

Analysis of Traditional Cuisine Halal Supply Chain to Create Sustainability Halal Tourism Attractions

Zuraini Mahyiddin¹, Indani², Zaudhatul Ulya³, Zaira Munanda⁴

{zuraini_mahyiddin@unsyiah.ac.id¹, zaudatuluya@gmail.com², zairamunanda1994@gmail.com³}

PKK Study Program, Teacher Training, and Education Faculty, Syiah Kuala University¹,
Global Supply Chain and Operations Management, Berlin School of Economics and Law²,
Chemical Engineering Study Program, Engineering Faculty, Syiah Kuala University³

Abstract. Culinary attracts tourists to come to a specific location to try the area's cuisine. Indonesia, rich in traditional menus and unique foods from each region, attracts many tourists yearly. However, as global issues grow fast, certain things need to be paid attention to. In this case, the problems of Halal Tourism. Considering that Indonesia is dominated by a Muslim community and is one of the most extensive Muslim tours in the world, researchers feel the need for a deeper analysis of the awareness of culinary business actors in ensuring their products are in the halal supply chain. The research study finds suggestions to tourism operators and service providers to understand sustainable halal tourism, especially for culinary that is served. It is also expected that culinary business actors can be more aware and take care of halal certification to increase public trust and create a sustainable halal tourism attraction.

Keywords: Culinary, Halal Supply Chain, Halal Tourism, Sustainability

1 Introduction

Tourism and Culinary are inseparable elements. Indonesia has a very diverse cuisine consisting of a variety of local food. These days, the demand of halal food consumers concerns the integrity of the Halal status of the product they buy [1]. The industry no longer consists only of halal slaughtered animals but also includes services, lifestyle, and halal food [2]. Halal goods and products trade is now estimated to be worth more than USD 2.1 trillion [3]. The global halal food market has developed massively from USD 587.2 billion in 2004 to USD651.5 billion in 2010 [4] [5].

According to the Indonesian population census, 87.18% of the 237,641,326 Indonesian population is Muslim. Aceh, the province called "*Serambi Mekkah*," adopts an Islamic lifestyle and law. Aceh government has collaborated with the Institute for the Study of Food, Drugs, and Cosmetics and the *Ulama* Consultative Council (LPPOM MPU) Aceh to encourage and provide free services related to halal certification in Aceh. The Aceh government also has policies that regulate halal products, namely Aceh Qanun Number 8 of 2016 concerning the Halal Product Guarantee (SJPH). The Halal Product Assurance System is system management developed,

implemented, and maintained by the certificate holder halal or business actors to support the halal production process's sustainability following LPPOM MPU Aceh's requirements. In Indonesia, companies need to have a halal certificate from the Indonesian Ulema Council (MUI) to give consumers confidence that their products are halal. This institution oversees products circulating in the community by issuing halal certificates if the products sold meet the criteria for halal products contained in HAS 23000, meaning that the product has passed the inspection process and its contents and is free from elements prohibited by religious teachings. The identity of Muslim tourists is usually related to unique needs and behaviors [6]. It is because eating non-halal food is forbidden for every Muslim. However, the demand for halal food is also requested by Muslims and non-Muslims worldwide [7]. Muslim tourist consideration when deciding to go to a restaurant is the existence of the Halal logo [8]. To obtain a halal logo, businesses need to pay attention to the entire SC of the products. [9]. The paper aims to provide an overview of awareness and risk identification of traditional menu supply chain along with halal risks to put trust in tourism that is aware of halal foods to create verified halal tourism destinations and sustainable tourism for the long-term.

2 Literature Review

2.1 Culinary and Traditional Cuisine

The way of people use, select, obtain and distribute food is food habits [10]. One of the ways cultural practice differentiates one culture from another is by using food [11]. Food tourism, also called gastronomy tourism, is a tourism activity that relates to food or is also defined as "the art, or science, of good eating. This links visitors with foods and beverages produced locally [12]. Food tourism is now becoming a trend worldwide and gained a worldwide reputation for marketing in the tourism industry. One of the cultural heritages also consists of traditional food. In Indonesia, the second highest income expenditure is food after accommodation. In 2013, of the average USD 1,142 that a foreign tourist spends during his holiday in Indonesia where 17.7 percent was spent on food and drinks [13]. Halal tourism adheres to Islamic values considering religion affects the daily activities of Muslims, both at home or when on a trip, and thus shapes the choice of destinations and what to do in those destinations [14], [15].

2.2 Halal Food

Halal is permitted according to Islamic law in Arabic phrases [16]. It covers 39 aspects from the farm until the ending at the table of food, including the type of food and the food preparation process. Halal integrity of food can be improved by having transparency to the consumers [17].

Traditional food is an identity of a country; thus, its sustainability is essential. Sustainability attracts tourism to return after visiting by having trust in the food eaten, where belief in the Halal food supply chain can be as simple as pure trust. As the business evolved, the Halal logo or certification became trusted in the supply chain [18]. However, it is known that most of the local companies in Aceh do not have a certificate. It is becoming crucial to know that tourism coming from other locations does not have the trust of local tourism except with the certifications. A lot of Acehnese cuisines use meat as their main ingredient. Meanwhile, Refrigerated products, especially meat, is one of the cold chain product that is more sensitive to cross-contamination with bacteria and non-halal [19].

2.3 Halal Supply Chain

The supply chain includes all direct and indirect parties when fulfilling a customer request. For example, in fulfilling halal chicken meats, the processes involved include pre-slaughtering, slaughtering, and post-slaughtering methods in the supply chain. During the pre-slaughtering phase, halal issues include the feeding and breeding procedures that ensure the animals are fed only with halal food. Furthermore, organizations need to ensure that there is no contamination between halal and non-halal products.

Halal food supply chain risk is a risk in a halal food product that is not entirely based on Islamic principles. The guarantee of a halal supply chain deals with the problems that consist of cross-contamination, such as spoilage or damage of the packaging, risk of contamination, such as lack of segregation with non-halal, lack of availability halal-certified in logistics, diversity of the Muslim consumer's perception and any materials that are including *najis* (ritually unclean) following the Islamic principles.

2.4 Sustainability

The global topic of every element of human life, including economics, environment, and social issues, is now known as sustainability. A highly significant impact of sustainability is affecting tourism[20]. A thriving tourism destination is influenced by sustainability in hospitality and tourism. To mitigate the adverse effects of tourism on the environment, for example, sustainable tourism is adopted by the hospitality and tourism industry, and by looking at the potential Muslim tourism, halal tourism is key to a sustainable tourism destination.

3 Research Methodology

This study uses the descriptive qualitative method, where a qualitative approach is a procedure that produces descriptive data in the form of written or spoken words from people and observed behavior in providing a comprehensive picture and designed to provide a picture of a situation as it naturally happens. This aims to justify the current situation, make evaluations, and develop theories [22]. This research was structured starting with reviewing several literary sources such as articles, journals, news, and expert opinions.

This research was carried out through local traditional cuisine businesses in Aceh Province, Indonesia, as the halal and Muslim tourism destination. However, researchers believe it is essential to identify the halal risk in Aceh Cuisine businesses and study the awareness of society along with halal supply chain issues of the food eaten even though Aceh is a province that verified its Muslim destination. It is expected to be a Muslim destination role by other areas of Indonesia and worldwide about how Aceh takes care of producing cuisine and put trust in its customer about its halal supply chain.

4 Results and Discussions

4.1 Identification of Possible Issues and Challenges of Halal Criteria in Supply Chain

Based on the literature review analysis results and field conditions, the issues and challenges in creating a halal supply chain are as follows.

Issues: The issues faced by the halal supply chain in Indonesia include the following:

1. The awareness and understanding of Halal principles from the consumers.
2. Consumers trust the process along the Supply Chain
3. Deficient in Consistent Halal Understanding
4. Poor Halal Regulation and Enforcement
5. The contamination mixing of Halal and Non-halal Food [19].

Challenges: The challenges faced by the halal supply chain in Indonesia include:

1. Halal supply chain implementation requires more extended coordination and collaboration than halal products. All actors along the supply chain need to understand the Halal supply chain issue that weakens competitiveness because of the lagging understanding and implementation of the halal supply chain.
2. Other challenges are the development of the halal industry (such as halal park operators, halal producers, warehousing, and technology), business development of halal logistics services, tariff and non-tariff barriers, development of niche markets, ability to pay from customers, and customer education.
3. The complexity of the halal food chain from producers to consumers leads to the difficulty of managing halal from a supply chain perspective.

In addition, in general, halal supply chain actors, consumers, and the government will face several problems and challenges in ensuring the implementation of halal supply chains, such as:

1. Not many industry players are interested in implementing a halal supply chain because there are additional costs.
2. Non-Muslim countries produce about 90 percent of halal products where halal status and logistics are uncertain.
3. There are not many halal supply chain experts. Therefore, halal supply chain training for employees handling halal products is required.
4. The traceability of halal products is considered necessary in ensuring the status of halal products during the halal logistics process.

Identified Risks

The risk identification process is based on literature studies and HAS 23000. The following Table 1. is the result of identifying risk events based on the criteria for the production of halal products.

Table 1. Identification of risk events.

No	Risk Events
1	Use of supporting/auxiliary raw materials that are not accompanied by a halal certificate
2	Raw materials are contaminated with other whose halal status is unclear or unclean
3	The production process room is contaminated with unclean
4	The packaging room is contaminated with unclean
5	Storage room contaminated with unclean
6	Facilities and equipment contaminated with materials whose halal status is unclear or unclean
7	Products that have gone through the boiling process are stored in an uncovered place for a long time
8	Product contaminated by unclean during sampling
9	Product is contaminated during the product transfer process
10	Employees are not working correctly.
11	Damaged product/product contaminated with unclean/does not meet halal criteria.

Below is Table 2, which shows the risk agents or causes of risk events.

Table 2. Identification of risk agents.

No	Risk Agents
1	Lack of raw materials for halal products
2	Do not have an SOP for the production process of halal products (written documents)
3	Using additional raw materials is not yet clear
4	Insufficient/limited storage area
5	The production process room is not devoted to the production process
6	The production area is not free from najis/ less sterile
7	Facilities or equipment are not devoted to halal products
8	Lack of concern and awareness of workers towards the production process of halal products
9	Wrong location of storage facilities or equipment
10	The lack of technical evaluation in halal product production activities
11	Lack of work supervision

4.2 Analysis and Outcome of The Study

With so many fraud cases and unintentional issues of non-halal contaminants in food, more stringent monitoring should be carried out by competent certifying authorities. Halal authentication and verification are the main challenges in analyzing processed foods. The risk

to local food safety and halal-ness is quite significant due to the lack of awareness of consumers and producers about the importance of safety and halal in their products. Food that is a characteristic of an area must receive more attention to ensure the safety and halalness of its products. Increasing awareness and practicality of ingredient tracking, production, and presentation is crucial to ensure the safety and halal-ness of ready-to-eat local food, thus supporting culinary tourism development.

Halal tourism can be used to promote more comprehensive sustainable tourism implementation and is expected to address sustainability issues by providing policy support, high maintenance services, the availability of infrastructure, and more aware human resources. The increase in Muslim tourists is an opportunity and a challenge to improve the tourism sector.

4.3 Discussions

Solutions Approach to Creating Sustainability Halal Tourism Attractions

It is known that many local businesses in Aceh that do not have Halal Certification cannot be neglected. The risk to the halal supply chain may occur in the process, starting from supplying the material, production process, packaging, transportation, and delivery to customers. So based on the literature review and discussions with the expert, some approaches can be used as the solution for these criteria. Local businesses are expected to be aware and pay more attention to these approaches:

Halal Food Segregation; One of the most widely mentioned factors for implementing the halal food industry and the supply chain is avoiding direct contact between halal and non-halal elements in halal food. There should be a physical separation of halal and non-halal products during the supply chain process to prevent this from happening.

Halal Traceability; Traceability is a process that enables tracing relevant information related to the originating product to the point of sale. It provides the ability to track and trace all stages of the production of food, feed, ingredients, and packaging [1].

Vertical collaboration; of halal supply chains makes it possible to:

1. An effective halal supply chain guarantee is a reference to an international halal logistics standard and consistent communication of halal status (halal supply chain code) throughout the supply chain.
2. Standardization of halal assets in the supply chain: from sources to consumer purchasing points; and
3. Supply chain optimization by sharing demand data through the supply chain (facilitating better customer responses), reducing inventory, and better transportation planning.

The government's role is crucial in ensuring the integrity of the Halal food supply chain. In this case, the implementation of the halal supply chain in Indonesia needs a decisive role of the government to encourage and facilitate businesses such as preparing facilities and infrastructure, which includes logistics centers, warehousing airports, terminals, ports, and also related inventory and distribution processes in the supply chain.

Indonesia can play a role in the development of the halal food industry in terms of the following:

1. SMEs are given an excellent opportunity to develop halal products

2. The halal food industry must be promoted to build awareness about the importance of using halal service products.
3. Society must be given the understanding that consuming products labeled as halal is essential because the halal label on food products is a guarantee of halal products.

5 Conclusions and Recommendations

From the analysis above, some conclusions can be taken out from this study that researchers see the potential for local traditional food businesses in Aceh, such as *ayam tangkap*, fried *sie reuboh*, *keumamah*, and so on, which can not only be consumed by tourists who come to the place but also become potential souvenirs in the future, SMEs and local Businesses are expected to be able to maintain the quality of the food produced, especially to be more aware of issues that are currently emerging, namely the existence of halal tourism and halal supply chains. Even though Aceh has been named the city of "*Serambi Mecca*," halal certification and criteria must be things that are highly emphasized in every local business. For example, seeing Malaysia is the center of halal certification in the world. This is done with the hope of creating a sustainable tourism attraction in the future for every tourist who is aware of the halal supply chain for the products they consume.

References

- [1] M. H. Zulfikar, M. M. Anuar, and M. S. A. Talib, "Conceptual Framework on Halal Food Supply Chain Integrity Enhancement," *Procedia - Soc. Behav. Sci.*, vol. 121, pp. 58–67, 2014, doi: 10.1016/j.sbspro.2014.01.1108.
- [2] Alserhan, "'Islamic branding: a conceptualization of related terms,' Brand Management," vol. 18, n, no. Brand Management, pp. 34–49, 2020.
- [3] H. Journal, "'Halal Meat Imports in GCC countries,'" no. The Halal Journal, pp. 40–42, 2009.
- [4] Sungkar I, "'The global halal food industry: revisited,' 2009, no. The Halal Journal, pp. 36–38.
- [5] M. H. A. Kadir, R. Z. R. M. Rasi, S. S. Omar, and Z. I. A. Manap, "'Halal Supply Chain Management Streamlined Practices: Issues and Challenges,' *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 160, no. 1, 2016, DOI: 10.1088/1757-899X/160/1/012070.
- [6] M. F. Syah Putra and K. P. Tucuman, "The Concept of Halal Tourism and The Fulfillment of Muslim Tourist Needs in Halal Tourism," *Halal Res. J.*, vol. 1, no. 2, pp. 56–62, 2021, doi: 10.12962/j22759970.v1i2.52.
- [7] Y. Lam and S. M. Alhashmi, "'Simulation of halal food supply chain with certification system: A multi-agent system approach,' *Lect. Notes Comput. Sci. (including Subsea. Lect. Notes Artif. Intell. Lect. Notes Bioinformatics)*, vol. 5357 LNAI, no. December, pp. 259–266, 2008, DOI: 10.1007/978-3-540-89674-6_29.
- [8] N. A. Zainol, E. Mustafa, and A. T. Willibrod, "'Muslim Tourists' Food and Beverage Needs and Preferences During Travel,' *J. Event, Tour. Hosp. Stud.*, no. Number 1, pp. 121–142, 2021, DOI: 10.32890/jeth2021.1.6.
- [9] M. H. Ali, M. Iranmanesh, K. H. Tan, S. Zailani, and N. A. Omar, "'Impact of supply chain integration on halal food supply chain integrity and food quality performance,' *J. Islam. Mark.*, vol. 13, no. 7, pp. 1515–1534, 2022, doi: 10.1108/JIMA-08-2020-0250.

- [10] S. K. Kittler PG, *Food and culture; 4th ed.* Belmont: Wadsworth/ Thomson Learning, 2004.
- [11] B. P. In I. D. Meehan K, "Tasting tourism: traveling for food and drink," no. Ashgate Publishing Limited, 2003.
- [12] I. Elena, "The Canadian Culinary Tourists: How Well Do We Know Them?," University of Waterloo, Canada, 2003.
- [13] Indonesia Investment, "2013's Growing Number of Tourists in Indonesia Meets Government Target," 2013.
- [14] A. Vargas-Sánchez and M. Moral-Moral, "Halal tourism: literature review and experts' view," *J. Islam*, vol. 11, n, pp. 549–569, 2019.
- [15] J. Jafari and N. Scott, "Muslim world and its tourism," *Annu. Tour. Res.*, vol. 44, pp. 1–19, 2014.
- [16] M. N. Riaz and M. M. Chaudry, *Halal food production*. Boca Raton, FL, USA: CRC Press, LCC, 2004.
- [17] M. Farouk, K. M. M., Pufpaff, and M. Amir, "Industrial halal meat production and animal 453 welfare: A review," *Meat Sci.*, 2016.
- [18] M. Tieman, "The application of halal in supply chain management: in-depth interviews," *J. Islam. Mark.*, vol. 2 no 2, pp. 186–195, 2011.
- [19] N. Rishelin and R. Ardi, "Halal Supply Chain Risk in Indonesian Downstream Sector," *ACM Int. Conf. Proceeding Ser.*, no. June 2020, pp. 266–271, 2020, DOI: 10.1145/3400934.3400983.
- [20] M. Battour, M. Salaheldeen, K. Mady, and M. Elsotouhy, "Halal Tourism: What Is Next For Sustainability?," *J. Islam. Tour.*, vol. 1, no. July, pp. 79–90, 2021.
- [21] D. Streimikiene, B. Svagzdiene, E. Jasinskis, and A. Simanavicius, "Sustainable tourism development and competitiveness: The systematic literature review," *Sustain. Dev.*, vol. 29, no. 1, pp. 259–271, 2021, DOI: 10.1002/sd.2133.
- [22] T. Syahra, "Makanan Tradisional Indonesia Yang Diduga Hampir Punah," 2012.