Factors influencing the MSMEs' decision to obtain halal certificate in Bogor district

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A B S T R A C T

According to Law No. 33 of 2014, the government requires halal certification for all food or drinks distributed in Indonesia, including those produced by Micro, Small and Medium Enterprises (MSMEs), the majority business owners. However, only 1 percent of MSMEs in Indonesia have halal certificates. Therefore, this study aimed to analyze the factors influencing the decision to have halal certificates by MSMEs in Bogor Regency using descriptive and multiple linear regression analysis. The primary data from 50 respondents interviewed using questionnaires were used. The results showed that branding positively influences the decision of MSMEs to have halal certificates. The halal awareness, regulations and certification facilities do not influence the decision to have halal certificatesSMEs to have a halal certificate.

ARTICLE INFO

1 Introduction

In Indonesia, the total consumption reached US$ 146.7 billion in 2020, the highest among the Organization of Islamic Cooperation countries (Dinar Standard 2022). The high consumption is attributed to the Muslim population, which exceeds 207 million people (BPS 2010). The large Muslim population significantly drives the demand for halal food and drinks. Halal food is defined as food permitted according to Islamic law. Muslims are required to consume halal food and drinks, as stated in Surah Al-Baqarah, verse 168:

"O people! Eat what is halal and good from what is found on earth, and do not follow the steps of Satan; indeed, Satan is a real enemy to you."

The majority of business actors in Indonesia are micro, small and medium enterprises (MSMEs), totalling 65 million units in 2019 and controlling a market share of 99.99 percent in Indonesia (Kemenkop UKM 2019). According to Law Number 33 of 2014 on Halal Product Guarantees, halal product certification is mandatory for business actors producing or importing food into Indonesia. However, Minister of Finance Sri Mulyani stated that only 1 percent of MSMEs have halal certificates (Kemenkeu 2021). This shows that most food and beverage products circulating are still not guaranteed to be halal.

Law Number 33 of 2014 on Halal Product Guarantees mandates halal product certification for business actors producing and importing food into Indonesia. The objective is to ensure comfort, security, product safety and certainty of the availability of halal products for the Muslim community. According to the Minister of Finance Sri Mulyani, only 1 percent of the total MSMEs have halal certificates (Kemenkeu 2021), showing that most food and beverage products circulating are not guaranteed to be halal. The Halal Product Guarantee Organizing Agency (BPJPH), under the Ministry of Religion, is responsible for determining halal product guarantees. BPJPH collaborates with regional governments and other partners to run the Free Halal Certification (Sehati) program, which helps MSMEs obtain halal certificates without cost. To participate, MSMEs are supposed to meet certain criteria, such as having a distribution permit (PIRT) and a Business Identification Number (NIB). Once all requirements are met and approved, a halal certificate can be obtained. In this context, the Sehati program is available nationwide, including in Bogor Regency.

Table 1: Gelatine characteristics at different periods of *istihalah*

Year	MSME category	
	Food	Drink
2019	117 529 units	21 803 units
2020	124 801 units	23 152 units
2021	132 523 units	24 585 units

Source: West Java open data 2022; MSME (Micro, Small and Medium Enterprises)

MSMEs in the food category play a major role in meeting consumption needs in Bogor Regency. The number in this category increased from 2019 to 2021, as shown in Table 1. This growth heightened the need to enhance competitiveness, such as obtaining a halal certificate to give consumers peace and security while protecting local products from global competition (Prabowo & Rahman 2016). The large number of food and beverage MSMEs in Bogor Regency does not directly translate into a high number of halal certification applications. The low number of halal certificates is due to perception of complicated procedures and the high costs associated with halal certification (Oemar *et al.* 2022). Furthermore, MSMEs experience several obstacles that hinder halal certification, including lack of awareness and socialization regarding the requirements, manual administrative process and limited use of technology, inadequate facilities and infrastructure to meet certification requirements, and absence of legal documents, such as Business Identification Number (NIB), PIRT, and NPWP (Ningrum 2022).

MSME actors with halal certificates have gone through various procedures and fulfilled the requirements for certification, either through regular submission of facilities organized by the relevant institutions. The Sehati program organized by BPJPH offers financing facilities and simplifies the document processing required for halal certification, making it easier for MSMEs to obtain these certificates (Khairunnisa *et al.* 2020). Additionally, factors such as halal awareness, the branding benefits of having a halal label, and regulations mandating halal certification for MSMEs influence their decision to obtain halal certificates (Oemar *et al.* 2022; Ramadhan & Gunanto 2020; Farhan & Fajar 2021). This study aimed to identify the characteristics of food and beverage MSME actors with halal certificates in Bogor Regency based on gender, age, religion, education, sales turnover and length of business establishment, and determine the factors that influence food and beverage MSME actors in Bogor Regency to get a halal certificate

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2 Methodology

2.1 Data Types and Sources

This is a quantitative study that uses primary data from 50 respondents collected through a questionnaire. Purposive sampling was used, targeting food and beverage MSMEs with halal certificates in Bogor Regency.

2.2 Data Processing and Analysis Methods

BThis study employs descriptive and multiple linear regression analysis based on Ramadhan & Gunanto (2020). Descriptive analysis, conducted using Microsoft Excel, was used to identify the characteristics of food and beverage MSMEs with halal certificates in Bogor Regency. Multiple linear regression analysis was used to determine the factors that influence the decision to have a halal certificate. The regression model used is showed in Equation 1:

$$Y_i = \alpha + \beta_1 \text{HA}_i + \beta_2 \text{B}_i + \beta_3 \text{R}_i + \beta_4 \text{PF}_i + e_i \quad \text{............................} \quad (1)$$

where:

Y_i : Decision to have a halal certificate for respondent i,

α : Intercept (constant),

$\beta_1, \beta_2, \beta_3, \beta_4$: Variable parameters (coefficients),

HA_i : Halal awareness for respondent i,

B_i : Branding for respondent i,

R_i : Halal product guarantee regulations for respondent i,

PF_i : Halal certification facility program for respondent i,

e_i : Residual (remainder) for respondent i.

$i = 1, 2, 3, \ldots, n$ respondent

3 Result

3.1 Characteristics of Food and Beverage MSMEs Who Have Halal Certificates

The majority of MSME actors were in the range of 41 to 50 years, with the average age being 43.62. Ten percent aged between 21 and 30 years, specifically five individuals, while those aged between 31 and 40 and 51 to 60 years account for 22 and 36 percent, respectively, comprising 11 and 16 individuals. There is also a significant age range, with 21 to 58 years as the youngest and the oldest, respectively (Figure 1).
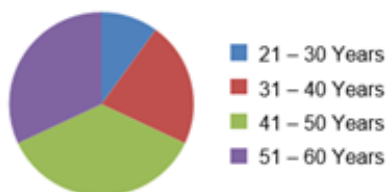

Figure 1: Micro, Small and Medium Enterprises actors based on age

The majority of MSME actors were female, comprising 70 percent or 35 individuals. The males were 15 in number, accounting for 30 percent (Figure 2).

Figure 2: Micro, Small and Medium Enterprises actors based on gender

The respondents predominantly identified as Muslim, accounting for 94 percent or 47 individuals. However, this questionnaire was also accessible to MSMEs of other religious affiliations. Specifically, Christians constituted 4 percent (2 individuals) while Buddhists comprised 2 percent (1 individual) of the respondents. Also, the MSME actors eligible for halal certification are not restricted to Islam, as the regulations apply equally to non-Muslim actors (Figure 3).
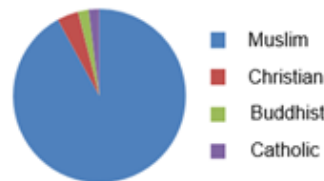

Figure 3: Micro, Small and Medium Enterprises actors based on religion

The educational background of the respondents varied, with the majority (62 percent or 31 individuals) being college graduates. College graduates included those with diplomas and bachelor's or master's degrees. High school graduates or those with equivalent education were 34 percent (17 individuals). Additionally, there was a respondent from elementary and middle school educational backgrounds, accounting for 2 percent each (Figure 4).
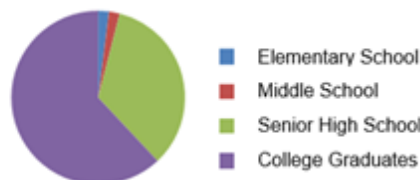

Figure 4: Micro, Small and Medium Enterprises actors based on education

Respondents with a turnover of less than IDR 25,000,000 were 27 people (54 percent). There were 23 respondents with a turnover of IDR 25,000,000 to IDR 208,000,000, which is 46 percent (Figure 5).

Figure 5: Micro, Small and Medium Enterprises players based on sales turnover

A majority of MSMEs, 29 respondents (58 percent), had been in business for 5 to 10 years. Additionally, 14 (28 percent) had businesses established for less than 5 years. The remaining respondents were distributed as follows: 4 (8 percent) had businesses established for 10 to 15 years, and 3 (6 percent) had businesses established for more than 15 years (Figure 6).
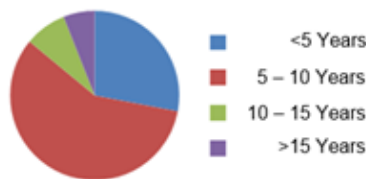

Figure 6: Micro, Small and Medium Enterprises actors based on length of business

3.2 Factors that Influence the Decision of Food and Beverage MSME Players to Have a Halal Certificate in Bogor Regency

Before estimating a multiple linear regression model, classical assumption tests were conducted to ensure the model meets the Best Linear Unbiased Estimator (BLUE) criteria. These included normality, multicollinearity, autocorrelation, and heteroscedasticity. The normality test assessed whether the data follows a normal distribution. The Kolmogorov-Smirnov test yielded a significance value of 0.068, which is greater than the threshold of 0.05, showing that the data is normally distributed (Table 2).

Table 2: Kolmogorov-Smirnov test of decision of food and beverage Micro, Small and Medium Enterprises to have halal certificate in Bogor regency

	Unstandardized residual
N	50
Asymp. Sig. (2-tailed)	0.068

Source: Primary data (2022), processed; N (number of respondents)

The multicollinearity test was carried out to determine whether a regression model found a correlation between the independent variables (Table 3). The Variance Inflation Factor (VIF) and Tolerance values for all

independent variables were smaller than 10 and greater than 0.1, showing that there is no multicollinearity problem.

Table 3: Multicollinearity test of variables

Variable	Tolerance	VIF	Conclusion
Halal Awareness (HA)	0.382	2.615	No multicollinearity
Branding ((B)	0.595	1.682	No multicollinearity
Regulation (R)	0.395	2.529	No multicollinearity
Certification Halal Facility (PF)	0.755	1.325	No multicollinearity

Source: Primary data (2022), processed; VIF (variance inflation factor)

The autocorrelation test is used to examine whether there is a correlation between errors in period t and confounding errors in period t-1 (previous) in the regression model. The Durbin Watson value shown in Table 4 of 2.100 indicates the basis for decision making no. 5 which states du (1.7214) < d (2.100) < 4 − du (1.7214) gives the result 1.7214 < 2.100 < 2.2786. This explains that there is no positive or negative autocorrelation.

Table 4: Autocorrelation test of the model

Model	Durbin-Watson
1	2.100

Source: Primary data (2022), processed

The heteroscedasticity test is meant to determine whether there is an inequality of variance from the residuals of one observation to another in the regression model. The Glejser test is conducted to determine whether heteroscedasticity occurs in the regression model. In case the significance value is greater than 0.05, heteroscedasticity does not occur. The Glejser test shows that the probability values for all variables are smaller than the real level of 0.05, hence the regression model has heteroscedasticity.

This study corrects heteroscedasticity using Robust Standard Error, also known as heteroskedasticity robust standard errors which was introduced by econometrician White in 1980. Standard error estimation helps avoid errors in calculating the estimation interval or wrong values when heteroscedasticity occurs. The existence of heteroscedasticity problems indicates that the regression model used is not the best. In addition to overcoming heteroscedasticity problems, the robust standard error is used to avoid possible misspecification of the variance function when using Generalized Least Squares (GLS) Gujarati (Fadila & Ratna 2023).

Table 5: Factors that influence ownership of a halal certificate

Variable	Coefficient	Robust std. error	T count	Prob.
Intercept	2.389	1.130	2.114	0.040
Halal Awareness (HA)	0.381	0.267	1.428	0.160
Branding (B)	0.331	0.165	2.014	0.050
Regulation (R)	0.009	0.129	0.068	0.946
Halal Sertification Facility (PF)	- 0.043	0.057	- 0.749	0.458
Probability (F-statistics)				
r-square			0.720	<0.001

Source: Primary Data (2022), processed

The statistical test results show the r-squared (r^2), F-statistic and t-statistic values for each independent variable (Table 5). The R-Square value of 0.720 indicates that it is 72 percent. The diversity of the dependent variable in the decision of MSMEs to have a halal certificate can be explained by the factors in the model, while the rest is explained by factors outside the model. Prob value. F (statistic) is smaller than 0.05. This shows that the independent variables as a whole influence the dependent variable, the specifically decision of MSMEs to have a halal certificate. The t-statistic value shows that there is one independent variable that significantly influences the dependent variable of MSMEs having halal certificates. The regression model and the coefficients for each variable are written in the following Equation 2:

$$Y_i = 2.389 + 0.381\text{HA}_i + 0.331\text{B}_i + 0.009\text{R}_i - 0.043\text{PF}_i + e_i \quad .... (2)$$

where:

HA$_i$: Halal awareness for respondent i,

B$_i$: Branding for respondent i,

R$_i$: Halal product guarantee regulations for respondent i,

PF$_i$: Halal certification facility program for respondent i,

e_i : Residual (remainder) for respondent i.

4 Discussion

The branding variable (B) shows a statistically significant value at the 5 percent real level with a value of 0.05. Therefore, the decision of food and beverage MSMEs to have a halal certificate is influenced by confidence in halal branding which increase their sales. This is in line with Ramadhan & Gunanto's (2020), which stated that branding variables influence the decision of MSMEs to get halal certification. The results also align with the institutional theory developed by Ab Talib *et al.* (2016), namely mimetic isomorphism, which posits that the motivation for having a halal certificate is based on a sense of competition and fear of losing customers. Similarly, Armiani *et al.* (2021) established that customer confidence in halal labels increases sales and encourages producers to obtain halal certificates.

Other variables in the model, namely halal awareness (HA), halal product guarantee regulations (R), and halal certification facilities (PF) did not show significant results at the 5 percent real level. These three variables do not have a significant effect on the decision to have a halal certificate. Food and beverage MSME players only consider the branding factor (B) in deciding to obtain halal certificates.

5 Conclusion

This study concludes that the majority of MSMEs with halal certificates aged between 41 and 50 years, predominantly female, Muslim, university educated, with sales turnover of less than 25 million and have been in business for 5 to 10 years. The results of multiple linear regression analysis show that the branding variable (B) has a significant influence on the decision of food and beverage MSMEs to obtain a halal certificate in Bogor Regency.

The halal label on MSME products is a distinguishing factor from non-certified products. This fosters consumer loyalty, which strengthens MSME players in the regency. However, the awareness of halal products cannot be sufficient motivation for MSMEs to pursue certification. Similarly, the regulatory framework for halal product guarantees lacks enforcement strength in Indonesia and cannot compel MSMEs to pursue certification. The existing halal certification facilities have also not been effectively implemented, failing to sufficiently ease the certification process for MSMEs.

The government should help MSMEs that face difficulties in obtaining halal certificates by making the certification process easier and more accessible. Promoting the advantages of having a halal certificate can motivate MSMEs to pursue certification. MSME players without a halal certificate are encouraged to obtain one promptly, as it can enhance their product's image and build loyalty among Muslim consumers.

Conflict of Interest

The authors declare no conflict of interest.

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