



Recommendation of affordable halal certification fee

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ABSTRACT

Halal certificates protect consumers from foods that do not comply with Islamic Sharia, and Indonesia represents a significant market for halal products, with certification being a key competitive factor in international trade. The response to halal certification varies, with some considering the fee affordable, while others view it as burdensome for businesses. Therefore, this study aimed to recommend affordable halal certification fee for small, medium, and large entrepreneurs. To achieve this objective, a survey method was used to target business actors, combined with literature reviews. A survey was conducted through questionnaires and interviews that included micro, small, medium, and large businesses. The affordable certification fee for micro and small business actors averaged IDR 774,231, with the highest being IDR 828,571. Meanwhile, for medium businesses, it ranged from IDR 1,166,667 to a high of IDR 2,030,769, and for large businesses, the average was IDR 2,995,581, with a maximum of IDR 5,214,286.

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1 Introduction

Halal Product Guarantee Act was implemented on October 17, 2019, requiring that all products circulating within Indonesian territory have halal certificates. Producers were specifically required to register products through Halal Product Guarantee Agency (BPJPH) and cover the necessary fees during the inspection process to obtain certificates. In this context, the regulation applies to all entrepreneurs, both large and micro businesses (UU 2014a). Halal product guarantee (JPH) promotes wider product marketing for micro businesses, even from non-Muslim communities, as halal certification assures consumers in terms of cleanliness, health, and trust (Khasanah *et al.* 2021).

Indonesian Ulama Council (MUI) issues halal certificates as written fatwas in JPH framework. These certificates ensure consumers' protection from food products that do not comply with Islamic law. Halal certification not only safeguards Muslim consumers but also provides reassurance to non-Muslims regarding food safety. In addition, it has a Unique Selling Point (USP), which distinguishes products in the market and provides a competitive advantage, making them more valuable to consumers. Entrepreneurs and producers from various religious backgrounds benefit from certification, as it promotes competition and the production of superior goods in both national and international markets (Hasan 2014).

MUI halal certificates are required for both entrepreneurs and food producers. The cost of obtaining certification depends on the scale of the applicants businesses, and represents the expenses borne by companies or individuals in exchange for greater benefits from their activities (Raharjaputra 2009).

Responses to halal certification fee have been mixed. Some business actors feel it is mismatched and burdensome, while others believe the fee remains relatively affordable. Since halal certification is currently mandatory, it can impose a financial strain on business actors who are unable to pay. It is necessary to determine the appropriate halal certification fee, particularly for the consequences of changing from voluntary to mandatory certification. Therefore, this study aimed to determine affordable halal certification fee for both large and small entrepreneurs.

2 Literature Review

2.1 Halal Certification

Certification includes a series of Conformity Assessment activities, providing written assurance that goods, services, systems, processes, or individuals meet specific standards and regulations (UU 2014b). Halal certification is the process of verifying halal status of a product, issued by BPJPH, based on halal audit conducted by Halal Examining Agency (LPH) and a written fatwa from MUI (UU 2014a). Moreover, it is part of JPH system, which provides legal certainty regarding halal status of a product, as evidenced by halal certificate (UU 2014a). According to Article 29 of UUPH, the application for the certificate is submitted by the business actors in writing to BPJPH (Hosanna & Nugroho 2018).

2.2 Halal Certification Fee

Halal certification fee should be paid by business actors when submitting application for a certificate. In this context, the certificate serves as proof that business actors have implemented JPH, as mandated by Article 67 of Law No.33 (UU 2014a), stating that "products circulating and traded in the territory of Indonesia should be halal certified."

Certification fee for business actors is IDR 2,500,000 (Two Million Five Hundred Thousand Rupiah), considered high, specifically for Small Medium Enterprises (SMEs) with limited and minimal capital. This situation calls for government efforts (BPJPH) to reduce the financial burden on business actors, particularly SMEs. Moreover, there should be grant programs or financial assistance from the government to help cover the fee (Mairijani 2015).

Certification fee does not burden businesses when the government categorizes it based on companies scale and annual revenue. Instead of using companies size, gross annual income should be the basis for calculating fee, as it reflects businesses' true ability to pay. The ratio of the fee to gross annual revenue can be formulated as shown in Equation 1:

$$R_{\text{Cost certification}} (\%) = \frac{\text{Certification costs incurred (BS)}}{\text{Gross revenue in a year (PK)}} \dots\dots\dots (1)$$

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This formulation categorizes the fee in a detailed and nuanced way, providing insight into whether business actors find it burdensome or affordable. A larger sample of respondents can better show how much businesses are willing to pay. Preliminary data on company scale (large, medium, and micro-small) can be used to calculate the average ratio of halal certification fee for companies that state "affordable" versus "burdensome."

Using the same equation model as in Table 1, the equation for the gross income variable can be written as shown in Equation 2:

$$\text{Gross revenue (IDR) (PK)} = \text{Total sales results in a year} - \text{Total operating expenses in a year..... (2)}$$

Table 1: Design of input variables for calculating halal certification costs

Cost Parameter	Big		Medium		Micro - small	
	Afford-able	Burden-some	Afford-able	Burden-some	Afford-able	Burden-some
Certification cost ratio (R)	$\overline{R1}$	$\overline{R2}$	$\overline{R3}$	$\overline{R4}$	$\overline{R5}$	$\overline{R6}$
Amount of certification costs incurred (BS) (IDR)	$\overline{BS1}$	$\overline{BS2}$	$\overline{BS3}$	$\overline{BS4}$	$\overline{BS5}$	$\overline{BS6}$
Estimated gross income (PK) (IDR)	$\overline{PK1}$	$\overline{PK2}$	$\overline{PK3}$	$\overline{PK4}$	$\overline{PK5}$	$\overline{PK6}$

(Source: results of researcher data processing, 2020)

Table 2 provides a range of certification fee based on gross income. The lower limit represents the minimum fee payable by business group, while the upper limit represents the maximum. The fee comprises the total cost required to apply for halal certification.

Table 2: Halal certification cost data processing output plan

Company category	Lower limit	Upper limit	Certification cost
Micro-Small A	0	$\overline{PK5}$	$\overline{BS6}$
Micro-Small B	$\overline{PK5}$	$\overline{PK6}$	$\overline{BS5}$
Medium A	$\overline{PK6}$	$\overline{PK3}$	$\overline{BS4}$
Medium B	$\overline{PK3}$	$\overline{PK4}$	$\overline{BS3}$
Large A	$\overline{PK4}$	$\overline{PK2}$	$\overline{BS2}$
Large B	$\overline{PK2}$	$\overline{PK1}$	$\overline{BS1}$

(Source: results of researcher data processing, 2020; Amount of certification costs incurred (BS), Estimated gross income (PK))

In terms of standards and policies, this study aimed to offer recommendations for principles and methods for calculating certification fee under halal standards. It also provided scientific contribution toward policy decisions related to certification fee for other mandatory standards.

2.3 Affordable Certification Fee Level

Affordable certification fee level calculates the cost of product certification in relation to the actual income of business actors. Article 23 states that business actors have the right to obtain halal certification services promptly, efficiently, "affordable," and non-discriminatorily (UU 2014a). In addition, Article 2, Letter e, mandates that BPJPH serve with an orientation toward minimizing the resource usage in a fast, simple, and affordable manner (UU 2014a).

This study calculated the cost of affordable halal certification in three stages: Stage 1) Collect primary data/information on the average percentage ratio of certification fee to gross revenue for three business scales and two types of respondent opinions (affordable/burdensome). The average "affordable" fee ratio became the upper limit, while the "burdensome" ratio became the lower limit, as presented in Table 3. Stage 2) Obtain primary data and information regarding the amount of affordable fee based on respondents' opinions, as presented in Figure 1. Stage 3) Perform smoothing on the results from Stages 1 and 2. In the questionnaire, large (n=20), medium (n=24), and micro-small businesses (n=44) were asked the questions in Table 3.

Table 3: Questions in the questionnaire and expected output variables

Questionnaire	Big Company	Medium Company	Micro-Small Company
a) Are the current halal certification costs that your company has experienced, "affordable" or "burdensome"?	Affordable	Affordable	Affordable
b) What percentage of the halal certification costs that you have currently spent on the company's gross income in 4 years?	$\overline{R1}$	$\overline{R3}$	$\overline{R5}$
c) How much halal certification costs do business actors expect?	$\overline{BS1}$	$\overline{BS3}$	$\overline{BS5}$
a) Are the current halal certification costs that your company has experienced, "affordable" or "burdensome"?	Burdensome	Burdensome	Burdensome
b) What percentage of the halal certification costs that you have currently spent on the company's gross income in 4 years?	$\overline{R2}$	\overline{R}	$\overline{R6}$
c) How much halal certification costs do business actors expect?	$\overline{BS2}$	$\overline{BS4}$	$\overline{BS6}$

(Source: results of researcher data processing, 2020; Amount of certification costs incurred (BS), Certification cost ratio (R))

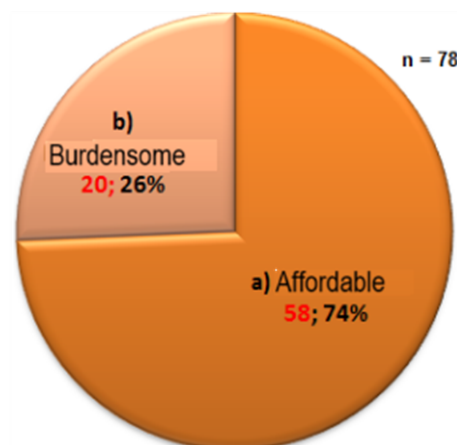


Figure 1: Percentage of perception of certification costs among surveyed business actors (respondents); source: results of researcher data processing, 2020

2.4 Micro and Small Business Owner

Small business actors are individuals or business entities, either legal or non-legal, conducting business activities in Indonesia (UU 2014a), and typically operating as Household Industry (PIRT), with marketing spanning three provinces and one production location (Biaya.Net 2015).

The fee incurred by SMEs for halal certification and renewal is relatively high. For instance, business actors are required to pay IDR 2,500,000, which is considered quite high for SMEs. This financial burden can lead many small businesses to forgo halal certification, as the perceived benefits do not outweigh the costs.

2.5 Medium Business Owner

According to SMEs regulations, medium industrial business actors are those with an investment value ranging from IDR 1 billion to IDR 15 billion, including land and buildings, or employing up to 20 workers (UU 2014a). After the Job Creation Law, the capital criteria for medium businesses increased from IDR 5 billion to IDR 10 billion.

2.6 Large Business Actors

Large business actors are business entities with a net worth or annual sales higher than medium businesses (UU 2014b). Large businesses are classified based on annual turnover exceeding IDR 50 billion.

2.7 Previous Research

According to Hanzae (Hanzae *et al.* 2015), the average halal certificate fee is approximately USD 122,000 in the first year and USD 34,000 in the subsequent years. Mairijani (2015) found that business actors pursuing halal certification were required to pay to 2,500,000, which was considered expensive, specifically for SMEs with limited capital and minimal investment.

In the digital era, transparency in the standard cost system is crucial. The existence of a definitive, universally applicable flat certification cost standard (as implemented by MUI) had led to public suspicion of potential markup practices. (Afronyati 2014) stated that halal certification fee ranged from IDR 2.5 million to IDR 5 million per product item. However, the fee might increase due to changes in economic conditions, currency exchange rates, and other factors.

3 Methodology

This study was conducted using a business actors survey method combined with a literature review. The survey included questionnaires and interviews with halal-based business actors, which included large, medium, and as well as micro and small businesses. The business scale was determined using the definition of business capital value. Furthermore, this study aimed to calculate certification fee for these businesses (Equation 3).

$$R_{\text{Cost certification}} (\%) = \frac{\text{Certification costs incurred (BS)}}{\text{Certification cost ratio (\%) (R)}} \dots\dots\dots (3)$$

Certification fee for micro and small businesses were based on the average cost proposed by respondents, categorized as either "affordable" or "burdensome." These categories serve as benchmarks for the lowest and highest certification fee businesses can incur. As a result, certification fee for business actors (micro-small, medium, and large) can be compared to income according to respondents' category.

Primary data collection was conducted through direct field surveys in selected cities, with companies randomly selected according to the type of business actors. For each city, 1-2 trained survey officers were deployed. Survey tools included cellphones to guide respondents in filling out the online questionnaire through the link: <http://bit.ly/PenelitianHalal2019>, which was sent or distributed through WhatsApp. Furthermore, data were collected in 11 cities in Indonesia using a Google Doc-based online questionnaire. The cities surveyed were Banda Aceh, Bandung, Bogor, Denpasar, Jakarta, Makassar, Pekanbaru, Pontianak, Semarang-Yogyakarta, Surabaya, and Tangerang (Figure 2).

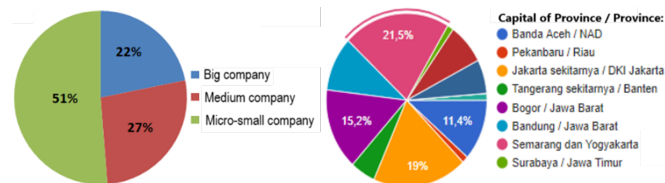


Figure 2: Composition of respondents by company type and location (n=78); source: results of researcher data processing, 2020

Respondent data and information were sourced from the 2019 Halal Product Shopping List March - April Edition book published by the Global Halal Center LPPOM-MUI, along with additional sources from websites. Respondents, such as company owners and halal certification, were selected based on the ability to answer the questionnaire (Table 3).

This study included 78 specific business respondents, consisting of 51% micro-small, 27% medium, and 22% large companies. In terms of business diversity, respondents were from food and beverage industry (51.6%), cosmetics industry (23.5%), drug and pharmaceutical industry (9.9%), catering business (7.7%), slaughterhouses (5.5%), distributors (5.5%), retailers (4.4%), restaurants (3.3%), food stalls (3.3%), and hotels (2.3%) (Figure 3).

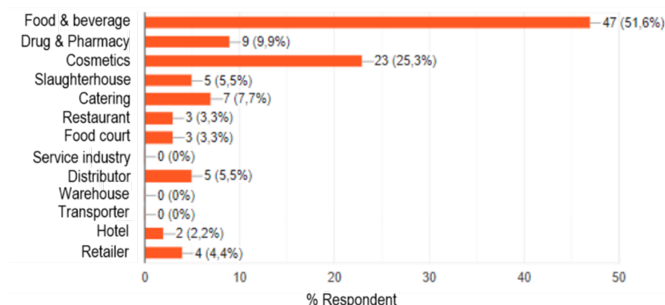


Figure 3: Type of business respondents (n=78); source: results of researcher data processing, 2020

4 Result

The results of certification fee calculation were compared with the annual income of businesses and grouped according to the output plan. Validation was needed to assess whether the group of business respondents who considered the fee as "affordable" or "burdensome" were consistent with the proposed certification fee, and to determine the estimated ratio of certification fee to the gross income. The principle is as follows.

The affordable certification fee was analyzed by comparing the results issued by the Central LPPOM (Assessment Institute for Foods, Drugs and Cosmetics)-MUI (Jakarta), LPPOM-MUI Riau Province, LPPOM-MUI Banten Province, and various studies in scientific journals, using a comparative analysis method. Subsequently, a comparison table was compiled as follows.

4.1 Data Collection, Sample, and Respondents

The results of affordable halal certification fee for micro and small businesses based on data processing are presented in Table 4. When a company has a gross income of <IDR 5,242,210 per year, it can be charged a certification fee of IDR 774,231. For a company with a gross income between 5,242,210 and 17,229,258 per year, a different rate applies (Table 5).

Table 4: Classification of affordable halal certification costs for micro-small business actors (n=40)

Company Category	N	Lower Limit of Income (IDR)	Upper Limit of Income (IDR)	Ratio (R) to Gross Income According to Respondents	Certification Costs According to Respondents (Min) (IDR)
Micro-small A (Burdensome)	15	0	5,242,210	4.8	774,231
Micro-small B (Affordable)	25	5,242,210	17,229,258	14.8	828,571

(Source: results of researcher data processing, 2020)

Table 5: Summary of calculation results for affordable halal certification costs

Company Category	Cost Certification (Min.) (IDR)	Income Limit (Lower) (IDR)	Income Limit (Upper) (IDR)
Micro-Small A (Burdensome)	774,231	-	5,242,210
Micro-Small B (Affordable)	828,571	5,242,210	17,229,258
Medium A (Burdensome)	1,166,667	17,229,258	79,904,357
Medium B (Affordable)	2,030,769	79,904,357	99,852,694
Big A (Burdensome)	2,995,581	99,852,694	194,444,444
Big B (Affordable)	5,214,286	194,444,444	328,769,591

(Source: results of researcher data processing, 2020)

A significant number of business owners with this opinion were from the food and beverage sector (61%), cosmetics (9%), and catering companies. Therefore, this sector dominated micro and small business category. Micro and small businesses were the most numerous group compared to large and medium businesses, with a population of 2.3 million. BPS statistics showed 99.67% of food and beverage industry in Indonesia comprised micro and small enterprises, while large businesses accounted for only 0.33%. This situation showed the need for a government strategy to set standard halal certification fee and ensure certification process could reach all levels of food and beverage industry.

The validation results showed $BST_{\text{Affordable}} > BS_{\text{Burdensome}}$ (828.571 > 774.231), showing that the perceptions of respondents who considered the fee "affordable" or "burdensome" were consistent, as evidenced by the validation test results (accept Ho). However, the next validation, $RT_{\text{Affordable}} > R_{\text{Burdensome}}$, or $14.8 > 4.8$, showed the perceptions and proposals of respondents in "affordable" and "burdensome" groups were not consistent with the percentage of the proposed Ratio Certification Cost. Although the proposed fee was valid from respondents, the grouping of income data could be ignored. This inconsistency may arise because business actors struggle to estimate the ratio between certification fee and annual gross revenue, particularly when income overlaps significantly between micro and small businesses or even SMEs and medium-large industrial groups. Compared to the standard costs issued by LPPOM-MUI in various regions, the proposed certification fee was significantly lower, as shown in Table 6.

In Table 4, the minimum certification fee for micro and small companies was IDR 828,571, which was lower than the tariffs issued by Central LPPOM-MUI, LPPOM-MUI Makassar, and LPPOM-MUI Banten. This difference could be attributed to varying methods of determination. However, achieving an affordable certification fee required an industry survey with a sufficient number of samples to accurately reflect consumers' real situations. For medium companies, the lowest tariff range was IDR 1,166,667 to 2,030,769, which was lower compared to other companies.

Similarly, for large companies, business actors believed there were still many additional certification fees that were more burdensome than the basic. Financial barriers were the most commonly agreed-upon challenge among business actors when implementing certification, second only to the lack of socialization and government campaigns related to halal products.

Table 6: Comparison of LPPOM-MUI (Assessment institute for foods, drugs and cosmetics-Indonesian ulema council) certification fee in several regions

No	Scale Company	N	Certification Fee Halal Research Results	Certification Fee Halal LPPOM-MUI Centre	Certification Fee LPPOM-MUI Makassar	Certification Fee LPPOM-MUI Banten
1	Big	17	2,995,581	3,500,000	4,450,000	5,000,000
			5,214,286	4,000,000	4,950,000	6,000,000
2	Middle	21	1,166,667	2,000,000	3,450,000	4,000,000
			2,030,769	3,000,000	3,950,000	
3	Small	40	774,231	500,000	2,450,000	2,500,000
			828,571	1,000,000		
					2,950,000	

(Source: results of researcher data processing, 2020)

4.2 Certification Fee is Affordable for Micro-Small Businesses

The results of affordable halal certification fee for medium businesses based on data processing are shown in Table 7. The validation test results showed that $BS_{Affordable} = 2,030,769$ and $BS_{Burdensome} = 1,166,667$. Since $BS_{Affordable} > BS_{Burdensome}$, H_0 was accepted, confirming the consistent perception of medium business respondents. Therefore, medium businesses were statistically divided into two groups, namely those proposing 1,166,667 and 2,030,769. This showed group A represented business actors who found current certification fee burdensome, while group B represented those who found it affordable (Figure 4).

Table 7: Classification of affordable halal certification costs for medium-sized companies (n=21)

Company category	N	Lower limit of income (IDR)	Upper limit of income (IDR)	Ratio (R) to gross income according to respondents	Certification costs according to respondents (Min) (IDR)
Micro-small A (Burdensome)	3	17,229,258	79,904,357	2.5	1,166,667
Micro-small B (Affordable)	18	79,904,357	99,852,694	0.6	2,030,769

(Source: results of researcher data processing, 2020)

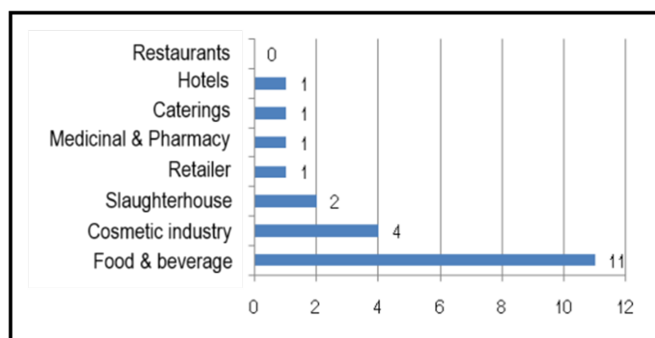


Figure 4: Composition of respondents of medium-scale business actors (n=21); source: results of researcher data processing, 2020

The next step was to estimate the income of respondents. The table shows that $R_{Affordable} = 0.6$, and $R_{Burdensome} = 2.5$, hence, H_0 was accepted because $R_{Affordable} < R_{Burdensome}$. This confirmed data provided by the respondents were valid and met the expectations of the study. Considering income ranges, medium company group A had revenues between IDR 17,229,258 and 79,904,357, while group B had revenues between IDR 79.9 million to 99.8 million. Hence, all respondents' answers were consistent and logical. This consistency in responses showed the sample taken provided a reliable reflection of the actual conditions of companies toward the study objectives.

4.3 Certification Fee is Affordable for Medium Businesses

The business characteristics of the observed respondents include business scale, length of operation, business location status, business capital, annual sales revenue, number of employees, and possession of halal certification.

In terms of the benefits of halal certification, industry consumers remain optimistic, as 15 business actors (71%) reported an increase in sales

after obtaining halal certification, and 18 business actors (86%) stated that the current fee was affordable. Therefore, medium businesses had better financial capabilities than micro-small industries. When the market accepts halal products, the cost becomes relatively affordable, the added value of halal certification becomes apparent, and the willingness to certify increases. Under the new regulation, the validity of halal certificates has been extended to two-four years (UU 2014a). An interesting comparison is presented in Table 8, showing differences in opinion among business actors when applying for halal certification. The percentage of respondents who found the cost "affordable" was lowest (63%) among micro and small business group. This confirmed micro and small businesses were the most vulnerable to certification fee challenges. The survey also showed that although willingness to certify (WTC) among business actors was high > 86%, 37% of micro and small business group still found the fee burdensome, with the general enthusiasm for halal food, healthy food processing, and hygiene standards, as well as a demand for certification across all societal levels.

Table 8: Comparison of WTP and WTC in micro-small, medium and large companies (n=78)

Company category	n	Percentage of respondents stating "affordable" (WTC)	Percent of respondents experiencing "increased sales" (WTP)	Three respondents dominant
Micro-small	40	63%	78%	1) Beverages, 2) Cosmetics, 3) Catering
Medium	21	86%	76%	1) Food and beverages, 2) Cosmetics, 3) Slaughterhouse
Big	17	88%	88%	1) Cosmetics, 2) Food and 7 beverages, 3) Catering

(Source: results of researcher data processing, 2020)

From consumers' side (the pull market) for halal products, several studies have shown significant consumers' interest regarding halal food, even in some non-Muslim countries, where there is a positive response to the quality of halal food (Ayyub 2015). According to Mathew (Mathew et al. 2014), non-Muslim consumers' understanding of halal food has transcended religious values and beliefs, as halal is seen as a representation of cleanliness and food quality (Mathew 2014). Similarly, Muslim consumers are increasingly health-conscious, faith-based, and concerned about animal welfare and responsibility in slaughtering. The inclusion of HACCP-certified companies also adds values for consumers in these countries (Ragasa et al. 2011).

5 Discussion

Field survey results showed 58 business respondents (74%) stated that the current halal certification fee of 2.5 million was "affordable," while 20 (26%) found it "burdensome" (Figure 1). This showed most business actors were capable of paying the fee. Furthermore, the trend showed the services provided in relation to certification were highly satisfactory, reflecting the strong economic capacity of the business actors (Mathew et al. 2014). Data processing results showed the fee could be adjusted for large, medium, and micro-small companies. These results could help accelerate the growth of halal industry in Indonesia, stimulate economic development, strengthen the competitiveness of Indonesian halal products in global market, and improve the welfare of business actors, particularly SMEs.

5.1 Data Collection, Sample, and Respondents

The key was to set the fee based on surveys of business actors and gross income. These surveys reflected actors' preferences, while gross income data served as an indicator of financial capabilities. Both methods could help create a fair balance between certification fee demands and the actual financial capacity of business actors. Quality certification relies on three main elements, namely products, processes, and personnel. The product refers to the type of certification, the process is the series of activities to carry out certification, and personnel include assessors, auditors, and other supporting staff. Business actors with halal certificates have different expectations. Micro businesses typically expect low fee, while certification bodies, given the professional personnel and internationally recognized conformity assessment infrastructure involved, cannot offer low prices. Therefore, the right strategy is needed to moderate all stakeholders expectations (Voas 1999).

Table 4 shows that micro and small business actors with an income range between IDR 5,242,210 and IDR 17,229,258 were charged a certification fee of IDR 828,571. There was no significant difference between those with an income of 5.2 million and 17.2 million, as both were subject to certification fee within a similar range, around 774 thousand to 850 thousand rupiah. This was because most micro-small respondents

(63%) stated that the current certification fee was relatively affordable, and 38% found it burdensome. However, both groups proposed similar fee. This could be attributed to the homogeneity of income levels among micro and small businesses, or because both groups had a similar ability to pay.

The determination of affordable certification fee was significantly influenced by the willingness-to-pay factor for halal consumers in Indonesia. Another significant factor was the willingness of micro and small businesses to certify products. Among the factors driving consumers' desire to buy halal products was a high level of religious commitment, fostering attitudes and behaviors to prioritize the purchase as a form of showing personal religious identity. However, the decision to choose halal products could also be influenced by personal opinions (subjective norms). In a Muslim-majority country, when there is an increase in the quality of Islamic understanding, the potential for consumers to select halal products grows in line with heightened public awareness of food safety, health, and hygiene.

The desire to select halal products does not always correspond to producers' willingness the products as halal. In the UK, consumers often trust local traders more than supermarkets when purchasing halal meat products (Ahmed 2008). Consumers base their decisions on the cleanliness, freshness, and taste of the food. As a result, 50% of consumers continue to trust local traders who can offer halal products along with the added value of cleanliness and freshness (Verbeke 2013).

In the case of meat-based halal food, certification becomes a market advantage where consumers hold decision-making power. Consumers from various social strata generally agree on the importance of ensuring the beef sold in the market is healthy, clean, fresh, and halal. Furthermore, consumers strongly trust in halal logos or labels on packaging (Mahbubi *et al.* 2019) and are willing to pay a premium for these products. Similarly, studies have shown that even in remote areas, consumers have a strong willingness to pay for halal meat. When meat sellers are required to ensure that animals are healthy and halal through certified slaughterhouse processes, the higher prices for the meat continue to provide profits because of consumers' high willingness to pay (Kamaruddin *et al.* 2018). This consumers' demand gives business actors flexibility in controlling prices in the market.

The situation with halal cosmetics is similar to that of halal meat. Most Indonesian Muslim consumers understand that high-quality cosmetics are not made from simple or randomly sourced materials, specifically those without halal standards. Although consumers' awareness of standardized quality in cosmetics is high, not all cosmetic companies prioritize both quality and halal certification. In general, middle- to upper- class consumers with a high level of religious commitment are more concerned about this issue. In such cases, halal certification continues to offer a significant economic value (Briliana & Mursito 2017). The situation in Malaysia is different, where attention to meat handling is critical because both Muslims and non-Muslims are significant consumers, demanding greater care in halal meat logistics. This focus can help reduce the overall certification fee (Alqudsi 2014).

When consumers are willing to pay for meat or meat-based halal food products in traditional markets, is the willingness of micro and small businesses to certify the products high? This depends on the scale of the sales market and annual sales revenue. Consumers' financial capabilities are significantly determined by these two factors. There are 2.2 million micro-small businesses in need of an affordable certification fee scheme. Observations show that in Muslim-majority countries, traditional markets are the key halal markets where consumers compete for products, as 90% of people have high trust in the markets, offering more affordable prices (Hayat *et al.* 2013). Conversely, in non-Muslim majority countries, supermarkets are the main choice for halal shopping as they provide better assurance of halal compliance (Abdul *et al.* 2009). When the government sets an inappropriate certification fee package for micro-small businesses, the result could be the potential loss of a sizable halal food products market due to the high cost of halal certification. This could also lead to the emergence of illegal certificates or logos. The pessimism of business actors should be avoided, as seen in Malaysia, where certification process is considered impractical and burdensome. This, combined with a lack of significant market pull for halal products, places a heavy financial burden on micro and small businesses, specifically when quality standards are to be met (Abdul *et al.* 2009). However, consumers' interest generally supports the idea that halal certification increases confidence and satisfaction (Abdul *et al.* 2009).

Export-oriented halal micro and small businesses should be considered when setting the price for certification. Since these businesses require multiple test results to meet halal certification standards, providing testing and laboratory services at a reasonable cost for micro and small food producers is essential (Shariff & Lah 2014).

5.2 Certification Fee is Affordable for Micro-Small Businesses

Tracing the composition of business actors, the majority of medium-scale contributors ($n = 21$) in respondents survey consisted of 55% from food and beverage industry, 20% from cosmetics industry, 10% from slaughterhouses, and the remaining 10% from retailers and restaurants. Therefore, this study focused primarily on the food and beverage sector, dominating the national halal industry. Based on analysis, 99% of halal

industry sector fell under the food and beverage industry, whose proposals were highly significant. According to Dali (Dali *et al.* 2009), the price factor is the most influential reason consumers perceive halal food products to be more expensive than non-halal. Therefore, the government's role in setting rational certification prices is crucial. Dali *et al.* (2009) also identified two other critical factors, namely the willingness of micro and small businesses to certify as well as market demand. A significant factor to be considered is that micro and small business owners may view halal certification as an additional burden to production costs, potentially causing reluctance to pursue certification (Giyanti 2018).

Regarding the impact of halal certification on "increased sales" as a representation of willingness to pay (WTP), Table 8 shows that WTP for halal products was relatively high, ranging from 76% to 88%. This was in line with (Khan *et al.* 2019), where dominant perceptions facilitated consumers to pay for halal products more than personal social perspectives (Khan *et al.* 2019). Positive consumers' perceptions could be attributed to strong marketing promotions led by both the government, overseeing halal certification, and business actors (Yunos *et al.* 2014).

5.3 Certification Fee is Affordable for Medium Businesses

The validation test results showed that $BS_{Affordable} = IDR\ 5,214,286$, and $BS_{Burden} = IDR\ 2,995,581$, hence, $BS_{Affordable} > BS_{Burden}$, confirming the acceptance of H_0 . This showed large business respondents provided opinions factually and consistently. Although respondents fell under the same business scale (large), they were statistically divided into two categories regarding the proposed certification fee, namely one group proposed a maximum of IDR 2,995,581, while another proposed IDR 5,214,286. Therefore, the application of fee for this group should be classified into two types.

The next step was to estimate respondents' income. The results were evident from the value of R . Based on the preceding table, $R_{Reach} = 1.6$, while $R_{Impressive} = 3$. Therefore, H_0 was accepted since $R_{Reach} < R_{Impressive}$, confirming the data provided by respondents were valid and met the expectations of this study. In terms of income range, medium company group A had revenues between IDR 99,852,694 and IDR 194,444,444, while group B had revenues ranging from IDR 194.4 million to 328.7.8 million.

At the scale of large businesses, the samples were 17, with respondents predominantly from cosmetics (53%) and food and beverage sectors (29%). The dominance of cosmetics sector could be attributed to the significant difficulty faced by the industry in complying with the stringent material and distribution permit requirements set by BPPOM, alongside meeting halal product standard, necessitating a large investment.

The number of business actors who initially stated "affordable" was quite large, specifically 88% of large business respondents. This shows when business actors have substantial capital, the willingness to certify is high, although it remains below the average standard cost of LPPOM-MUI. Second, large companies have higher WTC and WTP values than medium and micro businesses. However, while large businesses have significant capital, consumers demand (pull) in the market is still low, resulting in a lower WTP from consumers. The third consideration is the strong interest from business actors, as evidenced by the high willingness-to-pay among cosmetics consumers (88%). Large cosmetics businesses generally have the financial capability to pay for halal certification and capture new market shares. In addition to meeting quality targets, attracting halal cosmetics consumers serves as an external benefit for companies, improving products branding and instilling trust and peace of mind in consumers by supporting their religious practices. Therefore, the main motives for obtaining halal certification include increasing sales and profits, expanding markets, and ensuring food safety for the community. Marzuki *et al.* (2014) also reported that halal certification was a consumer-driven demand, resulting in profit growth (Marzuki *et al.* 2014). Despite this, many business actors, even those under strong financial and consumers' pressure, remain reluctant to pursue halal certification. Therefore, there are still other influential factors besides WTP and WTC that should be met through socialization and education by the government. The factors include the experience of business actors, Islamic religious motivation, training and business education, and company ownership (Rafiki 2014). This emphasizes the successful implementation of mandatory JPH in Indonesia is not solely a matter of affordable certification fee, but also the result of joint efforts to promote, socialize, and educate the public and business actors on halal products and certification.

6 Conclusion

In conclusion, the cost of halal certification that was affordable for micro and small businesses averaged IDR 774,231, with the highest being IDR 828,571, confirming an average income range of IDR 5,242,210–IDR 17,229,258 per year. For medium businesses, the affordable cost of halal certification averaged IDR 1,166,667, with the highest being IDR 2,030,769, confirming an average income range of IDR 17,229,258–IDR 99,852,694 per year. In addition, large businesses had an average certification of IDR 2,995,581, with the highest being IDR 5,214,286, confirming an average income range of IDR 99,852,694–IDR 328,769,591 per year. Based

on these results, the government could formulate policies to help micro and small businesses obtain more affordable certification. This study recommended determining a median value between the lowest and highest certification fee for each business scale. Future studies were also expected to include a larger, more diverse sample of halal business respondents across small, medium, and large scales, as this could provide a more accurate reflection of actual business conditions. Additional variables such as product type, geographic location, and scale of business operations should also be considered to provide a more comprehensive understanding of the factors influencing halal certification fee.

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Conflict of Interest

The authors declare no conflict of interest.

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