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Article

Halal Centers in Islamic Higher Education as Intermediaries in Indonesia's Halal Ecosystem: A Triple Helix Perspective

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Abstract

Indonesia's transition from voluntary to mandatory halal certification has created a critical gap between policy targets and implementation capacity, particularly among micro, small, and medium-sized enterprises (MSMEs). This study analyzes the role of Halal Centers across five State Islamic Higher Education Institutions (PTKIN) within the halal product guarantee ecosystem. Employing an exploratory multiple-case study design, this research thematic-analyzes data from semi-structured interviews and institutional documents by integrating the Triple Helix and engaged university frameworks. The analysis encompasses the universities' relational dynamics with the government and MSMEs, as well as the execution of the higher education triad (Tri Dharma). The findings reveal that Halal Centers serve as institutional boundary spanners bridging state regulatory mandates, MSME operational needs, and university academic capacities. However, the relational dynamic with the government exhibits an asymmetric configuration: the state retains control over the regulatory framework and institutional arrangements, while universities exercise agency primarily within local partnerships and program execution. Institutional engagement is most pronounced in human resource development, public outreach, and MSME mentoring, whereas evidence regarding the enhancement of research and laboratory capacities remains limited. Furthermore,

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constraints in measurable outputs and feedback mechanisms to regulators indicate that this boundary-spanning role has yet to fully evolve into a reciprocal institutional relationship. Ultimately, this study demonstrates that university engagement within a mandatory halal certification framework operates through asymmetric collaboration, wherein universities act simultaneously as policy enforcers and intermediaries between the state and the public.

Keyword

Halal Center, Islamic higher education, halal ecosystem, Triple Helix, engaged university, MSMEs

Introduction

Indonesia, home to the world's largest Muslim population, holds a strategic position in the global halal supply chain and industry (Alamsyah et al., 2022; Coordinating Ministry for Economic Affairs, 2025). This potential extends far beyond consumer markets into aspirations as a primary producer across multiple sectors, ranging from food and beverages, pharmaceuticals, cosmetics, and fashion to tourism (Mubarok & Imam, 2020). To realize this vision, the government has positioned halal assurance as a structural foundation by accelerating halal certification instruments.

The regulatory transition over the past decade marks a fundamental shift. Prior to 2014, halal certification was voluntary and administered by the Indonesian Ulema Council (MUI) through LPPOM MUI. This landscape transformed drastically through Law No. 33 of 2014 on Halal Product Assurance, which converted it into a mandatory requirement for all products circulating and traded in Indonesia. The implementation of this new framework involves a clear division of authority: the Halal Product Assurance Agency (BPJPH) as the regulator, Halal Inspection Agencies (LPH) as audit executors, and the MUI as the authority for issuing halal fatwas (Priantina & Sapian, 2023).

These provisions were further detailed in Government Regulation No. 39 of 2021, which establishes a phased implementation of mandatory certification, covering food, beverages, raw materials, food additives, and auxiliary materials, alongside slaughtering products and services. Specifically for Micro and Small Enterprises (MSEs), the government provides a self-declare statement scheme accompanied by Halal Product Process (PPH) mentoring via the SIHALAL platform, governed under the Ministry of Religious Affairs Decree No. 1360 of 2021 (Syukur et al., 2024).

Nevertheless, the migration from a voluntary to a mandatory framework has triggered an acute gap between policy targets and field implementation capacity. Millions of MSEs face structural hurdles, ranging from low halal literacy and administrative bottlenecks to difficulties in tracing raw material supply chains (Prabowo et al., 2015; Vanany et al., 2019). While the self-declare scheme alleviates cost burdens, its effectiveness heavily relies on the availability of competent mentors and enterprises' readiness for digital infrastructure. Conversely, this ecosystem requires a massive supply of auditors, supervisors, and LPHs (Fauzan et al., 2025).

This limitation in bureaucratic and market capacity demands the engagement of non-state actors, particularly higher education institutions. This article conceptualizes halal assurance as an ecosystem—a network of interdependent actors spanning upstream and downstream supply chains, supported by functions of regulation, inspection, mentoring, research, and consumer protection. Given that modern halal standards encompass the entire lifecycle from processing, storage, and transportation to serving (Omar & Jaafar,

2011; Zain et al., 2022), the burden of this ecosystem cannot be sustained by a single institution alone.

The Triple Helix framework (Etzkowitz & Leydesdorff, 2000) is deployed to examine relational dynamics among universities, government, and industry (predominantly MSEs in this context). The engaged university concept enriches this approach by asserting that higher education institutions actualize their roles through the Tri Dharma of Higher Education—education, research, and community service (Rieu, 2014; Ward, 2020; Yuliani et al., 2026). Within this constellation, university Halal Centers function as strategic boundary spanners bridging the state, business actors, and scientific knowledge bases. However, the normative assumption of the Triple Helix framework regarding collaborative equity is frequently overlooked; under a mandatory halal framework, universities often occupy an adaptive posture responding to state regulatory mandates. This assumption of subordination and interaction warrants empirical testing.

State Islamic Higher Education Institutions (PTKIN) occupy a unique position within this ecosystem. Halal Centers within PTKINs have evolved alongside regulatory encouragement for faith-based institutions to mobilize halal supervisors, conduct research, and oversee MSE mentoring. Prior literature on halal governance generally falls into three main streams: (1) regulatory debates and the centralization of certification authority (Rohmah, 2020); (2) micro-level obstacles encountered by business actors in certification (Prabowo et al., 2015; Vanany et al., 2019); and (3) institutional strengthening and partnership strategies of Halal Centers (Arsil et al., 2022; Mariana et al., 2025; Ma'ruf, 2024; Umah, 2017).

This literature review indicates a distinct research gap: the specific relational patterns between PTKIN Halal Centers and the state and MSEs, the typology of institutional engagement, and their operational hurdles have not been systematically mapped through the lens of university engagement. This article addresses this gap by comprehensively examining three main research questions. First, how do Halal Centers across five PTKINs—namely UIN Maulana Malik Ibrahim Malang, UIN Sunan Ampel Surabaya, UIN Raden Mas Said Surakarta, UIN Sunan Kalijaga Yogyakarta, and UIN Mataram—build relational architectures with the government (BPJPH, Ministry of Religious Affairs, and local governments) as well as MSEs within the national halal ecosystem? Second, what forms of institutional engagement are produced through these relations, spanning human resource development, research, and community service, along with their concrete outputs?

This article's contributions are multidimensional. Empirically, this study maps the relational typology and forms of engagement of PTKIN Halal Centers through a five-institution case study. Conceptually, it tests the applicability of the Triple Helix and engaged university frameworks to religious higher education institutions under a mandatory regulatory regime, while challenging the boundary assumptions of power equity among actors. Practically, these findings offer policy recommendations for BPJPH, the Ministry of Religious Affairs, and PTKIN management.

The study adopts an exploratory approach not intended for statistical generalization. The paper's structure is organized as follows: the methodology section outlines the multiple-case study design and analytical framework; the results and discussion section dissects regulatory dynamics, relations, engagement forms, and empirical hurdles alongside their implications; and the concluding section summarizes findings, research limitations, and avenues for future research.

Method

This study adopts a qualitative approach employing an exploratory multiple-case study design (Yin, 2003). This design was selected because the role of university-based Halal Centers represents a contemporary phenomenon embedded within a real-world institutional context. A cross-case approach allows the researchers to identify consistent relational patterns and engagement types across different institutions. The exploratory nature

of this study aims for analytical generalization to test and refine the conceptual framework rather than statistical generalization (Yin, 2018).

The research subjects comprise Halal Centers across five State Islamic Higher Education Institutions (PTKIN): UIN Maulana Malik Ibrahim Malang, UIN Sunan Ampel Surabaya, UIN Raden Mas Said Surakarta, UIN Sunan Kalijaga Yogyakarta, and UIN Mataram. Case selection was conducted purposively based on three criteria: (a) official operation and active execution of halal product assurance mandates, (b) representation of institutional status variations (as Halal Inspection Agencies/LPH or Halal Product Process Mentoring Agencies/LP3H), and (c) adequate data accessibility.

Data collection was executed through two primary techniques. First, semi-structured in-depth interviews were conducted with Halal Center managers to examine relational architectures, forms of tri-dharma engagement, and operational hurdles. Second, a documentary study was carried out, encompassing relevant regulations (Law No. 33/2014, Government Regulation No. 39/2021, and Ministry of Religious Affairs Decree No. 1360/2021), institutional establishment decrees, activity reports, and official public archives. All data collection procedures complied with research ethics standards, including obtaining informed consent and safeguarding informant anonymity.

Data analysis applied framework-based thematic analysis (Braun & Clarke, 2006). The analytical framework was derived from a synthesis of the Triple Helix theory (Etzkowitz & Leydesdorff, 2000) and the engaged university concept, mapping dimensions of inter-actor relations (government, MSMEs, universities) alongside manifestations of the Tri Dharma. Data validity and credibility were maintained through source triangulation (cross-method triangulation between interviews and documents), cross-case triangulation, and the systematic maintenance of an audit trail (Lincoln & Guba, 1985).

Results and Discussion

Regulatory Context and Institutional Landscape

The role of the Halal Center can only be understood by looking at changes in halal assurance rules in Indonesia. Prior to 2014, halal certification took place voluntarily and was managed by the Indonesian Ulema Council through LPPOM MUI, which issued certificates based on the MUI fatwa (Girindra, 1998). The certificate at that time was valid for two years and could be extended. Law Number 33 of 2014 concerning Halal Product Assurance changed this pattern by requiring products that entered, circulated, and traded in Indonesian territory to be halal certified (Priantina & Sapian, 2023; Rohmah, 2020). This law transfers the implementation of certification to the Halal Product Assurance Agency (BPJPH) under the Ministry of Religion. Product inspections are carried out by the Halal Inspection Agency (LPH), while the MUI plays a role in determining the halalness of products through fatwas. The certificate is now issued by BPJPH and is valid for four years, unless there is a change in the composition of the ingredients.

This distinction is important because previous articles, including the initial manuscript of this study, still sometimes associate the issuance of certificates with LPPOM MUI and refer to certification as non-obligation. Such statements reflect the conditions before the obligation came into force, i.e. before 17 October 2019, and not the conditions when this study was conducted (Hasan, 2014). The relevant regulatory developments are summarized in Table 2.

Table 2. Developments in halal product assurance arrangements in Indonesia (until December 2024)

Period	Developments	Legal Basis
Before 2014	Voluntary certification by LPPOM MUI; MUI fatwa as the basis	MUI institutional practice

2014	Mandatory halal certification established; BPJPH, LPH, and MUI's role in fatwa issuance regulated	Law No. 33 of 2014
2017	BPJPH effectively began its duties and was inaugurated on October 11, 2017, as an echelon I unit under the Minister of Religious Affairs	Law No. 33 of 2014; Presidential Regulation No. 83 of 2015 on the Ministry of Religious Affairs; PMA No. 42 of 2016 on the Organization and Work Procedure of the Ministry of Religious Affairs
17 October 2019	Mandatory certification took effect in stages	Law No. 33 of 2014; PP No. 31 of 2019 on Implementing Regulations of the Halal Product Assurance Law
2020–2021	Adjustments through the Job Creation Law, including ease of halal certification for micro and small enterprises through the self-declare mechanism	Law No. 11 of 2020, specifically amendments to Article 4A and Article 4B of the Halal Product Assurance Law; PP No. 39 of 2021
2021	Provisions regarding materials exempted from mandatory halal certification and the self-declare mechanism for micro and small enterprises	KMA No. 1360 of 2021; PMA No. 20 of 2021 on Halal Certification for Micro and Small Enterprises [final verification required regarding the status and nomenclature of PMA in the JDIH list before publication]
16–17 October 2024	PP No. 39 of 2021 replaced by PP No. 42 of 2024. The first phase ended for food, beverage, slaughtered products, and slaughter services of medium and large enterprises.	PP No. 42 of 2024, specifically Article 160
18 October 2024	Mandatory halal certification took effect for the aforementioned product groups of medium and large enterprises. MSEs received a phasing period until October 17, 2026.	PP No. 42 of 2024 Article 160

This mandatory halal regulatory framework has created several new institutional roles. Table 3 delineates the relevant entities. Crucially, a Halal Center is not a formal legal category defined under Law No. 33 of 2014. Rather, it functions as an internal university institutional unit that can house, or operate alongside, legally defined entities and roles, such as Halal Inspection Agencies (LPH), mentoring agencies, halal supervisors, and PPH mentors.

Table 3. Entities within the halal product assurance system and the positioning of Halal Centers

Entity	Status	Primary Function	Parent Organization / Legal Basis
Halal Center	University institutional unit; not a legal category under the Halal Product Assurance Law (UU JPH)	Research, training, mentoring, and development of halal product assurance; may house an LPH or LP3H	Decree of the Rector / University Leadership
Halal Inspection Agency (LPH)	Institution regulated by law	Inspection and/or testing of product kehalalan (*halalness*) through halal auditors	Law No. 33/2014; designation by BPJPH

Halal Product Process Mentoring Agency (LP3H)	Institution regulated by implementing regulations	Conducts Halal Product Process (PPH) mentoring for micro and small enterprises through PPH mentors recruited, trained, and registered under BPJPH regulations	PP No. 39 of 2021 and BPJPH regulations; registration/designation within the BPJPH system
Halal Auditor	Certified individual	Inspects product kehalalan (*halalness*) under an LPH	Law No. 33/2014
Halal Supervisor (*Penyelia Halal*)	Individual within a business entity	Supervises the halal product process within the company, determines corrective and preventive actions, coordinates PPH, and assists auditors during inspection	Law No. 33 of 2014, specifically provisions regarding the obligation of business entities to employ a Halal Supervisor, as further detailed in implementing regulations
PPH Mentor (*Pendamping PPH*)	Registered individual	Assists micro and small enterprises in self-declaration via the SIHALAL platform	KMA No. 1360 of 2021 and BPJPH regulations concerning Halal Product Process Mentoring

The change in the regulation goes hand in hand with the character of the business actors that must be served. The criteria for micro, small, and medium enterprises follow Law Number 20 of 2008 which was later updated through Government Regulation Number 7 of 2021. Based on Article 35 of Government Regulation Number 7 of 2021, the criteria for business capital consist of: micro businesses with a business capital of up to a maximum of IDR 1 billion; small businesses with a working capital of more than IDR 1 billion to a maximum of IDR 5 billion; and medium enterprises with a business capital of more than IDR 5 billion to a maximum of IDR 10 billion, excluding land and buildings where the business is located. Based on annual sales results, micro businesses have sales of up to a maximum of IDR 2 billion; small businesses of more than IDR 2 billion to a maximum of IDR 15 billion; and medium enterprises of more than IDR 15 billion to a maximum of IDR 50 billion.

This scale explains why the mandatory halal regulation is faced with the problem of implementation capacity, because the number of business actors who must be certified far exceeds the LPH inspection capacity. In the initial stage, the number of LPH operating is very limited. As of December 31, 2024, there are 79 LPH and 1,740 halal auditors registered in the SIHALAL system (BPJPH, 2024). This is where the Halal Center of higher education gains space, both as a provider of human resources and as an implementer of the inspection and assistance function

Brief Profiles of the Five Halal Centers

Halal Centers are institutional units developed within higher education institutions to support the implementation of halal product assurance. Their existence is intrinsically linked to research, mentoring, capacity building, and human resource development in the field of halal product assurance. In practice, Halal Centers serve as platforms for various activities and functions related to the halal ecosystem within academic environments.

The development of Halal Centers is inseparable from the shift in halal certification governance in Indonesia following the enactment of Law No. 33 of 2014 on Halal

Product Assurance. This regulatory transition has prompted the engagement of various institutions—including universities and faith-based educational organizations—in human resource development, inspection, research, and mentoring for the halal certification process.

Within this context, Halal Centers play a vital role in supporting business actors, particularly Micro, Small, and Medium Enterprises (MSMEs), in understanding and executing the Halal Product Process (PPH). The mentoring, coaching, and educational activities conducted by Halal Centers also bolster the enforcement of halal product assurance policies. Consequently, numerous Halal Centers have emerged across Islamic higher education institutions, each exhibiting distinct characteristics and operational activities.

a. Halal Center of UIN Sunan Kalijaga Yogyakarta

The development of the Halal Center at Universitas Islam Negeri Sunan Kalijaga Yogyakarta aligns with the implementation of Law No. 33 of 2014 on Halal Product Assurance. UIN Sunan Kalijaga was assigned by BPJPH to establish a Halal Inspection Agency (LPH) based on the institution's capacity and institutional requirements. The LPH was established under Rector Decree No. 131 of 2019. Subsequently, a Halal Center was established as an umbrella unit housing various activities related to the development and execution of halal programs within the university.

b. Halal Center of UIN Maulana Malik Ibrahim Malang

The Halal Center of Universitas Islam Negeri Maulana Malik Ibrahim Malang was established in 2018 by a rectoral decree. In 2019, the institutional development team successfully passed the initial stage of the document visitation process. Since then, the Halal Center's activities have expanded, adapting to ongoing programs and developments in halal product assurance governance. Despite the challenges posed by the Covid-19 pandemic, the Halal Center continued its operations, including research, community service, and product development. In executing these initiatives, the Halal Center engaged multiple stakeholders from both internal and external university environments.

c. Halal Center of UIN Raden Mas Said Surakarta

The Halal Center of Universitas Islam Negeri Raden Mas Said Surakarta is recognized as an active participant in Halal Product Process (PPH) mentoring and is officially registered with BPJPH. Its activities are oriented toward halal product development and business mentoring, particularly within Surakarta and its surrounding regions. Mentors affiliated with this institution are active and registered in the SIHALAL application. The existence of this institution demonstrates higher education's active contribution to providing human resources in support of halal certification mentoring processes.

d. Halal Center of UIN Sunan Ampel Surabaya

Universitas Islam Negeri Sunan Ampel Surabaya established the UINSA Halal Center in 2018. Its establishment was directed toward supporting socialization and education on halal product assurance, institutional development, halal human resource preparation, and research advancement. The UINSA Halal Center has also cultivated collaborations with diverse institutions and stakeholders. Its developed services encompass product testing and research, human resource development, consulting, and other initiatives pertinent to halal ecosystem expansion. These developments span sectors such as food, fashion, education, communication, tourism, and economics, emphasizing the synthesis of academic advancement and Islamic values..

e. Halal Center of UIN Mataram

The Halal Center of Universitas Islam Negeri Mataram established a partnership with the West Lombok Regency Government to develop programs related to halal certification. This collaboration aims to support halal program development across multiple sec-

tors while opening avenues for broader community service programs, halal tourism, and other fields. Institutional development of Halal Centers necessitates collaboration with diverse entities to scale up their capacity and reach. In fulfilling its role, a Halal Center may partner with ministries, regional government bodies, financial institutions, and the private sector. Such collaborations can take the form of facilitating halal certification for MSMEs, conducting education and training programs, and providing mentoring for the implementation of halal assurance systems.

As highlighted by Arsil et al. (2022), inter-institutional collaboration serves as a strategic mechanism to strengthen the capacity of Halal Centers. Through such partnerships, universities can amplify their contributions to human resource development, research, mentoring, and other activities supporting the implementation of halal product assurance in Indonesia.

Relational Dynamics Between Halal Centers and the Government

Across the five studied cases, relationships with the government serve as a foundational pillar in the establishment and development of Halal Centers. Within the Triple Helix framework, interactions between universities and the government constitute an essential mechanism for shaping an institutional environment conducive to innovation (Etzkowitz & Leydesdorff, 2000). In the administration of halal product assurance, university engagement within specific functional domains operates strictly within regulatory boundaries and institutional frameworks defined by the state. Empirically, the five cases reveal three distinct relational configurations: (1) institutional establishment or development aligned with formal statutory functions under the Halal Product Assurance (JPH) system; (2) structural integration into state administrative platforms; and (3) programmatic partnerships with local governments and technical agencies.

The first configuration involves institutional development tailored to perform official statutory functions within the halal product assurance system. UIN Sunan Kalijaga established a Halal Inspection Agency (LPH) pursuant to Rector Decree No. 131 of 2019, which was subsequently complemented by a Halal Center to oversee broader halal-related initiatives. Similarly, UIN Maulana Malik Ibrahim Malang instituted its Halal Center in 2018 via rectoral decree, with its institutional development team undergoing formal document visitation by regulators the following year. These two cases demonstrate that higher education involvement in executing specific functions within the JPH regime is not driven solely by internal academic initiative, but is fundamentally conditioned by institutional mandates and compliance criteria set by state regulators.

The second configuration entails structural integration into state administrative mechanisms. UIN Raden Mas Said is officially registered as a Halal Product Process Mentoring Agency (LP3H) and deploys PPH mentors directly registered on the government's SIHALAL digital platform. This trajectory diverges functionally from that of an LPH: while an LPH carries out technical inspection and laboratory testing of product kehalalan (*halalness*), an LP3H manages and facilitates Halal Product Process mentoring via registered PPH mentors, specifically under the self-declare scheme for micro and small enterprises (MSEs). This functional bifurcation illustrates that the institutional alignment of Halal Centers with state authority is not uniform, but depends on their designated legal status and role within the JPH ecosystem.

The third configuration manifests as programmatic collaboration with local governments and technical departments. The Halal Center of UIN Mataram established a strategic partnership with the West Lombok Regency Government to support halal certification programs across various sectors, extending its scope into community service initiatives and halal tourism development. In several cases, Halal Centers have likewise partnered with municipal offices overseeing cooperatives and MSMEs to conduct public outreach and mentoring workshops.

Inter-institutional collaboration serves as a strategic imperative to expand the capacity and operational reach of Halal Centers. As Arsil et al. (2022) emphasize, cultivating partnerships with government bodies and ecosystem stakeholders is vital for institutional strengthening. However, while existing literature often treats collaboration as a normative strategic goal, a analytical distinction must be drawn between partnerships already operationalized in empirical cases and potential or proposed collaborative models.

Analytically, these patterns indicate that the relationship between Halal Centers and the government operates on distinct tiers. At the national policy level, universities execute specific statutory functions within rigid regulatory frameworks set by the state regulator. Conversely, at the regional level, Halal Centers exercise greater agency to forge pragmatic, programmatic partnerships tailored to local socioeconomic priorities. Consequently, university-government dynamics within the halal ecosystem extend beyond formal regulatory compliance, developing dynamically through collaborative program implementation.

Relational Dynamics Between Halal Centers and MSMEs

Relations with Micro, Small, and Medium Enterprises (MSMEs) constitute a critical dimension in executing halal product assurance policies. The success of halal certification policies is determined not solely by regulatory provisions and institutional capacity, but equally by the capability of business actors to understand and fulfill certification requirements. Prior studies indicate that halal certification has not always been a primary priority for business actors—particularly within the food and beverage sector—while limited knowledge, resource constraints, and procedural misunderstandings continue to pose significant barriers to certification (Prabowo et al., 2015; Vanany et al., 2019). Within this context, Halal Centers function as bridging institutions connecting formal halal assurance policies with the practical operational needs of MSMEs. Research data highlights two primary modalities of Halal Center engagement in this domain: public outreach (*sosialisasi*) and Halal Product Process (PPH) mentoring.

Public outreach represents the initial form of engagement aimed at introducing the mandatory nature of halal certification, elucidating application procedures, and enhancing business awareness regarding the importance of halal product assurance. This activity becomes increasingly pertinent in light of the phased enforcement of mandatory certification, particularly approaching the conclusion of the first milestone on October 17, 2024. Consequently, outreach serves not merely as a vehicle for regulatory dissemination, but as a preparatory effort to enable businesses to align their operational activities with statutory halal provisions.

Interviews with a Halal Center manager at UIN Malang reveal that outreach initiatives are executed through collaborations with various stakeholders, including village governments, sub-district offices, and business communities, often operationalized via community service schemes. According to the informant, a persistent challenge is the limited comprehension among certain business actors—particularly MSMEs—regarding regulations and official certification procedures. In response, outreach activities are designed to bridge the gap between regulatory mandates and daily business practices, as articulated by the informant: *"many business actors still do not understand the regulations and procedures for managing halal certificates."*

A more intensive form of engagement is Halal Product Process (PPH) mentoring. Under the self-declaration (*self-declare*) certification scheme, micro and small enterprises submit electronic applications through the SIHALAL platform managed by BPJPH. Throughout this process, mentoring is essential to assist businesses in comprehending requirements, compiling necessary information and documentation, and ensuring that declared halal compliance aligns with prevailing regulations. Hence, mentoring cannot be reduced to administrative assistance in form-filling; rather, it constitutes a verification and validation process encompassing the raw materials and production workflows utilized by

business enterprises.

Based on the regulatory references governing the research period, PPH mentoring entails the verification and validation of business halal declarations. In practice, PPH mentors trace the materials used, examine supporting information and documents, and verify the conformity of the halal production process with established standards. If discrepancies or insufficient information are detected, mentors may request clarification and direct businesses to execute corrections within their authorized scope. Thus, mentoring effectively bridges formal certification requirements with the actual production conditions of MSMEs.

The experience of PPH mentors at UIN Sunan Ampel Surabaya indicates that a primary hurdle during mentoring lies in the capacity of business actors to translate certification requirements into daily administrative and production practices. The informant explained that several business owners lack comprehensive material lists, possess inadequate knowledge regarding the origin of ingredients used, or fail to document their production processes systematically. Consequently, mentoring extends beyond merely providing procedural instructions; mentors must actively assist businesses in identifying required documents and supplementing incomplete information, as noted by the informant: *"mentors need to explain the documents that must be prepared and help business actors rectify incomplete information."*

A strict conceptual distinction must be maintained between the institutional role of a Halal Center and the specific statutory authority of PPH Mentors within the self-declaration certification scheme. Halal Centers do not directly execute inspection functions in the manner of a Halal Inspection Agency (LPH). Within PPH mentoring mechanisms, the verification and validation of halal declarations are conducted by certified and registered PPH Mentors. Halal Centers contribute by supporting the institutional infrastructure of mentoring—including organization, capacity building, and facilitation—provided they possess the appropriate structural mandate. Mentoring outcomes are subsequently processed through statutory fatwa determination and certificate issuance by authorized bodies in accordance with the regulations active during the research period. Accordingly, the position of a Halal Center is most accurately conceptualized as an institutional support mechanism for the mentoring ecosystem, rather than an entity substituting for inspection, fatwa determination, or certification issuance.

Although outreach and mentoring demonstrate the active involvement of Halal Centers in supporting MSMEs, the efficacy of these relationships cannot be measured solely by the volume of activities conducted or the number of enterprises reached. Analysis must account for subsequent outcomes, including the number of MSMEs that successfully finalize application submissions, operational bottlenecks causing delays, and the extent to which businesses sustain compliance post-certification. Therefore, distinct metrics—specifically the number of MSMEs participating in outreach, those receiving mentoring, applications verified, and certificates issued—represent successive developmental milestones and cannot be treated as interchangeable indicators of success.

Analytically, the relationship between Halal Centers and MSMEs is usefully understood through the concept of *boundary spanning*, denoting intermediary functions linking an organization with its external environment (Aldrich & Herker, 1977; Williams, 2002). In this context, Halal Centers help translate formal regulatory and administrative requirements into accessible outreach and mentoring formats tailored to the realities of small-scale enterprises. This bridging function is crucial because halal certification policies are formulated within formal legal frameworks, whereas MSMEs operate under diverse resource, knowledge, and administrative constraints.

However, this boundary-spanning function is not invariably unidirectional. Mentoring engagements generate valuable feedback concerning the practical needs, difficulties, and limitations of MSMEs, which can be channeled back to BPJPH or relevant governmental agencies. When such feedback mechanisms operate, Halal Centers transcend their role as

mere disseminators of state policy, emerging as vital conduits relaying implementation challenges from the enterprise level back to policy-making and executing institutions. Nevertheless, the existence of this feedback loop must be substantiated by empirical data concerning actual communication, coordination, or grievance reporting. Where interview data reveal no structured feedback mechanisms, analysis should be restricted to the potential of this function rather than mischaracterizing it as an established institutional practice.

Internal Functions of the University: Education, Human Resource Development, and Research

The two forms of relationships discussed earlier require the support of resources and internal capacity of universities. This section analyzes how the functions of education, research, and community service support the involvement of the Halal Center in the halal product assurance ecosystem. Law Number 12 of 2012 concerning Higher Education defines the Tridharma of Higher Education as the obligation of universities to organize education, research, and community service (Republic of Indonesia, 2012, Article 1 number 9). In the perspective of engaged universities, these three functions are not solely carried out as internal academic activities, but are linked to the needs and problems faced by the community (Beaulieu et al., 2018; Boyer, 2016). In the context of halal, education and capacity development can support the provision of human resources, research has the potential to produce knowledge relevant to the implementation of halal product assurance, and community service is a means to apply this capacity in supporting business actors.

Education and human resource development. Human resource development is one of the most visible functions in Halal Center activities. This function needs to be distinguished from the position of the Halal Supervisor in the halal product assurance system. According to Law Number 33 of 2014, a Halal Supervisor is an individual responsible for the Halal Product Process (PPH) in the company. His duties are to supervise PPH in the company, determine corrective and preventive actions, coordinate PPH, and assist LPH Halal Auditors during inspections (Republic of Indonesia, 2014, Article 28 paragraph 1). Thus, Halal Centers cannot be generally positioned as an institution consisting of Halal Supervisors.

The role of the Halal Center in human resource development is more accurately understood through education, training, and coaching activities related to the halal ecosystem. UINSA Halal Center mentions the preparation of human resources in the halal field as one of the directions of its activities. UIN Raden Mas Said is involved in the development of PPH Assistants through cadre and training. These activities show the contribution of universities in building the capacity of human resources needed in the halal product assurance system. However, the level and form of this development is different for each Halal Center and can only be stated limited to the evidence available in each case.

Meanwhile, research normatively is an element of the Tridharma that can support the development of knowledge and innovation in the field of halal. However, based on the documents collected, research activities have not seemed to be as prominent as education and mentoring. UIN Malang noted that research, service, and product development activities continued to run during the Covid-19 pandemic, and UINSA listed research and development as part of its service scope. However, the relationship between research results and the implementation of halal certification or mentoring has not been ascertained in all cases. Research in this context is therefore more appropriately positioned as a potential capacity of the Halal Center than as a documented contribution.

Meanwhile, the service function is a link between the internal capacity of the university and the needs of business actors. Student programs in villages related to the development of halal activities at UIN Mataram as well as socialization and mentoring activities with government agencies are examples of the involvement of universities with the community. These forms show that service in the context of the Halal Center is mainly realized

through socialization, education, and mentoring.

Overall, the level of visibility of the three functions of the Tridharma is different. Education and human resource development and service are easier to identify through training, socialization, and mentoring activities, while the contribution of research to the implementation of halal product assurance has not been consistently seen. This pattern shows that the contribution of the Halal Center at its current stage of development is more prominent in the implementation of services, capacity building, and mentoring than in knowledge production. This difference in visibility does not mean that the Halal Center does not carry out research functions. This pattern is the basis for assessing the extent to which the university's claims as centers for the development of halal studies have been translated into activities and outputs that can be identified empirically (Halal Center UIN Malang, 2023; LP2M UIN Mataram, 2023; UIN Surakarta, 2023).

Halal Centers as Intermediaries in the Halal Ecosystem

This discussion interprets the findings through the Triple Helix and engaged university frameworks to address the research questions, maintaining an exploratory scope contingent upon the available evidence. The findings indicate that the strength of a Halal Center's relationships is non-uniform and varies significantly across dimensions. On the formal-legal dimension, relations with the government appear strongest due to official status, statutory appointments, and registration within state systems. Conversely, relations with MSMEs manifest actively through outreach, mentoring, and facilitation, yet empirical outputs—such as the number of businesses securing certificates—do not proportionately mirror this high activity intensity. Research functions, representing the internal academic pillar, are the least documented. These three dimensions do not operate in tandem; thus, robust formal legitimacy does not automatically translate to operational impact or knowledge contribution.

This disparity can be explained through structural and resource-driven lenses. Structurally, institutional incentives push Halal Centers to prioritize state-auditable requirements like official status, registration, and activity reporting, whereas research output lacks equivalent administrative enforcement. From a resource perspective, Halal Centers typically rely on faculty members and staff who shoulder dual responsibilities, causing time and funding to gravitate toward services with immediate, discernible "clients." This pattern aligns with literature indicating that actor relationships within a Triple Helix framework are rarely balanced and depend heavily on institutional context (Etzkowitz & Leydesdorff, 2000). The configuration closely resembles a statist model, where the state exercises dominant directional oversight, rather than a laissez-faire or balanced model (Etzkowitz, 2008).

A critical question posed in the introduction is whether relations within the halal ecosystem are equitable. The data reveals that the scope of roles a Halal Center can execute is dictated by legal frameworks and state-driven designation processes. While universities retain agency over service focus areas and regional partnerships, they cannot unilaterally establish their official statutory status. Consequently, this relationship is more accurately characterized as asymmetrical with bounded initiative rather than balanced collaboration.

This asymmetry manifests across three interconnected layers. Authority to confer official status rests exclusively with the state, positioning universities as both petitioners and executors. Standards and procedures are likewise dictated by regulators, creating fertile ground for coercive isomorphism—the homogenization of structures and programs driven by regulatory pressure rather than local needs (DiMaggio & Powell, 1983). Furthermore, structured channels allowing universities to influence policy design remain absent. Nonetheless, asymmetry does not negate institutional agency. Universities retain initiative in selecting target MSME segments, forging regional partner networks, tailoring mentoring models, and integrating services with community outreach. This interpretation con-

textualizes the Triple Helix framework within state-regulated settings, offering a modest conceptual contribution while remaining tentative due to the limited five-case sample and incomplete documentation.

Within scholarly literature, boundary-spanning intermediaries function by translating requirements and interests across disparate groups (Aldrich & Herker, 1977; Williams, 2002). Innovation intermediation literature adds that effective intermediaries not only relay information but also build networks, align expectations, and facilitate mutual learning (Howells, 2006; Klerkx & Leeuwis, 2009). Measured by these criteria, Halal Centers successfully execute a translation function from regulation to MSMEs via outreach, mentoring, and application assistance. This function is tangible and valuable. However, evidence of reverse-direction translation—relaying grassroots obstacles, procedural critique, or enterprise-level data back to regulators—remains sparse. Absent confirmation, this intermediary role remains unidirectional, resembling a street-level policy executor (Lipsky, 1980) rather than a policy-shaping intermediary.

On the MSME side, observed hurdles such as low comprehension of halal certification rules and procedures demonstrate that translation requires addressing enterprise capacity constraints alongside regulatory terminology. Here, Halal Centers operate as capacity-buffering entities bridging formal mandates and small-business limitations.

Within this context, State Islamic Higher Education Institutions (PTKIN) act as conduits connecting specialized knowledge with Islamic values. Under the engaged university framework, this claim requires reciprocal engagement and the direct application of research and scholarly expertise (Goddard et al., 2016). Given the weak documentation of research output, Halal Center contributions are more accurately framed as execution capacity development rather than knowledge production. This distinction is vital because capacity development relies on mentoring volume and certification outcomes, whereas knowledge production requires academic publications, policy briefs, enterprise databases, curriculum-linked training modules, or innovative mentoring methodologies. PTKINs possess a distinct advantage in synthesizing jurisprudence (*fiqh*), regulation, and production practices, yet this advantage has not materialized into systematically documented knowledge outputs. These findings refine overly expansive claims and highlight a gap between institutional potential and empirical realization.

Furthermore, these findings corroborate studies emphasizing multi-stakeholder synergy to overcome halal industry barriers (Mubarok & Imam, 2020) and align with research on Halal Center collaborative strategies (Arsil et al., 2022). This study expands upon prior literature by distinguishing operational collaborations from proposed ones, demonstrating that official status is regulator-mandated (necessitating a view of synergy as inherently asymmetrical), and separating the formal, operational, and epistemic dimensions of these relationships. The insights regarding MSME obstacles reinforce previous research (Prabowo et al., 2015; Vanany et al., 2019).

Several implications emerge from these insights. For policy makers—specifically BPJPH and the Ministry of Religious Affairs—the findings point to the necessity of standardized output metrics to enable cross-institutional performance comparisons, alongside mentor competency standards to safeguard service quality. Establishing structured feedback channels from the field, such as periodic forums or grievance reports, is essential to render the intermediary role bidirectional, alongside sustainable funding schemes that mitigate the vulnerabilities of short-term project reliance. Correspondingly, for PTKIN management, the findings underscore the need to document concrete outputs rather than mere activities, secure long-term funding sustainability, and fortify research functions by anchoring mentoring data into scholarly agendas. Remaining spaces of initiative should be leveraged to cultivate institutional distinctiveness through student community engagement or regional government partnerships. Theoretically, this study demonstrates that the Triple Helix framework must account for power asymmetries in state-regulated domains,

where universities function best as regulation-bound intermediaries with bounded agency whose strategic impact amplifies through knowledge generation and feedback loops.

These implications must be interpreted cautiously given the reliance on five cases with incomplete documentation, mindful that the absence of evidence does not equate to the absence of practice. To test and refine these interpretations, future research should incorporate interviews and observations, capture the perspectives of MSMEs and regulators, and draw comparisons with non-PTKIN entities to rigorously evaluate claims of PTKIN distinctiveness.

Conclusion

This study examines the role of Halal Centers across five State Islamic Higher Education Institutions (PTKIN) within Indonesia's halal product assurance ecosystem through the frameworks of the Triple Helix and the engaged university. The findings reveal that Halal Centers function as institutional boundary spanners bridging state policies, university academic capacities, and MSME needs. However, their engagement is more pronounced in policy implementation, human resource development, and community outreach than in knowledge production through research. Relational dynamics with the government exhibit an asymmetric collaboration: the state exercises dominance through regulatory authority and institutional arrangements, while universities adapt their capacity to execute policy mandates, albeit retaining operational agency in local partnerships. Conversely, relationships with MSMEs are operationalized through public outreach and Halal Product Process (PPH) mentoring, which translate regulatory requirements into practical enterprise practices. Conceptually, these findings demonstrate that university engagement within a mandatory halal certification ecosystem does not manifest as a fully equal partnership, but rather as an asymmetric collaboration positioning the state as the dominant actor and universities as both policy enforcers and conduits to the public. Consequently, institutional strengthening of Halal Centers must focus on enhancing PPH mentor capacity, evaluating mentoring outcomes, and integrating research with MSME needs and implementation bottlenecks. This study is limited by its qualitative exploratory design across five institutions and does not aim for statistical generalization. Future research may develop Halal Center typologies, examine the long-term impact of mentoring on MSME sustainability, or compare university engagement within halal ecosystems across international contexts.

References

Alamsyah, A., Hakim, N., & Hendayani, R. (2022). Blockchain-based traceability system to support the Indonesian halal supply chain ecosystem. *Economies*, 10(6), 134. https://doi.org/10.3390/economies10060134

Aldrich, H., & Herker, D. (1977). Boundary spanning roles and organization structure. *Academy of Management Review*, 2(2), 217–230. https://doi.org/10.5465/amr.1977.4409044

Arsil, P., Wicaksono, R., Hidayat, H. H., & Novitasari, D. (2022). Strategi kerjasama pengembangan institusi halal: Implementasi pada Halal Center. *Jurnal Ilmiah Ekonomi Islam*, 8(1), 590–598. https://doi.org/10.29040/jiei.v8i1.3794

Beaulieu, M., Breton, M., & Brousselle, A. (2018). Conceptualizing 20 years of engaged scholarship: A scoping review. *PLOS ONE*, 13(2), e0193201. https://doi.org/10.1371/journal.pone.0193201

Boyer, E. L. (2016). The scholarship of engagement. *Journal of Higher Education Outreach and Engagement*, 20(1), 15–27.

BPJPH. (2024, October 11). *Kepala BPJPH: Capaian-capaian BPJPH adalah bagian dari legasi terbaik Kementerian Agama*. Badan Penyelenggara Jaminan Produk Halal. https://bpjph.halal.go.id/read/kepala-bpjph-capaian-capaian-bpjph-adalah-bagi-

an-dari-legasi-terbaik-kementerian-agama

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. https://doi.org/10.2307/2095101

Etzkowitz, H. (2008). *The triple helix: University–industry–government innovation in action*. Routledge.

Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From national systems and "Mode 2" to a triple helix of university–industry–government relations. *Research Policy*, 29(2), 109–123. https://doi.org/10.1016/S0048-7333(99)00055-4

Fauzan, M. F. N., Zaini, N. M., Fadillah, F. Z., & Marlina, L. (2025). Analisis regulasi nasional jaminan produk halal di Indonesia: UU JPH, BPJPH, dan peran MUI. *Jurnal Ekonomi Manajemen Dan Bisnis (JEMB)*, 3(2), 431–438. https://doi.org/10.62017/jemb.v3i2.5984

Girindra, A. (1998). *Pengukir sejarah sertifikasi halal*. Lembaga Pengkajian Pangan, Obat-Obatan dan Kosmetika (LPPOM), Majelis Ulama Indonesia (MUI).

Goddard, J., Hazelkorn, E., Kempton, L., & Vallance, P. (Eds.). (2016). *The civic university: The policy and leadership challenges*. Edward Elgar.

Halal Centre UIN Malang. (2023, October). *Sinergi Halal Center dan LPH perkuat literasi halal kampus melalui kajian islam tema titik kritis kehalalan di prodi kimia*. UIN Maulana Malik Ibrahim Malang. https://halalcenter.uin-malang.ac.id/sinergi-hc-dan-lph-perkuat-literasi-halal-kampus-melalui-kajian-islam-tema-titik-kritis-kehalalan-di-prodi-kimia/

Hasan, K. S. (2014). Kepastian hukum sertifikasi dan labelisasi halal produk pangan. *Jurnal Dinamika Hukum*, 14(2), 227–238. https://doi.org/10.20884/1.jdh.2014.14.2.292

Howells, J. (2006). Intermediation and the role of intermediaries in innovation. *Research Policy*, 35(5), 715–728. https://doi.org/10.1016/j.respol.2006.03.005

Kemenko Perekonomian Republik Indonesia. (2025). *Pemerintah dorong UMKM naik kelas, tingkatkan kontribusi terhadap ekspor Indonesia* (Siaran Pers HM.4.6/27/SET.M.EKON.3/01/2025). https://djpb.kemenkeu.go.id/kppn/tanjungselor/id/data-publikasi/artikel/3024-pengaruh-umkm-dalam-perekonomian-daerah.html#_ftn1

Kementerian Agama Republik Indonesia. (2021). *Keputusan Menteri Agama Nomor 1360 Tahun 2021 tentang Bahan yang Dikecualikan dari Kewajiban Bersertifikat Halal*.

Klerkx, L., & Leeuwis, C. (2009). Establishment and embedding of innovation brokers at different innovation system levels: Insights from the Dutch agricultural sector. *Technological Forecasting and Social Change*, 76(6), 849–860. https://doi.org/10.1016/j.techfore.2008.10.001

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.

Lipsky, M. (1980). *Street-level bureaucracy: Dilemmas of the individual in public services*. Russell Sage Foundation.

LP2M UIN Mataram. (2023, August 11). *Pelepasan mahasiswa KKP UIN Mataram 2023*. Lembaga Penelitian dan Pengabdian kepada Masyarakat UIN Mataram. https://lp2m.uinmataram.ac.id/pelepasan-mahasiswa-kkp-uin-mataram-2023/

Ma'ruf, S. N. A. (2024). Sertifikasi halal dan kerjasama internasional di era digital melalui kebijakan one roof system BPJPH. *LITERATUS*, 6(2), 758–766. https://doi.org/10.37010/lit.v6i2.1939

Mariana, Tondoyekti, K., & Hady, L. K. (2025). Peran MUI dan Halal Center dalam meningkatkan keberhasilan sertifikasi produk halal pada UMKM NTB. *Assets: Jurnal Ekonomi, Manajemen dan Akuntansi*, 15(1), 27–37. https://doi.org/10.24252/assets.v15i1.56109

Mubarok, F. K., & Imam, M. K. (2020). Halal industry in Indonesia; Challenges and opportunities. *Journal of Digital Marketing and Halal Industry*, 2(1), 55–64. https://doi.org/10.21580/jdmhi.2020.2.1.5856

Omar, E. N., & Jaafar, H. S. (2011). Halal supply chain in the food industry—A conceptual model. *2011 IEEE Symposium on Business, Engineering and Industrial Applications (ISBEIA)*, 384–389. https://doi.org/10.1109/ISBEIA.2011.6088842

Pemerintah Republik Indonesia. (2014). *Undang-Undang Nomor 33 Tahun 2014 tentang Jaminan Produk Halal*.

Pemerintah Republik Indonesia. (2021). *Peraturan Pemerintah Nomor 39 Tahun 2021 tentang Penyelenggaraan Bidang Jaminan Produk Halal*.

Prabowo, S., Abd Rahman, A., Ab Rahman, S., & Samah, A. A. (2015). Revealing factors hindering halal certification in East Kalimantan Indonesia. *Journal of Islamic Marketing*, 6(2), 268–291. https://doi.org/10.1108/JIMA-05-2014-0040

Priantina, A., & Sapian, S. M. (2023). Sertifikasi halal di Indonesia: Dari voluntary menjadi mandatory. *Tasyri' : Journal of Islamic Law*, 2(1), 95–118. https://doi.org/10.53038/tsyr.v2i1.48

Republik Indonesia. (2014). *Undang-Undang Nomor 33 Tahun 2014 tentang Jaminan Produk Halal*.

Rieu, A.-M. (2014). Innovation today: The Triple Helix and research diversity. *Triple Helix*, 1(1), 8. https://doi.org/10.1186/s40604-014-0008-8

Rohmah, S. (2020). Authoritarianism in the Halal Product Guarantee Act of Indonesia: A contribution to an ongoing debate. *Indonesia Law Review*, 10(3), Article 3. https://doi.org/10.15742/ilrev.v10n3.645

Syukur, M., Rosyidah, S., & Vernanda, Z. (2024). Aplikasi Sihalal BPJPH dalam percepatan pengajuan sertifikasi produk halal bagi UKM Desa Karanganyar Paiton. *Indo-Fintech Intellectuals: Journal of Economics and Business*, 4(6), 2970–2981. https://doi.org/10.54373/ifijeb.v4i6.2307

UIN Surakarta. (2023, March). *Program penguatan fungsi pendampingan produk halal (PPH)*. Universitas Islam Negeri Raden Mas Said Surakarta. https://uinsaid.ac.id/berita/program-penguatan-fungsi-pendampingan-produk-halal-pph-pusat-studi-halal-uin-raden-mas-said-surakarta

Umah, K. A. (2017). *IHC (Industry Halal Community): Integration of ASEAN Halal Culinary Industry as International Acceleration Halal Center in Indonesia* (SSRN Scholarly Paper No. 3122217). Social Science Research Network. https://doi.org/10.2139/ssrn.3122217

Vanany, I., Soon, J. M., Maryani, A., & Wibawa, B. M. (2019). Determinants of halal-food consumption in Indonesia. *Journal of Islamic Marketing*, 11(2), 507–521. https://doi.org/10.1108/JIMA-09-2018-0177

Ward, K. A. (2020). Community engagement in higher education. In *The International Encyclopedia of Higher Education Systems and Institutions* (pp. 206–211). Springer. https://doi.org/10.1007/978-94-017-8905-9_340

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). SAGE.

Yuliani, D. P., Wicaksono, A. G., & Asrijati, E. R. (2026). Collaborative governance triple helix dalam pengembangan sumber daya manusia untuk mewujudkan visi Indonesia Emas 2045. *Jurnal Perlindungan Masyarakat: Bestuur Praesidium*, 3(1), 45–65.

Zain, N. F. M., Jaafar, H. S., Ibrahim, I., Halin, I. A., & Othman, H. (2022). Halal supply chain industrial park conceptual model. *International Journal of Health Sciences*, 6(S3), 2477–2485. https://doi.org/10.53730/ijhs.v6nS3.6070