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Available online at
https://journal.uitm.edu.my/ojs/index.php/

e-ISSN: 3093-8368

Journal of Halal Science and Management Research 2(2) 2026, 177-192

Journal of Halal Science and Management Research

Global Harmonisation of Halal Standards: Exploring the Role of ISO in a Hybrid Governance Framework

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ARTICLE INFO

Article history:
Received 19 August 2026
Revised 10 September 2026
Accepted 19 September 2026
Published 30 September 2026

Keywords:
Accreditation
Global Halal Governance
Halal Certification
Harmonisation
ISO

DOI:

10.24191/jhsmr.v2i2.13713

ABSTRACT

The fragmentation of halal certification systems across jurisdictions creates inconsistent requirements, duplicative certification, uneven recognition, and challenges for international halal trade. This study explores whether the International Organisation for Standardisation (ISO) can contribute to greater global harmonisation without displacing Shariah authority or national halal governance. A qualitative, descriptive, and exploratory document-analysis design was employed using academic literature, official standards and regulatory documents, and institutional and industry reports. Thematic analysis identified five interrelated barriers to harmonisation: diversity in Shariah interpretation, fragmented certification authority and national sovereignty, uneven stakeholder participation, disparities in infrastructure and compliance capacity, and inconsistent halal auditor competency. The analysis indicates that ISO is most relevant as a technical and procedural platform rather than as a religious authority. Its consensus-based standard-development model and established management and conformity-assessment frameworks could support more consistent auditing, accreditation, traceability, and mutual recognition. Comparative analysis of Codex Alimentarius, OIC-SMIIC, and ISO further suggests that these systems offer complementary rather than interchangeable functions. The paper therefore proposes an ISO-Halal hybrid governance framework that separates normative Shariah authority from procedural and technical harmonisation. Such an approach may provide a more feasible pathway toward global halal interoperability than complete doctrinal unification. However, implementation remains conditional on Islamic institutional participation, capacity building, affordability, and voluntary stakeholder acceptance.

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1. INTRODUCTION

Halal certification has developed from a primarily domestic religious assurance mechanism into an important component of international food and consumer-product trade. As halal products move through increasingly complex cross-border supply chains, certification communicates not only religious compliance but also institutional credibility, process control, and market acceptability. Yet the governance of halal remains predominantly national or institution-specific. Countries and halal certification bodies apply different standards, recognition arrangements, audit procedures, and interpretations of selected Shariah issues. This diversity can serve legitimate local religious and legal needs, but it also produces a fragmented international certification landscape (Azam & Abdullah, 2020; Latif et al., 2014).

Fragmentation has practical consequences. Exporters serving multiple markets may be required to obtain multiple halal certifications, undergo repeat audits, adapt documentation, or meet different recognition requirements. The proliferation of certification bodies and logos can also make equivalence difficult to judge across jurisdictions, particularly when institutional competence and enforcement capacity vary. Previous literature therefore links the absence of greater harmonisation with higher compliance burdens, reduced certification interoperability, and uncertainty in global halal trade (Latif et al., 2019; Zailani et al., 2015). Existing regional and international initiatives, including OIC-SMIIC and ASEAN efforts, demonstrate substantial interest in common halal references. However, voluntary adoption, differences in legal and religious authority, and uneven implementation have limited the development of a universally accepted system.

The challenge is more complex than developing a technically superior standard. Halal certification operates at the intersection of Islamic jurisprudence, public authority, private certification, accreditation, industrial quality systems, and international trade. Differences concerning slaughter, stunning, alcohol-related substances, ingredients, and other contemporary issues can reflect legitimate jurisprudential diversity. At the same time, national halal institutions may regard certification as part of religious governance and consumer protection. Consequently, a model that requires all jurisdictions to relinquish existing interpretations or institutional authority is unlikely to be politically or religiously straightforward (Akbar et al., 2023; Fischer, 2011; Riaz & Chaudry, 2013).

This creates an important distinction between substantive and procedural harmonisation. Substantive harmonisation would require broad agreement on the religious rules that define halal in disputed areas. Procedural harmonisation, by contrast, concerns how certification systems demonstrate competence, impartiality, traceability, documentation, auditing consistency, risk control, and conformity assessment. The latter may be more achievable even where complete doctrinal uniformity is not. International standardisation may therefore be most useful when it creates interoperability between halal systems rather than attempting to centralise religious authority.

The International Organisation for Standardisation (ISO) is relevant to this discussion because it provides widely used international frameworks for management systems, standard development, and conformity assessment. Standards such as ISO 9001 and ISO 22000 illustrate process-based approaches to quality and food safety, while ISO/IEC conformity-assessment standards, including ISO/IEC 17065, establish requirements related to certification competence, impartiality, consistency, and accountability. These mechanisms are potentially relevant to halal certification because many areas of procedural assurance, such as auditing, documentation, traceability, accreditation, and certification-body competence,

can be standardised without requiring ISO to determine substantive Shariah rulings. ISO should therefore not be viewed as an alternative religious authority, but as a possible technical and procedural platform that could complement recognised Islamic institutions (ISO, 2023; Tieman, 2017).

Existing halal harmonisation initiatives, particularly those developed through OIC-SMIIC, already provide an important halal-specific and Shariah-oriented basis for standardisation. However, the continued coexistence of different national halal standards, recognition arrangements, certification procedures, and institutional requirements indicates that the existence of common halal standards alone has not produced full cross-border interoperability. Conversely, existing ISO-based conformity-assessment arrangements provide established mechanisms for assessing institutional competence and consistency but do not themselves determine halal requirements or possess independent Shariah authority. The unresolved governance gap therefore lies between these two functions: halal-specific normative authority on the one hand and internationally recognised procedural and conformity-assessment mechanisms on the other. Previous studies have discussed halal certification fragmentation, supply-chain integrity, management systems, and international standardisation, but comparatively less attention has been given to how these two institutional functions could be deliberately integrated to support mutual recognition without requiring complete doctrinal uniformity.

This study addresses that gap by examining whether a hybrid governance arrangement can integrate recognised Shariah authority with ISO-aligned procedural and conformity-assessment mechanisms. Rather than proposing ISO as a replacement for OIC-SMIIC or national halal authorities, the study conceptualises their roles as complementary: Islamic institutions retain authority over substantive halal requirements, while ISO-aligned mechanisms support competence, impartiality, auditing consistency, traceability, accreditation, and procedural comparability. Accordingly, the study pursues four objectives: (i) to identify the principal barriers limiting global halal harmonisation; (ii) to examine the potential role of ISO in reducing procedural fragmentation; (iii) to assess the feasibility and implications of an ISO-aligned approach for global halal certification; and (iv) to develop a conceptual ISO-Halal hybrid governance framework for procedural harmonisation and mutual recognition while preserving recognised Shariah authority.

2. METHODOLOGY

2.1 Research design and data sources

The study employed a qualitative, descriptive, and exploratory research design based on secondary-data document analysis. This approach was selected because the research problem concerns regulatory systems, religious governance, institutional authority, and international standardisation rather than individual behaviour or causal measurement. The analysis drew on academic literature, official standards and regulatory documents, and institutional and industry reports relevant to global halal governance and standardisation.

Academic literature was identified primarily through Scopus and Google Scholar using combinations of search terms including “halal harmonisation”, “halal standardisation”, “halal certification”, “global halal standards”, “OIC-SMIIC”, “ISO and halal”, “halal conformity assessment”, “halal accreditation”, “mutual recognition”, “Shariah interpretation”, and “halal auditor competency”. Searches were supplemented by reference-list screening of relevant publications and targeted searches of official institutional sources,

particularly ISO, OIC-SMIIC, Codex Alimentarius, and other organisations relevant to halal certification, accreditation, and international trade.

Three categories of sources were analysed. Documents were included when they: (i) directly addressed halal certification, halal standards, international harmonisation, Shariah-related differences, conformity assessment, accreditation, auditor competency, or mutual recognition; (ii) provided information relevant to the institutional roles of ISO, OIC-SMIIC, Codex, or national halal authorities; and (iii) were peer-reviewed academic publications or authoritative standards, regulatory documents, or institutional reports. The study was exploratory rather than a formal systematic review and did not involve interviews, surveys, or stakeholder fieldwork.

2.2 Thematic and comparative analysis

The selected documents were first read for familiarisation, after which recurring concepts relevant to halal harmonisation and international standardisation were assigned descriptive codes. Initial codes included differences in Shariah interpretation, certification authority, national sovereignty, recognition arrangements, stakeholder participation, institutional incentives, accreditation, laboratory and technical infrastructure, implementation capacity, auditor training, technical knowledge, Shariah competency, and audit interpretation.

The codes were then compared and grouped according to conceptual similarity into five broader barrier categories: (i) Shariah interpretation; (ii) certification authority and sovereignty; (iii) participation and institutional incentives; (iv) infrastructure and compliance capacity; and (v) auditor competency. For example, codes relating to jurisprudential positions and differences in halal rulings were grouped under Shariah interpretation. In contrast, codes relating to national authority, recognition arrangements, and regulatory control were grouped under certification authority and sovereignty. Similarly, codes concerning accreditation infrastructure, laboratory resources, financial capacity, and implementation capability were grouped under infrastructure and compliance capacity. These five categories were subsequently used to structure the principal barriers presented in Section 3.1.

A comparative analytical step was then undertaken to examine the distinct functions of Codex Alimentarius, OIC-SMIIC, and ISO. The comparison focused on institutional mandate, geographical reach, standardisation function, legal or voluntary status, conformity-assessment role, and relevance to mutual recognition. The study considered academic literature alongside official and institutional sources to assess how technical standardisation could complement, rather than displace, halal-specific and Shariah-based governance. As the study relies entirely on secondary sources, the resulting framework represents a conceptual assessment of institutional plausibility rather than empirical validation of stakeholder acceptance or implementation feasibility.

3. RESULT AND DISCUSSION

3.1 Structural barriers to global halal harmonisation

The analysis identified five interrelated barriers that explain why global halal harmonisation has remained limited. These barriers are not independent; jurisprudential diversity interacts with national authority, institutional incentives, resource disparities, and auditor competence. The resulting

fragmentation therefore cannot be resolved by issuing a new standard alone. The five barriers derived from the thematic analysis and their implications for global halal harmonisation are summarised in Table 1.

Table 1. Principal barriers to global halal harmonisation and their governance implications

Barrier	Key issue	Implication for harmonization
Shariah interpretation	Different jurisprudential positions on selected halal matters.	A single substantive rule may not obtain universal religious acceptance.
Certification authority and sovereignty	Halal is embedded in national religious, legal, or institutional structures.	External standardisation may be perceived as weakening domestic authority.
Participation and institutional incentives	International initiatives are largely voluntary and actors retain established recognition networks.	Common standards may be adopted unevenly even when technical agreement exists.
Infrastructure and compliance capacity	Laboratories, accreditation systems, training resources, and financial capacity differ across countries.	Equivalent written standards may still produce unequal implementation.
Auditor competency	Technical and Shariah expertise varies across certification systems.	Differences in audit interpretation can undermine trust and mutual recognition.

Legitimate jurisprudential diversity and the limits of substantive harmonisation

The first barrier concerns the interaction between legitimate jurisprudential diversity (ikhtilaf fiqhi) and differences in halal certification requirements across jurisdictions. Islamic jurisprudence recognises legitimate differences of scholarly opinion on certain contemporary halal matters, including slaughter and stunning practices, alcohol-related substances, ingredients, and other production issues (Akbar et al., 2023; Azam & Abdullah, 2021). Such differences should not automatically be characterised as inconsistencies, as they may reflect recognised jurisprudential positions within different schools of Islamic thought.

The governance challenge arises when these legitimate jurisprudential positions are translated into different national standards, fatwas, certification criteria, or recognition requirements. Once embedded within domestic halal governance systems, these positions become connected to religious legitimacy, regulatory authority, and certification practice. Consequently, full substantive harmonisation could require jurisdictions to accept rulings that differ from their established jurisprudential positions.

This distinction is important because not all variation within global halal certification requires elimination. Differences arising from legitimate *ikhtilaf fiqhi* should be distinguished from procedural inconsistencies relating to auditing, documentation, accreditation, competence, and certification implementation. A global framework that selects a single interpretation for every disputed religious issue may privilege jurisprudential positions and encounter resistance from authorities that recognise alternative valid opinions. Harmonisation may therefore be more feasible when it preserves legitimate jurisprudential diversity while seeking greater consistency in procedural and conformity-assessment requirements. This supports a shift from complete doctrinal uniformity towards procedural equivalence, compatibility, and mutual recognition.

Fragmented authority, sovereignty, and recognition

A second barrier is the fragmented structure of halal authority. In several Muslim-majority jurisdictions, halal certification is closely connected to government institutions, religious councils, legislation, or nationally recognised authorities. In many Muslim-minority markets, certification may

instead be provided by multiple private or semi-private halal certification bodies. These different governance models generate overlapping recognition systems and make it difficult to identify a single institution with global religious authority (Fischer, 2011; Latif et al., 2014).

Certification also creates institutional value. Governments may use halal systems to protect consumers and regulate market access, while certification bodies rely on their recognition networks as a source of legitimacy and commercial position. This helps explain why bilateral or selective recognition arrangements may be preferred over universal institutional centralisation. The central governance problem is therefore not simply the absence of a single global halal authority. Given the diversity of national legal systems, religious institutions, and accepted jurisprudential positions, the creation of one universally authoritative body may neither be realistic nor necessary. The more immediate challenge is the absence of an effective architecture through which existing legitimate halal authorities can assess, compare, and recognise one another's certification systems with confidence.

Accordingly, global halal harmonisation may be better pursued through structured mutual recognition rather than institutional centralisation. Such an approach would allow national and Islamic authorities to retain responsibility for substantive Shariah requirements while establishing common procedural criteria for determining whether foreign certification systems are sufficiently competent and comparable. The objective is therefore not to create a single global religious authority, but to develop a credible recognition architecture that enables cooperation among multiple legitimate authorities without requiring complete uniformity in their religious or legal frameworks.

Uneven participation and institutional commitment

The review further indicates that international halal initiatives depend heavily on voluntary participation. OIC-SMIIC and regional efforts demonstrate that common references can be developed, but adoption and implementation differ between members. Countries with mature national systems may have limited incentives to replace arrangements that already support domestic regulation and export recognition, while private certification bodies may be reluctant to surrender established procedures or brand differentiation. These institutional incentives can slow harmonisation even when stakeholders acknowledge the general benefits of greater alignment (DinarStandard, 2022; Zailani et al., 2015).

Capacity disparities and the implementation gap

A fourth barrier concerns disparities in institutional and technical capacity among halal certification systems. Effective halal assurance increasingly depends not only on written standards but also on adequate numbers of qualified personnel, competent testing laboratories, accreditation mechanisms, reliable information systems, traceability infrastructure, and financial resources. These requirements are reflected in the OIC-SMIIC conformity-assessment framework itself. OIC/SMIIC 2:2019 establishes competence and resource requirements for halal certification bodies, while OIC/SMIIC 3:2019 addresses halal accreditation bodies. OIC/SMIIC 35:2020 further specifies competence requirements for laboratories performing halal testing, demonstrating that credible halal certification depends on a wider technical infrastructure beyond the certification standard alone (SMIIC, 2019a, 2019b, 2020).

Halal-specific studies also indicate that such resources may be uneven even within established certification systems. In Malaysia, Muhammad et al. (2020) identified lack of manpower, limitations in auditor skills and knowledge, problems with the MYeHALAL system, and difficulties in processing certification applications as challenges faced by halal certification authorities. Similarly, Harun et al. (2024)

reported operational challenges among halal auditors in Kelantan involving documentation, raw-material assessment, limited equipment, and time constraints. These examples illustrate that equivalent written requirements do not necessarily result in equivalent implementation when institutional resources and technical support differ.

More broadly, international conformity-assessment studies emphasise that laboratories, accreditation systems, technical expertise, and related quality infrastructure are essential for participation in global value chains but may be difficult to maintain in resource-constrained environments (International Trade Centre, 2016, 2019). Harmonisation therefore requires capacity building alongside standard development. Without comparable implementation capacity, adoption of a common standard alone may not produce equivalent certification outcomes and could disadvantage smaller or less-resourced certification systems.

Auditor competency as a determinant of equivalence

Auditor competency emerged as a related but distinct barrier. Halal auditing requires a combination of Shariah knowledge and technical expertise because auditors may need to evaluate complex ingredients, processing technologies, food-safety controls, traceability systems, biotechnology-derived materials, pharmaceuticals, cosmetics, and other specialised production processes. OIC/SMIIC 2:2019 explicitly requires halal certification bodies to define competency criteria, evaluate the competence and performance of personnel involved in certification activities, and maintain sufficient competent auditors to undertake the required workload. The existence of OIC/SMIIC 34:2020, which specifically addresses certification of persons involved in halal-related activities, further demonstrates the importance placed on personnel competence within the halal conformity-assessment system (SMIIC, 2019; SMIIC, 2020).

Empirical evidence from Malaysia illustrates the practical implications of this requirement. Muhammad et al. (2020) reported that halal certification authorities faced difficulties associated with auditors' technical skills and knowledge, particularly when evaluating unfamiliar or newly introduced raw materials. The study also highlighted the need to combine Shariah expertise with scientific and technical knowledge within halal audit teams. Similarly, Harun et al. (2024) found that auditors faced challenges associated with modern food production, raw-material and ingredient assessment, documentation, and limited exposure to increasingly complex food technologies. Such findings indicate that auditor competency is not simply a matter of understanding halal jurisprudence; it also requires sufficient technical knowledge to evaluate whether contemporary materials and processes comply with halal requirements.

Consequently, differences in auditor training, disciplinary background, technical exposure, and audit interpretation may affect the consistency of certification outcomes, particularly as halal auditing increasingly requires the assessment of complex ingredients, processes, and supply chains (Harun et al., 2023; Muhammad et al., 2020; Umar & Parakkasi, 2025). Standardised competency expectations, multidisciplinary audit teams, continuing professional development, and mechanisms for assessing auditor competence are therefore important components of procedural equivalence and mutual recognition.

3.2 The potential role of ISO

A non-theological platform for procedural coordination

ISO offers several institutional features that are relevant to the barriers identified above. The ISO standards are developed through national standards bodies and technical committees using consultation and consensus-oriented procedures. Although these processes do not eliminate political, technical, or

institutional differences, they provide an established international mechanism through which participating jurisdictions can negotiate common technical requirements (Abbott & Snidal, 2001; ISO, 2023). In the context of halal governance, ISO is therefore better understood as a non-theological procedural platform rather than as a neutral authority in an absolute sense. Its relevance lies in its ability to facilitate technical standardisation without independently determining substantive Shariah rulings.

This distinction is important. ISO should not determine what is halal or haram, nor should it replace recognised Islamic institutions or national halal authorities. Its more appropriate role is to provide technical and procedural architecture for aspects of halal certification that are amenable to international standardisation, including documentation systems, auditing processes, competence requirements, impartiality, traceability, risk management, and conformity assessment. Recognised religious authorities would continue to define halal requirements and determine whether technical procedures adequately safeguard those requirements. In this configuration, ISO functions as a supporting procedural mechanism that complements, rather than substitutes for, Shariah-based halal governance.

Conformity assessment, accreditation, and mutual recognition

A major potential contribution of ISO lies in conformity assessment. Internationally aligned requirements for certification and accreditation provide a basis for judging whether institutions operate with sufficient competence, consistency, and impartiality. In this context, ISO/IEC 17065 is particularly relevant to product certification bodies. Alignment with such frameworks could give halal authorities a common technical basis for assessing foreign certification bodies, thereby supporting mutual recognition without requiring identical religious rulings in every jurisdiction (Latif et al., 2019; Tieman & Darun, 2017).

The benefit is better described as increased recognition potential rather than automatic certificate portability. Mutual recognition still requires confidence in Shariah governance, local legal acceptance, and institutional agreement. Nevertheless, common conformity-assessment structures can reduce uncertainty about how certification bodies operate and can narrow the scope of differences that importing authorities need to evaluate. Evidence from wider international standardisation shows that cooperation in accreditation can reduce information asymmetry and support trade (Blind et al., 2018).

Alignment with quality, food safety, and halal assurance systems

ISO management-system standards also align with many operational elements of halal assurance. ISO 9001 emphasises documented processes and continual improvement, while ISO 22000 provides a structured food-safety management approach. Halal assurance similarly depends on supplier control, traceability, prevention of contamination, verification, corrective action, and clear responsibility. Integrating these functions can reduce parallel documentation and make halal controls more auditable within existing organisational systems (Haleem et al., 2018; Tieman, 2017; Zailani et al., 2017).

The value of such alignment is therefore operational rather than theological. ISO can help standardise how an organisation demonstrates control, while Islamic authorities continue to define which materials, processes, and conditions are religiously acceptable. This division of roles directly addresses the tension between the global need for certification comparability and the legitimate persistence of national or jurisprudential diversity.

3.3 Comparative positioning of Codex Alimentarius, OIC-SMIIC, and ISO

The comparison of Codex Alimentarius, OIC-SMIIC, and ISO reinforces the conclusion that global halal governance cannot be reduced to a choice between competing standard setters. Each framework provides a different form of legitimacy and institutional capacity. According to Table 2, Codex is globally influential in food safety and trade; OIC-SMIIC is specifically grounded in halal and Islamic standardisation; and ISO has extensive technical, management-system, and conformity-assessment infrastructure. Their functions are therefore more complementary than interchangeable.

Table 2. Comparative roles of Codex Alimentarius, OIC-SMIIC, and ISO in halal-related governance

Dimension	Codex Alimentarius	OIC-SMIIC	ISO
Primary orientation	Food safety and international food-trade guidance	Halal and Shariah-based standards for OIC contexts	Technical, management-system, and conformity-assessment standardization
Institutional basis	FAO and WHO	Organisation of Islamic Cooperation	National standards bodies and international technical committees
Geographical relevance	Global	Primarily OIC member states	Global and cross-sectoral
Religious legitimacy	Limited; not a halal religious authority	Strongest halal-specific institutional mandate among the three	No independent Shariah authority
Certification / accreditation role	Limited focus on halal certification structures	Supports halal standardization and recognition among participating members	Extensive conformity-assessment and management-system infrastructure
Potential contribution	Food safety and trade reference	Shariah legitimacy and halal-specific requirements	Procedural compatibility, competence, accreditation, and system consistency

Source: Authors' synthesis based on FAO (2018), Latif et al. (2019), ISO (2023), and (SMIIC, 2019a; SMIIC, 2019b)

This comparison suggests that positioning ISO as a replacement for OIC-SMIIC would be conceptually inappropriate. ISO has no mandate to determine substantive Shariah requirements, whereas SMIIC operates as an OIC-affiliated intergovernmental standardisation body with an explicit mandate to develop common standards for OIC Member States, including halal-specific standards developed within an Islamic normative context (SMIIC, 2019a; SMIIC, 2019b). OIC/SMIIC 1:2019 establishes general requirements for halal food, while OIC/SMIIC 2:2019 and OIC/SMIIC 3:2019 address halal certification and accreditation, respectively. The development of these standards also involves engagement with the International Islamic Fiqh Academy, thereby connecting halal standardisation with recognised Islamic jurisprudential expertise. At the same time, differences among national halal standards and recognition arrangements remain, indicating that the existence of an OIC-level standardisation platform has not by itself produced universal harmonisation or cross-border recognition (Abdallah et al., 2021; Azam & Abdullah, 2021; Hakim & Amaliyah, 2024).

The relationship between OIC-SMIIC and ISO should therefore be understood as complementary rather than substitutive. Notably, OIC/SMIIC 2:2019 itself draws substantially on ISO/IEC 17065 and related ISO conformity-assessment standards, demonstrating that halal-specific requirements and internationally established conformity-assessment principles can operate within the same certification architecture (SMIIC, 2019b). As illustrated in Figure 1, the proposed framework extends this complementarity by identifying a functional interface between halal-specific normative requirements and internationally

recognised technical and conformity-assessment mechanisms. Recognised Islamic institutions would continue to determine substantive Shariah requirements. At the same time, ISO-aligned mechanisms could provide a broader procedural basis for demonstrating certification competence, impartiality, audit consistency, documentation, traceability, and institutional performance. The proposed framework therefore does not seek to replace existing OIC-SMIIC arrangements, but to conceptualise how halal-specific governance and internationally established conformity-assessment infrastructure could interact to support procedural equivalence and structured mutual recognition across jurisdictions.



Fig. 1. Complementary roles of OIC-SMIIC and ISO in the proposed ISO-Halal hybrid governance framework for procedural harmonisation, mutual recognition, and cross-border interoperability.

Source: Developed based on the ISO and OIC-SMIIC Standards

3.4 Feasibility and implications of an ISO-aligned halal framework

Institutional feasibility

Institutionally, an ISO-aligned approach is plausible because it does not require the creation of a single global religious authority. ISO could function as a coordinating and technical platform while national halal authorities, fatwa institutions, and OIC-SMIIC retain responsibility for substantive religious requirements. This decentralised arrangement is more compatible with existing halal governance than a centralised model. However, feasibility depends on meaningful participation by recognised Islamic scholars and institutions in the design and validation of any halal-related international standard. Without such participation, technical legitimacy would not translate into religious legitimacy.

Technical and operational feasibility

Technically, compatibility is relatively strong because many halal assurance activities already resemble established management and conformity-assessment practices. Process control, traceability, supplier verification, audit evidence, corrective action, and risk-based monitoring can be expressed through standardised operational requirements. The main constraints are implementation capacity, auditor training, and the need to accommodate jurisdiction-specific Shariah requirements. A modular structure, in which common procedural requirements are combined with clearly identified national or religious requirements, may therefore be more workable than a single undifferentiated standard.

Economic and trade implications

Economically, greater procedural equivalence could reduce some of the duplication currently experienced by firms that serve multiple halal markets. More comparable audits, accreditation, and documentation may lower the need to repeat the same technical verification for different authorities, improve predictability, and facilitate market access. These benefits are likely to be greatest for exporters and multinational firms already operating ISO-based management systems (Blind, 2016; Henson & Humphrey, 2015).

However, adoption costs must be considered. Smaller certification bodies and small and medium-sized enterprises may face additional expenditure for documentation, training, accreditation, or system development. If harmonisation is implemented without technical assistance and phased adoption, it could reproduce existing inequalities rather than reduce them. The analysis therefore supports gradual and voluntary adoption accompanied by capacity building, rather than immediate mandatory implementation.

3.5 Proposed ISO-Halal hybrid governance framework

The combined findings support a hybrid governance model built on a separation of functions. The central proposition is that global halal harmonisation does not require every country to adopt identical religious rulings. Instead, the international system can harmonise the technical architecture through which halal decisions are implemented, audited, and recognised. This shifts the policy objective from uniformity to mutual recognition. Drawing together the five barriers identified in Section 3.1 and the comparative institutional analysis in Sections 3.2–3.4, the study proposes the five-layer governance architecture shown in Figure 2 and Table 3.

Figure 2 translates the barriers identified through the thematic analysis into a layered governance architecture. Layers 1 and 2 respond primarily to jurisprudential diversity and the need to preserve recognised religious authority by locating substantive Shariah decision-making and halal-specific standard requirements within competent Islamic institutions and OIC-SMIIC-related structures. Layer 3 addresses procedural fragmentation and differences in certification competence through ISO-aligned conformity-assessment mechanisms, while Layer 4 addresses implementation disparities through structured halal assurance, traceability, supplier control, risk management, monitoring, and corrective action. Layer 5 responds to concerns relating to national sovereignty and fragmented recognition by retaining national implementation authority while creating a basis for recognising procedurally comparable foreign halal systems. Collectively, the five layers connect Shariah legitimacy, technical competence, operational implementation, and national recognition without requiring the creation of a single global religious authority.

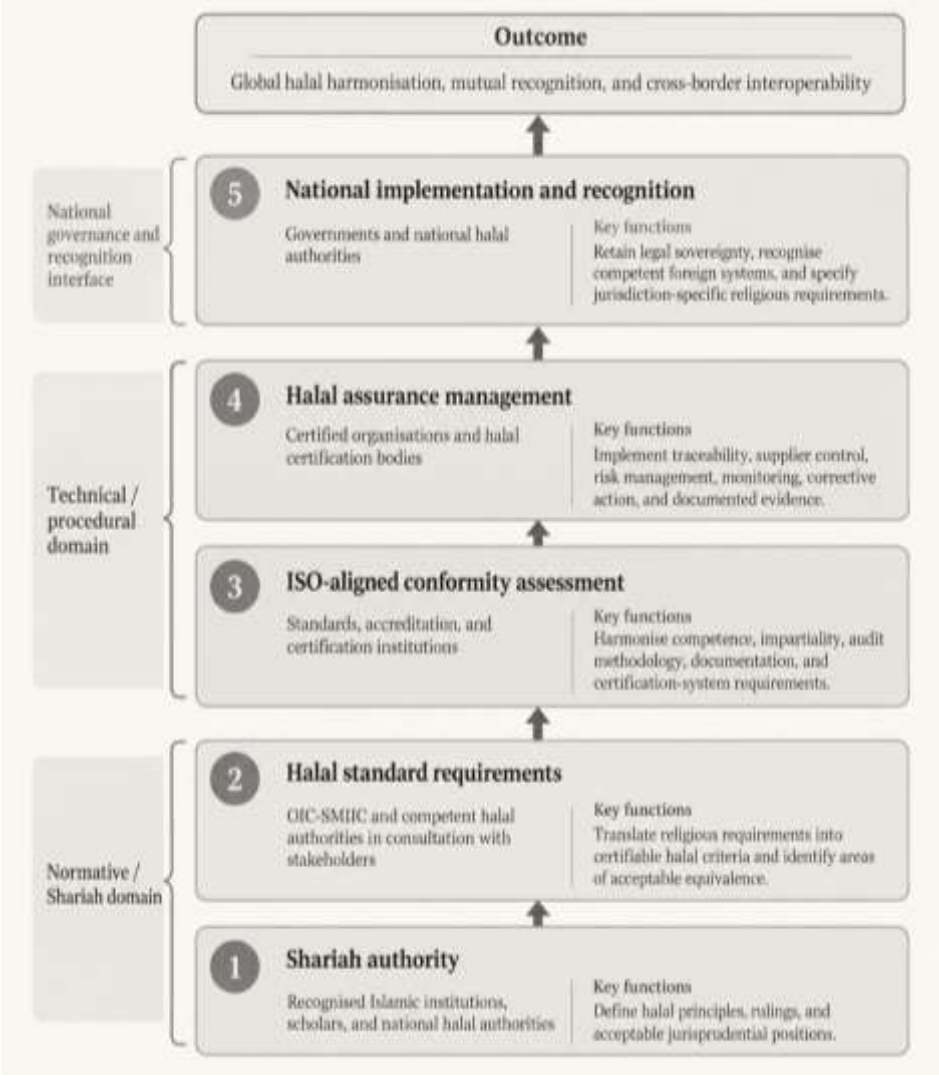


Fig. 2**.** Five-layer ISO-Halal hybrid governance framework for procedural harmonisation and mutual recognition.

Source: Develop by the Author

The framework offers several potential advantages (Table 3). First, it preserves the primacy of Shariah authority by ensuring that technical standardisation does not determine matters of halal and haram. Second, it provides a common procedural basis for certification bodies, accreditation agencies, and industry, which may improve comparability between halal certification systems. Third, it supports mutual recognition based on demonstrable institutional competence and procedural equivalence rather than requiring all jurisdictions to adopt identical religious rulings. Finally, the framework allows gradual adoption, as jurisdictions may align selected technical and conformity-assessment components while retaining their existing Shariah positions and national regulatory structures.

The framework also reframes the meaning of a "global halal standard." Rather than a single universal document that eliminates national or jurisprudential differences, global harmonisation may be better understood as a coordinated governance arrangement based on shared procedural requirements, transparent jurisdiction-specific provisions, harmonised conformity assessment, and structured mutual recognition. This approach accommodates legitimate jurisprudential diversity while providing a common basis for greater consistency and cross-border confidence in halal certification.

Table 3. Proposed ISO-Halal hybrid governance framework

Layer	Primary responsibility	Indicative function
1. Shariah authority	Recognized Islamic institutions, scholars, and national halal authorities	Define halal principles, rulings, and acceptable jurisprudential positions.
2. Halal standard requirements	OIC-SMIIC and competent halal authorities in consultation with stakeholders	Translate religious requirements into certifiable halal criteria and identify areas of acceptable equivalence.
3. ISO-aligned conformity assessment	Standards, accreditation, and certification institutions	Harmonize competence, impartiality, audit methodology, documentation, and certification-system requirements.
4. Halal assurance management	Certified organizations and halal certification bodies	Implement traceability, supplier control, risk management, monitoring, corrective action, and documented evidence.
5. National implementation and recognition	Governments and national halal authorities	Retain legal sovereignty, recognize competent foreign systems, and specify jurisdiction-specific religious requirements.

3.6 Implications for policy, industry, and research

For policymakers, the findings from document analysis suggest that harmonisation efforts should prioritise recognition architecture and implementation competence alongside substantive standards. International dialogue should focus on identifying which requirements genuinely require common religious agreement and which can be managed through equivalence or documented national variation. Collaboration between ISO, OIC-SMIIC, national halal authorities, accreditation bodies, and industry may therefore be necessary to avoid either technical domination or fragmented religious governance.

For industry, an ISO-aligned approach could simplify the integration of halal assurance with existing quality and food safety systems. Shared documentation and audit structures may reduce administrative duplication, strengthen traceability, and improve confidence among international buyers. However, these anticipated benefits are theoretically derived implications of the proposed framework rather than empirically demonstrated outcomes of this study and therefore require further validation. Any potential benefits should also be evaluated against implementation costs, particularly for smaller firms and certification bodies.

For research, the study provides a conceptual foundation rather than empirical proof of adoption feasibility. Future work should test the proposed framework through interviews or Delphi studies involving Shariah scholars, OIC-SMIIC, ISO-linked national standards bodies, halal regulators, accreditation bodies, certification organisations, exporters, and consumer representatives. Comparative case studies could also examine where mutual recognition has succeeded or failed and identify which elements of conformity assessment most strongly influence cross-border trust.

4. CONCLUSION

Global halal certification remains fragmented because of jurisprudential diversity, national sovereignty, institutional differences, uneven implementation capacity, and variations in auditor competency. The findings suggest that the central challenge is not simply the absence of a single global halal authority, but the lack of an effective architecture for procedural equivalence and mutual recognition among existing halal authorities. The main original contribution of this study is the proposed ISO-Halal hybrid governance framework, which functionally connects recognised Shariah authority with technical and procedural harmonisation. The framework extends existing halal governance literature by linking discussions of jurisprudential diversity and fragmented halal authority with the broader concepts of conformity assessment, procedural equivalence, and structured mutual recognition. In practice, it provides a basis for OIC-SMIIC, national halal authorities, accreditation bodies, and ISO-aligned systems to perform complementary roles while preserving national and religious authority. As the framework is derived from document analysis, its practical benefits and institutional acceptability remain to be empirically validated.

5. ACKNOWLEDGEMENTS/FUNDING

The authors would like to acknowledge the support of the Academy of Contemporary Islamic Studies, Universiti Teknologi MARA (UiTM), Shah Alam, Selangor, Malaysia, for providing the academic facilities and guidance that made this research possible.

6. CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest. The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests.

7. AUTHORS' CONTRIBUTIONS

Muhammad Mujahid Bin Zulkarnain conducted the original document collection and analysis and prepared the initial thesis-based draft. Dr Farhaneen Afzal Mazlan supervised the original research and contributed to conceptualisation, interpretation, manuscript review, and revision. Dr Noorul Huda Sahari contributed to manuscript review and scholarly refinement.

8. DECLARATION OF GENERATIVE AI IN THE WRITING PROCESS

During the preparation of this work, the author(s) used Grammarly to improve the grammar, clarity, and readability of the manuscript. After using this service, the author(s) reviewed and edited the content as needed and take full responsibility for the content of the publication

9. DATA AVAILABILITY/SUPPLEMENTARY MATERIALS

All data generated or analysed during this study are included in this published article.

10. ETHICS STATEMENT

I testify that our submitted article followed ethical principle and obtained Research ethic approval from the Research Ethics Committee.

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