



Development strategy for small and medium-scale halal food and beverage sector in Indonesia

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ABSTRACT

Indonesia, with the world's largest Muslim population, is the leading consumer of halal food and beverage. Despite its substantial consumer base, the country has not been able to capitalize on this demand to increase the production of halal products. Therefore, this study aimed to identify strengths, weaknesses, opportunities, and threats (SWOT) facing halal food and beverage small and medium enterprises (SMEs) in Indonesia and develop growth strategies. The study procedures used Analytic Network Process (ANP) method combined with SWOT network structure to evaluate the factors affecting the sector. The results showed that the most significant strength was the merger of food science with Islamic principles, while the primary weakness identified was the insufficient financing and investment available to sector participants. Government backing had also become the most significant opportunity, while the most significant threat was the volatility of global economic conditions. Based on these results, the strategic priority identified for advancing Indonesian halal food and beverage SEMs was overall development.

ARTICLE INFO

Keywords:
Food
Halal
Industry
Strategy
SWOT-ANP

History:
Received 05-01-2024
Revised 28-02-2024
Accepted 02-03-2024

1 Introduction

Halal is commonly known as an Islamic principle that permits certain actions and is applicable to various aspects of life. The term has gained universal recognition and is in high demand across all sectors of society, including Muslims and non-Muslims. A key reason for the growing interest in halal products is the guarantee of cleanliness, safety, and quality provided by Halalan Thoyyiban concept, which ensures that the entire production chain adheres to strict standards (Samori *et al.* 2016). Several studies have shown that halal industry is expanding rapidly in several sectors, including food and beverage, modest fashion, Muslim-friendly media and recreation, pharmaceuticals, cosmetics, and Islamic finance. According to the State of the Global Islamic Economy Report 2019/2020, the industry's total expenditure reached USD 2.2 trillion, with 62.27% (USD 1.37 trillion) accounting for the total consumption of food and beverage. In addition, Indonesia, which has a population of 237.6 million people, with 207 million Muslims (around 87%), has a large potential market and is a significant consumer of food and beverage. Central Statistics Agency in 2010 (BPS 2020) showed that Indonesia accounted for 13.07% of the world's total Muslim population and was ranked first in terms of food and beverage consumption, with a spending of USD 173 billion. Despite these statistics, the country has not been able to capitalize on its potential to increase production in the sector. According to the State of the Global Islamic Economy Report 2019/2020, although Indonesia experienced an increase in its score in the Global Islamic Economy Indicator index in 2018, halal food and beverage sector was in 12th place, down by one place from the previous year.

Based on BPS (2020), the processing sector is the largest contributor to Indonesian Gross Domestic Product (GDP). In 2018, the sector accounted for 19.86% of the country's total GDP, amounting to IDR 2,193,266.40 billion. Non-oil and gas processing industries make up a significant portion. While the oil and gas processing industry contributed just 2.24% to Indonesian GDP in 2018, the non-oil and gas industry contributed a substantial 17.62%. Food and beverage sector, which is part of the non-oil and gas processing industry, plays a vital role in the economy by consistently and significantly

contributing to GDP. This contribution has continued to increase from 2014 to 2018 as reported by previous studies. Small and medium enterprises (SMEs) are a key pillar of the government's strategy for absorbing labor, increasing the number of business units, and supporting household income. SMEs also play an important role in Indonesian economy, as evidenced by their continued growth. In 2015, there were 3.68 million IKM business units, which increased to 4.41 million in 2016 and reached 4.49 million in 2017. With a total of 4.4 million IKM business units in 2016, these industries provide employment for 10.1 million people (Ditjen IKM 2018). Consequently, SMEs have an essential role in driving economic growth, social stability, and private sector development in Indonesia (Gati 2019).

According to data from Indonesian Halal Economy and Strategy Roadmap (IHLC 2018), Indonesia with its large Muslim population presents a promising target market for international halal products. In 2017, the country ranked second globally in terms of halal food and beverage imports, with a total expenditure of USD 16.88 billion. Despite the statistics, it has not yet fully capitalized on its potential, as the high demand for Indonesian halal products is not matched by an adequate supply. The State of the Global Islamic Economy Report 2019/2020 (Thomson Reuter 2019) reveals that suppliers of these products are not only from Organization Islamic Cooperation (OIC) member countries but also from non-OIC countries, such as Brazil and Australia. In 2018, Brazil led the way as the largest food exporter to Muslim countries, with a total revenue of USD 5.5 billion, followed by Australia with USD 2.4 billion. Therefore, it is crucial for Indonesian halal food and beverage sector to develop and expand to meet domestic demand and compete with products from other countries.

The development of halal food and beverage SMEs is also needed to stimulate the economy as a means of alleviating poverty, improving the lives of small people, and contributing to the country's foreign exchange income (Gati 2019). Efforts to develop these industries need to be carried out with a good strategy to ensure the achievement of goals and development. Therefore, this study aims to (1) analyze the priority order of strengths and weaknesses of Indonesian halal food and beverage SMEs, (2) analyze the priority order of opportunities and threats, and (3) develop alternative strategies for developing Indonesian halal food and beverage SMEs.

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2 Methodology

This study used Analytic Network Process (ANP) method, which used strengths, weaknesses, opportunities, and threats (SWOT) network structure to identify strategic alternatives based on both internal and external criteria. Using ANP method, this study focused on developing strategies for Indonesian halal food and beverage SEMs. Primary data were collected through in-depth interviews with experts and supplemented by a questionnaire. Furthermore, secondary data sources included BPS, Financial Services Authority (OJK), international journals, and prior studies. A purposive sampling method was adopted to select respondents who possessed relevant expertise in Indonesian halal food and beverage SEMs. A total of 5 respondents participated in this study, which included 3 practitioners (Quality Control at X, Director of Y, and Quality Control at Z), 1 regulator (Head of Halal Product Assurance Agency/BPJPH), and 1 academic (Head of Halal Science Center at IPB University). Respondents' data were processed using Super Decision software and Microsoft Excel, with their assessments of the study problem inputted on a numerical scale. In addition, the analysis followed ANP method in SWOT network structure. ANP was a qualitative non-parametric method that involved 3 key phases, namely model construction, model quantification, and results analysis (Ascarya & Yumanita, 2011). Model construction was informed by both theoretical and empirical literature reviews. The quantification phase included ANP questionnaires with pairwise comparisons of elements within clusters to determine dominance and extent of influence, using a numerical scale of 1 to 9. SWOT, as a strategic formulation tool, was used to compare internal factors (strengths and weaknesses) with external ones (opportunities and threats).

3 Results

This study identified the factors that influenced development of Indonesian halal food and beverage SEMs by including 12 internal and external criteria and formulating 8 alternative strategies. The internal factors were in the form of strengths and weaknesses, and external factors were in the form of opportunities and threats, which influenced development of halal food and beverage sector in Indonesia. The determination of boundaries between internal and external factors was based on economic theory such as internal factors were based on the supply side, while external factors were based on the demand side. Subsequently, these criteria were identified through a literature review and interviews (in-depth interviews) with experts who had an understanding of development of Indonesian halal food and beverage SEMs.

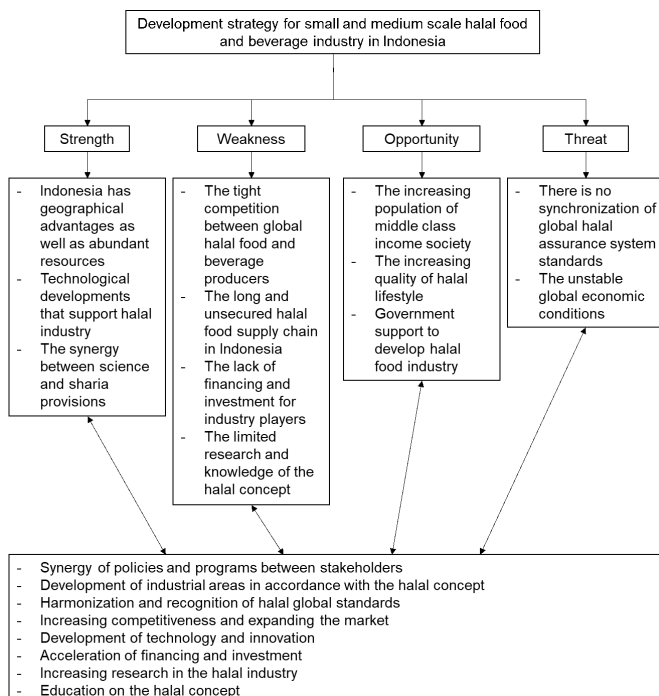


Figure 1: Analytic network process model framework in the study

Indonesian geographical advantages and abundant resources, technological developments that support the industry, and synergy between science and sharia provisions were included in the strength aspect. Weaknesses consisted of tight competition between world food and beverage producers such as Indonesian food and beverage supply chain was long and halal was not guaranteed, lack of financing and investment for industry players, and limited research and knowledge of halal concepts. The opportunity aspect comprised increasing the population of middle-class

income people, enhancing the quality of halal lifestyles, and providing government support for developing halal industry. In addition, the lack of synchronization of global guarantee system standards and unstable global economic conditions were included in the threat aspect. The formulation of alternative strategies that included internal and external criteria was then conducted using SWOT network structure. Alternative strategies were synergy of policies and programs between stakeholders, development of industrial areas by halal concept, harmonization and recognition of global standards, increasing competitiveness and market expansion, development of technology and innovation, accelerating financing and investment, increasing study in the field of the industry, and education on halal concepts. Subsequently, all internal and external aspects were formed into SWOT network and alternative strategies were formulated from ANP model, as displayed in Figure 1.

After ANP model was formed, model quantification was conducted using a questionnaire in the form of pairwise comparisons between elements in the cluster to determine the priority values of these elements. The priority values of these elements could be seen from the geometric mean value and respondent agreement (rater agreement) which was observed from the W (Kendall's Coefficient of Concordance) value. Based on the results of the data processing, the primary priorities of the 4 SWOT aspects were strengths and opportunities with a geometric mean (GMk) value of 0.30499. This indicated that strength and opportunity had the greatest influence on development of Indonesian halal food and beverage SEMs. Furthermore, the priority order of SWOT aspects in this study was shown in Figure 2. Respondents' agreement (rater agreement) on this matter was observed from the W value of 0.2. This signified that 20% of respondents agreed that the aspects of strength and opportunity had the greatest influence on development of Indonesian food and beverage sector.

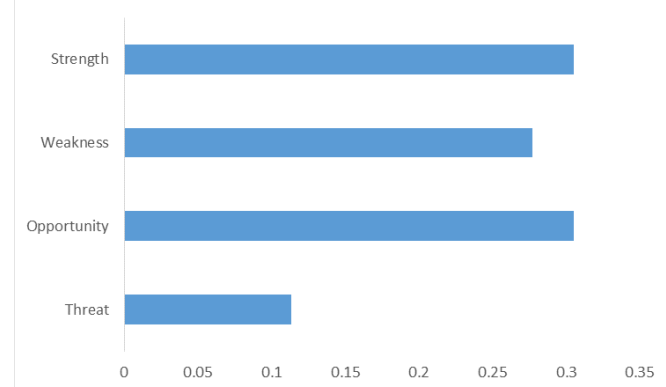


Figure 2: Priority aspects of strengths, weaknesses, opportunities, and threats

3.1 Strength Aspect

Strength aspect of this study was the advantages possessed by Indonesian halal food and beverage SEMs. Strength aspect was divided into 3 categories, namely Indonesia had geographical advantages and abundant resources, technological developments that supported the industry, and synergy between food science and Sharia provisions. Based on the results of the data processing, the highest priority level in strength aspect was the synergy between science and Sharia provisions which had a geometric mean value of 0.42286. Indonesia had geographical advantages and abundant resources which were the second priority, and technological developments that supported the industry were the third priority with geometric means of 0.29951 and 0.27762, respectively. The priority order was depicted in Figure 3. Rater agreement calculation produced a W value of 0.36, which means that 36% of respondents agreed with this result.

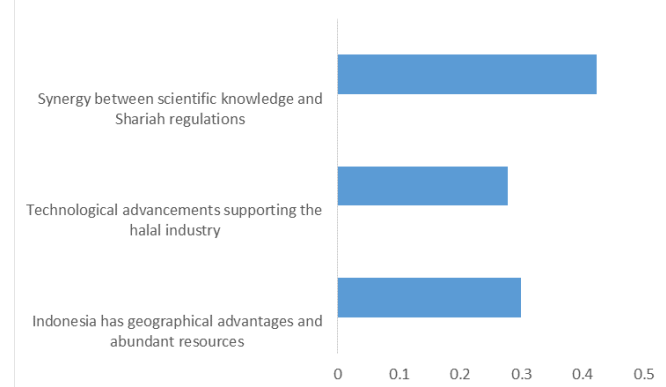


Figure 3: Priority aspects of strength

3.2 Weakness Aspect

Weakness aspect of this study was deficiency originating from Indonesian halal food and beverage SEMs. Weakness aspect was divided into 4 categories, namely tight competition between world halal food and beverage producers, Indonesian food and beverage supply chain being long and halal not guaranteed, lack of financing and investment for industry players, and limited research and knowledge of halal concepts. Based on the results of data processing, the highest priority level for weakness aspect was the lack of financing and investment for industry players, with a geometric mean of 0.26061. The second priority aspect of weakness was the tight competition between world halal food and beverage producers, with a geometric mean value of 0.26056. Meanwhile, the third and fourth priorities were limited research and knowledge of halal concepts as well as long food and beverage supply chains that were not yet guaranteed to be halal, with geometric mean values of 0.24878 and 0.23005, respectively. The priority order was displayed in Figure 4. Rater agreement calculation produced a W value of 0.10, which indicated that 10% of respondents

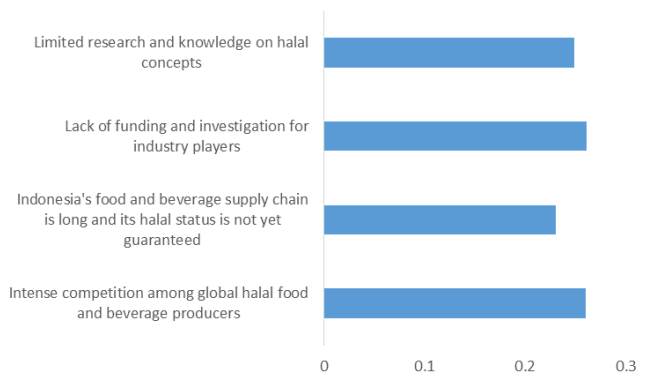


Figure 4: Priority aspects of weakness

3.3 Opportunity Aspect

Opportunity aspect in this study was opportunity that existed outside the industry but could have a positive influence on development of Indonesian halal food and beverage SEMs. This aspect was divided into 3 categories, namely increasing the population of middle-class income people, enhancing the quality of halal lifestyle, and government support for developing the industry. According to the results of data processing, the highest priority from the opportunity aspect was government support for developing the industry, with a geometric mean value of 0.47475. The second priority was to improve the quality of halal lifestyle with a geometric mean value of 0.31561, and increasing the population of middle-class income people was the third priority with a geometric mean value of 0.20964. The priority order in this study was depicted in Figure 5. Rater agreement calculation produced a W value of 0.36, which indicated that

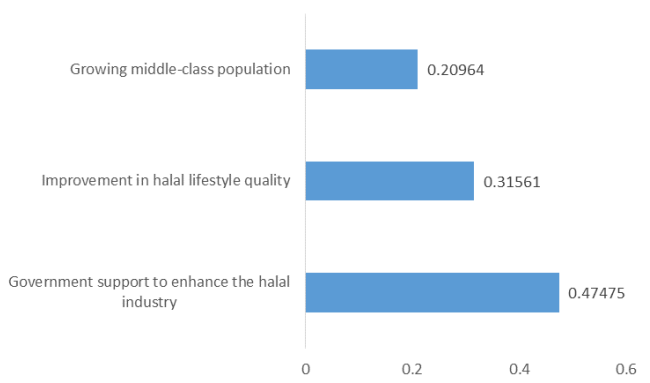


Figure 5: Priority aspects of opportunity

3.4 Threat Aspect

Threat aspect in this study was the challenge of developing Indonesian halal food and beverage SEMs. This aspect was divided into 2, namely, there was no synchronization of the global halal guarantee system standards and global economic conditions. Based on the results of data processing, the highest priority for the threat aspect was unstable global economic conditions, with a geometric mean value of 0.53048. The second priority in the threat aspect was that there was no synchronization of the global halal guarantee system, with a geometric mean value of 0.46952. The priority order was observed in Figure 6. Rater agreement calculation produced a W value of 0.04, which indicated that experts had different points of view on threat aspect, which caused variations in answers.

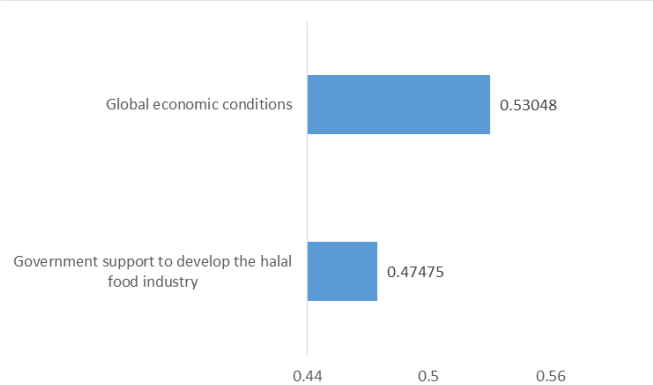


Figure 6: Priority aspects of threats

4 Discussion

4.1 Strength Aspect

The following three points outline the key strengths that contribute to the development of the halal food and beverage industry in Indonesia.

4.1.1 Synergy between Science and Sharia Provisions

The priority in strength aspect was synergy between science and Sharia provisions, with a geometric mean of 0.42286. This showed that synergy was the aspect of strength that had the most influence on development of Indonesian halal food and beverage SEMs. Synergy was conducted by BPJPH and Indonesian Ulema Council (MUI) by building synergy with universities in Indonesia to establish halal centers that served as Halal Inspection Institutions (LPH). This was intended to assist in the inspection and testing of product halalness. Food, Drug, and Cosmetics Assessment Institute of MUI (LPPOM MUI) implemented an online platform designed to facilitate halal certification process called Cerol-SS23000 Online Halal Certification which had presently been updated to Cerol v3.0. This must be used by halal SMEs to develop their products. Halal food and beverage SEMs did not need to conduct special studies and development with the help of experts in developing products to minimize production costs (Nu'man 2015).

4.1.2 Indonesia Has Geographical Advantages and Abundant Resources

The second priority in terms of strength was that Indonesia had geographical advantages and abundant resources with a geometric mean value of 0.29951. Indonesia had great strength in using its natural resources as raw materials, specifically in agricultural sector. The diversity of natural resources could be used to produce raw materials through the creation of discoveries or derivative products from various superior Indonesian commodities which could also be a non-halal substitute raw materials. The management of the supply of Indonesian halal raw materials at relatively cheap and highly varied prices in large quantities was expected to replace imported raw materials. This could be a strength for the industrial development of halal food and beverage sector. Indonesia had abundant human resources. In this study, SEMs had the advantage of absorbing a large workforce. The Ministry of Industry noted that 60% of the workforce in an industry was absorbed by SMEs (Gati 2019).

4.1.3 Technological Developments that Supported Halal Industry

The third priority aspect of strength was technological developments that supported halal industry, with a geometric mean value of 0.27762. Technological developments in halal food and beverage sector were visible in on-demand delivery activities, online halal food and beverage takeaways, and restaurant search-and-reservation applications. Development of technology created the possibility of a wider choice of halal food and beverage. In addition, technological developments made it easier to digitally interrogate food and beverage labels for classification, and must be accompanied by optimal use (Randeree 2019). Through the use of technology, collaboration between halal food and beverage SEMs with Sharia financial sector and other halal conducted through platforms that brought together Sharia actors in food and beverage sector, such as Indonesian Sharia Creative Industry (IKRA). Industry players could also use technology to obtain information and carry out online halal certification through the Cerol-SS23000 v3.0 application and technology used by Industry players to expand markets and facilitate marketing activities through social media and marketplaces. Moreover, the use of technology in SMEs also increased the ability to access raw materials, access capital, and restructure machinery and equipment.

4.2 Weakness Aspect

The following four points outline the key weakness that contribute to the development of the halal food and beverage industry in Indonesia.

4.2.1 Lack of Financing and Investment for Industry Players

Weakness aspect that was the priority was the lack of financing and investment for industry players with a geometric mean value of 0.26061. Clapham (1991) stated that, almost without exception, industry players revealed that their biggest problems were finances and lack of fixed and working capital. Based on Sharia banking statistical data published by OJK (2020), financing disbursed to SMEs from Sharia Commercial Banks and Sharia Business Units in the form of capital and investment was below the total financing for non-SMEs. Indonesia currently had alternative financing and SME-friendly financing schemes, such as People's Business Credit (KUR), Indonesian Export Financing Institution (LPEI), and Ventura. However, many financing institutions required tangible guarantees, such as diplomas, certificates, and business plans, the majority of which could not be fulfilled by industry players (Risnawati 2018).

4.2.2 Tight Competition between World Halal Food and Beverage Manufacturers

The second priority in weakness aspect was the tight competition between world halal food and beverage producers, with a geometric mean value of 0.26056. A major problem faced in development of SMEs was their low access to markets. The marketing problem was the weak bargaining power of SMEs in dealing with large industries. This marketing problem was one of the important reasons Indonesian halal food and beverage SMEs were unable to make medium- and long-term plans. SMEs in Indonesia were relatively simple, with average family management patterns being implemented. A study by Risnawati (2018) revealed that the weak quality of human resources in industry players had an impact on their weak ability to take initiative, manage the business, manage conflict, and share risks. Tight competition did not only occur among domestic halal food and beverage producers but intense competition also occurred among world halal food and beverage producers, specifically in Muslim-majority countries. Many countries with non-Muslim populations were interested in the production of halal food and beverage. This was because there was a high demand for halal food and beverage from consumers.

4.2.3 Limitations of Research and Knowledge of Halal Concepts

The third priority was limited research and knowledge of halal concepts, with a geometric mean value of 0.24878. Public knowledge of Islamic Sharia values in managing and using its assets to achieve balanced prosperity was relatively low. This ability was reflected in the level of knowledge, attitude, and behavior. Based on Sharia Economic Literacy Index produced through Sharia economic literacy survey by Bank Indonesia in 2019 (BI 2019), the literacy level of Indonesian society was 16.3%, indicating that out of 100 Indonesian Muslim residents, approximately 16 people understood Sharia economics well. The level of literacy about Sharia economics must be increased to ensure more business people were aware of the benefits of Sharia economic and financial system, as well as halal products (Maison *et al.* 2019).

In this study, the low literacy of halal concepts was consistent with the previous report. Halal study was less popular because it was considered complicated by some people due to its being synonymous with higher education. Not all industrial players, specifically industry players, had a high level of literacy in understanding study (Veer *et al.* 2018). Furthermore, the study regarding halal concept was scarce, while the need of the industry for product development was increasing. This was necessary for halal food and beverage SMEs players to meet market needs for products that were innovative, competitive, of better quality, and use more efficient manufacturing costs.

4.2.4 Food and Beverage Supply Chains Are Long and Halal is Not Clear

The fourth priority was the long and unclear food and beverage supply chain, with a geometric mean value of 0.23005. Halal food and beverage supply chain was a process of managing those from the initial point of production to consumers. This process included several parties in different locations. The integrity of halal food and beverage must be protected by all parties in the supply chain to avoid contamination that could cause the product to become haram (Ali *et al.* 2017). Food and beverage supply chain in Indonesia was difficult to control because Indonesia did not have halal industrial area. Halal industrial areas were facilities and infrastructure that meet halal requirements for running industrial businesses to produce halal products, from raw materials to distribution (Zulfakar 2012). The distribution network for halal food and beverage products from SMEs to final consumers was a long chain that could not be conducted by SMEs without including other agents as brokers (Asmara & Rahayu 2013). SMEs did not have large networks or capital to build industry branches and official dealers as marketing and sales venues.

4.3 Opportunity Aspect

The following three points outline the opportunity that contribute to the development of the halal food and beverage industry in Indonesia.

4.3.1 Government Support for Developing Halal Industry

The priority in opportunity aspect was government support to develop halal industry, with a geometric mean value of 0.47475. As a civil group, the Muslim community in Indonesia could influence and play a role in government policy. Muslim communities had developed pioneering standards and certifications to meet the need for halal food and beverage (Samori *et al.* 2014). Based on these conditions, the involvement of the Muslim community was the capital to support development of their facility. This was proven by the existence of regulations that supported the facility's development. Government support was in the form of regulations, agency introductions, and incentives such as grants, finance, training, and consultation.

Support for development of Indonesian halal food and beverage sector was continuously provided. This was shown in Law Number 33 (JU 2014) concerning Guaranteed Halal Products and Presidential Regulation (Perpres) Number 91 of 2016. Products distributed in the territory of Indonesia were required to obtain certification starting on October 17, 2019, except for products that were described as non-halal on packaging. This law also mandated the establishment of BPJPH that had the authority to formulate and establish policies for products, norms, standards, procedures, and criteria to guarantee the products.

The government also provided support for development of SMEs by providing free certification facilities, developing halal areas, and developing e-Smart IKM. Through e-Smart IKM, the Ministry of Industry sought to facilitate and expand its access to IKM market through online marketing. In addition, it was hoped that it could be able to increase the advantages of SMEs owing to the availability of raw materials, technology, and capital. This program also guided policymakers in implementing the IKM development function in a more integrated and targeted manner (Ditjen IKM 2018). In addition, Bank Indonesia, through IKRA, was also making efforts to develop capacity, strengthen branding, strengthen marketing, and provide domestic and foreign market outlets through collaboration between industry players.

4.3.2 Improving the Quality of Halal Lifestyle

The second priority was improving the quality of lifestyle, with a geometric mean value of 0.31561. Halal was no longer viewed as complementary. The quality of the products, commonly known as halalan thoyyiban, was the reason for using halal products because there was a quality guarantee in the entire production chain. This caused lifestyle to be popular with people in Muslim-majority countries. This increase in lifestyle resulted in an expansion of halal industrial sector to ensure that development of halal products was a business trend that was growing rapidly to control it, the study was needed to look at market movements, segmentation, and tastes (Lukitaningsih 2013).

4.3.3 Increasing Middle-Class Income Population

The third priority was increasing the population of middle-class income people, with a geometric mean value of 0.20964. Development of halal industry could not be separated from people's purchasing power of products. Demand for products increased, partly because of the increase in the social and economic classes of Muslim communities. Ministry of National Development Planning (Bappenas 2018) mentioned that Sharia Economic Master Plan of Indonesia from 2019 to 2024 noted that the growth of the middle class had increased by 7 to 8% per year to ensure the purchasing power of halal products had also increased. This was a large target market, as middle-class people were believed to have fulfilled their primary needs and could switch to fulfilling other needs, such as spirituality (Nasrullah 2017).

4.4 Threat Aspect

The following two points outline the threats that contribute to the development of the halal food and beverage industry in Indonesia.

4.4.1 Unstable Global Economic Conditions

The priority in threat aspect was unstable global economic conditions, with a geometric mean value of 0.53048. Economic globalization required the elimination of boundaries and obstacles to the flow of capital, goods, and services, which resulted in the increased close link between the national economy and the global economy. As a participating country, Indonesia had 4 sectors that were experiencing the impact of globalization, which included the export, import, investment, and labor sectors. However, globalization had negative impacts, such as causing market dependence, increasing sensitivity and economic instability to various phenomena, and increasing problems of common concern (Kusuma & Pramudana 2017).

Global competition increased when countries compete to gain a market share. The global-scale business competition encouraged industries in a country to be able to carry out cost efficiency and product differentiation. Global corporate competition arose because transnational industries belonging to developed countries want to expand their business wings

to developing countries, either in the form of building new factories, joint ventures with host industries, or industrial relocation. This fostered competition between domestic industries and global industries, therefore, there were concerns that domestic market share could be seized (Nu'man 2015).

4.4.2 There is no Synchronization of the Global Halal Guarantee System Yet

The second priority was that there was no synchronization of the global halal guarantee system with a geometric mean value of 0.46952. The legal provisions for halal and haram regarding the types of food and beverage were determined in the Al-Quran. However, Muslim-majority countries had not reached an agreement on the technical details of goods and services categorized as halal. Each Muslim country had its standards and guidelines that every player in halal industry must comply with. Additionally, some Muslim and non-Muslim countries have various halal authorities or institutions and produce several halal standards that would lead to questionable halal certification.

Differences in standards in various countries made it difficult for Indonesian halal food and beverage SEMs players, specifically because the implementation of certification in Indonesia was not optimal. Based on statistical data from MUI (2020), in 2019 only 13,951 industries received halal certification. This was because the regulations and costs required to conduct the certification had not been met or understood by Industry players. This condition was influenced by the difficulty of Industry players in opening broad market access. Access for industrial players in Indonesia, specifically Industry players, to international markets was limited. The government must be more aggressive in educating industry players and socializing the implementation of the certification.

4.5 Development Strategy for Indonesian Halal Food and Beverage SEMs

The strategy formulation was conducted by considering the 4 criteria used in the study, namely strengths, weaknesses, opportunities, and threats in Indonesian halal food and beverage SEMs through SWOT matrix. The formulated strategy must take advantage of opportunities and strengths by minimizing weaknesses and overcoming existing threats. Based on SWOT matrix detailed in Table 1, a total of 8 alternative strategies were formulated.

Table 1: Alternative strategies based on strengths, weaknesses, opportunities, and threats matrix

External factor		Strength (S)	Weakness (W)
Internal factor	Opportunity (O)	SO strategy 1. Synergy of policies and programs between stakeholders 2. Education on halal concepts	WO strategy 1. Development of industry areas in accordance with halal concept 2. The acceleration of financing and investment 3. The increasing research in halal industry sector
	Threat (T)	ST strategy 1. Technology development and innovation	WT strategy 1. The increasing competitiveness and expanding markets 2. The harmonization and recognition of global halal standards

The main priority of Indonesian halal food and beverage SEMs development strategy was development of industrial areas with logistics infrastructure by halal concept with a geometric mean value of 0.17112. The priority order in the strategy for developing Indonesian halal food and beverage SEMs was shown in Figure 7. The resulting rater agreement value was 0.39, which indicated that 39% of respondents agreed with the priority results.

4.5.1 Development of Industrial Areas by Halal Concept

The priority of Indonesian halal food and beverage SEMs development strategy was development of industrial areas that complied with the concept, with a geometric mean value of 0.17112. This strategy was launched by both the Ministry of National Development Planning and the Ministry of Industry and strengthened by the support and needs of halal food and beverage sector players. Development of these areas was considered important for the implementation of halal certification to ensure that it could be applied to all industries operating in the industry, to provide guarantees and convenience in obtaining investment, as well as to coordinate coaching

and development of halal products with more strategic incentives to increase public trust, to guarantee the quality of halal products and to protect halal integrity in the supply chain (Zulfakar *et al.* 2012). Development of these industrial areas could also become a marketing center for Indonesian SMEs production to ensure that the public could easily discover and obtain these products (Larasati 2011).

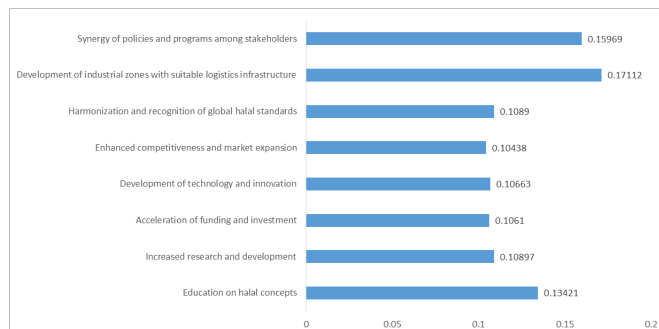


Figure 7: Priority strategies for development of halal food and beverage sector in Indonesia

4.5.2 Synergy of Policies and Programs between Stakeholders

The second priority of Indonesian halal food and beverage SEMs development strategy was the synergy of policies and programs between stakeholders, with a geometric mean value of 0.15969. The dynamics of Indonesian SMEs could be observed when SMEs were located within a specific geographical unit. This group of SMEs could interact with each other, not only with similar industries but also with industries with different business sectors, even with large-scale industries. Not only interactions between industries, but also the active role of service organizations, such as banking, workforce training, business consultants, and the existence of research institutions and universities, were needed to support interactions between these industries both vertically and horizontally (Asmara & Rahayu 2013).

The role of all stakeholders was necessary to ensure the integrity of the supply chain and to ensure that the industry could perform appropriately. This role took the form of planning, development, implementation, regulation, promotion, and education for players and consumers. Their role must be conducted by the right management object to ensure that the functions and policy results obtained could be implemented by all parties effectively without any overlap.

Governments could play a significant role in creating regulations and institutions that regulated halal food products. Educational and study institutions carried out their roles as scientists, data analysts, and providers of education for industry players to achieve product innovation, technological development, increased literacy, and international standing. The Ministry played a role in stimulating development of SMEs by developing halal value chains, strengthening institutions, and developing infrastructure, such as the creation of halal centers and marketplaces. BPJPH and MUI served as guarantors of halal products by providing halal certification. Furthermore, Islamic finance played a role in development of Sharia instruments and in expanding the investor base. Sufficient involvement from all parties could minimize and control illegal and unethical business practices (Larasati 2011).

4.5.3 Education on Halal Concepts

The third priority was to provide education on halal concepts, with a geometric mean value of 0.13421. Several educational means could be used, such as campaigning for halal lifestyle through seminars and talk shows, holding bazaars, exhibitions, product festivals, and digital campaigns (Randeree, 2019). Educational activities needed to include quality halal guarantors to ensure that the education provided to public and industry players was accurate. Providing education must be complemented by assistance in implementing activities to ensure that the information provided was properly applied to industrial businesses.

4.5.4 Increasing Study in Halal Industry Sector

The fourth priority was increasing the study on halal industry, with a geometric mean value of 0.10897. Study institutions were closely related to development of halal food and beverage sector. Further reports were needed to detect and identify halal food ingredients, beverages, and their derivatives. High-tech analytical equipment was necessary to obtain fast, strong, and reliable analytical results (Lubis *et al.* 2016). Development of halal food and beverage sector was not only supported by studies related to halal products, but there was also a need to examine market movements, segmentation, and tastes to ensure that industry development was consistent with market demand. Marketing studies could be useful for creating medium- and long-term plans (Larasati, 2011). Medium- and long-term plans in SMEs were required to create targeted business models

and strategies. Business models and strategies were used as benchmarks to guarantee capital and investment. In addition, study was needed to complete industrial development data starting from the variety and type of business, number of business actors, and the production value and market value of halal products to complete Indonesian secondary data relating to halal food and beverage sector. Study results needed to be published to disseminate the results and achieve a high level of objectivity regarding these results.

4.5.5 Harmonization and Recognition of Halal Guarantee System Standards

The fifth priority was harmonization and recognition of halal guarantee system standards, with a geometric mean value of 0.1089. With halal certificate, Muslim consumers felt safe and believed that the products consumed complied with Sharia principles. Halal certification was also applicable to food outlets, restaurants, and food and beverage service providers. However, certificates must be issued by trustworthy organizations or institutions to prevent fraud and misleading fake logos (Zulfakar *et al.* 2012). Halal certification for businesses could increase the level of consumer confidence and improve product quality. SMEs that had received the certification could penetrate and compete in the open market (Purnomo 2011). Understanding SMEs' certification was very important, specifically for those engaged in food and beverage processing business. The reasons were as follows: i) IKM players had a strategic socio-economic and socio-political function for Indonesian people, ii) halal certification could guarantee good quality IKM products, and iii) this quality provided opportunities for IKM to go international with food product brand and beverage.

4.5.6 Technology Development and Innovation

The sixth priority was development of technology and innovation, with a geometric mean value of 0.01663. Mastery of technology in development of the industry was an important factor in creating innovations following market demand. The creation of innovative products must apply driving elements such as the support of human resources with a creative and innovative mindset in using local raw materials using appropriate technology to be able to produce products with added value and high sales power. The creation of innovative products must be supported by the establishment of patent rights to guarantee legal protection for the rights of creators and the right to procurement and distribution to obtain commercial profits. In addition, development of information technology was important in promotional activities and market searches (Purwana *et al.* 2017).

Digital marketing was a form of using information technology (IT) to conduct promotions. Industry players could observe the market demand for halal food and beverage products to ensure that product development could be carried out effectively and have long-term coverage through digital marketing. In addition, digital marketing could also promote targets because industry players selected the media with followers according to the criteria for halal food and beverage market. This could be an opportunity for the industries to attract the attention of consumers. Icha (2016) also stated that the fastest way to get attention from consumers was by connecting through social media. The use of social media was considered to have a positive impact on a business; in particular, it could significantly reduce marketing costs and improve relationships with customers (Mokhtar *et al.* 2016). With social media, SMEs were no longer required to market products through brokers.

4.5.7 Acceleration of Financing and Investment

The seventh priority was to accelerate financing and investment, with a geometric mean value of 0.1061. Halal food and beverage sector was not only related to all the stages of production, but also included Sharia financial services that prohibited interest (riba), uncertainty (gharar), and gambling (maysir). Sharia finance played an important role in providing capital and investment for halal industry players (Waharini & Purwantini, 2018). The involvement of Sharia finance in halal food and beverage SEMs helped industry players continue to run their businesses following Sharia principles, and vice versa, and the industry could help Sharia financial services carry out their function as intermediation institutions.

4.5.8 Increasing Competitiveness and Market Expansion

The final priority was to increase competitiveness and market expansion, with a geometric mean value of 0.10438. Indonesia was a country with a majority Muslim population. Therefore, meeting food and beverage needs was tailored to the identity and values held by the majority of Indonesian society. This culture and identity could become a competitive advantage in increasing the competitiveness of Indonesian halal food and beverage products (Kusuma & Pramudana, 2017). The attitude of cooperation and helping each other, which had become a tradition in Indonesia, was part of the transfer of knowledge needed to build social networks in SMEs (Asmara & Rahayu, 2013).

Efforts to increase the competitiveness of Indonesian halal food and beverage products were not only supported by competitive advantage but also by the business environment, such as the threat of new

players, competition between industries, substitute products or services, supplier power, and buyer power (Risnawati 2018). In Indonesia, the competitiveness created by SMEs through a group often took advantage of regional proximity, such as minimizing costs (Asmara & Rahayu 2013). Efforts to increase the competitiveness of Indonesian halal food and beverage products could not be separated from the public's contribution to consuming domestic products because the consumption of imported halal products was reduced (Nasrullah 2017).

5 Conclusion

In conclusion, this study showed that the primary strength of Indonesian halal industry was synergy between scientific advancements and Sharia provisions, supported by their geographical advantages, abundant resources, and technological progress. However, challenges included insufficient financing, intense global competition, limited halal concept study, and lengthy, unregulated halal food and beverage supply chains. Growth opportunities included government support, enhanced halal lifestyle quality, and rising middle-class incomes, while threats involved global economic instability and inconsistent halal system standards. Strategies must focus on creating halal industrial zones, aligning policies and programs among stakeholders, enhancing halal concept education, boosting research, harmonizing halal standards, fostering technological innovation, accelerating investment, and improving market competitiveness to develop Indonesian halal food and beverage SEMs. Recommendations included developing halal industrial zones to centralize and streamline halal product coordination and certification, investing in studies and strategic planning for product development and marketing, implementing educational programs with mentoring to facilitate halal certification, strengthening human resources to build creativity and innovation, improving market competitiveness through digital promotion and product differentiation, and conducting further studies on development factors and strategies for other halal industry sectors.

Conflict of Interest

The authors declare no conflict of interest.

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