles were excluded: 21 were retained only as background or theoretical support material and did not substantively address the core research themes, and 5 did not meet the eligibility criteria upon full-text review. The remaining 37 articles fully satisfied all inclusion criteria and were retained for thematic synthesis. The complete PRISMA selection flow is presented in Figure 1.

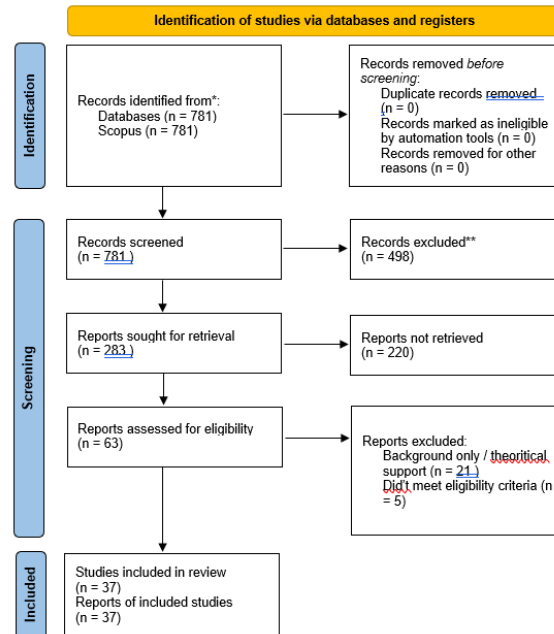


Figure. 1. PRISMA flow diagram for identification of studies

Data Extraction and Quality Appraisal

Data extraction was carried out using a structured coding matrix developed a priori and populated independently by the research team. For each of the 37 final articles, the following information was systematically extracted: (1) author(s) and year of publication; (2) journal name and indexing status; (3) country of study context; (4) research design and methodology; (5) key constructs examined; (6) principal findings relevant to halal management or operational excellence; and (7) thematic classification. Discrepancies in coding were resolved through consensus discussion.

Quality appraisal was conducted using the Mixed Methods Appraisal Tool (MMAT), which provides standardized criteria for assessing the methodological rigor of qualitative, quantitative, and mixed-methods studies. Articles were rated on five appraisal dimensions: clarity of research objectives, appropriateness of research design, validity of data collection instruments, adequacy of analytical procedures, and relevance of conclusions to stated objectives. All 37 articles achieved satisfactory quality scores, confirming their suitability for inclusion in the thematic synthesis.

Thematic Analysis and Synthesis

Thematic analysis followed a deductive-inductive hybrid approach. Deductive themes were derived from the study's four research objectives and the theoretical framework drawn from the literature review. Inductive themes emerged from close reading of the extracted data and were subsequently integrated into the deductive framework. Five primary thematic clusters were identified through this process: (1) Halal Certification and Compliance Management; (2) Halal Supply Chain Management and Integrity; (3) TQM and Continuous Improvement in Islamic Contexts; (4) Digital Technology Integration in Halal Operations; and (5) SME Operational Performance and Competitiveness.

These themes informed the construction of the proposed Halal Operational Excellence (HOE) conceptual framework presented in Section 4.

RESEARCH RESULTS

This section presents the synthesised findings from the thematic analysis of 37 peer-reviewed articles, organised according to the five thematic clusters identified in Section The findings are subsequently integrated into a proposed Halal Operational Excellence (HOE) conceptual framework that addresses all five research questions guiding this systematic literature review.

Halal Certification and Compliance Management

Halal certification and compliance management emerged as the most frequently examined theme across the 37 articles, reflecting the centrality of institutional legitimacy in halal business operations. The evidence consistently confirms that formal halal certification functions not merely as a regulatory requirement but as a strategic asset with measurable implications for operational performance and market competitiveness. (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023) established, through empirical analysis of food industry firms, that adherence to halal standards significantly improves operational performance through enhanced safety protocols, hygiene consistency, and process standardisation. These findings are corroborated by (Giyanti et al., 2021), whose structural equation modelling study across 247 Indonesian food manufacturing SMEs demonstrated that halal standard implementation positively and significantly influences four dimensions of operational performance: product quality, delivery reliability, process flexibility, and cost efficiency.

A systematic review by (Hidayat, M. A., & Witta, F., 2024) further confirms that halal certification generates positive externalities beyond the operational domain, including spillover effects on brand equity, consumer trust, and export competitiveness. However, the literature simultaneously highlights persistent structural barriers that disproportionately constrain SMEs. High certification fees, complex documentation requirements, technical knowledge deficits, and the proliferation of over 200 national and regional halal certification bodies globally have created a compliance landscape characterised by significant fragmentation and inconsistency (Andespa et al., 2024; Anwar Fathoni et al., 2025; Nordin, Z., 2024). These barriers are particularly consequential for resource-constrained SMEs that lack dedicated compliance infrastructure and qualified personnel.

From an Islamic ethical standpoint, this thematic cluster is most directly grounded in the value of amanah – trustworthiness and accountability to consumers, business partners, and the broader Muslim community. Halal certification, in this reading, is not reducible to a procedural compliance exercise; it is an institutional expression of the firm's commitment to uphold the trust placed in it by Muslim consumers. This reframing has important implications for how SMEs conceptualise and operationalise their certification strategies, shifting the motivation from mere regulatory compliance to a values-driven organisational commitment.

Proposition P1: Formal halal certification positively influences the operational performance of SMEs by improving process consistency, product quality, and regulatory compliance.

Halal Supply Chain Management and Integrity

Halal supply chain management (HSCM) represents the second major thematic cluster, encompassing the governance of halal integrity across all nodes of the value chain from raw material procurement through production, storage, logistics, distribution, and retail. A bibliometric analysis of the 100 most-cited Scopus publications on HSCM (Shafiq, M., & Soratana, K., 2020) identified six dominant research themes: consumer behaviour, blockchain applications, food integrity, traceability systems, halal logistics, and sustainability dimensions. Malaysia and the United Kingdom emerged as the most productive research hubs, and the *Journal of Islamic Marketing* as the most prolific publication venue, suggesting a concentration of inquiry in Muslim-majority and Muslim-minority contexts respectively.

(Rajendran, S. D., Kamarulzaman, N. H., & Abd Rahman, A., 2024) made a particularly significant contribution through their structural equation modelling analysis of halal herbal-based food SMEs, demonstrating that halal supply chain integrity significantly mediates the relationship between firm capabilities and performance outcomes. This finding repositions HSCM from a compliance-oriented to a performance-oriented construct, establishing supply chain integrity as a strategic mediator rather than a peripheral operational requirement. (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H., 2023) extended these insights by confirming that the simultaneous application of halal logistics principles, organisational capabilities, and knowledge management practices produces compound performance benefits that exceed those achievable through any single dimension in isolation.

A critical observation emerging from the broader literature is the predominant focus on strategic-level supply chain decisions, with comparatively sparse attention to operational-level decision-making in halal contexts (Kurniawati & Cakravastia, 2023). This gap is especially consequential for SMEs, which must navigate day-to-day operational halal challenges cross-contamination prevention, supplier qualification, storage segregation with limited managerial resources. In Islamic ethical terms, this cluster is anchored in the concept of *tayyib*, denoting wholesomeness and purity across the entire production and distribution lifecycle. A supply chain that upholds *tayyib* principles ensures that the halal designation of a product is not merely an entry-level attribute but a holistic guarantee of integrity from source to consumer.

Proposition P2: Halal supply chain integrity mediates the relationship between SME organisational capabilities and operational performance, and this mediating effect is strengthened by the simultaneous adoption of digital traceability technologies and knowledge management practices.

Total Quality Management, Continuous Improvement, and Islamic Contexts

The integration of Total Quality Management (TQM) with Islamic ethical principles constitutes the third thematic cluster and represents the most theoretically fertile terrain for the development of a Halal Operational Excellence construct. The core tenets of TQM honesty, transparency, systemic process improvement, and an unwavering commitment to quality – find direct correspondence in Quranic and Prophetic injunctions governing commercial conduct (Ikhsan et al., 2023; Zahra, N., & Alim, M., 2024). The concept of *itqan*, derived from the Quranic tradition and broadly understood as performing every action with utmost precision and care, serves as the Islamic analogue of the TQM commitment to zero defects and continuous improvement. Scholars have argued that *itqan* provides not merely a functional parallel to TQM but a richer motivational foundation, grounding quality practice in spiritual obligation rather than solely in competitive imperatives.

(Febriani, R., & Sesmiarni, Z., 2024) confirmed empirically that the integration of TQM with spiritual values fosters superior work culture, organisational discipline, and adaptive capacity in Islamic business organisations. The emerging construct of Halal TQM (H-TQM) formalises this integration by embedding Islamic governance principles into the standard TQM architecture. In the Malaysian tourism industry context, management commitment to halal culture, structured employee training in halal procedures, and customer-centric service orientation were identified as the three critical implementation factors for H-TQM. These findings suggest that H-TQM is not sector-specific but represents a transferable governance model applicable across halal-producing industries.

For SMEs specifically, the TQM-Islamic integration offers a particularly compelling value proposition: it provides a structured improvement methodology that is simultaneously grounded in the faith values already held by Muslim operators, potentially reducing the adoption barriers associated with secular quality management frameworks that may feel culturally incongruent. The principle of *masuliyah* accountability to Allah and to one's community provides the ethical scaffold for continuous improvement practices, reframing quality as a religious duty rather than a commercial strategy.

Proposition P3: The integration of TQM with Islamic ethical values (H-TQM) positively influences the operational discipline, process consistency, and adaptive capacity of halal SMEs beyond what is achievable through secular TQM implementation alone.

Digital Technology Integration in Halal Operations

Digital technology has emerged as a transformative enabler of halal operational integrity, representing the fourth major thematic cluster. A systematic review by (Kristanto, R. W., & Padmakusumah, R. R, 2025; Kurniawati & Cakravastia, 2023) found that blockchain, Radio Frequency Identification (RFID), and Internet of Things (IoT) solutions significantly enhance halal traceability and consumer confidence, though SMEs face substantial barriers to adoption due to high implementation costs, interoperability challenges, and acute shortages of technically skilled personnel. (Ahmed, R., Khan, M., & Li, Y,

2024; Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023) corroborated these findings, confirming the transformative potential of blockchain for halal supply chain transparency while acknowledging the gap between technological promise and SME adoption realities.

A study of agro-food SMEs in Malaysia (2020) revealed that 85.4 per cent of respondents expressed high intention to adopt halal traceability systems, with adoption intention particularly pronounced among lower-revenue SMEs seeking competitive differentiation. This finding challenges the assumption that digital adoption is primarily a large-firm phenomenon and suggests that SMEs in the halal sector may view traceability technology as a strategic equaliser. However, the same study identified a significant gap between intention and actual adoption, attributable to financial constraints and limited technology literacy – a gap that underscores the role of ecosystem support structures, including incubators and halal logistics service providers, in facilitating SME technology uptake.

From an operational excellence perspective, digital technology integration addresses two foundational challenges simultaneously: it enables real-time monitoring of halal compliance across extended supply chains, and it generates verifiable documentation that supports both internal governance and external certification audits. In Islamic ethical terms, digital traceability operationalises the principle of amanah by making the firm's halal commitments visible, verifiable, and accountable to all stakeholders.

Proposition P4: Digital technology adoption (blockchain, RFID, IoT) positively moderates the relationship between halal supply chain management practices and operational performance outcomes in SMEs, with ecosystem support – including halal logistics service providers and government-facilitated incubation – serving as a critical enabler of SME technology uptake.

SME Operational Performance and Competitiveness

The fifth and integrating thematic cluster focuses on the performance and competitive outcomes of halal management practices in SMEs. (Purwati, A. A., Budiyanto, B., & Suhermin, S, 2021) identified social capital and entrepreneurial leadership as significant antecedents of SME performance, with innovation capability serving as a critical mediating variable. This finding suggests that SMEs embedded in supportive halal ecosystem networks characterised by collaborative relationships with certification bodies, logistics providers, research institutions, and government agencies are better positioned to leverage halal management practices as drivers of operational excellence. The Penta Helix framework, which structures collaboration among academics, businesses, communities, media, and government, provides an institutionalised model for such ecosystem engagement.

(Maharani, T., Setiadi, P., & Rahmat, A., 2023) offered the most comprehensive empirical treatment of the performance dimension, demonstrating that halal certification, supply chain traceability, risk management practices, and Islamic business conduct collectively and significantly influence operational performance, with the combined effect

exceeding that of any single predictor. A subsequent balanced scorecard study of 130 MSME fried chicken businesses in Indonesia (Susparini et al., 2019) identified the customer perspective as the strongest performance driver, with a structural coefficient of 0.496 ($p < 0.001$), confirming that consumer trust and perceived halal credibility constitute the primary competitive mechanism through which halal management practices translate into financial performance.

Research on halal products in Belt and Road Initiative markets (2025) provided additional quantitative evidence of the competitive premium associated with halal credibility. The study found that each unit increase in product video availability increased demand by 63.4 per cent, that consumer trust increased demand by 23.3 per cent, and that customer satisfaction contributed an additional 5 per cent. These findings collectively establish the commercial logic of investing in halal operational excellence: the returns manifest not only through internal efficiency gains but, critically, through externally validated credibility that drives market demand and consumer loyalty.

Proposition P5: Halal operational excellence produces a three-tiered performance outcome for SMEs: (1) operational outcomes characterised by process efficiency and compliance consistency; (2) competitive outcomes characterised by consumer trust, brand equity, and market access; and (3) business performance outcomes characterised by revenue growth and long-term organisational sustainability.

The Proposed Halal Operational Excellence (HOE) Conceptual Framework

Building on the synthesis of the five thematic clusters and the four Islamic ethical values identified as foundational in the Introduction *tayyib*, *amanah*, *itqan*, and *masuliyyah* this study proposes the Halal Operational Excellence (HOE) conceptual framework as an integrated model for understanding and operationalising excellence in halal-compliant SMEs. The HOE framework is distinguished from existing conceptualisations in three fundamental respects: (1) it is explicitly grounded in Islamic ethical philosophy rather than secular operational management theory; (2) it is designed and calibrated for SME contexts, acknowledging the resource and capability constraints that differentiate SME halal management from large-firm practice; and (3) it integrates compliance, process, technology, and performance dimensions into a unified, testable theoretical architecture.

The HOE framework comprises five interrelated structural components: antecedent conditions, a normative Islamic values foundation, five operational core dimensions, mediating and moderating variables, and a three-tier performance outcomes model.

Antecedent Conditions

Four antecedent conditions shape the organisational context within which HOE is developed. First, owner-management commitment reflecting the Islamic principle of *masuliyyah* provides the motivational and resource foundation for all subsequent halal management investments. Second, the regulatory and institutional halal environment, encompassing national certification standards such as Malaysia's MS1500, Indonesia's BPJPH framework, and the global

architecture of halal governance, establishes the formal boundaries of compliance obligation. Third, market and consumer pressure from Muslim consumers, export partners, and supply chain counterparties provides the commercial stimulus for halal excellence investment. Fourth, the halal ecosystem, including Halal Logistics Service Providers (HLSPs), Penta Helix collaborative structures, incubation programmes, and government support mechanisms, determines the availability of external capabilities and resources that SMEs may leverage to offset internal capacity constraints.

Islamic Values Foundation

The HOE framework is explicitly anchored in four Islamic ethical values that provide both the normative rationale and the motivational substrate for operational excellence in halal SMEs. *Tayyib* the Quranic standard of wholesomeness, purity, and goodness governs the product integrity imperative, requiring that halal outputs be not merely permissible but genuinely wholesome across all dimensions. *Amanah* trustworthiness and the fulfilment of covenantal obligations underpins both the certification process and the digital traceability imperative, making the firm's halal commitments verifiable and accountable. *Itqan* the Islamic injunction to perform every action with utmost precision, care, and craftsmanship provides the spiritual grounding for TQM and continuous improvement practices, reframing quality as a religious duty. *Masuliyah* comprehensive accountability to Allah, to consumers, and to the community provides the governance foundation for risk management, compliance, and ethical business conduct. These four values are not exogenous to the operational management system but are proposed as constitutive of it: they shape the motivational logic, the governance architecture, and the performance expectations of halal SMEs.

Five Operational Core Dimensions of HOE

The five thematic clusters identified through the systematic review constitute the five operational dimensions of the HOE framework. These dimensions are not sequential but mutually reinforcing, and their combined effect is proposed to be greater than the sum of their individual contributions.

Dimension	Key Constructs	Islamic Value	Key References
D1: Halal Certification & Compliance Mgmt.	Certification standards, SOP documentation, audit systems, risk control	Amanah	Giyanti et al. (2021); Awang & AR (2023); Nordin (2024)
D2: HSCM & Supply Chain Integrity	Supplier qualification, contamination prevention, logistics governance, traceability	Tayyib	Rajendran et al. (2024); Shafiq et al. (2024)

Dimension	Key Constructs	Islamic Value	Key References
D3: H-TQM & Continuous Improvement	Halal TQM, itqan-based quality culture, employee training, process standardisation	Itqan	Ikhsan et al. (2023); Febriani & Sesmiarni (2024)
D4: Digital Technology Integration	Blockchain, RFID, IoT, traceability systems, digital audit trails	Amanah	Kristanto & Kurniawati (2024); Khan et al. (2023)
D5: SME Performance & Competitiveness	Balanced scorecard, KPI systems, innovation capability, social capital	Masuliyyah	Maharani et al. (2023); Purwati et al. (2021)

Table 2. Five Operational Dimensions of the HOE Framework

Mediating and Moderating Variables

The HOE framework incorporates two classes of moderating and mediating variables that condition the relationship between HOE implementation and performance outcomes. Mediating variables include (1) organisational capability defined as the firm's capacity to absorb, integrate, and exploit halal management practices across its value chain and (2) halal orientation, defined as the degree to which Islamic values are internalised into the firm's strategic decisions, organisational culture, and operational routines. Both variables have been empirically validated as performance mediators in the halal management literature (Purwati, A. A., Budiyanto, B., & Suhermin, S, 2021; Rajendran, S. D., Kamarulzaman, N. H., & Abd Rahman, A., 2024), and their inclusion in the HOE framework enables a more nuanced account of how and why HOE produces performance effects.

Moderating variables encompass three contextual factors that shape the magnitude and direction of HOE's effects: (1) SME size differentiating between micro, small, and medium enterprises with structurally different resource profiles; (2) industry sector recognising that halal compliance requirements differ fundamentally between food manufacturing, fashion, logistics, financial services, and tourism; and (3) national regulatory context acknowledging that halal governance frameworks, certification standards, and enforcement mechanisms vary significantly across OIC member states, creating differential operating environments that moderate the generalisability of HOE effects.

Three-Tier Performance Outcomes

The HOE framework proposes that effective implementation of the five operational dimensions produces performance outcomes across three hierarchically related tiers. Operational outcomes the first tier encompass process efficiency, halal compliance consistency, contamination incident rates, certification audit success rates, and supply chain integrity metrics. These outcomes are the most proximate consequences of HOE implementation and provide the operational foundation for higher-tier effects. Competitive outcomes the second tier manifest in consumer trust and perceived halal credibility, brand

equity differentiation in halal markets, access to Muslim-majority export markets and Muslim consumer segments, and the capacity to attract premium pricing on the basis of certified halal integrity. Business performance outcomes the third tier are expressed in financial performance indicators including revenue growth, profit margins, and export revenues, as well as in longer-term organisational sustainability metrics including resilience, adaptability, and the capacity for sustained investment in halal governance infrastructure.

The framework further proposes a feedback loop through which third-tier performance outcomes reinforce antecedent conditions: improved financial performance strengthens owner-management commitment, positive market outcomes intensify institutional pressure toward halal excellence, and ecosystem participation deepens as SMEs achieve credibility and visibility as exemplary halal operators. This feedback mechanism positions HOE not as a static compliance model but as a dynamic capability that appreciates in organisational value as implementation matures.

Propositions for Empirical Testing

The HOE framework generates six testable propositions that constitute the research agenda for subsequent empirical inquiry. These propositions are summarised in Table 3.

Proposition	Statement	Theoretical Basis
P1	Formal halal certification positively influences SME operational performance through improved process consistency, quality, and regulatory compliance.	Giyanti et al. (2021); Awang & AR (2023)
P2	Halal supply chain integrity mediates the relationship between SME organisational capabilities and operational performance outcomes.	Rajendran et al. (2024); Rahman et al. (2023)
P3	Integration of TQM with Islamic ethical values (H-TQM) positively influences operational discipline and adaptive capacity beyond secular TQM alone.	Ikhsan et al. (2023); Febriani & Sesmiarni (2024)
P4	Digital technology adoption positively moderates the relationship between HSCM practices and operational performance, contingent on ecosystem support.	Kristanto & Kurniawati (2024); Khan et al. (2023)
P5	HOE implementation produces three-tiered performance outcomes (operational, competitive, business) that are cumulatively greater than any single-dimension effect.	Maharani et al. (2023); Susparini et al. (2025)
P6	The performance effects of HOE are moderated by SME size, industry sector, and national regulatory context, with larger SMEs in more permissive regulatory environments exhibiting stronger HOE-performance relationships.	Nordin (2024); Kurniawati & Cakravastia (2023)

Table 3. Research Propositions for Empirical Testing

DISCUSSION

Theoretical Implications

The proposed HOE framework makes three substantive theoretical contributions to the intersecting literatures of Islamic business management, operational excellence, and SME performance. First, it advances the conceptualisation of halal compliance beyond a binary, certification-focused paradigm toward a multidimensional excellence construct that integrates compliance, process, technology, and performance dimensions. This reconceptualisation responds directly to the critique, implicit in the broader operational excellence literature, that existing halal management frameworks remain predominantly compliance-oriented and insufficiently attentive to the operational and competitive consequences of halal practice (Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H, 2023).

Second, the HOE framework makes an original contribution by grounding operational excellence explicitly in Islamic ethical philosophy. The identification of *tayyib*, *amanah*, *itqan*, and *masuliyah* as constitutive rather than merely decorative dimensions of the HOE model distinguishes this framework from both secular OpEx models, which make no provision for religious governance requirements, and from existing halal management frameworks, which tend to address Islamic values as background context rather than as structural components of the management architecture. This integration responds to the observation by (Ikhsan et al., 2023; Zahra, N., & Alim, M., 2024) that the theoretical convergence between TQM and Islamic ethics has been underexploited in the management literature.

Third, the HOE framework makes an important methodological contribution by proposing an explicit set of testable propositions derived from systematic literature synthesis. Unlike prior conceptual contributions to the halal management field, which typically offer normative frameworks without specifying the causal mechanisms or boundary conditions that would enable empirical falsification, the HOE framework's six propositions provide a structured research agenda for quantitative and mixed-methods investigation. This architecture positions the framework as a contribution to theory-building in the strong sense: it not only describes what HOE is but specifies how it works, under what conditions, and with what expected outcomes.

Practical Implications

For SME practitioners operating in halal-sensitive markets, the HOE framework provides a structured diagnostic tool for assessing organisational readiness and identifying priority areas for investment. SMEs that evaluate their current practices against the five HOE dimensions halal certification management, supply chain integrity, H-TQM, digital technology integration, and performance measurement can identify specific gaps that are most consequential for their competitive position. The framework's hierarchical performance model further provides a rationale for sequencing investments: operational excellence investments (Dimensions 1-3) are prerequisite to achieving the competitive

outcomes (Tier 2) and business performance outcomes (Tier 3) that justify the resource commitment.

For policymakers and halal ecosystem architects in Muslim-majority countries, the HOE framework highlights the systemic nature of the barriers that prevent SMEs from achieving halal operational excellence. No single policy intervention whether targeted at certification cost reduction, technology subsidisation, or training provision will be sufficient in isolation. The framework suggests that effective policy support must simultaneously address antecedent conditions (regulatory simplification and ecosystem development), operational capability development (H-TQM training and digital technology facilitation), and performance visibility (halal marketplace development and export promotion). The Penta Helix collaboration model, as demonstrated in the context of halal tourism development, offers a promising governance architecture for such integrated support.

For halal certification bodies and standards organisations, the HOE framework identifies a significant opportunity to expand their role from compliance verification to operational capability development. The finding that 85.4 per cent of SMEs express high intention to adopt halal traceability systems but face implementation barriers suggests that certification bodies could create substantial value by developing or endorsing scalable digital traceability platforms specifically designed for SME operational contexts. Such platforms would simultaneously reduce the cost and complexity of maintaining halal documentation, enhance supply chain transparency, and create audit trails that reduce the time and cost of certification renewal.

Situating the HOE Framework in the Broader Literature

The HOE framework builds on and extends several established theoretical traditions. In relation to the Resource-Based View (RBV) of the firm, HOE constitutes a bundle of path-dependent, causally ambiguous, and socially complex resources including certified halal processes, Islamic values-based organisational culture, and digitally enabled traceability infrastructure that are difficult for competitors to imitate and therefore constitute a potential source of sustained competitive advantage. The social capital and entrepreneurial leadership variables identified by (Purwati, A. A., Budiyanto, B., & Suhermin, S, 2021) as antecedents of SME halal performance align with the relational and human capital dimensions of the extended RBV.

In relation to Institutional Theory, the HOE framework's antecedent conditions reflect coercive, mimetic, and normative institutional pressures that drive SME halal management adoption. Coercive pressures manifest in regulatory requirements; mimetic pressures emerge from competitive benchmarking against certified halal competitors; normative pressures arise from the expectations of Muslim employees, consumers, and business community members. The blockchain adoption study (Sumarliah et al., 2022) explicitly confirms the role of institutional pressure in mediating the relationship between halal orientation and technology adoption intent, providing empirical grounding for the framework's institutional antecedent conditions.

In relation to Dynamic Capabilities Theory, the HOE framework's feedback loop through which performance outcomes reinforce antecedent commitment and organisational learning captures the dynamic, path-dependent character of halal operational excellence as a capability. SMEs that invest in HOE do not merely achieve a static compliance state but develop organisational routines, knowledge stocks, and relational assets that compound over time, creating increasing returns to halal management investment.

CONCLUSION AND RECOMMENDATION

Summary of Contributions

This systematic literature review has addressed a significant and consequential gap in the management literature: the absence of an integrated, theoretically grounded, and SME-calibrated conceptual framework for Halal Operational Excellence. Drawing on a PRISMA-guided analysis of 37 peer-reviewed Scopus-indexed articles published across a range of disciplines and national contexts, the study has: (1) identified five primary thematic clusters at the intersection of halal management and operational excellence; (2) synthesised empirical findings on the dimensions, determinants, capabilities, and outcomes of halal management in SMEs; and (3) integrated these findings into an original HOE conceptual framework comprising antecedent conditions, an Islamic values foundation, five operational dimensions, mediating and moderating variables, a three-tier performance outcomes model, and six empirically testable propositions.

The HOE framework makes three distinct contributions. Theoretically, it advances the conceptualisation of halal compliance from a binary, certification-focused paradigm to a multidimensional excellence construct grounded in Islamic ethical philosophy. Methodologically, it provides a structured, testable theoretical architecture that positions HOE as a falsifiable theory rather than a normative aspiration. Practically, it offers SME operators, policymakers, certification bodies, and ecosystem architects a structured diagnostic and strategic planning tool for the institutionalisation of faith-aligned operational excellence.

Research Limitations

This study is subject to several limitations that bound the scope and generalisability of its findings. First, the literature search was conducted exclusively on the Scopus database, and the inclusion criteria were restricted to open-access English-language articles. This design decision, while consistent with prevailing SLR conventions and the resource constraints of the research team, necessarily excludes relevant scholarship published in non-English languages particularly Arabic, Malay, Indonesian, and Turkish that may capture contextually specific insights from Muslim-majority societies not fully represented in anglophone scholarship. Second, the thematic synthesis is inherently interpretive, and alternative coding decisions by different researchers may have produced different thematic configurations. While the deductive-inductive hybrid approach and the MMAT quality appraisal procedure mitigate this risk, residual interpretive subjectivity cannot be entirely eliminated.

Third, the HOE framework, as a conceptual contribution, lacks empirical validation. The six propositions advanced in Section constitute hypotheses rather than established empirical relationships, and the framework's validity and predictive power remain to be established through quantitative survey research, structural equation modelling, or longitudinal case study investigation. Fourth, the 37 articles constituting the final sample, while representative of the current state of the literature, exhibit significant concentration in Malaysian and Indonesian contexts, with comparatively sparse representation of Gulf Cooperation Council (GCC), Sub-Saharan African, and Central Asian halal economies limiting the geographic generalisability of the framework without cross-contextual empirical validation.

Directions for Future Research

The HOE framework and the six research propositions it generates open several productive avenues for future empirical inquiry. Most urgently, the framework requires empirical validation through large-scale survey research targeting halal SMEs across multiple industry sectors and national regulatory contexts. Structural equation modelling, drawing on multi-item scales developed from the five HOE dimensions, would enable simultaneous testing of the framework's structural relationships and the performance outcomes model. Comparative empirical research across Malaysia, Indonesia, and GCC markets would be particularly valuable in assessing the moderating effect of national regulatory context on HOE-performance relationships, thereby enhancing the cross-contextual generalisability of the framework.

A second critical research priority concerns the development and validation of a standardised HOE measurement instrument. As the present study's analysis confirms, no validated scale currently exists for measuring holistic halal operational excellence in SMEs. Scale development following Churchill's (1979) paradigm and confirmatory factor analysis validation would enable cumulative theory-building across subsequent empirical studies. Third, longitudinal case study research tracking SMEs through the HOE capability development process would illuminate the dynamic mechanisms through which halal management investments compound over time to produce sustained competitive advantage an aspect of HOE that cross-sectional survey designs are inherently ill-equipped to capture.

Fourth, the intersection of Artificial Intelligence (AI), machine learning, and halal compliance management represents an emerging research frontier that is entirely absent from the current literature constituting a particularly significant gap given the rapid pace of AI adoption in food safety monitoring, supply chain optimisation, and regulatory compliance automation. Future research at this intersection could explore how AI-enabled process monitoring might reduce the cost and complexity of halal compliance for SMEs, potentially democratising access to operational excellence capabilities that are currently restricted to large, resource-rich firms. Finally, action research and intervention studies that evaluate the effectiveness of specific HOE implementation programmes in SME contexts would provide the practitioner-oriented evidence base required to

translate the framework's theoretical contributions into actionable capacity-building initiatives for halal economic development.

In conclusion, Halal Operational Excellence represents both an underexplored scholarly frontier and a strategically consequential practical challenge for the hundreds of millions of Muslims whose livelihoods depend on the sustainable growth of the global halal economy. By providing the first systematic conceptual architecture for HOE in SME contexts, this study lays the theoretical groundwork for a programme of empirical research that can ultimately inform both management practice and public policy in service of a more excellent, more trustworthy, and more authentically Islamic global halal economy.

REFERENCES

- Ab Latiff, J., Abbas, S., & Armia, M. S. (2022). Cost of Halal Certification with the Intentions of Food and Beverage SMEs Actors. *Jurnal Religious*, 5(2), 297–308.
- Ahmed, R., Khan, M., & Li, Y. (2024). The technological shift towards embedded payments: An examination of young consumers' intention. *Future Business Journal*, 10(1), 1–14.
- Ali, M. H., Tan, K. H., & Ismail, M. D. (2017). A supply chain integrity framework for halal food. *British Food Journal*, 119(1), 20–38. <https://doi.org/10.1108/BFJ-07-2016-0345>
- Andespa, R., Yurni, Y., Aldiyanto, A., & Efendi, G. (2024). Challenges and Strategies in Halal Supply Chain Management for MSEs in West Sumatra: A Participatory Action Research Study. *International Journal of Safety and Security Engineering*, 14(3), 907–921. <https://doi.org/10.18280/ijssse.140322>
- Anwar Fathoni, M., Dwi Priyatno, P., Faizi, Suko Wiryanto, F., Rachbini, W., & Suryani. (2025). Unlocking barriers and strategies of halal certification for micro and small enterprises in Indonesia: Analytic network process approach. *Problems and Perspectives in Management*, 23(1), 169–180. [https://doi.org/10.21511/ppm.23\(1\).2025.13](https://doi.org/10.21511/ppm.23(1).2025.13)
- Anwar, U. A. A., Nurhakim, H. Q., & Rani, A. M. (2024). SMEs Halal Compliance in the Implementation of Service Operations Management. *The Eastasouth Management and Business*, 2(02), 135–148. <https://doi.org/10.58812/esmb.v2i02.187>
- Arranz, N., Arroyabe, M. F., Li, J., Arranz, C. F. A., & Fernandez De Arroyabe, J. C. (2023). An integrated view of eco-innovation in the service sector: Dynamic capability, cooperation and corporate environmentalism.

Business Strategy and the Environment, 32(6), 2882–2895.
<https://doi.org/10.1002/bse.3276>

DinarStandard. (2024). *State of the Global Islamic Economy Report 2024/25*. DinarStandard. <https://salaamgateway.com>

European Foundation for Quality Management (EFQM). (2020). *EFQM Model 2020*. European Foundation for Quality Management.

Febriani, R., & Sesmiarni, Z. (2024). Total Quality Management and Spiritual Values: Impact on Organizational Culture in Islamic Institutions. *Journal of Islamic Management*, 6(2), 47–63.

Giyanti, I., Indrasari, A., Sutopo, W., & Liquidanu, E. (2021). Halal standard implementation in food manufacturing SMEs: Its drivers and impact on performance. *Journal of Islamic Marketing*, 12(8), 1577–1602. <https://doi.org/10.1108/JIMA-11-2019-0243>

Gomaa, A. (2024). Quality Management Excellence in the Era of Industry 4.0 (Quality 4.0): A Comprehensive Review, Gap Analysis, and Strategic Framework. *Total Quality Management & Business Excellence*.

Hidayat, M. A., & Witta, F. (2024). Halal certification and implications for MSMEs: A systematic literature review. *Journal of Business Management and Islamic Banking*, 3(2), 45–67.

Ikhsan, N. F., Salim, C. R., & Tasya, D. A. (2023). Total Quality Management (TQM) And Its Implementation In Islamic Education Management. *AL-WIJDĀN Journal of Islamic Education Studies*, 8(4), 527–542. <https://doi.org/10.58788/alwijdn.v8i4.3188>

Kadir, Muhammad Hijrah Abd, Rasi, Raja Zuraidah Raja Mohd, Omar, Siti Sarah, & Manap, Zariq Imran Abdul. (2016). Halal Supply Chain Management Streamlined Practices: Issues and Challenges. *IOP Conference Series: Materials Science and Engineering*, 160, 012070. <https://doi.org/10.1088/1757-899X/160/1/012070>

Kristanto, R. W., & Padmakusumah, R. R. (2025). Pengaruh implementasi lean dan warehouse management system terhadap kinerja logistik pada industri FMCG PT. XYZ. *Jurnal Riset Logistik*, 15(1), 45–59.

Kurniawati, D. A., & Cakravastia, A. (2023). A review of halal supply chain research: Sustainability and operations research perspective. *Cleaner Logistics and Supply Chain*, 6. Scopus. <https://doi.org/10.1016/j.clscn.2023.100096>

- Maharani, T., Setiadi, P., & Rahmat, A. (2023). Halal certification, supply chain traceability and operational performance of halal SMEs. *Journal of Industrial Engineering and Halal Industries*, 4(2), 55–71.
- Nordin, Z. (2024). Halal certification: Global challenges and future trends. *Journal of Halal Research, Policy and Management*, 6(1), 1–15.
- Ogedengbe, D. E., James, O. N., & Afolabi, J. I. (2024). Strategic Planning and Operational Excellence: A Conceptual Model for Growth in Tech Businesses. *International Journal of Management & Entrepreneurship Research*, 6(11), 4090–4103.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, n71. <https://doi.org/10.1136/bmj.n71>
- Polaris Market Research. (2024). *Halal Food Market Trends, Demand & Growth 2025–2034*. Polaris Market Research. <https://www.polarismarketresearch.com>
- Purwati, A. A., Budiyanto, B., & Suhermin, S. (2021). Social capital, entrepreneurial leadership and SMEs performance: The mediating effect of innovation capability. *Jurnal Pendidikan Bisnis Dan Manajemen*, 7(3), 170–181.
- Rahman, A. A., Mubin, N. A., Yusof, R. N. R., & Kamarulzaman, N. H. (2023). Building supply chain performance through halal logistics, organisational capabilities and knowledge management. *International Journal of Logistics Research and Applications*, 26(4), 381–401.
- Rajendran, S. D., Kamarulzaman, N. H., & Abd Rahman, A. (2024). The mediating role of halal supply chain integrity in enhancing performance for halal herbal-based food SMEs. *Journal of Islamic Marketing*, 15(12), 3100–3122.
- Shafiq, M., & Soratana, K. (2020). Lean readiness assessment model – a tool for humanitarian organizations' social and economic sustainability. *Journal of Humanitarian Logistics and Supply Chain Management*, 10(2), 77–103.
- Straits Research. (2024). *Halal Food Market Size to Strike USD 5,232.86 Billion by 2033*. Straits Research. <https://straitsresearch.com>

- Sumarliah, E., Li, T., Wang, B., Fauziyah, F., & Indriya, I. (2022). Blockchain-empowered halal fashion traceability system in Indonesia. *International Journal of Information Systems and Supply Chain Management*, 15(2). Scopus. <https://doi.org/10.4018/IJISSCM.287628>
- Susparini, N. T., Abidin, Z., Iswantini, D., & Nurhidayat, N. (2019). Sensitive and stable ethanol biosensor development based on acetobacter aceti biofilm for halal detection of food and beverages. *Journal of Applied Biology and Biotechnology*, 7(6), 40–47. Scopus. <https://doi.org/10.7324/JABB.2019.70607>
- The Shingo Institute. (2025). *The Shingo Model for Organizational Excellence*. Utah State University. <https://shingo.org>
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>
- Zahra, N., & Alim, M. (2024). Total quality management and Islamic values: Redefining educational excellence. *Journal of Islamic Management*, 6(1), 23–38.