

# ***Literature Analysis of Halal Supply Chain Management in Micro, Small and Medium Enterprises (MSMEs)***

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## **ABSTRACT**

The halal industry has attracted worldwide attention from both the government and the business sector. Industry Halal is in demand by Muslim countries and the majority of countries' non-Muslim population. The increasing interest of the world community to consume quality halal products not only because of belief but also halal products to ensure good product quality by considering the ethics of religion, health, safety, and environment friendly. The role of the government in developing the necessary infrastructure and facilities for Halal SCM for MSMEs needs to be evaluated. Many MSMEs aim to implement the halal logistics concept, but they do not have the basic knowledge and infrastructure to help them. The objective of this research is for mapping the barriers to implementing Halal Supply Chain in Indonesian Micro, Small, and Medium Enterprises (MSMEs). This study uses a qualitative approach with the literature review method. Halal SCM's problems are occurred in processing, packaging, storage, transport, policy, and fundamentals. Meanwhile, the solution and strategy come from processing, policy, fundamental, technology, IoT, Block chain, and corporate governance.

**Keywords:** *Halal Supply Chain Management, Micro, Small and Medium Enterprises (MSMEs), Literature Analysis.*

## **1. INTRODUCTION**

The halal industry has attracted worldwide attention from both the government and the business sector. Industry Halal is in demand by Muslim countries and the majority of countries' non-Muslim population. The increasing interest of the world community to consume quality halal products not only because of belief but also halal products to ensure good product quality by considering the ethics of religion, health, safety, and environment friendly.

The meaning of halal among muslims people is about a brand and its included inside the belief system and moral code [2]. Halal is defined as everything permissible consumed, while the antonym of haram means everything forbidden by law Islam. The issue of halal and haram covers all activities, including the selection of cosmetics. Halal branding has become a corporate strategy for many multinational companies, both offensive and defensive approaches [9]. By population Muslims who continue to increase, awareness to consume and prioritize products Halal is also growing.

The Muslim community enjoys a positive trend from time to time. A moment again, the Muslim population is projected to make up a quarter of the world's population. United Nations Population Fund (UNFPA) stated that by 2050, Muslims will reach 2,588 million of the world's 9,322 million people, or more than 25 percent of the population globally (see Table 1)

**Table 1.** World Population and Muslim Population

Population (in million) / Year	1950	2000	2015	2025	2050
World Population	2.520	6.057	7.270	7.937	9.322
Muslim population	361	1.209	1.625	1.921	2.588

Source: United Nation Population Fund (UNFPA, 2012)

There are numerous factors that are influence the rise of the number of Halal product demanded by consumers.

Factor religion, knowledge, and dissemination of information about the importance of using halal products has fuelled this growth and led to changes in Muslim consumer behaviour on the consumption of halal products. In 2018, approximately USD 2.2 trillion was spent by Muslims for purchasing meals, pharmaceutical needs, also lifestyle sectors. This phenomenon happened due to the ethical consumption needs which is inspired by Islam. The amount of money spent has been growing 5.2% annually, and it is predicted to hit USD 3.2 trillion in 2024, and the Cumulative Annual Growth (CAGR) will reach 6.2%. Current product demand halal is focused on the food and beverage segment and has penetrated other product segments.

Indonesia's halal industrial area has outstanding potential to be developed. Indonesia has the largest Muslim population, reaching 85.2 percent or 222 million Muslims out of 261 million people. With such a community, Indonesian Muslims' needs for halal food, beverages, medicines, and cosmetics are significant. As a result, the need to develop halal logistics or supply chains is critically needed.

From a scientific point of view, the research in halal logistics area has expanded among the published journals which bring halal research as a big theme. [5]. The study of halal logistics from the consumer's point of view includes many things such as consumer perception [8], awareness, intention purchase, and willingness to pay. In addition, the research focus in logistics has shifted from consumer perspective focus to organizational outlook. For example, researching halal warehouses and impetus for transportation implementation among food companies, cosmetics, and pharmaceuticals in Malaysia. In another study, identified the prospects and challenges of halal logistics among logistics service providers (LSPs). Similar to that, assessed the quality of logistics services among halal LSPs, while tested the satisfaction of halal product producers with halal LSP services. This study indicates that research and literature on halal logistics cover the upstream and downstream of the halal supply chain.

Despite the number of studies has been rising, the theme of halal logistics governance aspects is still limited. The government role which can be potentially more discussed, it is often ignored. A bit of a disappointing government focus, given the government's vital role in the logistics industry. Current research has acknowledged the government crucial role in many logistics fields such as sustainable logistics, humanitarian logistics, urban logistics and logistics reversed.

The role of the government in developing the necessary infrastructure and facilities for Halal SCM for MSMEs needs to be evaluated. Many MSMEs aim to implement the halal logistics concept, but they do not have the basic knowledge and infrastructure to help them. The objective of this study is to map the barriers to

implementing Halal Supply Chain in Indonesian Micro, Small, and Medium Enterprises (MSMEs). This research will focus on evaluating the role of the government in developing halal SCM for SMEs.

## **2. LITERATURE REVIEW**

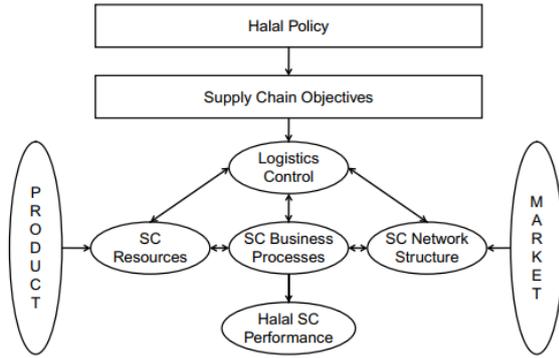
### ***2.1. Halal Supply Chain Management***

The development of the halal industry in the world in recent years is relatively rapid. Draft Halal is currently one of the main objectives of modern business and has even become a new paradigm to ensure product quality and affect human life capable of changing human behaviour, tastes, and values of their lives.

Halal Supply Chain Management can be defined as a process-oriented approach to managing material flow, information, and money through strategic coordination, cooperation, and stakeholders' collaboration to produce a value that enhances the supply chain's performance by bringing Halal and Thoyyib in all processes from production to consumption [6].

In this definition, several essential points are emphasized. Which the first is halal, which is a definition that refers to Islamic law. The second is Thoyyib. This word is defined as food conditions that are safe, hygienic, veterinary, a processed slaughter that must be following Islamic law, protected from dirty things in the environment, fair sales, and sustainable consumption. The third is focus on flow. This shows that the halal process must be guaranteed throughout the flow of goods. Fourth is coordination and collaboration, which means both suppliers, manufacturers, and consumers must work together to guarantee the halal aspect in a particular product. Fifth is performance, which demonstrates the importance of supply chain performance to ensure that products are lawful. The sixth is the focus on value, that is, with halal products, it is expected that profits and product market share will increase. Seventh is production to consumption which shows that the entire product lifecycle should be ensured to uphold the high halal concept [6].

Another meaning is management from a halal network that aims to expand the integrity of halal products from producers towards consumers [8].



**Figure 1** Halal SC Model Tieman, Vorst and Che Ghazali [8]

Based on the supply chain model in Figure 1, Halal Law is the highest basis in determining the supply chain network. Furthermore, the goals/goals of the supply chain are determined based on halal rules. The framework states that the halal concept must be comprehensive from the product, supply chain processes, and markets.

**2.2. MSME**

MSME is an abbreviation of Micro, Small, and Medium Enterprises. This business can be defined as a business run by an individual, household, or business entity small size. In Indonesia itself, MSMEs are one of the backbones of the economic country.

The BPS report noted that there are still very few out of 57 million MSMEs in Indonesia already gain halal certification. To compete in halal business in the world, the primary thing that must be gained is halal certificate. Therefore, mapping is needed to find obstacles related to the implementation of halal certification, which in this study will focus on barriers to implementation of halal LSCM in SMEs.

**3. METHODS**

The qualitative approach is used as an approach, and the literature review method is chosen for conducting this research. In order to build theoretical frameworks and conceptual model, one of the most excellent method is literature review, because it can synthesize research findings to depicts meta-level evidence and try to uncover areas that are not yet explored, meaning that more research is needed there. [3].

The variety of previous research is quintessential instrument for supporting the implementation of the research. In the method of literature review, the contribution of various previous conducted research,

both qualitative and quantitative, can help the results of more balanced research. Literature is taken from the source of the Google Scholar and several well-known online publishers. Literature in this study was selected with consideration of competence and have good relativity with the most current Halal Supply Chain management condition. This study uses various types of literature such as journal and conference.

As for this research, there are several stages of data collection. Researchers design the review, in the first stage. Initially, the available literatures are reviewed to find out the current progress in halal SCM. This will help assessing the quantity of studies for evaluation process. It also will help to formulate and define the purpose, scope, also the specific research question that will be addressed [3]. Next, the researchers conduct the study. After the purpose, research questions, and approach are finished to be decided, this is a perfect time for actual review. At the beginning, abstracts were read to be reviewed and to make selections, followed by reading the full-text papers before choosing the final selection. Researchers then analyze the literature. To analyze the literature, the researchers were focused on the problem, solution, and strategy for each literature taken. The last step is to write the literature review, which is written by the problem, solution, and strategy of each literature that has been grouped for each specific category.

**4. RESULT AND ANALYSIS**

The study finds out several problems, solutions, and strategies based on the literature analyzed by the researchers. Each of the problem, solutions, and strategy is being grouped into specific category.

After conducting the analysis, researchers noticed that Halal Supply Chain Management has a problem in processing. Problems in processing category are as follows. First, there are several weaknesses along the food’s supply chain such as material handling, monitoring, processing and others. [12]. Second, difficulty of seeing the halal food traceability as the supply chain information from the upstream to downstream in the food industry is not transparent [13]. Third, in a conventional stage of food chain, the existence of halal integrity cannot be found. [15]. Fourth, the food cooking tools and equipment often contains Najis’ substances [17]. Fifth, a direct contact of the halal food products with non-halal substances [18]. Sixth, the integrity aspect of halal food [21]. Seventh, the non-halal ingredients are mixed during the production of halal food [22]. Eighth, the risk of halal integrity during the

production is hidden, which influence the stability of halal status [23].

Besides, there are several necessary elements in packaging of the product as follows. First, there are several elements that must be printed in the product package such as halal logo certification, ingredients, and the origin of the product. [16]. Second, the workers who are working on this packaging area should be dedicated only to handle this in order to avoid mixing with non-halal food packaging. [18]. Third, it is compulsory to make sure that the packaging is able to protect both goods and foods from non-halal substances contamination [24].

Problems also occur in storage area mentioned as follows. First, the haram and hazardous substance are potentially exposing the halal food product inside the storage [25]. Second, containers which bring halal products are previously used for carrying non-halal product, thus it affect the halal product [26]. Third, there are some products that not fulfill Sharia law. Thus, it is considered as unclean product and it must be separated. [15]. Fourth, the material handling process must be separated between halal and non-halal products [27].

The next problem area is in transportation, which is mentioned as follows. First, the delivery process must be examined due to a cross-contamination that is potentially occurred during product shipment [26]. Second, no assets that are specifically dedicated to handle halal products [7]. Third, halal integrity risk increasing due to mixing between halal and non-halal product in one container [28]. Fourth, the difficulty of tracking and tracing the driver's attitude and procedures when transporting halal products [29].

Policy area has several problems as follows. First, several SC players have opinion that they are able to sell their products in halal industry although they do not have halal certification [10]. Second, non-critical players in SC are able to trade their products without halal certificate [10]. Third, many actors that are not trusted have involvement in the food chain [11]. Fourth, over 15-years period, the illegal halal ('smokies') trade over [14]. Fifth, Producers are facing numerous challenges to realize end-to-end halal supply chain management [19]. The next category of problem is fundamental, which is mentioned as follows. First, absence of an inclusive definition [6]. Second, the absence of international consensus of the definition of halal and its assurance. [20].

Despite of the problems occurred in several areas in Halal Supply Chain Management, there are also plenty of solutions offered. Solutions in processing area are as

follows. First, utilize the farm to adopt global supply chain models for increasing the critical awareness of halal needs [15]. Second, improving the commitment and trust between actors, keeping the quality assurance and enhancing the traceability as well as asset specificity. [21]. Third, detecting pork, blood plasma, and non-meat ingredients in food products [22]. Fourth, raising both traceability and visibility of supply chain to enable a better understanding of the complexity of the identification and mitigation of risk. [23].

Besides, policy solutions are as follows. First, strengthening both rules and regulations related to halal integrity [14]. Second, adding packaging halal certificate [24]. Next solution is in the fundamental area which is mentioned as follows. First, reidentify and redefine the word of Halal Supply Chain Management as the current definitions are too many narrowly written in the literature [6]. Second, reclassified the current halal labels which have a lot of variety into one generic label that are accepted in a various Muslim groups worldwide [20].

The most recent technology, IoT, and Blockchain also come as the solution. First, the implementation of Blockchain Technology will increase the transparency, traceability, also the visibility of supply chain. [10] [13]. Second, IoT technologies, RFID tags, and quick response (QR) codes [11]. Third, use technology to enhance the transparency of the whole supply chain [19]. Corporate Governance takes place as a solution for Halal Supply Chain Management. First, it is compulsory for the for the food manufacturer to give information about the product ingredients sources and the halal status to be monitored by Halal authorities [25]. Second, innovation is the key for operations improvement to become a more competitive industry among other food industries in the world [27]. Third, trust and commitments between supply chain stakeholders [26].

Strengthening the solution, several strategies are proposed. Strategies in the processing areas are as follows. First, track and trace the food product's origins, production process and facilities, ingredient's supplier and raw materials, trading system, and importantly makes halal as a way of life will help to lead to the definition of halal integrity [15]. Second, PCR-based & protein based technique for pork detection, analytical technique for lard detection [22]. Third, integrate the supply chain to yield a better risk mitigation of the halal food integrity. [23].

Strategies in policy area are as follows. First, policymakers must asses the supplier integrity during supplier selection to solve issues related on the tangibility of halal certificate [12]. Second, higher penalties and take

the case as criminal conspiracy instead of rogue farmer [14]. Third, enhance the transparency through the dedicated infrastructure and worldwide recognized halal standard. [21]. Fourth, the authorities need to make sure that the procedures that are implemented by food manufacturer is following the halal procedures in all process. [25]. The next strategy is in fundamental area which is widely accepted audit methods should be established and the obtained audit information should be transparent and traceable for all actors [20]. Strategy for technology, IoT, and blockchain are as follows. First, distributed system for tracing halal food along its supply chains using blockchain technology [13]. Second, proposal of the blockchain system [19].

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