

## Key factors influencing the competitiveness of Indonesian halal product exports: A prospective analysis with MICMAC approach



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### ABSTRACT

Although Indonesia is the country with the largest Muslim population in the world and has great potential in the global halal industry, the competitiveness of Indonesian halal product exports still lags behind countries such as Malaysia and the United Arab Emirates. This study aims to identify the key factors that influence the competitiveness of Indonesian halal product exports and to develop strategic recommendations to strengthen its position in the global market. The study employs a prospective analytical approach using qualitative descriptive methods based on literature reviews, secondary data analysis, and stakeholder mapping through the MICMAC matrix. The findings reveal that variables such as institutional capacity, halal auditor quality, regulations, and inter-institutional collaboration are the primary drivers of the system, while factors like market demand and product innovation are significantly influenced by these conditions. In conclusion, institutional strengthening, standard harmonization, and collaborative strategies are key to enhancing competitiveness. Implications include the need for integrated cross-sectoral policies and long-term investment in the Halal Product Assurance ecosystem.

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### INTRODUCTION

As the country with the largest Muslim population, Indonesia has a strategic position in the development of the global halal industry. According to the State of the Global Islamic Economy report (Dinar Standard, 2023), the value of halal product consumption is estimated to reach USD 2.8 trillion by 2025, spanning the food, cosmetics, pharmaceuticals, fashion, and tourism sectors. This opportunity opens the door for halal-producing countries, including Indonesia, to expand their markets and contribute to the economy through halal exports (Jauhari, 2024). Despite its great potential, Indonesia's halal product exports are still less competitive than those of countries such as Malaysia, Thailand, and the United Arab Emirates. The World Halal Business Report assesses that Indonesia is less than optimal in terms of innovation, halal certification, infrastructure, and global market acceptance, indicating major challenges in utilizing national potential (Akttausyariah & Hidayat, 2024).

Internal factors such as product quality, innovation, sustainability, and international halal certification are crucial for boosting exports (Hakim, 2021; Wahyuni et al., 2023; Yuliawati et al., 2022). External factors such as trade dynamics, sustainable consumer preferences, and national image also influence the acceptance of halal products in global markets, including in non-Muslim countries (Aini & Go, 2025; Maulizah & Sugianto, 2024; Wahyuni et al., 2023). Multi-stakeholder collaboration and strengthening halal infrastructure, such as logistics, testing laboratories, and digital technology, are strategic elements (Azhari et al., 2025).

To address these dynamics, this study applies a Prospective Analysis Approach to forecast future developments and comprehensively understand the key factors of halal export competitiveness. This method explores the relationships between factors such as regulations, technology, and market preferences, and identifies critical uncertainties to design adaptive policy scenarios. A collaborative approach across various sectors enriches the analysis and supports resilient long-term strategies (Aini & Go, 2025). Although much research has examined halal export competitiveness, studies specifically focusing on Indonesia remain limited. Building on this gap, this research aims to analyze the driving factors that determine the competitiveness of Indonesian halal exports and to formulate strategies that can strengthen Indonesia's position in the global halal market.

This study originates from the urgency to understand the factors influencing the competitiveness of Indonesia's halal product exports in the global market. Although issues such as halal certification, quality standards, and market access have been widely discussed, most previous studies remain limited to descriptive or comparative analysis. The novelty of this research lies in the application of prospective analysis using the MICMAC method to identify the key driving factors that enhance export competitiveness, while also formulating their implementation strategies to strengthen Indonesia's position in the global halal market. Scientifically, this research contributes methodologically by presenting a structural analysis capable of mapping interrelationships among factors, thereby enriching the literature on halal economics and export competitiveness. Practically, the study is expected to generate relevant recommendations for the government, businesses, and other stakeholders, whether in the form of halal certification policies, infrastructure development, product innovation, or international trade diplomacy. Thus, this research not only offers academic contributions but also provides tangible benefits for developing national strategies to reinforce Indonesia's position as one of the leading players in the global halal industry.

## **RESEARCH METHOD**

### **Methods**

#### **1. Research Design**

This study uses a descriptive qualitative design to explore and understand the key factors that influence the competitiveness of Indonesian halal product exports. The focus is on analyzing secondary data from literature, academic journals, industry reports, and related statistical data. This approach was chosen to provide an in-depth understanding without manipulating data, as well as to identify trends, challenges, and opportunities in the global market.

#### **2. Population and Sample**

The research population includes all relevant documents and literature related to Indonesian halal product exports, including government policies and regulations. The sample was purposively selected from credible and up-to-date secondary sources, including:

- a. Academic journal articles (2020 – 2025) on halal industry competitiveness and strategies.
- b. International research reports such as the State of the Global Islamic Economy Report 2023/2024.
- c. Export data from the Ministry of Trade and the Indonesian Central Statistics Agency.
- d. Global halal market reports.

#### **3. Sample Collection**

Samples were selected using purposive sampling based on relevance, credibility (indexed journals and official reports), and recency (last 5 years) to ensure accurate and relevant information.

### **Data Analysis**

#### **1. Technique**

The study used prospective analysis to identify future trends and developments in Indonesia's halal export competitiveness through:

- a. Identifying key themes related to internal and external factors such as product quality, certification, policy, and global market demand;
- b. Mapping drivers, intermediaries, and outputs, including short- and long-term threats and opportunities;

Synthesizing and interpreting results to conclude key strategies and challenges, as well as recommendations for stakeholders in improving the competitiveness of halal product exports sustainably.

## 2. The Steps in MICMAC Analysis

The MICMAC (Matrice d'Impacts Croisés Multiplication Appliquée à un Classement) analysis was carried out through several steps to identify and classify the key factors influencing the competitiveness of Indonesian halal product exports. First, a set of strategic variables was identified based on literature reviews, secondary data, and stakeholder perspectives, covering institutional, regulatory, human resource, technological, and market aspects. Second, the direct influence matrix was constructed by evaluating the degree of influence each variable has over the others. The scoring was conducted using a scale from 0 (no influence) to 3 (strong influence), which reflects the strength of the causal relationship between variables. Third, the scores were aggregated to calculate the total influence and dependence of each variable. This process produced an overall structural map that highlights the systemic role of each factor. Finally, the variables were positioned in the MICMAC matrix according to their influence–dependence values and classified into four quadrants:

- a. Driving variables with strong influence but weak dependence,
- b. Linkage variables with both strong influence and strong dependence,
- c. Dependent variables with weak influence but strong dependence, and
- d. Autonomous variables with weak influence and weak dependence.

This systematic procedure allowed the study to identify institutional capacity, auditor quality, government regulations, inter-institutional collaboration, and halal education as the most critical drivers of competitiveness. The MICMAC approach thus provided not only a mapping of interrelationships but also a prioritization framework for policy and strategy development.

## RESULT AND DISCUSSION

In an effort to strengthen the Halal Product Assurance Ecosystem in Indonesia, mapping the needs of stakeholders is an important step to ensure the effectiveness of a sustainable, integrated, and responsive system to global dynamics. In this system, each participant, including regulators, fatwa bodies, inspection bodies, business entities, and halal process partners, plays a unique role and faces different challenges. Therefore, identifying the needs of each party is key to developing a sound plan to improve the Halal Product Assurance system.

Table 1 below shows the findings from identifying the requirements of the ten main stakeholders in the national Halal Product Assurance system. This data comes from document reviews, conducting interviews, and reviewing existing literature, providing a comprehensive view of how Indonesian halal products can become more competitive nationally and internationally.

**Table 1.** Mapping stakeholder needs in the halal product assurance ecosystem in Indonesia.

No	Actor	Needs	Source
1	Halal Product Guarantee Agency	<ul style="list-style-type: none"> <li>• Increased business actor participation</li> <li>• Business actor consistency in maintaining halal quality and compliance.</li> <li>• Digitalization and efficiency of the certification process.</li> <li>• Increased capacity and number of halal inspection institutions.</li> </ul>	“Halal Certification Process in Indonesia from the Perspective of Regulators and Industry Practitioners” (Maulana et al., 2025)

No	Actor	Needs	Source
		<ul style="list-style-type: none"> <li>• Harmonization of Indonesian halal standards with global standards.</li> <li>• Strengthening of halal education and socialization.</li> <li>• Collaboration with ministries/agencies and the private sector.</li> <li>• Enhancement of international cooperation.</li> <li>• Government regulatory and budgetary support.</li> </ul>	
2	Fatwa Commission of the Indonesian Ulema Council	<ul style="list-style-type: none"> <li>• Strengthening of research and interdisciplinary collaboration</li> <li>• International cooperation among scholars and fatwa institutions</li> <li>• Scholar training and continuous education</li> <li>• Access to the latest data and technology</li> <li>• Sharia monitoring and education</li> <li>• Effective coordination among institutions (Fatwa Commission, Halal Inspection Agency, Halal Product Guarantee Agency)</li> <li>• Standardization and harmonization of international halal fatwas</li> </ul>	“Halal Governance in Indonesia: Theory, Current Practices, and Related Issues” (Hudaefi & Jaswir, 2019)
3	Fatwa Committee of the Indonesian Ulema Council	<ul style="list-style-type: none"> <li>• Human resource capacity building</li> <li>• Strengthening research and scientific studies</li> <li>• Digitalization of fatwa processes and transparency</li> <li>• Inter-institutional collaboration</li> <li>• Advocacy for halal regulations and policies</li> </ul>	“Halal Governance in Indonesia: Theory, Current Practices, and Related Issues” (Hudaefi & Jaswir, 2019)
4	Halal Inspection Agency	<ul style="list-style-type: none"> <li>• Human resource capacity building</li> <li>• Compliance with international standards</li> <li>• Mutual recognition cooperation</li> <li>• Digitalization of audit processes</li> <li>• Accredited testing laboratories</li> <li>• Participation in global halal forums</li> <li>• Strategic partnerships with international halal institutions</li> <li>• Incentive support for private and regional halal certification bodies</li> <li>• Synchronization of domestic and international regulations</li> <li>• Assistance for business operators by halal supervisors in halal certification</li> <li>• Increased awareness of global consumer trends</li> </ul>	“The Optimization of the Number of Halal Auditor to Improve Halal Product Assurance in Indonesia” (Wajdi & Hadita, 2021)
5	Halal Product Inspection and Testing Institutions	<ul style="list-style-type: none"> <li>• Human resource capacity and competency development</li> <li>• International accreditation and recognition</li> <li>• Technology and laboratory infrastructure</li> <li>• Global collaboration and networking</li> <li>• Transparency and speed of certification processes</li> <li>• Updating and harmonization of global standards</li> <li>• Support for research and innovation</li> </ul>	“Availability of Human Resources in Halal Certification in Indonesia” (Sabrina, 2023)
6	Halal Auditors	<ul style="list-style-type: none"> <li>• Improving auditor quality and competence</li> <li>• Auditor understanding of halal regulations</li> <li>• Strict monitoring system</li> <li>• Use of technology for monitoring and reporting</li> <li>• Training and certification for human resources</li> </ul>	“The Optimization of the Number of Halal Auditor to Improve Halal Product Assurance in Indonesia” (Wajdi & Hadita, 2021)

No	Actor	Needs	Source
7	Halal Supervisors	<ul style="list-style-type: none"> <li>• Enhancement of international networks and cooperation</li> <li>• Education and socialization to industry</li> <li>• Improvement of halal certification quality</li> <li>• Mastery of halal standards</li> <li>• Improving technical capabilities and professionalism</li> <li>• Collaboration with industry</li> <li>• Education and socialization</li> <li>• Effective reporting and monitoring systems</li> <li>• Halal product innovation</li> </ul>	“Halal Certification Process in Indonesia from the Perspective of Regulators and Industry Practitioners” (Maulana et al., 2025)
8	Halal Product Process Facilitators	<ul style="list-style-type: none"> <li>• In-depth knowledge of halal standards</li> <li>• Improving skills in verifying halal products</li> <li>• Application of technology for process efficiency</li> <li>• Education and socialization</li> <li>• Global market analysis</li> <li>• Sustainable monitoring and evaluation system</li> </ul>	“Halal Certification Process in Indonesia from the Perspective of Regulators and Industry Practitioners” (Maulana et al., 2025)
9	Halal Facilitator	<ul style="list-style-type: none"> <li>• Enhancement of knowledge on the importance of halal certification</li> <li>• Enhancement of efficient halal certification infrastructure</li> <li>• More intensive education and socialization</li> <li>• Global networks and partnerships</li> <li>• Innovation and development of halal products</li> <li>• Enhancement of human resource capacity</li> <li>• Enhancement of the image and branding of Indonesian halal products</li> </ul>	“Issues & Challenges of Halal Industry Development in Indonesia: Stakeholder Perspectives” (Maulana et al., 2023)
10	Business Actors	<ul style="list-style-type: none"> <li>• Reliable halal certification</li> <li>• Enhancement of product quality and innovation</li> <li>• International standards</li> <li>• Effective and strategic marketing</li> <li>• Efficient and sustainable supply chain</li> <li>• Enhancement of capacity and human resources</li> <li>• International partnerships</li> <li>• Utilization of technology and digitalization</li> <li>• Research and development (R&amp;D)</li> <li>• Supportive government policies</li> </ul>	“Unlocking barriers and strategies of halal certification for micro and small enterprises in Indonesia: Analytic network process approach” (Fathoni et al., 2024)

The Halal Product Guarantee Agency is responsible for the Halal Product Guarantee system in Indonesia. The Halal Product Guarantee Agency must address the challenges faced by businesses, particularly micro, small, and medium enterprises, related to costs, regulations, and access to inspection agencies (Ningrum, 2022; Yuanitasari et al., 2022). The digitization of certification and the alignment of international halal standards are key priorities for enhancing global recognition (Maulana et al., 2025; Wahyuni et al., 2023)

The Fatwa Commission of the Indonesian Ulema Council determines the halal status of products through fatwas. Strengthening research, interdisciplinary collaboration, and international cooperation are necessary to ensure that fatwas are scientifically based and aligned with the development of the global halal industry (Japar et al., 2024).

The Fatwa Committee of the Indonesian Ulema Council issues halal fatwas that serve as the basis for certification. Enhancing human resources, digitizing the fatwa process, and collaborating with the Halal Product Guarantee Agency, Halal Inspection Agency, and universities are crucial for the effectiveness and harmonization of halal policies in accordance with sharia and global developments (Suparto et al., 2016).

The Halal Inspection Agency plays a crucial role in verifying halal products through enhanced human resources and procedures aligned with global standards. International cooperation and the digitalization of audits enhance the efficiency and competitiveness of Indonesian halal products (Wahyuni et al., 2023).

Halal Product Inspection and Testing Agency ensures products comply with halal standards through improved human resources, accredited laboratory facilities, and alignment with international standards. Research and innovation support is needed to expand the variety of certified products (Estiasih et al., 2019; Hidayati et al., 2023).

Halal Auditors ensure products meet standards through continuous training and transparent technology-based oversight, as well as international collaboration for global recognition (Maulana, 2025; Wahyuni et al., 2023).

Halal Supervisors are tasked with ensuring compliance with halal standards through technical development and the use of reporting technology to improve efficiency (Ismail, 2024; Wahyuni et al., 2023).

Halal Product Process Facilitators support businesses in understanding and complying with halal standards through in-depth understanding and digital tools to streamline certification (Aini & Go, 2025; Firdaus, 2023).

Halal Facilitators strengthen understanding of halal certification, promote certification digitalization, and build international networks through human resource capacity building (Maulana, 2025; Wahyuni et al., 2023).

Business Actors require reliable halal certification to enhance trust and competitiveness, through improved product quality, innovation, technology, and government policy support, as well as international cooperation (Maulana, 2025; Wahyuni et al., 2023).

**Table 2.** Classification of halal ecosystem variables based on influence and dependency.

Code	Variable	Influence	Dependence	Classification
1	Capacity of the Halal Product Guarantee Agency	44	30	Driving
2	Inter-institutional Collaboration	34	30	Driving
3	Halal Standardization & Harmonization	35	32	Linkage
4	Number & Capacity of Halal Inspection Institutions	44	30	Driving
5	Mutual Recognition of Halal	31	33	Dependent
6	Utilization of Digital Technology	23	32	Dependent
7	Availability of Competent Human Resources	33	33	Linkage
8	Quality of Halal Auditors	44	29	Driving
9	Competence of Halal Supervisors	29	34	Dependent
10	Role of Halal Product Process Facilitators	34	32	Linkage
11	Role of Halal Facilitators	28	33	Dependent
12	Halal Education & Socialization	34	31	Driving
13	Access to Data & Monitoring Systems	22	33	Dependent
14	Government Regulations & Policies	44	28	Driving
15	Budget Support	32	32	Linkage
16	Halal Product Research & Innovation	29	34	Dependent
17	Increased Participation of Micro, Small, and Medium Enterprises (MSMEs)	25	29	Autonomous
18	Halal Product Image & Branding	24	32	Dependent
19	Compliance with Global Standards	23	30	Autonomous
20	Global Partnerships	24	32	Dependent
21	Efficiency of Certification Processes	35	35	Linkage
22	Halal Market Demand	27	34	Dependent

Table 2 presents the results of the Participatory Prospective Analysis (PPA), derived from the classification of variables shown in the attached Table 3, which is used to map the interrelationships among strategic variables in enhancing the competitiveness of Indonesia's halal product exports. Based on the MICMAC matrix, these variables are classified according to their level of influence and dependence (Qoni'ah, 2022).

Six variables fall into the category of driving variables, namely the Capacity of the Halal Product Guarantee Agency, the Number and Capacity of Halal Inspection Institutions, the Quality of Halal Auditors, Government Regulations and Policies, Inter-institutional Collaboration, and Halal Education and Socialization. These variables have high influence and low dependence, thus serving as the primary driving factors that should be the focus of policy (Nurjannah et al., 2024). Five variables are classified as linkage variables, with high influence and dependence, such as the Efficiency of Halal Certification and Standardization Processes, which require integrated management due to their dynamic interdependence (Maulana, 2025). Nine variables are categorized as dependent variables, which are highly influenced by other variables, such as Halal Market Demand and Halal Product Research. Meanwhile, two variables, namely Increased Participation of Micro, Small, and Medium Enterprises and Compliance with Global Standards, are classified as autonomous variables because they have low interdependence with other variables in the system (Siregar & Razali, 2022).

Overall, the analysis results confirm that strengthening institutional, regulatory, and human resource aspects is a strategic key to enhancing the competitiveness of halal product exports. Additionally, a collaborative approach across stakeholders is essential for building a sustainable and effective halal export ecosystem (Haryono, 2023). The following quadrant graph illustrates the clarity of each variable's position based on its level of influence and dependence within the system.

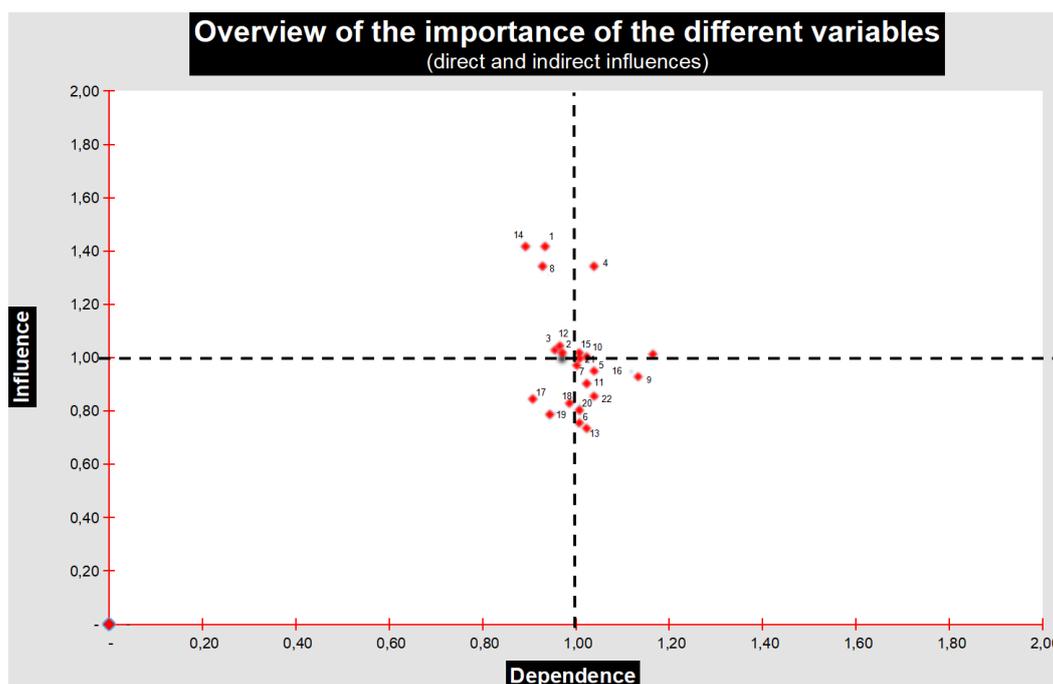


Figure 1. MICMAC matrix: Mapping the influence and dependence of strategic variables in the halal product assurance ecosystem.

**Quadrant I – Driving Variables (High influence, low dependency)**

Figure 1 shows that the variables in this quadrant act as the main drivers of the system. Interventions in this quadrant can trigger widespread systemic impacts on other variables. Therefore, these variables are strategic leverage points that must be prioritized in national policies and programs. The focus is on strengthening institutions, regulations, and public education as a form of long-term investment (KNEKS, 2023).

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Variables and stakeholders involved:

1. Capacity of the Halal Product Guarantee Agency  
The Halal Product Guarantee Agency is fully responsible for enhancing its internal capacity, including human resource development, improving operational systems, and providing infrastructure to support the effective and efficient implementation of the Halal Product Guarantee at the national level (Widodo et al., 2024). According to the Indonesian Halal Industry Masterplan 2023–2029, institutional strengthening is a key pillar in supporting the growth of the national halal industry (KNEKS, 2023).
2. Number and Capacity of Halal Inspection Institutions  
The Halal Product Guarantee Agency plays a role in licensing and supervising the existence and capacity of Halal Inspection Institutions to ensure that their numbers are adequate and evenly distributed. Halal Inspection Institutions are responsible for improving technical capabilities in halal inspection, including auditor training and facility development. This capacity enhancement is crucial, given that the value of Indonesia's halal product exports from January to October 2024 reached USD 41.42 billion (LP3H Al Muhajirin Al Hakim, 2024).
3. Quality of Halal Auditors  
Halal Inspection Institutions must ensure that halal auditors possess high competence and integrity. The Halal Product Guarantee Agency sets standards and certifications for auditors to ensure service quality. The State of the Global Islamic Economy 2023/24 report emphasizes that the quality of halal human resources, including auditors, is a key indicator in building global market confidence in Indonesian halal products (Dinar Standard, 2023).
4. Government Regulations and Policies  
The Halal Product Guarantee Agency develops technical regulations, while the Commission and Fatwa Committee of the Indonesian Ulema Council issue halal fatwas as the basis for sharia compliance. The central government is responsible for harmonizing cross-sectoral policies. According to Dinar Standard (2023), the integration of national regulations is essential for building the competitive advantage of the halal industry in the global market.
5. Inter-institutional Collaboration  
Synergy between the Halal Product Guarantee Agency, the Halal Inspection Agency, the Indonesian Ulema Council's Fatwa Committee, halal supervisors, facilitators, and business actors is necessary for the certification process to run efficiently and be integrated (Aini & Go, 2025). According to Dinar Standard (2023), emphasizes that the success of the halal ecosystem is highly dependent on effective multi-stakeholder coordination at all levels.
6. Halal Education and Socialization  
The Halal Product Guarantee Agency leads national halal education campaigns, while halal facilitators and halal mentors assist business actors, particularly Micro, Small, and Medium Enterprises (MSMEs). This socialization is important so that business actors understand and internalize halal principles in their operations (LP3H Al Muhajirin Al Hakim, 2024). Notes that education and technical guidance have encouraged increased participation of Micro, Small, and Medium Enterprises in the halal certification scheme.

#### **Quadrant II – Linkage Variables (Critical and Interconnected) (High influence, high dependence)**

Figure 1 shows that the variables in this quadrant are highly sensitive and play a dual role: they strongly influence and are also influenced by other variables. Due to their dynamic nature, these variables must be managed carefully and collaboratively to prevent them from becoming sources of instability. Instead, they should serve as drivers of system advancement (Santoso et al., 2021).

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Variables and the stakeholders involved:

1. Efficiency of Certification Processes
    - a. Halal Product Assurance Agency is responsible for regulating, supervising, and streamlining the halal certification process to ensure it is quick and accurate, while also ensuring that the procedures accommodate the needs of various business actors without compromising quality. The agency also manages service systems to ensure accessibility and minimize administrative barriers (Donny & Kurniawan, 2023).
    - b. Halal Inspection Agencies and Halal Product Testing & Inspection Bodies carry out inspections and testing efficiently and in accordance with applicable procedures so that the results are reliable and the certification process is not delayed (Hidayati et al., 2023).
    - c. Halal Auditors conduct audits with a high level of professionalism and punctuality, ensuring all aspects of product halalness are thoroughly examined without delaying certification (Nurhayani et al., 2023).
    - d. Halal Supervisors ensure that the supervision process runs smoothly and according to standards, including field monitoring to detect potential obstacles and provide improvement recommendations (Ismail, 2024).
  
  2. Halal Standardization and Harmonization
    - a. Fatwa Commission of the Indonesian Ulema Council issues fatwas that form the foundation of halal standards, providing clear Sharia guidance and serving as the main reference for halal determination in Indonesia (Rachman & Khokhar, 2023).
    - b. Fatwa Committee of the Indonesian Ulema Council supports the formulation and periodic review of halal standards to ensure they remain relevant with technological developments and market needs, while maintaining consistency with applicable fatwas (Kulsum et al., 2025).
    - c. Halal Product Assurance Agency harmonizes halal standards with national and international regulations so Indonesian halal products can be widely accepted in global markets and comply with government rules (Mohammad, 2021).
    - d. Halal Inspection Agencies consistently apply established standards in all inspection stages, ensuring the quality and public trust in the halal certificates issued (Yustianingsih et al., 2024).
  
  3. Availability of Competent Human Resources
    - a. Halal Product Assurance Agency develops and administers comprehensive training and certification programs for halal human resources to ensure all personnel involved possess sufficient knowledge and skills (Harahap et al., 2024).
    - b. Halal Inspection Agencies continuously recruit, train, and improve the competence of halal auditors and technical staff to maintain inspection quality and comply with current standards (Effendi, 2023).
    - c. Halal Auditors are responsible for maintaining and enhancing their professional competence through ongoing training and recertification to ensure audit credibility and accuracy (Priantina et al., 2025).
    - d. Halal Supervisors, Halal Product Process Assistants, and Halal Facilitators actively contribute to capacity-building efforts for business actors through technical guidance and education, while supporting effective implementation of halal standards in the field (Aini et al., 2023).
  
  4. Role of Halal Process Assistants
    - a. Halal Product Process Assistants serve as facilitators and guides for business actors in meeting halal requirements both technically and administratively, helping them understand the process and prepare necessary documents for smooth certification (Aini et al., 2023).
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- b. Halal Facilitators support the assistance process by providing training and education to business actors, especially Micro, Small, and Medium Enterprises (MSMEs), who need more intensive guidance to meet halal standards (Kementerian Agama RI, 2022).
  - c. Business Actors actively collaborate with assistants and facilitators to ensure full compliance with halal standards and commit to maintaining the halal integrity of their products sustainably (Styaningrum et al., 2025).
5. Budget Support
- a. Halal Product Assurance Agency manages and proposes the necessary budget for implementing the halal product assurance system, including funding for human resource training, system development, and socialization efforts to ensure optimal operations (Khayati et al., 2024).
  - b. Central Government (implicitly referenced) provides the primary funding and budgetary support for the implementation of the national halal program, while also formulating supportive policies and allocating sufficient resources (Hakim, 2021).
  - c. Business Actors contribute to halal certification and testing costs as part of their responsibility to uphold product integrity and meet market standards (Masitah et al., 2024).

### Quadrant III – Dependent Variables (Low Influence, High Dependence)

Figure 1 shows that the variables are more of an outcome of the system and do not have a significant influence on the overall performance. Their development heavily depends on the effectiveness of driving variables and the interrelationship among system elements. Improvement efforts, such as increasing market demand or strengthening halal branding, require prior enhancements in regulatory aspects, human resources, and certification processes (Khairawati et al., 2025).

Variables and Involved Stakeholders:

1. Halal Market Demand
  - a. Business Actors responsible for understanding the needs of halal consumers and developing products that align with market preferences and halal standards. They also engage in innovation and branding to make products appealing in both domestic and international markets (Qizwini & Purnama, 2024).
  - b. Halal Product Assurance Agency provides regulations and halal guarantees to boost consumer trust and create a conducive market environment (Khayati et al., 2024).
  - c. Halal Facilitators assist business actors, especially Micro, Small, and Medium Enterprises (MSMEs), in understanding halal market trends and adapting products to meet market demand (Kementerian Agama RI, 2022).
2. Mutual Recognition of Halal
  - a. Halal Product Assurance Agency is responsible for establishing bilateral and multilateral cooperation with foreign halal bodies to mutually recognize halal certificates and facilitate international market access (Khayati et al., 2024).
  - b. The Fatwa Commission and the Fatwa Committee of the Indonesian Ulema Council ensure that the halal fatwa standards developed are internationally acceptable as a basis for mutual recognition (Kulsum et al., 2025).
  - c. Business Actors comply with international standards so their products can be accepted globally through mutual certificate recognition (Mamduh et al., 2024).
3. Competence of Halal Supervisors
  - a. Halal Supervisors hold primary responsibility for developing technical competence and understanding of halal standards through training and certification organized by Halal Product Assurance Agency and related institutions. This competence is crucial to ensure production processes align with halal standards (Aini et al., 2023).
  - b. Halal Product Assurance Agency provides continuous training, certification, and coaching programs to enhance the quality of halal supervisors (Khayati et al., 2024).

4. Halal Product Research and Innovation
  - a. Business Actors initiate and develop halal product innovations that meet market needs while upholding halal integrity and product quality (Putri et al., 2025).
  - b. Halal Inspection Institutions and Halal Product Testing Institutions provide technical support and validation for research and innovations to ensure products remain compliant with halal standards (Yustianingsih et al., 2024).
  - c. Halal Product Assurance Agency promotes research and innovation through policies, funding facilities, and development programs (Harahap et al., 2024).
5. Role of Halal Facilitators
  - a. Halal Facilitators act as communication bridges between business actors and halal certification bodies, assisting in certification procedures and guiding businesses—especially MSMEs—through the process efficiently and on time (Kementerian Agama RI, 2022).
  - b. Halal Product Assurance Agency provides training and capacity building to ensure halal facilitators are well-equipped to perform their roles effectively (Khayati et al., 2024).
6. Utilization of Digital Technology
  - a. Halal Product Assurance Agency develops and provides digital platforms for certification registration, monitoring, and reporting, simplifying the halal assurance process for all stakeholders (Aprieleony & Aisyah, 2023)
  - b. Business Actors and Halal Inspection Institutions utilize digital technology to accelerate certification and inspection processes, enhancing efficiency and transparency (Go & Aini, 2025)
  - c. Halal Auditors and Supervisors employ digital tools in field audits and supervision to produce accurate and well-documented outcomes (Wajdi & Hadita, 2021).
7. Access to Data and Monitoring Systems
  - a. Halal Product Assurance Agency plays a central role in providing a transparent and integrated real-time monitoring system accessible to all stakeholders for halal product supervision (Harahap et al., 2024).
  - b. Halal Auditors, Supervisors, and Halal Inspection Institutions regularly input inspection and supervision data into the system to ensure effective monitoring (Go & Aini, 2025).
  - c. Business Actors use data to improve production processes and maintain halal product quality (Mamduh et al., 2024).
8. Global Partnerships
  - a. Halal Product Assurance Agency is responsible for establishing and managing partnerships with foreign halal bodies and international organizations to expand recognition of Indonesian halal products (Arsil et al., 2022).
  - b. The Fatwa Commission and the Fatwa Committee of the Indonesian Ulema Council support the alignment of fatwa standards to be globally accepted (Idaman et al., 2024).
  - c. Business Actors leverage global partnerships to increase the competitiveness and international market access of their halal products (Pratama, 2022).
9. Halal Product Image and Branding
  - a. Business Actors play a key role in building halal product image and branding through quality, innovation, effective marketing, and maintaining product reputation (Andriansyah et al., 2017).
  - b. Halal Product Assurance Agency supports this through credible halal assurance and national halal product branding campaigns (Idaman et al., 2024).
  - c. Halal Facilitators assist business actors, especially MSMEs, in marketing strategies and developing halal branding to enhance public recognition (Pratama, 2022).

#### Quadrant IV – Autonomous Variables (Independent/Isolated) (Low influence, low dependence)

Figure 1 shows that the variables tend to be isolated within the current system, with weak linkages to other variables. Although they have not yet played a significant role in the existing configuration, they possess long-term strategic potential. For example, Micro, Small, and Medium Enterprises (MSMEs) can develop into a major force if given adequate incentives and assistance (Artino et al., 2023).

Variables and the stakeholders involved:

1. Increased Participation of Micro, Small, and Medium Enterprises (MSMEs)
  - a. Halal Product Process Assistants are responsible for assisting MSMEs in the halal certification process, from document collection to technical support in the field, ensuring small businesses can understand and effectively undergo the certification process (Apriliansa & Mustofa, 2025).
  - b. Halal Facilitators are actively involved in raising awareness about the benefits of halal certification among MSMEs, as well as providing training and administrative guidance to help them gain confidence and readiness to compete in the halal market (Amrizal & Yusriati, 2024).
  - c. Halal Product Assurance Organizing Agency establishes affirmative policies, provides special financing schemes, and simplifies procedures to encourage greater MSME involvement in the national halal ecosystem (Khayati et al., 2024).
  - d. Business Actors have the responsibility to increase awareness and willingness to undergo halal certification as a strategy to enhance competitiveness and consumer trust (Gunawan, 2025).
2. Compliance with Global Standards
  - a. Halal Product Assurance Organizing Agency is responsible for adopting and aligning national halal standards with international ones, and for building partnerships with overseas halal bodies to strengthen the competitiveness of Indonesian products in global markets (Kementerian Agama RI, 2022).
  - b. The Fatwa Commission of the Indonesian Ulema Council and the Fatwa Committee ensure that the fatwas and halal standards issued are internationally acceptable without compromising Sharia principles (Othman & Ibrahim, 2025).
  - c. Halal Inspection Bodies and Halal Auditors conduct inspections in accordance with international standards and undergo training and accreditation to ensure their competencies are globally recognized (Mamduh et al., 2024).
  - d. Business Actors adjust their production processes and documentation to meet international halal standards to expand export markets and build global consumer trust (Mamduh et al., 2024).

#### CONCLUSION

The Halal Product Assurance System in Indonesia holds tremendous potential, not only as an instrument for fulfilling Sharia obligations but also as a driver of the national economy and a tool of global trade diplomacy. To achieve these objectives, the SJPH must be viewed holistically, not merely as a technical certification process, but as an integral part of a sustainable and inclusive development strategy. The success of the halal ecosystem is largely determined by the extent to which collaboration, value alignment, and inter-agency efficiency can be effectively realized. To support this, several strategic recommendations must be implemented. The top priority is to strengthen the capacity of the Halal Product Assurance Agency (BPJPH) through human resource development, recruitment of specialists, and modernization of digital infrastructure. In addition, regulatory harmonization across institutions, enhancement of halal auditor quality, and optimization of cross-institutional coordination, particularly among Halal Inspection Bodies (LPH), P3H, and budget allocations, are essential to ensure that the certification process becomes faster, more efficient, and transparent. Impact monitoring through indicators such as digital technology utilization, human resource quality, business actor satisfaction, and MSME growth will help ensure that strategies remain adaptive and relevant. In the long term, the

strategy should focus on empowering MSMEs through certification cost incentives, training subsidies, and access to capital. Integrated education modules and branding campaigns for Indonesian halal products, such as via social media, workshops, and exhibitions, will further strengthen global market positioning. With a strategic, inclusive, and data-driven approach, the SJPH can evolve into a vital pillar for enhancing national competitiveness while reinforcing Indonesia's Islamic economic identity on the international stage.

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