

## **IDENTIFYING FACTORS FOR THE SUCCESS OF HALAL MANAGEMENT PRACTICES IN LEATHER INDUSTRY**

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### **ABSTRACT**

*The need to apply halal management practices to non-food industries today is still merely seen as a necessity to meet the requirements of Islamic rules. Meanwhile, this approach has demonstrated that it can improve organizational efficacy in a variety of contexts. This study seeks to investigate the depth of halal principles implementation among leather industries and comes up with strategies for how small and medium-sized enterprises (SMEs) in the leather industry can use halal management practices to move toward halal certification and enhance its performance. An exploratory-descriptive approach was used to get the current state of halal practices among leather industry SMEs through interviews and survey questionnaires. Five stakeholders were interviewed in a semi-structured manner. A survey questionnaire was distributed to 127 SMEs in the leather industry center of Sukaregang, Garut, Indonesia. This paper discusses the key factors of halal implementation and determines which halal practices need more emphasis. The result showed that the current knowledge, awareness, and implementation of halal requirements among leather SMEs in Indonesia are still low. An action plan for the industry, authority, and supplier was provided. The implication of this research can contribute to the leather industry players that intent to implement halal management system effectively and stakeholders in making decision to accelerate halal certification process.*

**Keywords:** Halal, Indonesia, Leather Industry, Non-Food, SMEs

### **1. Introduction**

The halal business has rapidly expanded globally over the last ten years. Halal has become a lifestyle and is no longer exclusively associated with Muslim communities. A large number of Muslim populations around the world has led to the development of halal businesses in various sectors (Kurniawati and Savitri, 2020). Halal is now widely accepted in all aspects of daily life and is expanding quickly into non-food fields like personal care, lifestyle, fashion, pharmaceuticals, cosmetics, travel, tourism, trade, finance, entertainment, work, and education. Nowadays, the halal industry is attempting to capture the non-food product category (Shahid *et al.*, 2018). Leather is one of the untapped sectors for halal. Leather is a by-product of meat/animal production which hides/skin is utilized as the material of the fabric, cosmetics, pharmaceutical, and animal feed industry (Alao *et al.*, 2017). Leather products have their own particular market segment that is estimated to continue to grow along with the world's population. Since these products are often worn and used in worship, halal has become an important issue to consider. Therefore, leather sector is potentially the next key target in the halal industry.

Halal certification in Indonesia has become mandatory for all products circulated and traded locally since the enactment of Law of the Republic of Indonesia No. 33 Year 2014 concerning Halal Product Assurances (HPA), which has been effectively implemented since October 2019. Even though mandatory labeling is enacted first for food, beverages, and services, under the government plan, this regulation will gradually be applied to consumer goods. Indonesia is a country with the largest Muslim population in the world and contributes 17 percent of the global halal food market (Suhartanto *et al.*, 2020). Certainly, requiring halal certification for non-

food products will become a global issue on the grounds that Indonesia is a big market and strategically important as a Muslim majority nation.

The halal certification process in the Indonesian food industry faces numerous obstacles (Lestari *et al.*, 2023). It might become more complicated in the non-food industry. It makes more sense for businesses to follow halal standards if consumers demand it. However, it is hard to understand why a business would take this step without knowing what it would gain in the long run. There is much opposition to halal labeling for non-food products, particularly consumer goods, whether internally or externally. A company needs to rationalize the benefits and consequences of assimilating halal standards and philosophy into its business. Obtaining a halal certificate for halal food products has commonly become a strategy for a company to provide added value and uniqueness to the products. Nonetheless, labeling consumer goods as "halal" may have unintended consequences for product sales or brand perceptions. Obviously, the company does not want to adopt halal certification due to pressure from several parties (for example, the government, local communities, or consumers).

There are numerous studies examining the perspective of consumers on halal food products and the motivations underlying these attitudes (Mohayidin and Kamarulzaman, 2014; Haque *et al.*, 2015; Sherwani *et al.*, 2018; Bashir *et al.*, 2019; Kurniawati and Savitri, 2020; Akın and Okumuş, 2021). Conversely, the study about consumers' perspectives on halal non-food products, especially leather products, is very limited. Shahid *et al.* (2022) were interested in investigating the repurchase intentions of cosmetic products by Muslim consumers according to the high market demand based on statistics. Thus, it is challenging for the leather industry, a leading sector in Indonesia, to comply with the halal standard as a government regulation without knowing the potential market for halal leather products.

In order to support the government regulations, it is necessary to look into the readiness of the leather industry in Indonesia, particularly SMEs, by investigating the depth of knowledge and awareness needed to implement halal principles in their business activities. According to Ab Talib *et al.* (2015), the lack of knowledge among food companies is an impediment to successfully implementing halal certification. Meanwhile, managing knowledge is critical to the success of an organization's business growth (Schiuma, 2012). This research is motivated by the current need of Indonesia's non-food industry, including the leather industry, to prepare for and implement halal certification as government regulation. Based on prior research, halal knowledge of leather products is scarcely discussed, whereas halal awareness highly depends on the depth of halal knowledge. Furthermore, halal awareness is founded on the Muslim concept of halal (Muslichah M. *et al.*, 2020). Before initiating a program relating to halal certification for the leather industry in Indonesia, it is essential to obtain a picture of the current state of halal principles implementation. The aim of this study is to identify the factors that lead to the success of halal management implementation in the leather industry, particularly among SMEs in Indonesia. To the authors' knowledge, this is the first study on halal management practices for leather sectors, and this research serves as a foundation for future research

## 2. Literature Review

### Halal implementation in the food and non-food industries

As was pointed out in the introduction to this paper, it is clearly described that concern about halal certification for the non-food industry is highly important and should be discussed in addition to halal certification for the food industry. Halal certification is crucial for the food industry because it ensures that products are processed hygienically (Haleem *et al.*, 2020); in accordance with Islamic values and teachings (Suhartanto *et al.*, 2020); and with permissible materials and ingredients in accordance with Islamic law and principles (Neio Demirci *et al.*, 2016). The halal food industry emphasizes all aspects of halal using the concept of halalal thoyyiban (Othman *et al.*, 2017), in which quality, hygiene, and safety are prioritized to protect consumers. When deciding whether to consume or purchase a product, Muslims consider it halal if it adheres to the Quran and sunnah that explain it (Prabowo *et al.*, 2015). The model of quality-loyalty and religiosity-loyalty proposed by Suhartanto *et al.* (2020) has proven both quality and religiosity are important in determining consumer loyalty. In a broader sense, halal can be seen as a brand for quality and safety (Kohilavani *et al.*, 2015), attracting both Muslim and non-Muslim

consumers to purchase halal products in order to reap these benefits. Moreover, halal products also cover environmental concerns in addition to safety concerns (Hassan and Sengupta, 2019). The entire significance and benefits of halal food products from both religious aspects and business perspectives have merged into an image of valuable products, which has now become the global perspective on halal.

Despite this, there has been little discussion in the literature about halal certification for non-food industries such as fashion. Labeling consumer goods as "halal" appears to be a growing trend and a successful marketing strategy. Less investigation is concerned with non-food halal labeling issues in order to disprove the notion that halal labeling for consumer goods is excessive and unnecessary. Since food, cosmetics, and pharmaceuticals come into direct contact with the human body, the safety aspect makes sense to consider. The safety aspect is viewed as irrelevant for non-consumable products, and the halal label is only important from a religious standpoint because these products are sometimes worn in worship.

Along with the advancement of research on halal food products, many researchers have demonstrated that compliance with halal standards positively contributes to other aspects besides religiosity, primarily organizational performance (Ab Talib *et al.*, 2017; Giyanti *et al.*, 2020); and product quality (Martuscelli *et al.*, 2020), though there is a scarcity of literature comparing the quality of halal products to non-halal products (Martuscelli *et al.*, 2020) in order to strengthen current knowledge about the halal-quality relationship. However, product quality should be viewed as a combination of halal and the thoyyiban concept (Ali *et al.*, 2017). Therefore, in the context of consumer goods, it is reasonable to assume that implementing halal standards may have an impact on other aspects, even though religiosity itself can improve quality of life, particularly for Muslims (Othman *et al.*, 2017). Thus, in order to build a worldwide reputation as well as the halal food industry, the benefits of halal non-food products from a business perspective must be clearly defined to boost the value of the products, which ultimately receive a positive response from the global market.

### **Halal requirements for leather products**

Leather and leather crafts are among the most traded products in the world, with China being the leading exporter of leather products (17.4%), followed by Italy (14.8%), Vietnam (11.1%), and Germany (6.1%) (Koppiahraj *et al.*, 2019). The leather industry is a good place to do business, and it is likely to keep growing as the world's population grows. Indonesia is the sixth-largest exporter of leather goods on the international market (BPS-Statistics Indonesia, 2017). However, this sector has both advantages and disadvantages because, in order to achieve the best quality, there are often negative environmental consequences. There has been a lot of research done on the quality of leather. Some researchers focused on strategies for the leather industry to meet the quality standard (Aljabi, 2019). Other studies have been conducted by incorporating quality management to improve the performance of the leather industry (Ghafoor *et al.*, 2012). Moreover, research on supply chain management and environmental management in the leather industry is extensive (Guercini and Woodside, 2012; Gupta and Racherla, 2018; Muktadir *et al.*, 2018; Wahga *et al.*, 2018; Dwivedi *et al.*, 2019; Koppiahraj *et al.*, 2019). Shah *et al.* (2019) have attempted to improve performance by integrating quality and environmental management, but not in the leather sector. Therefore, quality and the environment are the most important criteria to demonstrate in order to enter and survive in international markets. As stated in the preceding subsection, halal and thoyyib encompass both quality and environmental concerns. Next, a literature review is required to comprehend the halal standards for leather.

A Muslim entrepreneur's basic principle should be to maintain a halal business. Mahyarni *et al.* (2018) summarized in their papers the teachings of the Prophet Muhammad regarding business ethics in Islam, which forbid the selling of impure animals such as pigs. The following is a summary of the halal standards for leather:

- 1) **Standard for materials:** animal dead skin, including ma'kul al-lahm (meat can be eaten) and ghair ma'kul al-lahm (meat should not be eaten), is allowable after being tanned, except for dogs, pigs, and others derived from both or one of them (Majelis Ulama Indonesia, 2014).
- 2) **Standard for substances:** any additives used in the tanning process or craft production must be halal. According to the list of reference materials with critical halal points and

substitutions of non-halal materials released by the National Committee for Sharia Economy and Finance (KNEKS) (Jaswir *et al.*, 2020); pepsin, which is usually used in the tanning process, is an enzyme of animals; glue, which is primarily used in the leather-crafting industry, may be made from animal bones. Therefore, traceability for substances is crucial.

- 3) **Standard for production process:** according to Majelis Ulama Indonesia (2008), the entire production process, including warehousing and transportation, must be free of non-halal materials. The corrective action system for non-conformities, such as the cleaning procedure (samak) for production facilities if non-halal contamination occurs, must be available.

### **Driver for halal certification**

The basic motivation for halal implementation should be obedience to Allah (Kurniawati and Savitri, 2020). There is faith and belief based on this fundamental principle that Allah forbids certain things due to the risks involved. Researchers have commonly classified the factors that motivate the implementation of halal certification into external and internal factors in the literature. Ab Talib et al. (2016) explained the three isomorphic pressures in implementing halal food certification, namely coercive isomorphism (regulatory pressure and business legitimacy), normative isomorphism (consumer pressure), and mimetic isomorphism (pressure to imitate the competitor's best practice). Even though external factors appear to be the primary reason for a company to implement halal certification, a review paper conducted by Ab Talib et al. (2015) revealed that halal certification implementation is primarily motivated by internal factors. This fits with what Giyanti et al. (2020) found, which is that internal motivations are more important than external pressure when it comes to meeting halal requirements.

Regarding religious adherence, not all producers or manufacturers with halal certification operate according to this principle. The desire to win market competition takes precedence over the desire to keep the product in accordance with Sharia requirements (Ab Talib *et al.*, 2015). In fact, the quality of halal products has prompted the globalization of the halal market, which was previously dominated by Muslims. As a result, the impact of halal certification on product quality is the primary driver of rising awareness of halal products. This is supported by the findings of Ab Talib et al. (2015), which found that production safety and quality were the primary motivators for food companies to implement halal certification.

As might be expected, today's businesses are well-versed in halal certification. Various studies conducted separate, in-depth investigations on internal motivations or external pressures, examining the relationship between the influencing factor and halal implementation. Drawing from a study by Othman et al. (2017) that focuses on the effect of human factors related to halal certification on organizational performance, knowledge of halal food is the most powerful factor for increasing performance. Human factors are also critical in determining the successful implementation of quality certification (Kafetzopoulos *et al.*, 2013). Therefore, human factors, as the internal drivers of halal certification, with a focus on knowledge and awareness in this research, are highly important factors that need to be maintained in halal implementation.

### **Halal knowledge and awareness within organization**

The growing Muslim population and non-Muslim consumer trust in halal products demonstrate that global market knowledge and awareness of halal products are increasing over time. The high demand for halal products is driven by increasing Muslim consumer awareness of halal products, a growing global Muslim population, and the perception that the product is safe, hygienic, tasty, and wholesome (Awan *et al.*, 2015; Ab Talib *et al.*, 2016). The halal industry has been steadily expanding in most countries with a large Muslim population (Suhartanto *et al.*, 2020). This reality should ideally be followed by an increase in knowledge and awareness among producers and manufacturers in order for them to establish halal assurance systems in their businesses and obtain halal certification.

Nuratifah et al. (2019) classify halal knowledge into knowledge of halal concepts and knowledge of the halal assurance system (HAS). They concluded from the survey that it is important to balance knowledge and practices to achieve better quality and purity of the products. The level of knowledge and understanding of halal management systems directly affected firms' performance. Even though the research used a small number of samples to represent the

knowledge and practices of halal certification in Sabah, Malaysia, the findings are supported by Othman et al. (2017), who used a larger number of samples and found that knowledge had the strongest impact on the firm's performance improvement. However, the existence of a halal committee within an organization is a necessity to control the practices of halal management. According to M. H. Hassan et al. (2015), halal standard implementation is mainly based on halal executives' knowledge of Islam rather than their knowledge of halal standards. This is not sufficient because halal executives must have specific knowledge of halal and not only rely on general Islamic knowledge to guarantee the practices are performed efficiently (Othman *et al.*, 2017; Nuratifah *et al.*, 2019).

Halal awareness is a relative concept (Vanany *et al.*, 2020), whereas "level of awareness" means the level of consciousness that might be different from another's (Kurniawati and Savitri, 2020). Soesilowati (2010) stated that halal awareness is determined by religious education experiences. Muslichah M. et al. (2020) agreed that halal awareness starts with understanding halal concepts and then performing them as behaviors to prioritize halal food to consume. They also stated that halal awareness is critical because not all halal food producers are Muslim, and some are non-Muslim. In other words, awareness can be improved through increased knowledge of halal. Religious belief was identified as the most influential factor for halal awareness, with exposure being the least influential factor after religious belief, health reasons, and logo certification. However, Ambali & Bakar (2013) alleged that education would enable consumers to choose the proper product to consume. Thus, emphasizing religious aspects in delivering halal information is the right process to improve the understanding of halal.

Prior to this point, the researcher has concentrated mostly on halal awareness, which influences customers' intentions to purchase halal products, rather than manufacturers' understanding of the necessity to provide halal goods. Kurniawati & Savitri (2020) investigated the level of halal awareness of Indonesian consumers as the largest Muslim country in the world. Several findings showed that consumers' purchase decisions are strongly influenced by halal awareness. Muslichah M. et al. (2020) examined the moderating effect of religiosity on the relationship between halal awareness and purchase decisions. For consumers to be aware enough to buy halal products, they need to know enough about what makes a product halal. This is called "halal awareness." Conversely, according to the results of research by Jaiyeoba et al. (2020), halal awareness negatively influences consumers' intentions to buy halal products. Hence, halal awareness without knowledge of halal products does not guarantee purchasing halal products.

In the context of manufacturers' motivation to implement halal assurance systems, the internal awareness aspect is rarely discussed. Giyanti et al. (2020) investigated the internal motives, namely product quality improvement, improving the image of SME, and improvement of processes, as predictors. According to a review of 50 journal articles on the motivations and limitations of implementing halal food certification conducted by Ab Talib et al. (2015), manufacturers' awareness of halal implementation was excluded from the major factors that motivate it. Instead, the halal industry is a promising business, and for that reason, manufacturers need to increase the level of halal awareness and halal certification to create opportunities for winning competition among others and gaining a profitable income (Tawil *et al.*, 2015).

### **3. Research Methods**

#### **Research design**

This research attempted to explore the current knowledge and awareness among SMEs in the leather industry in Indonesia on halal principles, as well as the current practices of the halal management system, using an exploratory-descriptive approach. A semi-structured interview was conducted first, followed by the administration of a survey questionnaire. To obtain a complete picture, the preliminary findings would be cross-checked with the survey results.

The first stage was done by interviewing the head of the industry cluster community and the owner or manager of SMEs in the leather industry located in one of the leather industry centers in Indonesia. The interview consists of three parts: identification of halal knowledge, particularly the halal requirements in producing non-food products; investigation of the industrial players' awareness of the importance of halal implementation in their businesses; and the current practices of halal principles in their production activities. The anonymity of respondents was guaranteed in

order to encourage the participants to reveal the real facts. The second stage involved questionnaire development, a pilot study, and real data collection. The questionnaire was developed based on a literature review using the "adopt and adapt" technique. Afterwards, compatible academics, halal experts, and practitioners evaluated the questionnaire using professional judgment to ensure that the questions were representative of the domain. The demographic of experts for content validity is depicted in Table 1.

Table 1 - Demographic of Experts For Content Validity.

Demographic variable	Sub-groups	Total
Experts' field	Academic Experts	4
	Halal Certification Auditors	2
	Owner/Manager in Leather SME	2
Years of experience	Up to 10	3
	11 – 20	4
	Over 20	1

The pilot study was carried out to assess the instrument's validity and reliability. Following validation and reliability verifications, the questionnaire was distributed on site in order to assess the extent to which halal principles were being implemented. The questionnaire is divided into two sections: demographic and halal implementation. The questionnaire used a five-point Likert scale ranging from 1 (not implemented) to 5 (fully implemented). Using the triangulation of interview and survey results, researchers would then conclude with a comprehensive picture of the current level of knowledge and awareness of the halal requirements among the SME leather industries in a leather industry center in Indonesia, as well as the extent to which these principles are implemented.

### Sampling and data collection

The sample in this research was drawn from two leather industry centers in Indonesia, located in two provinces: Yogyakarta and West Java. The leather products from this particular area are the most popular leather crafts in Indonesia, with high quality and competitive prices, and have penetrated the foreign market. The snowball sampling technique was employed during the interview. The interviewees included the head of a leather industry center and the owner of leather SME. There were four SME owners, who were willing to be interviewed by the researcher, but they asked to keep the company's name and their identities private since the topic of discussion is sensitive. The interview subjects were coded in the manner depicted in Table 2 to facilitate analysis.

Table 2 - Demographic of Interviewee.

Interviewee	Code	Year of Experience
Head of Leather Industry Centre and SME's Owner	A	48
SME's Owner 1	B1	29
SME's Owner 2	B2	15
SME's Owner 3	B3	34
SME's Owner 4	B4	15

The convenience sampling technique was chosen during the survey stage because the sample frame contained incomplete information. Hence, a simple random sampling technique is difficult to implement. There were 127 responses out of 150 questionnaires usable for analysis. The respondents are owners or persons who know the business comprehensively. The demographic profile of the respondents is shown in Table 3.

The interview protocol consists of five stages: designing the interview questions, validating the interview questions, identifying the sample, contacting the respondents, and finally conducting the interview. The interview questions were designed under the framework of the general policy of halal haram by Al-Qardhawi (1978), which was referred to by Othman et al. (2016); and the general guidelines of the Halal Assurance System by Majelis Ulama Indonesia (2008). The interview questions are mapped to the respective factors and validated by experts. The questions were then revised based on experts' feedback before the interview was conducted. The interviewee's response was divided into three parts. The interviewee's general knowledge of halal concepts, including the understanding of halal, the knowledge about the status of products made of impure animals or whether they are slaughtered in an Islamic manner or not, and cleaning procedures for contamination incidents, was the starting point for the discussion.

Table 3 - Demographic Of Respondents For Survey Questionnaire.

Demographic variables	Sub-groups	Total	Percentage
Number of employees	< 25	116	91.34
	25 – 50	8	6.30
	51 – 75	3	2.36
	76 – 100	0	0.00
Years of operation	< 5	22	17.32
	5 – 10	51	40.16
	11 – 15	14	11.02
	16 – 20	20	15.75
	> 21	20	15.75
Type of industry	Leather tanning industry	18	14.17
	Leather goods/craft industry	109	85.83
Sales and distribution	Domestic/Indonesia	112	88.19
	Domestic and Export	15	11.81

The second phase of the discussion tried to investigate their halal awareness and further find out how it influences their decision-making or production activities. The final stage is concerned with current leather production practices that are critical in determining halal status, including how they would handle non-conforming products if they occurred. The interview questions for each category can be seen in Table 4.

Table 4 - Interview Questions.

Categories	Interview Questions
Knowledge on Halal Concepts	1. What is your understanding of halal leather?
	2. Do you think that impure animal skin is permissible to be processed into products?
	3. Do you think that leather products have to come from animals that are slaughtered in an Islamic manner?
	4. What is your understanding of the requirements of the tanning process that is taught in Islam?
	5. Do you think it's necessary to do cleaning procedures (samak) for contaminated tools or production facilities after contacting non-halal materials?
Awareness of Halal	1. Do you know if the materials in your products are halal?
	2. Are you aware of non-halal substances (additive materials) that might be used in the production process?
	3. Do you think that "free contamination" in raw material distribution is important?
	4. Do you think that "free contamination" for tools and production facilities is crucial?
	5. Are you willing to recall the products that have already been sold if non-conforming products are found in the production process?
Halal Practices	1. How did you ensure that the raw materials conformed to Islamic rules?
	2. The fat liquoring process uses fat, oil, and other animal-based derivatives. How did you ensure that the substances came from a halal source?
	3. How did you ensure that the raw materials were not contaminated with anything Haram or Najis?
	4. Have you ever mixed your manufacturing facilities with other processes that generate unclean or impure materials or products?
	5. If you ever produced materials or products that were unclean or impure, did you clean the tools and production facilities following the procedure that is taught in Islam?

Based on similar references, the instrument for the survey was also developed. The items in the questionnaire were revised based on content validity analysis using the Content Validity Index (CVI) and comments from the experts. The questionnaire includes five variables: training and education, raw materials, production facility, traceability, and handling the non-conforming products. A pilot study was conducted to test the validity and reliability of the instrument. Some items were revised or simplified before being distributed for real data collection

**4. Results and Discussions**

**Results for qualitative stage**

After transcribing the interview that had been recorded, as shown in Table 5, the data were coded. Based on the answers of the respondents, the key ideas are summarized in themes and considered the findings of this research. Table 6 shows the themes based on knowledge, awareness, and practices in leather production.

Table 5 - Initial Coding.

Interview Transcript	Coding
(A) By checking the pattern and size, we are able to determine what animal the leather belongs to. We ensure that any additives, such as glue, that are used are free of prohibited substances.	Halal knowledge: Level of halal knowledge.
(B1) If it is clear that cowhide or sheepskin is used, then it is improbable that it can be stated as haram; even in practice, mixing the material with prohibited skin is highly possible.	
(A) Traditional tanning is obviously halal because it uses acacia tree powder and no chemical substances are used at all.	
(B4) We never ask if the animals are killed in an Islamic way or not, because it's not important to us.	
(B1) I don't think of halal or haram in terms of how it relates to the usage of tools or facilities. However, since we never use illegal materials, we are confident.	
(B2) We are predominantly Muslim and adhere to religious law. Even if some of the crafters are not Muslims, they are aware of the rules.	Halal awareness: Internal motivation
(B4) I join the local religious community and learn about sharia. I once made crafts out of non-halal materials, but deep in my heart, I couldn't accept them since I knew they were against religious rules; therefore, I ended my collaboration.	
(A) Dog skin is extremely high quality, particularly for jackets, but we no longer use it because the authorities have declared it illegal.	Halal awareness: External pressures.
(B1) We've done it before (produced non-halal products), but it's been a long time, and the government prohibits it.	
(A) We recognize our suppliers and the materials they provide.	Halal practices:
(B1) We may go straight to the suppliers and choose the material.	Business relationship.
(B2) We purchase material from trusted suppliers; we are certain of the origin of the leather. We do not accept the offer of raw materials that are sold at extremely low prices to avoid problematic ones, such as non-halal skin, stolen skin, and so on.	
(B3) We recognize the suppliers very well. Our product is halal; we are sure about it. If anyone offers leather at a very low price, I would be immediately suspicious.	

Table 6 - Mapping The Emerging Themes.

Topic	Themes
Level of halal knowledge.	Knowledge of the halal standard for leather; Knowledge of critical points in halal leather production.
Internal motivation.	Religiosity.
External pressures.	Authority role.
Business Relationship.	Supplier partnership.

**Results for quantitative stage**

Table 7 shows the quantitative results, which include the mean and standard deviation for each item. Rejeb et al. (2022) say that training and education are the most important parts of human capital development because they help people learn more. The six items used to assess training and education related to halal principles and implementation had a mean score of 2.99±1.20 (maximum possible score is 5). This value fell into the poor category, which highlights the need for training and education in order to increase halal understanding among SME leather industry employees.

Table 7 - Descriptive Statistics For Halal Practices

Factors	Item	Question Description	Mean	Standard Deviation
Training and education	TR1	Training to improve halal knowledge.	3.031	1.177
	TR2	Training about non-halal leather material.	3.039	1.232
	TR3	Training to improve halal awareness.	3.299	1.269



Factors	Item	Question Description	Mean	Standard Deviation
	TR4	Education on the halal critical point.	2.921	1.227
	TR5	Training about traceability.	2.528	1.078
	TR6	Training is given to top management or managerial staff.	3.150	1.230
Raw material	RM1	Purchasing halal materials and substances.	3.291	1.299
	RM2	Purchased material and substances that are free of contamination by non-halal material.	3.449	1.504
	RM3	Well-documented for purchased materials and substances.	3.331	1.094
	RM4	Free contamination of non-halal material in the warehouse.	3.047	1.510
	RM5	Communication about halal requirements to the suppliers.	2.913	1.414
	RM6	Statement about halal requirements in procurement procedures.	2.433	1.181
Production facilities	PF1	Sanitary facilities are available.	3.244	1.530
	PF2	Production equipment is not made of impure material.	3.236	1.534
	PF3	The production line should only be used for halal material.	3.181	1.564
	PF4	No cross-contamination for interchanged production facilities (halal to non-halal material and vice versa).	3.150	1.627
	PF5	Separate equipment washing area for any equipment that has come into contact with non-halal material.	2.913	1.527
Traceability	TA1	There is a written traceability procedure in place to ensure that the products are made from approved materials.	3.173	1.398
	TA2	Written procedure on traceability to guarantee the products made in facilities that fulfil the criteria of halal production facilities.	2.457	1.297
	TA3	Halal-related documents are available and up-to-date.	2.457	1.266
	TA4	Mechanisms to trace back the information about materials and substances used.	2.551	1.326
	TA5	Evidence of product traceability.	2.567	1.349
	TA6	Top management's awareness of traceability.	2.276	1.302
Handling the non-conforming products	NC1	Responsibility for the non-conforming products.	3.591	1.030
	NC2	Written procedure to handle the non-conforming products related to material.	2.339	1.281
	NC3	Written procedure to handle the non-conforming products related to facilities.	2.354	1.289
	NC4	Quick action in handling the non-conforming products that are found in the production process.	3.622	1.034
	NC5	Willingness to recall the products that are confirmed as non-halal.	3.000	1.230
	NC6	Evidence of handling non-conforming products (if they occur).	2.268	1.270

Six criteria were used to determine how much halal principles are used in purchasing decisions. Overall, the mean score for this variable was  $3.08 \pm 1.33$  which can be concluded as moderate. The mean score for production facilities was  $3.14 \pm 1.56$ , indicating that the majority of respondents demonstrated a moderate level of implementation. Meanwhile, according to descriptive statistics for traceability, the level of implementation of traceability seems low. Finally, the handling of non-conforming products was assessed, with this variable attempting to assess SME leather industry players' commitment to handle if non-conforming products are discovered in the future. Based on the average score, it was found that the willingness of leather SMEs' players to handle the non-conformance products was still at a low level ( $2.86 \pm 1.19$ ).

### Discussion on knowledge of the halal standard for leather

In Indonesia, the requirement for halal certificates has now entered the second stage with the implementation of halal certification for pharmaceuticals, cosmetics, and consumer goods. The implementation of halal certification for these categories is expected to be completed in 2026. It means that after 2026, products without a halal label will be prohibited from being circulated or traded in Indonesia. The people who work in these fields should already know about halal standards and halal certification.

Concerning the halal standard, it is clear from the explanations of five participants in the interview session that their understanding of halal for leather products is limited to the types of animals used as material. They believe that leather-based products are halal if the leather is derived from halal animals. This finding is supported by the results of the quantitative phase. Based on the results, training and education on halal principles and practices were very limited. According to the respondents' responses in the interview session, they tend to wait until the government invites them to participate in training rather than initiating it in the form of a human resource development program. A shortage of funds is one of the main reasons for the inadequate level of training. Therefore, it is reasonable if the SMEs' players have very limited knowledge associated with halal, particularly the halal critical points and traceability.

According to the Fatwa of the Indonesian Ulama Council (MUI) No. 56 Year 2014, there are some requirements to meet for halal leather products, which are materials that come from permissible animals (including the slaughtering process) and are tanned correctly until the mucus and rancid smell of skin are removed. Halal certification for slaughter results and services has already been initiated and is expected to be completed in 2024. Even so, standardization for tanning does not appear to have been communicated to players in the leather industry in Indonesia, particularly SMEs. If industrial players are knowledgeable about halal standards for leather products, the certification process through the government's "Self-Declare" program can be accelerated. Therefore, improving knowledge of the halal standard for leather is critical for leather SME players before embarking on the halal certification process.

### **Discussion on knowledge of critical points in halal leather production**

Prior to 1975, the head of the leather industry center admitted that dog's skin was used as a material in the production of leather jackets. He claimed that the best materials for a leather jacket are dog skin and the skin of dead calves within the cow during birth. He also confirmed that, in the past, the leather craftsmen made the leather products using predatory animals' skins following the customers' orders. Currently, all leather SMEs in that area, which are supervised by the management of the leather industry center, avoid using the prohibited raw materials. According to general guidelines for halal (Majelis Ulama Indonesia, 2008), halal assessment comprehensively covers all aspects, from purchasing raw materials, distribution, warehousing, tools and facilities, cleaning procedures, and traceability. Meanwhile, the majority of leather industry players merely define the halal standard for leather-based products, which mainly depends on the general knowledge that materials should come from halal animals. The survey results showed a low level of training and education, a lack of knowledge about production and sanitary facilities that should be free of contamination by non-halal materials, a lack of knowledge about traceability, and a low response rate for non-conforming products, indicating a low level of knowledge about halal principles in the leather business, particularly among SMEs.

There are two main critical points for leather, namely the type of animal and the tanning process (Jaswir *et al.*, 2020). The following are the critical points of leather products, according to the Fatwa of the Indonesian Ulama Council (MUI) No. 56, 2014: leather comes from halal animals that are slaughtered in an Islamic manner; leather comes from animals whose meat should not be eaten (*ghair ma'kul al-lahm*) if it has been processed through the correct tanning procedure; and the most important is that the leather does not contain dogs, pigs, or derivatives of those impure animals or be contaminated by those impure animals. Based on the interview results, the SME leather industry players are not too aware of the additives used in their products. As long as they use halal animals, they believe that the products are halal. They also tried to convince us that the possibility of using non-halal substances as additives in the tanning process is small because they use materials that come from plants. This is insufficient because many additional materials are used during the tanning process and craft-making. Thereby, it is critical to ensure that all

additional materials used are free of non-halal materials.

Despite this, the traditional tanning method they employ takes a long time (approximately three months) to produce the best quality results. In fact, they frequently shorten to half their original duration, affecting the leather's smell. As mentioned in Fatwa of the Indonesian Ulama Council (MUI) No. 56 (2014), incorrect tanning processes that produce a rancid smell in leather do not comply with the halal requirements of leather. On the other hand, Tejaningrum (2019) explained that traditional leather tanning practices used by SMEs cannot reduce fat levels on the skin, which causes the skin to rot more quickly and contain bacteria.

Another important aspect that is critical in determining the halal status is the contamination of non-halal materials. According to the explanation from respondents in the interview session, they guarantee that all of the products are made using permissible raw materials, but none of the participants are conscious of the need to do samak procedures (cleaning) for tools and facilities that have come into contact with najis (impure) materials. They mentioned earlier that they have produced leather products made of prohibited animal skin, but they also admitted that they never follow the cleaning procedure according to Islamic teachings. In order to make SMEs in the leather industry more aware of halal, it is important to share information about halal-critical points during the production and cleaning of leather.

### **Discussion on religiosity**

Religiosity is defined as "the strong belief in religion" (Khan *et al.*, 2019) which direct someone to have sensitivity in ensuring the lawfulness of the products (Muslichah M. *et al.*, 2020). Available studies showed that religiosity strongly shapes customer behavior in the purchase decision of halal products. Parvin Hosseini *et al.* (2019) found that the high level of religiosity increases Muslim consumers' propensity to pay more for halal-certified food products. This result is consistent with the finding of Abd Rahman *et al.* (2015) and Handriana *et al.* (2021), that examined the relationship between religiosity and attitude of consumers for halal cosmetics. Thus, a person's religiosity will determine the product that will be chosen, whether it be food or consumer goods.

As product consumption decisions entail religiosity, producers' vigilance in avoiding haram is strongly influenced by their faith and beliefs as well. If previous research indicates that consumers are willing to pay more for halal products, it becomes very interesting to investigate the role of religiosity in motivating producers to invest more in halal products. Suhartanto *et al.* (2020) answered this by their findings that religiosity not only affects satisfaction and loyalty but also the quality of halal products. The explanation for these results is that religious individuals view quality and halal as unitary characteristics of a product. In other words, the positive perception of religious consumers toward halal products encourages producers to commit to producing high-quality halal products. Surprisingly, a research by Silalahi *et al.* (2022) found that customer demand and competition intensity are not the main factors that encourage halal implementation. This research showed that religiosity is one of the factors that significantly influence the producers to adopt halal practices. Regardless, previous research have proven that religiosity is essential from both consumers and producers' perspective. Supported by the finding of the current research, despite having a limited comprehension of halal criteria, players in the leather industry appear to have a strong intent to acquire the appropriate material in accordance with Islamic law. Abd Rahman *et al.* (2015) found that religiosity has impact on consumers' attitude while knowledge does not influence the purchase decision. Therefore, religiosity play important role in governing an individual behavior, as evidenced by the fact that some SMEs in the leather industry perceive providing halal products to consumers as an act of obedience to Allah. The quantitative results indicate that the respondents are very careful in procuring the materials. This research focus on level of faith and obedience of leather industry players as producer to meet halal requirements for leather production. The findings of this research suggest that SMEs in the leather industry should strengthen the value of products by striving to put Islamic rule as a priority along the process and create an image of quality in the halal products. Moreover, government involvement is urgently required in efforts to increase halal knowledge so that religiosity will grow through the implementation of relevant programs.

### **Discussion on authority role**

According to prior research stated that halal awareness implies a depth of halal understanding (Soesilowati, 2010; Muslichah M. *et al.*, 2020). This research found that the leather SME players in Indonesia seem to have a low level of halal awareness. One of the respondents confessed that meeting halal requirements is mainly an act of obedience to authority. Since the local government banned the use of prohibited raw materials for leather products, they stopped using it. The interviewee admitted that if government pressure did not exist, they would keep receiving orders of non-halal leather products from customers. But, this statement cannot be generalized to all SME players since the survey results showed that the majority of respondents have a willingness to purchase halal materials.

SMEs in Indonesia have common characteristics that are highly influenced by external factors (Nugroho, 2015). One of important factor is government support e.g. technical support or guidance. Silalahi *et al.* (2022) stated that government support significantly influences the intention to adopt halal practices. They explained that supportive action from the government could be in the form of conveying religious values in the halal campaign, providing incentives and subsidies in the halal certification process, promoting halal, and educating consumers about halal certificated products. The primary obstacle to the implementation of halal among leather industries in Indonesia is that government policy regarding halal has not been adequately communicated. Therefore, leather industry players have limited knowledge of halal principles, halal policy, and procedures of halal certification. Meanwhile, Othman *et al.* (2017) discovered that the sensitivity of the halal industry to government policy can impact organizational performance. Hence, the first urgent step for the government to take is to introduce the regulation and then facilitate the SMEs with education, training, and other programs and supports. In addition, the leather SME players have a strong relationship with the local government, making it simpler for the authority to carry out the halal certification program.

### **Discussion on supplier partnership**

According to the interview session and survey results, the majority of participants do not understand traceability, but they regularly demand halal raw materials from trusted suppliers by making repetitive purchases. This purchasing pattern has the advantage of making it easier to trace back the source of the materials if they come across a non-conforming raw material. One of the participants explained that they can usually tell what animal the leather sheet came from. This skill is important to screen the purchased leather. However, relying solely on the halal material aspect is insufficient to determine a product's halal status; other factors must be considered.

As traceability is not really considered in leather production, the cleaning process is done without considering the usage of tools or facilities that have come into contact with non-halal materials. Cleaning procedures according to Islamic teaching (samak) are essential in case non-conforming materials or processes occur in the future, but none of the interviewees have knowledge about them. Survey results showed that even though the SME leather industries intend to use halal material into their products, the need to comply with halal requirements and procurement procedures is not communicated with suppliers. Su and Gargeya (2016) stated that a well-defined and effectively communicated set of criteria for selecting and evaluating suppliers is a crucial strategy that can help businesses enhance their manufacturing and/or service performance. Since choosing a qualified supplier by ensuring halal certification for the leather industry in the current situation is nearly impossible, communication and a declaration letter from suppliers to guarantee halal substances are crucial. Furthermore, SMEs in the leather industry need to learn more about traceability, keep track of the history of their purchases, and set up a traceability mechanism in order to get halal certification. In order to encourage cooperation and participation of the suppliers, the role of authority can be initiated by educating the suppliers about halal certification and providing more training sessions to help them understand the importance of supplying halal material for the leather industry, as suggested by Ngah *et al.* (2015).

### **Action plans recommendation for stakeholders**

As discussed in the beginning of this article, the implementation of halal in the Indonesian leather industry raises a number of issues. First, it is unclear to what extent halal principles have

been implemented in the leather industry. According to this investigation, the rate of halal implementation in the Indonesian leather industry is still very low. This is primarily due to a lack of understanding of halal standards and inadequate knowledge of the significance of halal implementation in leather production processes. Training and education programs, notably those provided by the government, can solve this issue. Second, the production process is still conducted in a traditional manner, with no regard for the halal standards that must be adhered to. Supporting the preparation of SOP, particularly for halal critical points in the leather industry, requires the participation of the government. For SMEs to obtain halal certification, the government must also provide financial support. The government's appropriate programs will accelerate the emergence of the halal industry in Indonesia, particularly the leather industry. Third, there is the potential use of non-halal materials and additives. To maintain halal integration along the supply chain of leather production, cooperation from all stakeholders, particularly suppliers, is required, as are government regulations which encourage the compliance of halal requirements by industry players. Therefore, the role of the government is vital to initiate awareness of halal implementation among industrial actors. An intensive approach from the government will foster the consciousness and active participation of industry actors to start implementing halal principles in their production processes.

The implementation of the halal system in the industry will be successful with the support of all parties. According to interview and survey results, there are three main actors that primarily concern themselves with halal certification implementation: SMEs, the government, and suppliers. By considering the current level of knowledge, awareness, and implementation of halal principles among SME leather industries, there are some priority actions that need to be performed by stakeholders to accelerate halal certification in SME leather industries in Indonesia. The action plans are recommended in Figure 1.

Industry	Authority	Supplier
<ul style="list-style-type: none"> <li>• Actively participate in training and education programmes</li> <li>• Intensive communication about halal requirements with suppliers</li> <li>• Creating production facilities and places to wash equipment that keep halal and non-halal materials separate</li> <li>• SOP for procurement</li> <li>• SOP for traceability</li> <li>• SOP for non-conforming product</li> </ul>	<ul style="list-style-type: none"> <li>• Providing training and education programmes that mainly focus on HCP and traceability</li> <li>• Providing a funding scheme to support halal certification</li> <li>• Effective assistance and monitoring of halal implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Supplying materials according to halal requirements</li> <li>• SOP for distribution to guarantee there is no contamination with non-halal substances.</li> </ul>

Fig 1. Stakeholders And Associated Action Plans For Halal Practices

**5. Conclusion**

The results of this research show that leather SMEs in Indonesia still know very little about halal practices and do not follow them. Most of them only look at what kind of animal is used to make the leather to decide if it is halal or not. This obviously misinterpreted their perceptions in determining the halal status of leather products. On this level of knowledge, it is no wonder if the leather SME players react in a negative way to the halal enactment. Besides, the owner of leather SME, perhaps a non-Muslim, needs to know more about the urgency of complying with halal principles in leather production. The government also needs to communicate the guidelines of the

Halal Assurance System for the leather industry, which encompasses the critical points of distribution, warehousing, tools and facilities, cleaning procedures, and traceability.

Lack of knowledge has a direct impact on leather SME players' awareness of halal certification implementation. The prior research proved that internal awareness influences the success of halal implementation. But, without improving halal knowledge, halal awareness will be difficult to achieve. Therefore, it is primarily necessary to increase halal knowledge to evoke awareness about the importance of implementing halal principles. Finally, the role of authority is significant in both enhancing knowledge and raising awareness among leather SME players.

The findings of this research are limited to the leather industry in the context of small and medium enterprises. Further research could look into this quantitatively in a wider range of samples or different Asian country. This study found the internal and external factors that affect halal awareness, but it did not look into how the factors are related to each other. However, the findings of this research contribute to assisting the players in the leather industry about the primary step towards halal certification and showing the authority the crucial factors that needed to be considered in designing the halal program for the leather industry, particularly SMEs in Indonesia.

## References

- Ab Talib, M. S., Abdul Hamid, A. B., & Ai Chin, T. (2015). Motivations and limitations in implementing Halal food certification: a Pareto analysis. *British Food Journal*. Emerald Group Publishing Limited, 117(11), 2664–2705.
- Ab Talib, M. S., Ai Chin, T. & Fischer, J. (2017). Linking Halal food certification and business performance. *British Food Journal*, 119(7), 1606–1618.
- Ab Talib, M. S., Md. Sawari, S. S., Abdul Hamid, A. B., & Ai Chin, T. (2016) 'Emerging Halal food market: an Institutional Theory of Halal certificate implementation', *Management Research Review*, 39(9), 987–997.
- Abd Rahman, A., Asrarhaghi, E., & Ab Rahman, S. (2015). Consumers and halal cosmetic products: Knowledge, religiosity, attitude and intention. *Journal of Islamic Marketing*, 6(1), 148–163.
- Akın, M. S., & Okumuş, A. (2021). Shaping the consumers' attitudes towards Halal food products in Turkey. *Journal of Islamic Marketing*, 12(6), 1081–1096.
- Alao, B. O., Falowo, A. B., Chulayo, A., & Muchenje, V. (2017). The potential of animal by-products in food systems: Production, prospects and challenges. *Sustainability (Switzerland)*, 9(7), 1–18.
- Ali, M. H., Tan, K. H., & Ismail, M. D. (2017). A supply chain integrity framework for halal food. *British Food Journal*, 119(1), 20–38.
- Aljabi, E. T. (2019). Using awards excellence models in assessing supply chain management systems: A case study in the plants of general company of leather industries. *International Journal of Supply Chain Management*, 8(5), 1008–1021.
- Ambali, A. R., & Bakar, A. N. (2013). Halāl food and products in Malaysia: People's awareness and policy implications. *Intellectual Discourse*, 21(1), 7–32.
- Awan, H. M., Siddiquei, A. N., & Haider, Z. (2015). Factors affecting Halal purchase intention – evidence from Pakistan's Halal food sector. *Management Research Review*, 38(6), 640–660.
- Bashir, A. M., Bayat, A., Olutuase, S. O., & Latiff, Z. A. A. (2019). Factors affecting consumers' intention towards purchasing halal food in South Africa: a structural equation modelling. *Journal Of Food Products Marketing*, 25(1), 26–48.
- BPS-Statistics Indonesia. (2017). *Sensus Ekonomi* [Economic Census], 3.
- Dwivedi, A., Agrawal, D., & Madaan, J. (2019). Sustainable manufacturing evaluation model focusing leather industries in India: A TISM approach. *Journal of Science and Technology Policy Management*, 10(2), 319–359.
- Ghafoor, A., Aslam, M., & Rasool, S. (2012). Determinants of Leather Goods Exports: A Case of Pakistan. *Journal of Business and Economics*, 4(2), 256–269.
- Giyanti, I., Indrasari, A., Sutopo, W., & Liquiddanu, E. (2020). Halal standard implementation in food manufacturing SMEs: its drivers and impact on performance. *Journal of Islamic*

- Marketing*, (228).
- Guercini, S., & Woodside, A. G. (2012). A strategic supply chain approach: Consortium marketing in the Italian leatherwear industry. *Marketing Intelligence and Planning*, 30(7), 700–716.
- Gupta, S. K., & Racherla, U. S. (2018). Interdependence among dimensions of sustainability: Evidence from the Indian leather industry. *Management of Environmental Quality: An International Journal*, 29(3), 406–415.
- Haleem, A., Khan, M. I., & Khan, S. (2020). Halal certification, the inadequacy of its adoption, modelling and strategising the efforts. *Journal of Islamic Marketing*, 11(2), 393–413.
- Handriana, T., Yulianti, P., Kurniawati, M., Arina, N. A., Aisyah, R. A., Ayu Aryani, M. G., & Wandira, R. K. (2021). Purchase behavior of millennial female generation on Halal cosmetic products. *Journal of Islamic Marketing*, 12(7), 1295–1315.
- Haque, A., Sarwar, A., Yasmin, F., Tarofder, A. K., & Hossain, M. A. (2015). Non-muslim consumers' perception toward purchasing halal food products in malaysia. *Journal of Islamic Marketing*, 6(1), 133–147.
- Hassan, M. H., Arif, S., & Sidek, S. (2015). Knowledge and practice for implementing internal halal assurance system among halal executives. *Asian Social Science*, 11(17), 57–66.
- Hassan, Y., & Sengupta, A. (2019). India – an untapped market for halal products. *Journal of Islamic Marketing*, 10(3), 981–1002.
- Jaiyeoba, H. B., Abdullah, M. A., & Dzuljastri, A. R. (2020). Halal certification mark, brand quality, and awareness: Do they influence buying decisions of Nigerian consumers? Haruna. *Journal of Islamic Marketing*, 11(6), 1657–1670.
- Jaswir, I., Rahayu, E. A., Yuliana, N. D., & Roswien, A. P. (2020). *Daftar Referensi Bahan-bahan yang Memiliki Titik Kritis Halal dan Substitusi Bahan Non-halal [The List of Reference Materials with Critical Halal Points and Substitutions of Non-halal Materials]*, Komite Nasional Ekonomi dan Keuangan Syariah. Komite Nasional Ekonomi dan Keuangan Syariah.
- Kafetzopoulos, D., Gotzamani, K., & Psomas, E. (2013). Quality systems and competitive performance of food companies. *Benchmarking: An International Journal*, 20(4), 463–483.
- Khan, M., Najmi, A., Ahmed, W., & Aman, A. (2019). The role of consumer willingness to pay for halal certification in Pakistan. *Journal of Islamic Marketing*, 10(4), 1230–1244.
- Kohilavani, Zzaman, W., Abdullah, W. W. N., & Tajul, A. Y. (2015). Embedding Islamic dietary law into an HACCP approach for application to the poultry slaughtering and processing industry. *International Food Research Journal*, 22(6), 2684–2690.
- Koppiahraj, K., Bathrinath, S., & Saravanasankar, S. (2019). Leather Waste Management Scenario in Developed and Developing Nations. *International Journal of Engineering and Advanced Technology*, 9(1S4), 852–857.
- Kurniawati, D. A., & Savitri, H. (2020). Awareness level analysis of Indonesian consumers toward halal products. *Journal of Islamic Marketing*, 11(2), 522–546.
- Lestari, F., Kurniawan, R., Arifin, J., Yasir, M., Muhammad Saleh, M., & Akbarizan. (2023). An integrated framework for the measurement of halal good manufacturing practices on the case of SMEs in the food sector. *Journal of Islamic Marketing*, 14(1), 82–105.
- Mahyarni, Meflinda, A., & Indrayani, H. (2018). The investigation of the effects of spiritual values and behaviors on business development and performance of Muslim preneurship. *International Journal of Law and Management*, 60(2), 730–740.
- Majelis Ulama Indonesia. (2008). *General Guidelines of Halal Assurance System, LPPOM MUI*.
- Majelis Ulama Indonesia. (2014). *Fatwa Majelis Ulama Indonesia Nomor 56 Tahun 2014 Tentang Penyamakan Kulit Hewan dan Pemanfaatannya* [Fatwa No. 56 of 2014 of the Indonesian Ulama Council on the tanning of animal skin and its advantages], Himpunan Fatwa Majelis Ulama Indonesia.
- Martuscelli, M., Serio, A., Capezio, O., & Mastrocola, D. (2020). Safety, quality and analytical authentication of halal meat products, with particular emphasis on salami: A review. *Foods*, 9(8).
- Mohayidin, M. G., & Kamarulzaman, N. H. (2014). Consumers' Preferences Toward Attributes of Manufactured Halal Food Products. *Journal of International Food and Agribusiness*

- Marketing*, 26(2), 125–139.
- Moktadir, M. A., Ali, S. M., Rajesh, R., & Paul, S. K. (2018). Modeling the interrelationships among barriers to sustainable supply chain management in leather industry. *Journal of Cleaner Production*, 181, 631–651.
- Muslichah M., Abdullah, R., & Razak, L. A. (2020). The effect of halalfoods awareness on purchase decision with religiosity as a moderating variable: A study among university students in Brunei Darussalam. *Journal of Islamic Marketing*, 11(5), 1091–1104.
- Neio Demirci, M., Soon, J. M., & Wallace, C. A. (2016). Positioning food safety in Halal assurance. *Food Control*, 70, 257–270.
- Ngah, A. H., Zainuddin, Y., & Thurasamy, R. (2015). Barriers and enablers in adopting of Halal warehousing. *Journal of Islamic Marketing*, 6(3), 354–376.
- Nugroho, M. A. (2015). Impact of Government Support and Competitor Pressure on the Readiness of SMEs in Indonesia in Adopting the Information Technology. *Procedia Computer Science*, 72, 102–111.
- Nuratifah, A. S., Sharifudin, M. S., & Mariam, A. L. (2019). Evaluation of knowledge and practices of halal certification among food processing companies in Sabah, Malaysia. *International Food Research Journal*, 26(1), 295–304.
- Othman, B., Md. Shaarani, S., & Bahron, A. (2017). The influence of knowledge, attitude and sensitivity to government policies in halal certification process on organizational performance. *Journal of Islamic Marketing*, 8(3), 393–408.
- Othman, B., Shaarani, S. M., & Bahron, A. (2016). Evaluation of knowledge, halal quality assurance practices and commitment among food industries in Malaysia. *British Food Journal*, 118(8), 2033–2052.
- Parvin Hosseini, S. M., Mirzaei, M., & Iranmanesh, M. (2019). Determinants of Muslims' willingness to pay for halal certified food: Does religious commitment act as a moderator in the relationships?. *Journal of Islamic Marketing*, 11(6), 1225–1243.
- Prabowo, S., Rahman, A. A., Rahman, S. A., & Samah, A. A. (2015). Revealing factors hindering halal certification in East Kalimantan Indonesia. *Journal of Islamic Marketing*, 6(2), 268–291.
- Rejeb, A., Rejeb, K., Zailani, S., & Kayikci, Y. (2022). Knowledge diffusion of halal food research: a main path analysis. *Journal of Islamic Marketing*, (2019).
- Schiuma, G. (2012). Managing knowledge for business performance improvement. *Journal of Knowledge Management*, 16(4), 515–522.
- Shah, S. A. R., Jamaludin, K. R., Talib, H. H. A., & Yusof, S. M. (2019). Integrated quality environmental management implementation in food processing SMEs: A case study of a developing country. *TQM Journal*, 31(5), 740–757.
- Shahid, S., Ahmed, F., & Hasan, U. (2018). A qualitative investigation into consumption of halal cosmetic products: the evidence from India. *Journal of Islamic Marketing*, 9(3), 484–503.
- Shahid, S., Parray, M. A., Thomas, G., Farooqi, R., & Islam, J. U. (2022). Determinants of Muslim consumers' halal cosmetics repurchase intention: an emerging market's perspective. *Journal of Islamic Marketing*.
- Sherwani, M., Ali, Afzaal, Ali, Adnan, Hussain, S., & Zadrán, H. G. (2018). Determinants of muslim consumers' Halal meat consumption: applying and extending the theory of planned behavior. *Journal of Food Products Marketing*, 24(8), 960–981.
- Silalahi, S. A. F., Fachrurazi, F., & Fahham, A. M. (2022). Factors affecting intention to adopt halal practices: case study of Indonesian small and medium enterprises. *Journal of Islamic Marketing*, 13(6), 1244–1263.
- Soesilowati, E. S. (2010). Business opportunities for Halal Products in the Global Market: Muslim Consumer Behaviour and Halal food Consumption. *Journal of Indonesian Social Sciences and Humanities*, 3(1), 151–160.
- Su, J., & Gargeya, V. B. (2016). Supplier selection in small- and medium-sized firms The case of the US textile and. *American Journal of Business*.
- Suhartanto, D., Marwansyah, Muflih, M., Najib, M. F., & Faturohman, I. (2020). Loyalty formation toward Halal food: Integrating the Quality–Loyalty model and the Religiosity–Loyalty Model. *British Food Journal*, 122(1), 48–59.



- Tawil, N. M., Ramlee, S., Jaafar, J., & Saat, F. M. (2015). An overview of foodpreneur awareness among Small and Medium-Sized Enterprises (SME) of halal certification. *Asian Social Science, 11*(21), 91–94.
- Tejaningrum, A. (2019). Implementation the Trilogy Juran in SMEs Business Case Study in Indonesia. *IOP Conference Series: Materials Science and Engineering, 506*(1).
- Vanany, I., Soon, J. M., Maryani, A., & Wibawa, B. M. (2020). Determinants of halal-food consumption in Indonesia. *Journal of Islamic Marketing, 11*(2), 516–530.
- Wahga, A. I., Blundel, R., & Schaefer, A. (2018). Understanding the drivers of sustainable entrepreneurial practices in Pakistan's leather industry: A multi-level approach. *International Journal of Entrepreneurial Behaviour and Research, 24*(2), 382–407