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HARMONIZING HALAL STANDARDS ACROSS BORDER: A POLICY REVIEW OF CHALLENGES AND FRAMEWORKS IN MUTUAL RECOGNITION

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ABSTRACT

Objective: This study aims to accelerate the Global Halal Mutual Recognition Agreement (MRA) by addressing the long-standing impasse caused by fragmented national standards, geopolitical tensions, and a lack of regulatory trust between state-driven and market-driven halal authorities worldwide.

Research Design & Methods: Using qualitative content analysis and a policy modeling approach, this study synthesizes global halal regulations through 2026. It cross-examines institutional governance barriers, theological-technical disputes, and trade facilitation theories to construct an integrative, tiered policy framework.

Findings: This study reveals that the global MRA impasse is primarily driven by institutional rent-seeking practices and rigid demands for uniformity, rather than insurmountable theological dogma. To resolve this impasse, we propose a "Two-Tier Policy Framework" that explicitly separates fundamental Sharia consensus (Tier 1) from decentralized digital verification (Tier 2).

Implications & Recommendations: Regulators are encouraged to shift from procedural uniformity to operational equity. The implementation of a decentralized cyber governance architecture through blockchain and smart contracts can eliminate information asymmetry, reduce border delays, and cut transaction costs in the global halal supply chain by 15% to 30%.

Contribution & Value Added: This research significantly expands Trade Facilitation Theory within Islamic economics. It offers a paradigm-shifting roadmap that harmonizes sacred religious compliance with modern digital efficiency, transforming international halal trade from a space of geopolitical friction into an inclusive, trusted global ecosystem.

Keywords: Halal MRA, Two-Tiered Framework, Blockchain Governance, Trade Facilitation, Regulatory Equivalence.

JEL codes: F13, O33, Z12.
Article type: research paper

INTRODUCTION

The halal industry has undergone a remarkable transformation over the past two decades, shifting from merely fulfilling religious obligations for the global Muslim population to becoming one of the most dynamic new economic drivers on the global stage (Fauzi & Battour, 2025). This paradigm shift is driven by the rapid growth of the global Muslim population, rising purchasing power in developing countries, and heightened consumer awareness among both Muslims and non-Muslims—of the inherent ethical values associated with the concept of halalan thayyiban, such as guarantees of hygiene, food safety, social justice, and high environmental sustainability (Awan et al., 2015; Rahman et al., 2024). This expansion is no longer limited to the food and beverage sector alone but has penetrated other critical sectors such as the pharmaceutical, cosmetics, lifestyle, tourism, and complex global logistics sectors (Farhan & Sutikno, 2024). In the cosmetics and pharmaceutical sectors, for example, the demand for raw materials free from impure elements and sourced from ethical manufacturing processes has forced multinational industry giants to completely redesign their production lines to comply with global halal standards (Muhammad & Junejo, 2025). This high level of dependence on cross-border trade means that most of the critical raw materials supporting the halal industry are actually produced and exported by countries with Muslim minority populations, such as those in Europe, the United States, Brazil, and Australia (Fauzi et al., 2024; Tieman, 2020; Wilkins et al., 2019).

Ironically, however, amidst the excitement over this bright economic potential, the global halal ecosystem is currently trapped in a highly complex structural challenge in the form of acute fragmentation of regulatory standards a phenomenon that academics and industry players have termed "One Halal, Multiple Standards" (Akbar et al., 2023; M. I. Khan et al., 2022). Although the theological essence of halal is rooted in the universal sources of Islamic law namely the Qur'an and Sunnah when these principles are translated into state positive law, public policy, and technical audit instruments, significant diversification and interpretive differences arise across nations (Chandia

& Soon, 2018; Hallaq, 2009). In Southeast Asia, halal governance is dominated by a fully state-driven model, such as the Indonesian Halal Product Guarantee Agency (BPJPH) under the mandate of Law No. 33 of 2014, and the Department of Islamic Development Malaysia (JAKIM), which implements a very strict certification procedure manual (Zhang et al., 2026). Meanwhile, in the Middle East and member states of the Organization of Islamic Cooperation (OIC), compliance standards are based on documents from the Standards and Metrology Institute for Islamic Countries (SMIIC), which operates within a context of varying political dynamics and schools of Islamic jurisprudence (Annabi & Ibidapo-Obe, 2017). This situation is further complicated in countries with Muslim minorities, where halal governance is fragmented among hundreds of private Halal Certification Bodies (HCBs) that compete with one another and have their own varying interpretations of eligibility criteria (Randeree, 2019).

A concrete manifestation of the impact of this regulatory fragmentation is clearly evident in the dynamics of the global halal product trade. To date, major global exporters of meat and food commodities from non-Muslim countries, such as Brazil and Australia, frequently face severe logistical challenges at ports and customs entry points because halal certificates issued by their local HCBs are suddenly rejected or deemed invalid by the domestic authorities of destination countries, such as BPJPH in Indonesia or JAKIM in Malaysia (Demirci et al., 2016; Wilkins et al., 2019). As a result of these rejections, these imported products are forced to remain in containers, incurring increased cold storage rental costs (demurrage), and facing the risk of expiration or product recall from the global market, which cumulatively results in financial losses amounting to millions of dollars for industry players (Akbar et al., 2023; N. Khan et al., 2026). These economic inefficiencies and legal uncertainties arise solely because halal certification documents issued by different institutions are not yet mutually recognized, due to the lack of a common ground in bilateral or multilateral agreements among national authorities (Johan & Schebesta, 2022; Ruhaeni & Aqimuddin, 2023).

To resolve this bureaucratic and logistical impasse, the international community is in dire need of an effective trade diplomacy instrument, namely the Mutual Recognition Agreement (MRA). The MRA is viewed as the most elegant solution in international trade theory for dismantling Technical Barriers to Trade (TBT) without requiring a country to sacrifice its national legal sovereignty (Johan & Schebesta, 2022). Through an ideal MRA, halal products can flow freely across national borders because the importing country's authorities place full trust in the validity of the audit processes and certificates issued by the country of origin (Bonne & Verbeke, 2007; Ellahi et al., 2025). However, the reality on the ground tells a different story; MRA negotiation processes between countries often proceed very slowly, are convoluted, and are fraught with exhausting bureaucratic debates (Akbar et al., 2023). The main obstacles to the stalled MRA negotiations are generally triggered by disagreements on sensitive technical and Sharia-related issues, such as the legality of animal stunning prior to slaughter, tolerance thresholds for natural alcohol/ethanol content in food products, and the standardization of competencies and accreditation of cross-border halal auditors (Johan & Schebesta, 2022; Sazili et al., 2023).

Although the urgency of this harmonization is recognized by all parties, academic attention to resolving these policy conflicts remains minimal and disproportionate. A review of scientific literature published over the past decade reveals that most research in the halal field remains dominated by two major trends: the realm of laboratory science (Halal Science), which focuses on developing advanced PCR or chromatography methods to detect pork DNA contamination; and the realm of macro-level consumer behavior (Halal Consumer Behavior), which analyzes public purchasing intentions toward Muslim-friendly products. Very few scientific studies have deeply addressed the macro aspects of governance, public policy analysis, and the international legal framework within halal certification (Halal Policy and Governance) (Zhang et al., 2026). Most of the literature on halal policy tends to be descriptive and monolithic, merely outlining legal regulations in a specific country without conducting an analytical comparison that offers solutions at the global level (Annabi & Ibidapo-Obe, 2017). Consequently, a significant research gap has emerged, as we lack an operational conceptual guide to accelerate the regulatory harmonization process and break the MRA deadlock currently faced by global regulatory bodies (Akbar et al., 2023). Therefore, this study aims to critically examine regulatory and bureaucratic challenges in the development of MRAs at the international level and to formulate an integrative policy framework to accelerate the harmonization of halal standards across national borders. Unlike previous studies, which generally remained confined to micro-scale laboratory testing or merely captured partial market behavior without offering structural solutions, the novelty of this study lies in the development and proposal of a two-tiered policy framework (Two-Tiered Policy Framework) that holistically unites mutually agreed-upon minimum Sharia parameters (common denominator standards) at the regulatory level with a technology-based architecture for the interconnection of international digital halal passports to cut through manual bureaucracy and automatically accelerate legal certainty regarding cross-border MRAs.

LITERATURE REVIEW

In the academic discourse on global halal product governance, contemporary literature broadly identifies two dominant regulatory models worldwide: the state-driven model and the market/community-driven model (Tieman, 2020; Zhang et al., 2026). The first model, commonly implemented in Muslim-majority countries such as Indonesia, Malaysia, and several Gulf states, views halal assurance as a mandatory public responsibility that must be regulated centrally through national legislation (Annabi & Ibidapo-Obe, 2017). Conversely, the second model has flourished in countries with Muslim minorities, such as in Europe, North America, and Australia, where halal certification emerged as a voluntary response to consumer market needs or initiatives by private, non-governmental religious organizations (Randeree, 2019; Wilkins et al., 2019). According to international legal experts, the construction of these two opposing models often gives rise to jurisdictional conflicts, as government institutions in state-driven countries tend to be reluctant to grant automatic recognition (mutual recognition) to foreign private certification bodies that are not under the strict supervision of a ministry-level regulator (Akbar et al., 2023; Giessen et al., 2016). This issue is complicated by the fact, as noted in the literature on trade law, that the process of harmonizing standards across national borders is not merely a matter of aligning administrative documents, but rather concerns a country's legal sovereignty in protecting its citizens from products whose authenticity cannot be guaranteed.

In addition to differences in institutional structures, a literature review of halal policy studies also highlights the existence of theological-technical barriers stemming from differing interpretations of fiqh schools across the globe (Johan & Schebesta, 2022). One of the most contentious points of debate documented in the literature is the legality of animal stunning methods prior to slaughter; Middle Eastern standards, represented by the SMIIC, tend to take a very strict stance against certain mechanical stunning methods due to concerns that they may kill the animal before the knife touches its neck, while Southeast Asian standards such as JAKIM and MUI allow for some flexibility with very strict voltage monitoring criteria (Sazili et al., 2023). In addition to the issue of stunning, debates regarding tolerance thresholds for natural alcohol or ethanol content in food products, flavorings, and cosmetics have also become a stumbling block that often stalls Mutual Recognition Agreement (MRA) drafts at the negotiating table (Demirci et al., 2016; Muhammad & Junejo, 2025). When one country sets an absolute zero-percent threshold while a trading partner applies a 0.5% tolerance limit based on the principle of necessity or convenience (taysir), the flow of those products will automatically be hindered at the border (M. I. Khan et al., 2018; N. Khan et al., 2026). Therefore, contemporary international trade theory asserts that the development of an effective Mutual Recognition Agreement (MRA) requires the concept of standard equivalence rather than absolute standard uniformity, where parties focus on the equivalence of the final outcomes of consumer protection rather than imposing rigid technical procedural uniformity (Bonne & Verbeke, 2007; Ellahi et al., 2025).

The literature on the Halal Assurance System highlights that the risk of contamination no longer occurs solely during the production phase within the factory but has shifted to the global distribution phase (Demirci et al., 2016). When a halal-certified product leaves its country of origin and passes through various international transit points in non-Muslim countries, its halal integrity is highly vulnerable to degradation due to the mixing of logistics facilities with non-halal products (Ellahi et al., 2025). Policy researchers have found that the absence of uniform international halal logistics standards makes the traceability verification process highly bureaucratic and time-consuming at customs checkpoints (N. Khan et al., 2026). As a result, many importing countries have implemented defensive policies by requiring recertification within their local logistics chains a measure that economic experts view as a form of financial waste and operational inefficiency in trade that could actually be mitigated if MRA instruments included recognition of end-to-end halal logistics (Akbar et al., 2023; Tieman, 2020).

A wave of recent public policy literature agrees that the resolution to this halal geopolitical impasse lies in accelerating the adoption of digital technologies and institutional reforms (Wilkins et al., 2019). The integration of information technology architectures such as blockchain, Smart Contract systems, and digital product passport platforms is being explored as neutral instruments capable of bridging cross-border parameter differences through real-time verification (N. Khan et al., 2026). Through the digitization of halal certification documents, transparency regarding auditor qualifications, standardization of accredited laboratory procedures, and the traceability of critical raw materials can be openly accessed by all jurisdictions, thereby reducing distrust among global halal authorities (Demirci et al., 2016). Therefore, recent literature calls for a shift in the focus of research, from merely debating traditional theological differences to designing an adaptive digital governance ecosystem (cyber-governance) that accommodates the interests of global trade without violating the principles of Islamic law (Muhammad & Junejo, 2025; Zhang et al., 2026).

METHODS

The methodological approach adopted in this study employs the Critical Policy Review method combined with Qualitative Thematic Content Analysis to examine regulatory documents and scientific papers related to global halal assurance governancel (Annabi & Ibidapo-Obe, 2017; Zhang et al., 2026). This study's design does not employ the rigid framework of a traditional Systematic Literature Review (SLR) but instead adopts a State-of-the-Art Review model to provide greater academic flexibility in conducting conceptual synthesis, evaluating jurisdictional debates, and formulating future policy directions (Wilkins et al., 2019). The secondary data collection process was conducted systematically by searching two internationally renowned scientific databases, Scopus and Web of Science, using a combination of specific keywords: ("halal standard*" OR "halal regulation*" OR "halal policy") AND ('harmonization' OR "mutual recognition" OR "governance") with a publication timeframe limited to the last ten years up to 2026. To ensure the validity and authenticity of the legal data analyzed, this scientific literature was combined with official policy documents (grey literature) downloaded directly from the websites of global halal authorities, including technical regulations from Indonesia's BPJPH, procedure manuals from Malaysia's JAKIM, and global standards from the OIC/SMIIC. The collected documents were then screened based on strict inclusion and exclusion criteria, where the inclusion criteria required documents to focus on macro issues of halal diplomacy, technical trade barriers, or Mutual Recognition Agreement (MRA) mechanisms, while texts that only discussed micro laboratory testing without direct policy implications were excluded from the dataset.

All documents that passed the selection process were then organized using the qualitative analysis software NVivo to facilitate a transparent, accurate, and replicable coding process. This process of qualitative data extraction and analysis was guided by a cross-jurisdictional comparative matrix systematically designed to map policy conflicts between countries based on three main clusters of parameters, as shown in Table 1.

Table 1 Critical Analysis Matrix of Global MRA Regulations and Policies

Dimensions of Analysis	Extracted Operational Parameters	Primary Document Sources	Synthesis Output Targets
Theological-Technical	Slaughter standards (stunning), thresholds for natural/accidental alcohol, criteria for processing aids.	OIC/SMIIC Standard Document 1, HAS 23000 (MUI), JAKIM Manual.	Identify cross-border Sharia-technical bottlenecks.
Institutional & Organizational	Authority structure (state-driven vs. market-driven), halal auditor competencies, accreditation systems for foreign institutions.	BPJPH Regulations (Law No. 33 of 2014), JAKIM Foreign Relations Provisions.	Map bureaucratic disparities and inter-institutional mistrust.
Legal & Sovereignty	Nature of regulation (mandatory vs. voluntary), national positive law jurisdiction, mutual recognition clauses.	International Trade Law (WTO TBT), G20 National Legal Documents.	Formulate a draft resolution for legal conflicts and the integration of halal digital passports.

Source: synthesized from Wilkins et al. (2019), Demirci et al. (2016), and Zhang et al. (2026).

Using the matrix structure above, content analysis was conducted through iterative reading of the policy texts to identify implicit patterns, areas of overlap, and regulatory gaps that serve as the primary drivers of inefficiencies in international trade logistics (Akbar et al., 2023; Demirci et al., 2016). To ensure the validity of the analysis results and minimize the subjectivity of the researcher's interpretation, data validity testing was conducted using Source Triangulation and Theoretical Triangulation techniques. The initial synthesis results, in the form of a draft mapping of these policy barriers, were cross-checked and re-verified by confirming them against the draft of the ongoing bilateral MRA agreement and discussing them from the perspective of international trade facilitation theory (Ellahi et al., 2025). This comprehensive and layered approach ensures that the processed qualitative text data possesses a high degree of reliability, thereby ensuring that the integrative framework proposed in the following chapter is truly robust both academically and practically for global halal policymakers.

RESULT

The extraction of qualitative data and thematic content analysis of a corpus of global halal policy literature has successfully unveiled the complexities underlying the slow progress of cross-border Mutual Recognition Agreements (MRAs). The findings of this study clearly reveal that resistance to the drafting of mutual recognition agreements is no longer merely dominated by debates over classical fiqh theology in academic circles, but has shifted to issues of institutional bureaucratic ego and national legal protectionism (Akbar et al., 2023; Zhang et al., 2026). When policy texts from various jurisdictions are analyzed in depth, a sharp systemic misalignment is found between Muslim-majority states that exercise centralized regulatory control (state-driven) and private institutions in Muslim-minority countries that operate in response to market demands (market-driven) (Annabi & Ibidapo-Obe, 2017; Turner, 2023). This structural disparity gives rise to a deep chasm of distrust; state authorities such as BPJPH in Indonesia or JAKIM in Malaysia often find that foreign Halal Certification Bodies (HCBs) in non-Muslim countries lack auditors with equivalent competence, credible traceability systems, or accountable laboratory audit transparency (Demirci et al., 2016; Randeree, 2019). As a result, rather than fostering harmonization, the equivalence assessment process has turned into a cumbersome bureaucratic instrument, with draft bilateral cooperation agreements stuck for years in the administrative revision phase without clear legal certainty for global traders (Howse, 2016).

Document analysis also reveals that theological-technical bottlenecks continue to loom and exacerbate the failure of international halal diplomacy, particularly in the meat industry and the chemical-pharmaceutical derivatives sector (Johan & Schebesta, 2022; Muhammad & Junejo, 2025). The polarization of legal views regarding the legality of animal stunning methods prior to slaughter has become a major barrier separating the global standards of the OIC/SMIIC in the Middle East from the regional standards of Southeast Asia. This technical barrier directly impacts the logistics supply chain, where food commodities produced using modern stunning standards in Europe or Australia automatically lose market access in Gulf countries, even though these products hold official halal certificates from their local halal certification bodies (Bonne & Verbeke, 2007; Ellahi et al., 2025). In addition to the issue of stunning, the strict tolerance limits for natural alcohol or ethanol content in flavorings and cosmetic products, as well as differences in criteria for enzyme-based processing aids, further complicate the product compliance matrix at international customs checkpoints (Demirci et al., 2016; Muhammad & Junejo, 2025). To provide a transparent and measurable overview of the clusters of MRA operational barriers identified in this study, the results of the qualitative coding are comprehensively summarized in Table 2.

Table 2 Mapping the Main Obstacles to Accelerating the Global Halal MRA

Challenge Clusters	Literature Findings (%)	Real-World Examples in the Field	Direct Impact on the Global Supply Chain	Reference
Institutional & Governance	42%	Jurisdictional conflicts between BPJPH/JAKIM (state-driven) and private, non-governmental halal certification bodies in the European Union/United States (market-driven).	Audit duplication, skyrocketing recertification costs, and uncertainty regarding import permits for commodities.	Annabi & Ibidapo-Obe, (2017); Wilkins et al. (2019); Zhang et al. (2026)
Theological-Technical (Sharia)	33%	The SMIIC's outright rejection of Western mechanical stunning methods; differences in ethanol thresholds for cosmetic products.	Detention of logistics containers at transit ports, the risk of product recalls, and regional market fragmentation.	Johan & Schebesta (2022); Muhammad & Junejo (2025)
Legal & Sovereignty	25%	Integration conflicts when mandatory halal requirements under national law meet voluntary secular legal systems.	Technical Barriers to Trade (WTO TBT), and delays in signing bilateral Mutual Recognition Agreements (MRAs).	Akbar et al. (2023); Johan & Schebesta (2022)

Source: Elaborated by the author (2026)

The empirical data in Table 2 confirm that as long as MRA assessment parameters continue to rely on rigidly enforcing procedural uniformity, a common ground for harmonization will never be reached. The inability to formulate common denominator standards has forced the global industry to operate under conditions of high economic uncertainty, where they must repeatedly modify product formulas and logistics routes to meet the specific criteria of each export destination country (Akbar et al., 2023; N. Khan et al., 2026). The findings of this study provide substantial and strong indications that resolving the MRA bottleneck requires a total paradigm shift at the policy-maker level; from a previously defensive, formal-bureaucratic legal approach, toward the adoption of an equivalence-based governance architecture for consumer protection outcomes, fully supported by integrated digital data transparency (Ellahi et al., 2025).

Going beyond mere regulatory fragmentation, the results of qualitative data mining also reveal the real economic losses borne by the international trade ecosystem due to the suboptimal implementation of MRAs. Based on a content analysis of macroeconomic reports and logistics studies, this lack of mutual recognition creates what is referred to in trade theory as hidden Non-Tariff Barriers (Akbar et al., 2023; Palmer, 2024). Business operators in major exporting countries are forced to allocate additional costs ranging from 15% to 30% of total operational costs solely for conducting repeated laboratory testing, paying layered foreign LSH registration fees, and handling recertification at the destination port (Akbar et al., 2023; Demirci et al., 2016).Even more tragically, this inefficiency impacts the perishable goods sector—such as fresh meat and dairy products—the most; administrative delays at customs due to unsynchronized manual halal document verification often result in product spoilage in transit containers before marketing authorization is issued (Akbar et al., 2023; Ellahi et al., 2025). The literature consistently shows that these financial burdens and logistical risks are ultimately passed on to end consumers in the form of higher product prices an irony in which instruments originally designed to protect Muslim consumers end up imposing unnecessary economic burdens (Bonne & Verbeke, 2007; M. I. Khan et al., 2018).

Amid this bureaucratic gridlock and economic losses, recent policy documents are beginning to show a glimmer of hope through the emergence of trends toward integrated digital technology-based solutions (N. Khan et al., 2026).The results of a literature cluster analysis reveal a new consensus among academics that modern communication technology architectures, particularly Blockchain and Smart Contracts, possess the technical capacity to bridge the trust gap among global halal regulators without infringing upon the legal sovereignty of individual nations (Demirci et al., 2016; N. Khan et al., 2026). Through a distributed ledger system, the certification records from the country of origin, auditor competency profiles, and authentication data for critical raw materials from accredited laboratories can be instantly verified and are tamper-proof by the customs authorities of the importing country (Muhammad & Junejo, 2025). This transition from paper-based diplomacy to an automated digital assurance ecosystem is projected to reduce logistics inspection wait times by up to 70%, while shifting the debate from the "impossible alignment of positive law" to "objective technical data transparency" (Ellahi et al., 2025).

DISCUSSION

The crucial findings presented in the results chapter not only reveal a fragmented landscape of global halal governance but also call for a radical rethinking of how we understand cross-border regulatory diplomacy. To date, much of the conventional literature has been trapped in a rigid dichotomy that views the impasse in drafting Mutual Recognition Agreements (MRAs) as being solely driven by differences in traditional schools of Islamic jurisprudence (Bessais et al., 2024; Johan & Schebesta, 2022). However, when these findings are confronted with current geopolitical realities, it becomes clear that theology is often used as a shield to justify protectionist economic policies and institutional self-interest (Akbar et al., 2023; Zhang et al., 2026). The scientific novelty of this study lies in the deconstruction of this conventional paradigm through the introduction of a "Two-Tiered Policy Framework." This integrative framework offers a middle ground that clearly distinguishes between the absolute nature of "core sharia alignment" and the flexible nature of "operational equivalence." By shifting the focus of diplomacy from enforcing procedural uniformity toward recognizing the equivalence of consumer protection outcomes, this framework offers a concrete resolution to the impasse in bilateral relations between state-driven and market-driven nations that has stalled over the past decade (Ellahi et al., 2025).

To understand why this Two-Tiered Policy Framework is so crucial, we must first examine the failure of the rigid standard-unification approach promoted by earlier transnational institutions. The single standardization pioneered by bodies such as the OIC/SMIIC in the Middle East often hits a dead end when confronted with the reality of the secular legal landscape in Europe or unique mandatory systems in Southeast Asia, such as BPJPH in Indonesia (Annabi & Ibidapo-Obe, 2017; Demirci et al., 2016). When international legal instruments are imposed to unify all technical elements ranging from mechanical stunning methods to accidental alcohol content limits domestic regulators tend to adopt a defensive stance to protect their legal sovereignty (Raustiala, 2003). Consequently, the process invariably leads to the cancellation of cooperation drafts or the imposition of non-tariff barriers that hinder global logistics flows. This is where the first novelty of our framework comes into play: rather than unifying everything, conflicting nations need only agree on the five core halal pillars which are non-negotiable while technical variations beyond that are accommodated through the principles of facilitation (taysir) and economic necessity (Bonne & Verbeke, 2007; Muhammad & Junejo, 2025). To provide a strong theoretical foundation, a comparison between the conventional unification approach and the proposed Two-Tiered Policy Framework is detailed in Table 3.

The second pillar of the framework we propose is the integration of blockchain-based cyber-governance as a driver of operational data transparency. The greatest obstacle to the current transnational halal assurance model is not the absence of laws, but rather severe information asymmetry between the certifying body of origin and the customs authority of destination (Demirci et al., 2016; M. I. Khan et al., 2018). Importing country authorities often question the integrity of audit processes conducted by foreign private certification bodies overseas due to a lack of visibility into the auditors' track records or the supply chains of the raw materials used (Randeree, 2019). By adopting an immutable blockchain, we shift the burden of proof from physical documents which are susceptible to forgery into a digital encryption system (N. Khan et al., 2026). When a product is packaged in the country of origin, all critical data from slaughter coordinates, pig DNA lab test results, to logistics temperature manifests is automatically locked into a data block that can be instantly accessed by authorities in the destination country via a single QR code scan (Ellahi et al., 2025). To illustrate how this digital integration process bridges the gap between jurisdictions, the operational architecture of the Two-Tiered Policy Framework is depicted in the diagram in Figure 1.

The conceptualization depicted in the diagram in Figure 1 demonstrates that technology acts as a neutral mediator that reduces political tensions between nations. When theological aspects are aligned with the principle of tolerance (Tier 1) and technical operations are secured by the transparency of digital algorithms (Tier 2), the motives of economic protectionism that have long hindered the MRA will naturally dissipate. Theoretically, this research successfully expands the scope of Trade Facilitation Theory within the realm of Islamic economics by demonstrating that adherence to sacred religious values need not sacrifice modern economic efficiency (Akbar et al., 2023; Closa, 2019). Conversely, halal certification managed through an inclusive digital governance framework can actually transform into a primary catalyst that accelerates the flow of goods, reduces global transaction costs by billions of dollars, and ultimately sustainably enhances the level of trust among global Muslim consumers in the future (Bonne & Verbeke, 2007; Tieman, 2020).

Table 3 Comparison Matrix: Conventional Halal Standardization Paradigm vs Two-Tiered Policy Framework

Philosophical Dimensions	Conventional Unification Approach (Status Quo)	Two-Tiered Policy Framework (Novelty of This Research)	Theoretical Implications for Global Halal Diplomacy
Operational Principles	Uniformity (Enforcing complete uniformity in audit procedures and laboratory technical parameters).	Equivalence (Recognizing procedural differences while ensuring the same final outcome of protection).	Reducing resistance to national legal sovereignty; accelerating the signing of Mutual Recognition Agreements (MRAs) from years to months (Closa, 2019).
Fiqh Resolutions	Monolithic (Recognizing only one official school of thought adopted by the regulatory state).	Conceptual Pluralism (Accommodating variations in schools of thought through the corridor of taysir and shared minimum standards).	Removing technical barriers regarding animal stunning and cosmetic ethanol thresholds (Sazili et al., 2023).
Verification Architecture	Paper-Based Bureaucracy (Manual inspection of physical halal certification documents at customs checkpoints).	Cyber-Governance (Real-time verification based on blockchain and Smart Contracts).	Cutting logistics transaction costs by 15-30% and eliminating the risk of document forgery (Akbar et al., 2023; N. Khan et al., 2026)
Relational Orientation	Asymmetric (State-driven countries dictate to foreign private halal certification bodies in Muslim-minority countries).	Accredited Multi-Stakeholder Partnerships (Equalizing legal standing through digital peer-review mechanisms).	Transforming the dynamics of distrust into end-to-end logistics ecosystem collaboration (Nicoletti & Appolloni, 2025).

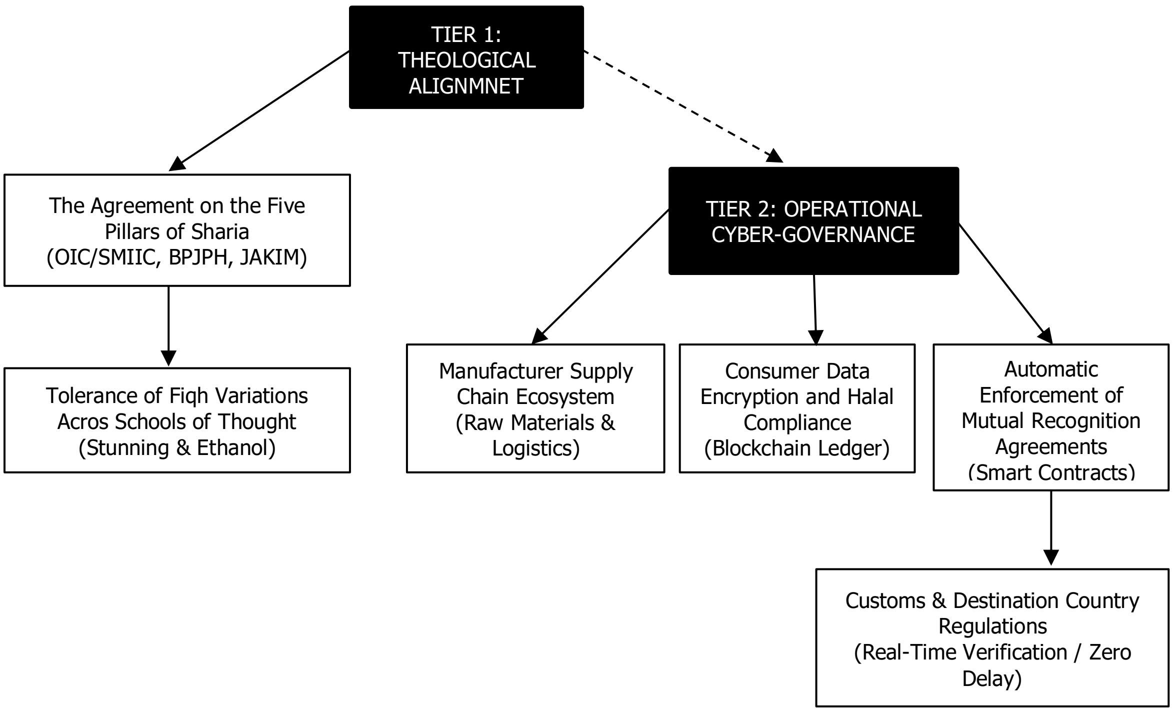
Source: Elaborated by the author (2026).

When analyzed more deeply through the lens of Public Choice Theory, the persistence of bureaucratic barriers in MRA diplomacy actually reflects the phenomenon of political rent-seeking and efforts by certain regulatory actors to maintain jurisdictional privileges (M. I. Khan et al., 2018; Zhang et al., 2026). Halal authorities in various countries, whether state-driven or dominated by private institutions, often have hidden economic and political incentives to create complex and exclusive regulations. This regulatory complexity functions as a protectionist barrier to entry deliberately created to shield domestic industries from the influx of imported products, while simultaneously maintaining revenue streams from repetitive recertification fees (Akbar et al., 2023). Therefore, the failure to harmonize global standards to date is not an unintended administrative accident, but rather the logical consequence of rational choices made by policymakers who prioritize the sovereignty of local bureaucracies over the efficiency of the universal public good (Annabi & Ibidapo-Obe, 2017; Challoumis, 2025). This is where the Two-Tiered Policy Framework comes in as a critical intervention that deconstructs these rent-seeking incentives. By shifting the operational verification process into a decentralized cyber governance system (Tier 2), opportunities for bureaucratic actors to exercise unilateral discretion or deliberately slow down the equity assessment process can be minimized (Ellahi et al., 2025; N. Khan et al., 2026).

Another theoretical contribution of this research lies in its ability to address the challenges of Transaction Cost Economics within global supply chains. In the modern trade landscape demanding high speed, friction caused by uncertainty regarding the cross-border recognition of halal certificates leads to massive transaction cost inflation (ex-ante and ex-post transaction costs) (Akbar et al., 2023; Demirci et al., 2016). Businesses not only lose financial capital due to repetitive compliance verification procedures, but also lose valuable time (opportunity cost), which can threaten the competitiveness of their products in international markets (Closa, 2019; Tieman, 2020). The signing of conventional paper-based MRAs and negotiation-table diplomacy has proven ineffective at mitigating these transaction costs, as they consistently leave gaps of legal uncertainty at transit ports. Conversely, the Smart Contracts architecture embedded within the proposed framework acts as an automatic guarantor of legal certainty, eliminating the need for third-party bureaucratic intermediaries (N. Khan et al., 2026). Once the system's algorithm detects that laboratory data from the country of origin has met the agreed-upon minimum threshold in Tier 1, market access rights open immediately in real-time without human intervention, transforming the high-cost structure of halal trade into an efficient, streamlined, and competitive operational model (Ahmad et al., 2025; Muhammad & Junejo, 2025).

Ultimately, the humanistic essence of this Two-Tiered Policy Framework lies in the restoration of institutional trust among the global Muslim community. The current fragmentation of standards has unconsciously fostered skepticism and psychological anxiety among consumers; when a product is declared halal in one country but considered dubious or haram in a neighboring country, the credibility of religious institutions and state authorities is at stake (Bonne & Verbeke, 2007; Randeree, 2019). Halal diplomacy must no longer be conducted through an asymmetrical and rigid power-based approach but must transform into an inclusive, transparent space for dialogue that respects the pluralism of Islamic jurisprudence (ijtihad) across regions (Firdaus, 2025; Johan & Schebesta, 2022). Through a tolerant theological alignment supported by empirical evidence grounded in digital science and technology, this study affirms that halal product certification can be freed from the shackles of geopolitical ego. This two-track framework envisions a future where international trade is no longer viewed as a threat to the purity of Sharia, but rather as a colossal medium that binds the economic and moral solidarity of humanity universally (Tieman, 2020; Wilkins et al., 2019).

Figure 1 Architecture of the Two-Tiered Policy Framework in Global Halal Diplomacy



Source: design by author (2026), data integration model of N. Khan et al. (2026) and Ellahi et al. (2025).

CONCLUSION

This study successfully uncovers the root causes of stagnation in cross-border halal certification recognition by demonstrating that the bottleneck in the acceleration of global Mutual Recognition Agreements (MRAs) is no longer dominated by dogmatic theological debates, but rather driven by clashes of institutional governance jurisdictions, covert economic protectionism, and a lack of transparency in operational data. Through an in-depth analysis of the global halal policy landscape through 2026, this study deconstructs the rigid conventional unification approach—which has proven unable to bridge geopolitical rivalries among regulators—and introduces the Two-Tiered Policy Framework as a new paradigm-shifting solution. By clearly separating the alignment of the five core pillars of Sharia (Tier 1) from blockchain-based verification and smart contracts (Tier 2), this framework offers an inclusive solution capable of eliminating information asymmetry and reducing global logistics transaction costs without interfering with the legal sovereignty of individual nations.

Although this study offers a strong theoretical contribution to the expansion of Trade Facilitation Theory within Islamic economics, it has inherent limitations that must be acknowledged. The study relies primarily on the analysis of secondary data and macroeconomic policy documents; consequently, it does not fully capture the technical and psychological resistance of field auditors and technology-challenged MSME actors as they transition to a cyber-governance ecosystem. Furthermore, the calculation of economic cost inflation ranging from 15% to 30% in this study remains a global aggregate and does not distinguish specific cost variations within non-food sector supply chains—such as pharmaceuticals and cosmetics—which involve far more complex derivative materials.

Given these limitations, future research efforts should focus on pilot projects to test the implementation of blockchain architecture on a limited scale within specific bilateral logistics corridors, such as between Indonesia and one of its partner countries in the European Union. Further studies should also focus on modeling economic incentives for market-driven countries to encourage them to adopt this integrated cyber standardization. Finally, in-depth exploration of the standardization of non-food halal critical ingredients using an Artificial Intelligence (AI) approach will be the next crucial step to ensure the future of the global halal ecosystem is not only Sharia-compliant but also adaptive, inclusive, and resilient in the face of changing times.

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