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# Implementation of halal certification in ensuring local food security in the global market

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# ABSTRACT

Local food security must be continuously improved to compete in the global market. In addition to boosting income, local food products must ensure their halal certification. Halal certification institutions play a crucial role in guaranteeing product halalness. However, many micro, small, and medium enterprises (MSMEs) need to be made aware of the certification process, despite legal requirements mandating that all products in Indonesia be halal certified, including MSME products. This study explores the implementation of halal certification to support local food security in the global market. Data were gathered through literature reviews, direct observations, and interviews with MSMEs in Cilegon City, Banten, Indonesia. The study included workshops and ongoing assistance through the Untirta Halal Center to guide MSMEs in completing the halal certification process. The findings indicate that halal certification strengthens local food security and enhances the competitiveness of local products in the global market.

#### ABSTRAK

Ketahanan pangan lokal perlu terus ditingkatkan agar mampu bersaing di pasar global. Selain sebagai upaya meningkatkan pendapatan, produk pangan lokal juga harus memastikan kehalalannya melalui sertifikasi yang sesuai. Lembaga sertifikasi halal berperan penting dalam memberikan jaminan kehalalan produk. Namun, masih banyak pelaku usaha mikro, kecil, dan menengah (UMKM) yang belum sepenuhnya memahami proses sertifikasi, meskipun peraturan mewajibkan semua produk di Indonesia, termasuk produk UMKM, memiliki sertifikat halal. Penelitian ini menganalisis penerapan sertifikasi halal sebagai langkah strategis untuk memperkuat ketahanan pangan lokal dalam menghadapi persaingan pasar global. Data dikumpulkan melalui kajian pustaka, observasi lapangan, dan wawancara dengan pelaku UMKM di Kota Cilegon, Banten. Penelitian ini mencakup pelaksanaan lokakarya serta pendampingan intensif melalui Halal Center Untirta, yang membantu UMKM menyelesaikan proses sertifikasi halal. Hasil penelitian menunjukkan bahwa sertifikasi halal tidak hanya memperkuat ketahanan pangan lokal, tetapi juga meningkatkan daya saing produk lokal di pasar global.

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# 1. Introduction

Local food security products must continuously be enhanced to compete in the global market. In addition to increasing income, these products must also ensure their halal integrity. As a regulator of public policy, the Indonesian government is responsible for ensuring that circulating food products can be classified as halal or haram. Such regulations primarily focus on the substances and ingredients used in producing food and beverages. The government must monitor and provide comprehensive information regarding foods and drinks prohibited for consumption.

Halal certification agencies play a crucial role in guaranteeing product halalness. In Indonesia, the Institute for the Study of Food, Drugs, and Cosmetics (LPPOM) under the Indonesian Ulema Council (MUI) has the authority to regulate the halal status of food, medicine, and cosmetics [1]. LPPOM MUI implements policies to issue halal certification, fulfilling its mandate to oversee halal food and beverage circulation. The sole institution authorized to declare a product halal or haram based on specific examination methods and criteria [2]. Implementing halal certification by LPPOM MUI involves a systematic mechanism that necessitates extensive communication and increased awareness among producers, traders, and consumers regarding the importance of halal labeling [3-4]. Given Indonesia's vast population and the diversity of food and beverage products in circulation, significant socialization efforts are required. Various stakeholders, including universities, must actively participate in these efforts to ensure widespread understanding and adherence. Several studies on halal certification have explored these challenges and mechanisms [5-10].

Banten Province is home to a predominantly Muslim population, with 94.82% identifying as Muslim. Approximately 3.7% of Banten's population resides in Cilegon City (Central Statistics Agency (BPS) Banten Province) [11]. The culinary sub-sector is a prominent component of Cilegon's creative industries, with significant contributions in employment, the number of Small and Medium Industries (IKM), and the Gross Regional Domestic Product (PDRB). However, awareness and understanding of halal food regulations among the people of Cilegon still need to be improved. For a society to thrive, awareness of halal products among producers, traders, and consumers must be cultivated and reinforced in Cilegon City.

# 2. Methods

The problem-solving methodology begins with identifying core issues through literature reviews, direct observations, and interviews with selected MSMEs in Cilegon City, Banten, Indonesia. The sample for this study consists of several MSMEs operating within the region. The methodology emphasizes training and mentoring as the primary techniques to achieve the program's objectives. Activities include workshops aimed at strengthening halal certification awareness and continuous mentoring to guide MSMEs in completing the halal certification process at the self-declare level, facilitated by the Untirta Halal Center.

This initiative involves collaboration among key stakeholders, including universities, partner organizations, and government agencies. Sultan Ageng Tirtayasa University's Halal Center plays a central role as the academic facilitator of the program. Partner organizations, such as the Central Organization of the Entrepreneurial Incubator and MSME Clinic (PIKWU) in Cilegon City, support the development of local MSMEs. Additionally, government entities like the Department of Industry and the Department of Cooperatives in Cilegon City contribute to ensuring alignment with policies and regulations. The implementation methodology outlines several stages to address the identified challenges effectively. These include clarifying stakeholders' roles in assisting MSMEs, detailing the methods and sequential steps used in the program, and highlighting how partner organizations actively contribute to the implementation of program initiatives. This comprehensive approach ensures that the solutions offered are practical and sustainable for the target MSMEs.

# 3. Results and Discussion

#### 3.1. Local Food Security from MSME Products

The culinary sub-sector represents one of the leading creative industries with significant potential in Cilegon City. This potential is evident when considering the number of workers, the total units of Creative Industry Small and Medium Industries (IKM), and the contribution of the creative industry to the Gross Regional Domestic Product (GRDP). As shown in Table 1, the culinary sector stands out as a prominent sub-sector. Of the 339 total IKM units in the creative industry, the culinary business type dominates participation. Additionally, 687 individuals, or approximately 49% of the workforce in this sector, are employed in culinary businesses, contributing to its growth. The added value generated by this sub-sector is also substantial, amounting to Rp 13,231,260, representing 25% of the total value. Moreover, an efficiency analysis using the Data Envelopment Analysis (DEA) method reveals that the culinary industry has a technical efficiency score of 0.268 [8]. This indicates the need for targeted interventions to enhance efficiency and optimize the performance of the culinary sub-sector in Cilegon City's broader economic framework.

Table 1. Creative	e Industry Sub	sector of Cilegon City
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No.		Input		Subsector (Constant Price)	
	Subsektor	Manpower (Persons)	Number of IKM Creative Industries	Value of Raw Materials (Rp)	PDRB of Creative Industries (Rp)
1.	Culinary	657	98	18,970,062	13,231,260
2.	Design	281	102	44,512,660	1,101,870
3.	Craft	110	14	4,056,204	10,573,870
4.	Printing	194	88	7,032,663	11,782,240
5.	Clothing	87	37	14,266,668	16,096,680
	Total	1329	339	88,838,257	52,758,920

The food processing industry plays a vital and strategic role in the economy of Cilegon City, as highlighted in the description of its industrial potential. This industry is a key contributor to local food security and must be consistently maintained and monitored. Most of the food and beverage processing companies in Cilegon City must obtain halal or haram certification to ensure the safety and trust of the general public in consuming their products. Despite its importance, awareness among producers, traders, and consumers regarding the significance of halal certification for food and beverages remains low. This lack of understanding indicates a need for improved knowledge and awareness of halal food regulations. Efforts to foster this awareness in the Cilegon community must target producers, traders, and consumers alike. To address this issue, collaboration with key stakeholders such as LPPOM MUI Banten, the authority for halal certification, and the Department of Cooperatives and MSMEs of Cilegon City will be prioritized in this community service initiative.



Figure 1. Partner owned products.

Several challenges have been identified, including:

#### 1. Knowledge Constraints

The understanding of processing groups about halal rules in accordance with Islamic law is still limited, leading to minimal awareness of the critical role of halal certification in the culinary industry.

- 2. Administrative Obstacles
  - Some MSME products lack a PIRT (Food Production Home Industry) certificate.
  - Several MSMEs have not yet registered for a Business Identification Number (NIB).
- 3. Gaps in MSME Compliance
- Many MSMEs are yet to fulfill the following requirements:
  - Production facilities aligned with halal sharia guidelines.
  - Socialization or training on halal certification processes.
  - Possession of a valid PIRT certificate or NIB.

Addressing these challenges will require targeted interventions, including training programs, administrative support, and collaboration with certification bodies to ensure compliance and awareness among MSMEs in the food processing industry of Cilegon City.

### 3.2. 3.2. Workshop on Understanding Product Urgency and Halal Certification for MSMEs

To address the challenges faced by MSMEs, universities are expected to take an active role in providing practical solutions. One such effort was the socialization of halal registration for MSMEs in Cilegon City, organized through a halal workshop in collaboration with PIWKU Cilegon. The workshop, held on July 22, 2022, at the 2nd Floor Auditorium of the Faculty of Engineering building, was attended by 40 MSME representatives. Speakers from the Untirta Halal Center and the Banten Province Halal Service Task Force led the event, which ran from 09:00 until completion.



Figure 2. Workshop documentation.

The workshop focused on the strategic role of the Halal Center in implementing Halal Product Assurance (JPH), enhancing MSME understanding of halal products and certification, and guiding participants on the self-declare process for halal certification. Key topics included:

- 1. Halal Products and the Obligation to Consume Halal Foods According to Islamic Shari'ah.
- 2. The Urgency of Halal Products and Certification in Islam.
- 3. Terms and Conditions for Halal Certification.
- 4. Fatwa Decisions on Halal Products by MUI.
- 5. Procedures for Submitting Halal Certification through LPPOM MUI.
- 6. Regulations of the Halal Assurance System (SJH).
- 7. Workshops and Strategies for Marketing Halal-Certified Products to Consumers.

This initiative not only strengthened the awareness of MSME actors regarding halal certification but also provided them with practical knowledge and tools to implement halal standards effectively, ensuring their compliance with Islamic law and enhancing the marketability of their products.

# 3.3. Untirta Halal Center

Sultan Ageng Tirtayasa University (Untirta) plays an active role in community service, particularly in supporting the development of Micro, Small, and Medium Enterprises (MSMEs). This commitment is demonstrated through the establishment of the Untirta Halal Center, a halal certification institution dedicated to monitoring and ensuring the halalness of products throughout their production processes. This initiative reflects the university's role in supporting the implementation of Halal Product Assurance (Jaminan Produk Halal, JPH). The establishment of the Untirta Halal Center was formalized through its official launch and the inauguration of its management team.



Figure 3. Untirta Halal Center logo.

The Untirta Halal Center holds a strategic position in contributing to the community through its dedication and service, particularly by assisting MSMEs in obtaining halal certification for their products. Managed under the supervision of the Institute for Research and Community Service (LPPM), the Halal Center is well-positioned to facilitate halal studies, which are integrated into the broader food security framework. Moving forward, efforts will focus on intensifying these services to ensure their impact is increasingly felt by the community [12].

# 3.4. Assistance in Making Business Registration Numbers and Home Industry Food Certificates (PIRT)

The socialization process for creating Business Registration Numbers (NIB) and Home Industry Food Certificates (PIRT) covers several key aspects. It begins with providing an understanding of the importance and function of NIB and PIRT certificates. This is followed by an explanation of the terms and conditions required for submission and a detailed overview of the procedures for obtaining both the NIB and halal certificates.

The assistance process is designed to support MSMEs in completing the required documentation for submitting NIB and PIRT certificates. This includes evaluating the internal capabilities of partners to apply for halal certification and providing direct assistance in overcoming challenges faced during the certification process. By addressing these critical components, the program ensures that MSMEs are well-prepared and equipped to achieve compliance with halal certification and food safety standards.

#### 3.5. Implementing Halal Certification in Guaranteeing Local Food Security Products

The initial step in the halal certification process involves registering the product with the Halal Product Assurance Organizing Body (BPJPH) until a registration number and STTD (Statement of Halal Product Submission) date are issued. The registration includes submitting a comprehensive application document containing the company name, registration status, business scale, factory address, marketing area, product type, LPH (Halal Inspection Agency) name, and date of application letter. The application package also includes a formal application letter, documents from the halal supervisor, a list of product names and ingredients, a description of the production process, and the Halal Product Assurance System (SJPH) documentation. Before proceeding, the verifier checks and confirms that all submitted documents meet the requirements for halal certification.

The mentoring process results in a detailed report containing the STTD, company name, address, MSME personnel name, product type, date of mentoring, name of the mentor, partner agency, product name, and a list of ingredients. This report also includes a table identifying whether any of the ingredients are questionable. Attached to the report are details about the SJPH process, fulfillment of halal assurance system criteria, and photographs of MSME products. Once all stages are completed, the self-declare halal product submission results in the publication of an SJPH Manual Book. This manual, issued under the micro and small business self-declare certification, is owned by the company and outlines policies and provisions for meeting halal certification requirements. The manual is valid only if it is fully completed, includes required attachments, and is signed by the business owner. It cannot be duplicated or edited without the owner's consent.

The Manual contains about:

- a. Introduction. This chapter contains general information, company, purpose, and scope.
  - Criteria for the halal product guarantee system. This section consists of:
  - 1. Commitment and responsibility:
    - a). Halal policy
    - b). Responsibilities of business owners
    - c). Development of human resources
  - 2. Ingredient.
  - 3. Halal product process.
  - 4. Product.

b.

5. Monitoring and evaluation.

This manual contains several attachments, namely:

- a. Materials for making halal policy outreach and education posters:
  - 1. Understanding of halal and haram.
  - 2. The practice of sjph implementation.

- b. Decision letter of halal responsible/supervisor.
- c. Internal training materials:
  - 1. Knowledge of halal haram.
  - 2. Knowledge of unclean things.
  - 3. Halal certification knowledge.
  - 4. Implementation of the Halal Assurance System (SJPH).
  - Internal training evaluation. In the evaluation section, questions were given to all trainees and assessed by the trainer. The trainer may change the questions according to the training material delivered.
- d. List of halal ingredients.
- e. Proof/notes of purchase of materials.
- f. Material inspection form.
- g. Internal audit checklist Form.
- The internal audit checklist form is signed by the business owner and halal responsible/supervisor containing:
- a. Commitment and responsibility:
  - 1. Halal policy.
  - 2. Duties and responsibilities.
  - 3. Development of human resources.
  - Material:
  - 1. Material source.
  - 2. Material list.
- c. Halal product process.
- d. Products.

b.

e. Monitoring and evaluation.

The role of partners in the program is to provide the necessary documents and act as implementers of human resource-related activities. Program evaluations involve pre-tests and post-tests during theoretical sessions, such as workshops and training sessions. To ensure sustainability, the Halal Center conducts follow-up socialization and ongoing assistance. For example, after the workshop, a selection process was conducted for three MSMEs in Cilegon City to participate in self-declared halal certification. Halal certification guarantees the safety and quality of local food products, enabling them to compete effectively in the global market. MSME actors' readiness to certify their products as halal demonstrates their commitment to meeting regulatory standards and consumer expectations. Consumers benefit from the assurance that products are halal and meet health and safety requirements, increasing trust and satisfaction with local food products.



Figure 4. Product: (a) Martabak, (b) Fried Onion, and (c) Fish Crackers.

# 4. Conclusion

The community service program focuses on enhancing the understanding of MSMEs in Indonesia, particularly in Banten Province, regarding halal products. Activities include a socialization workshop on halal registration for MSME actors in Cilegon City, conducted in collaboration with PIWKU Cilegon. The workshop covers the strategic role of the Halal Center in implementing Halal Product Assurance (JPH), strengthening MSME awareness of halal products and certification, and the process of self-declaration for halal certification. Additionally, the program provides assistance with preparing halal certification documents for MSME products in Banten Province. Three MSME actors in Cilegon City received direct guidance on self-declaration halal registration. The application of halal certification plays a crucial role in ensuring the competitiveness of local food security products in the global market.

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