





Halal Food Standards in Indonesia: A Study of Young Muslim Consumers' Perceptions and Religiosity

Tasya Chairuna Pane¹  and Muhammad Khaliqi¹ 

¹Study Program of Agribusiness, Faculty of Agriculture, Universitas Sumatera Utara, Jl. Prof. A. Sofyan, No. 3, Padang Bulan, Medan Baru, Medan, 20155, North Sumatera, Indonesia
tasyacpane@usu.ac.id

Abstract. Mixing cultures due to pluralism and various food processing technologies results in frequent questions about the halalness of a food product. Religiosity level is one of the factors that affect choosing food products to consume. This study aimed to analyze the effect of religiosity level on the perceptions of young Muslim consumers regarding the criteria for choosing halal food products. Data were analyzed using descriptive statistics and Jonckheere-Terpstra's Test, with hypothesis testing using Monte Carlo's Method. The results showed that religiosity level significantly affects the perceptions of young Muslim consumers when choosing halal food products. Religiosity level has a significant effect on the criteria of "the presence of Halal labels or signs", "the presence of the certification from the Ministry of Health or BPOM", "aspects of freshness, benefits, quality, and taste", "aspects of cleanliness", and "aspects of comfort and practicality" in choosing food products in general; and religiosity level has a significant effect on the criteria of "the existence of intoxicants or alcohol ingredients", "credibility of the Halal Certification Agency", "aspects of the legality of the food products' source", and "the presence of Halal labels or signs" in deciding the halalness of a food product.

Keywords: Halal, Perception, Religiosity, and Young Consumer

1 Introduction

Worshippers of Islam (Muslims) are only allowed to consume foods and beverages according to Islamic rules (Shari'a). Islamic rules classify foods and beverages into three categories, namely halal, haram, and syubhat. A Muslim is only allowed to consume foods and beverages that are halal, while those that are syubhat (doubted) are recommended not to be consumed, and those that are haram are forbidden to be consumed. Therefore, a Muslim must be careful in choosing food products to consume so as not to consume foods and beverages that are not halal. In addition to being halal, foods and beverages that will be consumed must also be pure (tayyib). Pure (tayyib) describes the quality of food products that can be interpreted as clean, pure, and safe, free from harmful substances. The halal status of a food product also includes the standards and methods used in producing and obtaining it. For a Muslim, foods and beverages that are halal and tayyib are believed to bring goodness (maslahat) to the body and soul, while food

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and drink that are haram are believed to bring badness (*mudarat*) to the body and soul [1-4].

Although Indonesia is a Muslim-majority country (87.18%) [5], in societies that respect pluralism, the principles, values, and religious standards, including halal and haram, often blend in with other cultures [6]. Besides, various increasingly sophisticated food processing technologies can disguise the halal and haram status of a food product. Often, a food product that seems halal actually contains haram substances. The existence of haram substances during the processing or in the end product of food products, although the results of modification and in tiny amounts, makes the status of food products haram. It results in the existence of credible and standardized halal certification institutions, which play a significant role. The presence of a halal logo from a credible and standardized institution informs and assures consumers about the halalness of a food product [1,3,4,7].

The most instrumental institution in halal certification in Indonesia is the Indonesian Ulema Council (MUI). The Assessment Institute of Foods, Drugs, and Cosmetics of the Indonesian Ulema Council (LPPOM MUI) issued halal certification in Indonesia for decades up until 2019. Going forward, the government has established the Halal Products Guarantee Agency (BPJPH) under the Ministry of Religion, which has taken over the halal certification authority in Indonesia from the Indonesian Ulema Council but still engages the Indonesian Ulema Council in issuing fatwas on the halality of a product, certifying halal examiners, and approving auditors engaged in the halal industries [8].

Religiosity level is one of the factors that affect a person's choice of food products to consume [2-4,9]. Religiosity level can be interpreted as how far the principles, values, and standards of a particular religion are held and practiced by its worshippers [4,9-11]. Community religiosity levels tend to decrease continuously from generation to generation, so the younger generation tends to have a lower religiosity level than their parents' generation. Moreover, in this era, where freedom of information greatly affects the younger generation, many factors could rapidly affect the religiosity level of the younger generation [12-15]. This study aimed to analyze the effect of religiosity level on the perceptions of young Muslim consumers regarding the criteria for choosing halal food products.

2 Methods

Research data are primary data collected through direct interviews using structured questionnaires with closed questions. The research questionnaire was arranged on a 7-point Likert scale, which was used to measure religiosity level (strongly disagree – strongly agree) and assess the criteria of young Muslim respondents in choosing halal food products (very unimportant – very important). Because of time and cost constraints, respondents were determined by non-probability convenience sampling [2,10,16,17]. Using Slovin's formula with α 5%, the number of samples were determined [18]. There were as many as 207,176,162 people in the Muslim population of Indonesia [5], and an adequate number of samples obtained were as many as 400

Muslim respondents. Interviews were conducted with 443 Muslim respondents aged 14–71 years. Then, respondents who were classified as young, i.e., aged 14–30 years, were selected, and as many as 206 young Muslim respondents were obtained.

Religiosity level is measured through the commitment of Muslims to carrying out obligatory and sunnah worship as well as other religious activities in their daily lives [10,11,19,20]. In this study, the commitment of a Muslim in carrying out obligatory and sunnah worship was assessed by "performing prayers 5 times a day", "performing prayers in the mosque", "performing sunnah prayers", "performing hajj", "performing umrah", "paying zakat", "giving infaq, alms, and waqf", "reading the Qur'an", "carrying out obligatory fasting", and "carrying out sunnah fasting", while other religious activities in daily life were assessed by "reading books and magazines about Islamic religion", "contributing financially to religious organizations", "spending time on matters relating to Islam", "attending Qur'anic recitation (tadarus Al-Qur'an) and religious learning group (majlis ta'lim)", "actively exploring religious knowledge", "studying with religious scholars or teachers (ustadz)", and "helping fellow Muslims". All of these criteria had been tested for validity and reliability, so they proved to be valid and reliable, with a significance of 0.000 and a Cronbach's alpha of 0.909. Based on the total score of all these questions, the religiosity level of respondents was grouped into neutral, quite religious, religious, and very religious.

The main criteria for halal food products chosen by Muslim respondents are divided into criteria for choosing food products in general and criteria for deciding the halalness of a food product. In general, a Muslim respondent will choose food products based on the criteria of "cleanliness", "freshness, benefits, quality, and taste", "price affordability", "comfort and practicality", "putting a Halal label or sign", and "certified by the Ministry of Health or National Agency of Drug and Food Control (BPOM)". All of these criteria had been tested for validity and reliability, so they proved to be valid and reliable with a significance of 0.000 and a Cronbach's alpha of 0.861. In general, a Muslim respondent will decide the halalness of a food product based on the criteria "not containing pork", "not containing toxins", "not containing intoxicants or alcohol", "not damaged or expired", "putting a Halal label or sign", "not from illegal sources", and "Halal certified by LPPOM MUI". All of these criteria had been tested for validity and reliability, so they proved to be valid and reliable with a significance of 0.000 and a Cronbach's alpha of 0.887.

The rank of the main criteria in choosing food products and the main criteria in deciding the halalness of a food product based on the choice of young Muslim respondents (14–30 years) was analyzed by descriptive statistics. The effect of religiosity level on the perceptions of young Muslim consumers towards the criteria for choosing halal food products was analyzed by the nonparametric test. The nonparametric test chosen to analyze ranking or ordinal data consisting of more than two groups of independent samples is Jonckheere-Terpstra's test [21-24]. To test the hypothesis with a large number of samples in Jonckheere-Terpstra's test, Monte Carlo's method was used [22,25-27]. The hypotheses tested were:

H₀: There is a statistically insignificant trend of a higher median (μ) of the score of criteria in "choosing food products" and/or "deciding the halalness of a food product" with higher levels of religiosity ($\mu_1 = \mu_2 = \dots = \mu_k$).

H1: There is a statistically significant trend of a higher median (μ) of the score of criteria in "choosing food products" and/or "deciding the halalness of a food product" with higher levels of religiosity ($\mu_1 < \mu_2 < \dots < \mu_k$).

The test was done on the total score of criteria for halal food products to see how the level of religiosity affected how young Muslim consumers thought about the criteria for choosing halal food products in general, and then on the score of each criterion one by one to see how the level of religiosity affected each criterion. The test criteria at the 95% confidence level, or 5%, were:

If Monte Carlo's significance (2-tailed) is $< 5\%$ (0.05), H_0 is rejected and H_1 is accepted.

If Monte Carlo's significance (2-tailed) is $> 5\%$ (0.05), H_0 is accepted and H_1 is rejected.

3 Results and Discussion

3.1 Halal Food Criteria

Error! Reference source not found. shows the ranking of the main criteria for selecting halal food products based on young Muslim (14–30 years old) consumers' perceptions. Of the seven criteria offered to respondents, the criterion of "hygiene" was chosen by 81.10% of respondents, the criterion of "freshness and quality" was chosen by 79.10% of respondents, and "price affordability" was chosen by 72.20% of respondents, ranking top as the main criterion in selecting halal meats. The criteria ranked lowest were: (1) the "certified by the Ministry of Health or BPOM" criterion chosen by 63.40% of respondents; (2) the "slaughter methods" criterion chosen by 66.50% of respondents; and (3) the "Halal certified by LPPOM MUI" criterion chosen by 67.50% of respondents.

Table 1. The rank of the main criteria in choosing food products in general.

Rank	Criteria	Respondents Who Said "Very Important" (%)
1	Cleanliness	81.10
2	Freshness, benefits, quality, and taste	76.20
3	Price affordability	73.80
4	Comfort and practicality	67.50
5	Putting a Halal label or sign	67.00
6	Certified by the Ministry of Health or BPOM	66.00

It shows that the presence of Halal labels or signs and the certification from the Ministry of Health or BPOM have not been prioritized by young Muslim consumers when choosing food products to consume. Young Muslim consumers prefer to consider aspects of cleanliness, freshness, benefits, quality, and taste when deciding to buy food products. In fact, without Halal labels or signs, there is no guarantee that these food

products are truly halal, while halal is a necessity that must be prioritized by a Muslim when choosing food products. However, for the young generation of Muslims in Indonesia, the guarantee of halalness is still not a top priority. Indonesian people have become accustomed to living with tolerance for various cultures and religions (pluralism). With the majority of Indonesians being Muslims, the majority of Indonesians have become very accustomed to adapting and tolerating Islamic culture and ways in their daily lives [6]. This condition of the community has reduced the vigilance of young Muslims, so they feel that most food products marketed in Indonesia must be halal. As long as the food products look clean, fresh, beneficial, of good quality, and taste good, the presence of Halal labels or signs and the certification from the Ministry of Health or BPOM are not really needed.

Error! Reference source not found. shows the rank of the main criteria in deciding the halalness of a food product based on the choice of young Muslim respondents (14-30 years). Of the seven criteria offered to respondents, the criterion of "not containing pork" chosen by 88.80% of respondents, and the criterion of "not containing toxins" chosen by 86.90% of respondents, were ranked as the main criteria in deciding the halalness of a food product to consume. Meanwhile, the criteria that rank lowest were the "Halal certified by LPPOM MUI" criterion chosen by 72.30% of respondents and the "not from illegal sources" criterion chosen by 75.20% of respondents.

Table 2. The rank of the main criteria in deciding the halalness of a food product.

Rank	Criteria	Respondents Who Said "Very Important" (%)
1	Not containing pork	88.80
2	Not containing toxins	86.90
3	Not containing intoxicants or alcohol	85.00
4	Not damaged or expired	82.50
5	Putting a Halal label or sign	78.20
6	Not from illegal sources	75.20
7	Halal certified by LPPOM MUI	72.30

It demonstrates that young Muslim consumers do not prioritize the presence of Halal labels or signs, the legality of the food products' source, or the legitimacy of the Halal Certification Agency when determining whether to consume a food product. Young Muslim consumers prefer to consider the existence of religiously prohibited ingredients for consumption in the form of pork, toxins, and intoxicants or alcohol when deciding to buy halal food products. With the sophistication of processing technology that continues to grow at this time, the content of substances that are forbidden in the form of pork, toxins, and intoxicants or alcohol is often obscured in the list of food product compositions in the form of specific codes. Even food ingredients that are haram can be removed or distilled in the final stages so that in their composition, these food products do not contain haram ingredients but actually do not change the original law that remains haram. Aspects of the legality of the food products' source also still need to be considered by young Muslims in Indonesia because food products obtained from bad

sources or methods can make their status haram [1-4]. The existence of a Halal label or sign, especially from a credible Halal Certification Agency, can provide assurance and peace of mind for a Muslim when consuming a food product.

3.2 The Effect of Religiosity Levels

Based on the total score of respondents' answers in **Error! Reference source not found.**, the religiosity level of respondents was grouped into four categories, namely neutral, quite religious, religious, and very religious. The majority of respondents (52.43%) were in the religious category, while the least (3.88%) were in the neutral category. It shows that the young generation of Muslims in Indonesia is mostly religious and routinely carries out obligatory and sunnah worship, as well as other religious activities, in their daily lives.

Table 3. The number of respondents based on religiosity levels.

Respondents Religiosity Levels	The Number of Respondents (People)	Percentage (%)
Neutral	8	3.88
Quite religious	38	18.45
Religious	108	52.43
Very religious	52	25.24
Total	206	100.00

Jonckheere-Terpstra's test results in **Error! Reference source not found.** show Monte Carlo's significance value of < 0.050 on each independent variable, so the null hypothesis was rejected. It means that there is a statistically significant trend of a higher median (μ) of the total score of criteria in "choosing food products" and "deciding halalness of a food product" with higher levels of religiosity (from "neutral", "quite religious", "religious", to the level of "very religious"), or the median of the total score of criteria in "choosing food products" and "deciding halalness of a food product" increases with increasing religiosity level. It shows that, overall, the level of religiosity significantly affected the perceptions of young Muslim consumers about choosing halal food products in general. Thus, the higher the level of religiosity, the higher the standard of the respondents in choosing food products to consume.

To see which criterion was affected by religiosity level, Jonckheere-Terpstra's test was carried out on each criterion. The results of Jonckheere-Terpstra's test in **Error! Reference source not found.** mean that there is a statistically significant trend of a higher median of the importance level of criteria in choosing food products ("the presence of Halal labels or signs", "the presence of the certification from the Ministry of Health or BPOM", "aspects of freshness, benefits, quality, and taste", "aspects of cleanliness", and "aspects of comfort and practicality") with higher levels of religiosity, or the median of the importance level of criteria in choosing food products increases with increasing religiosity level. Meanwhile, the importance level of "aspects of price affordability" in choosing food products does not increase significantly, even though

religiosity levels increase. It happens because the perceptions of young Muslim consumers towards the importance of "aspects of price affordability" in choosing food products do not differ too much at each level of religiosity. The majority of young Muslim consumers have an almost similar perception that "aspects of price affordability" are important in choosing food products to consume. The average respondents among young Muslim consumers have purchasing power almost at the same level.

Table 4. The effect of religiosity level on the criteria for choosing food products and deciding the halalness of a food product.

Independent Variables	Jonckheere-Terpstra's Test	
	Test Statistics	Monte Carlo's Significance (2-tailed)
Total score of criteria for choosing food products in general	8413.50	0.000
Total score of criteria for deciding the halalness of a food product	8551.00	0.000

Table 5. The main criteria for choosing food products in general based on the choices of young Muslim respondents.

Independent Variables (Criteria)	Respondents Who Said "Very Important" Based on Religiosity Level (%)				Jonckheere-Terpstra's Test	
	Neutral	Quite Religious	Religious	Very Religious	Test Statistics	Monte Carlo's Significance (2-tailed)
Putting a Halal label or sign	25.00	34.20	75.00	80.80	8549.00	0.000
Certified by the Ministry of Health or BPOM	37.50	39.50	70.40	80.80	8440.50	0.000
Freshness, benefits, quality, and taste	37.50	55.30	84.30	80.80	7775.00	0.000
Cleanliness	62.50	60.50	88.00	84.60	7565.00	0.005
Comfort and practicality	37.50	42.10	74.10	76.90	8164.00	0.000
Price affordability	50.00	65.80	77.80	75.00	7131.50	0.180*
Putting a Halal label or sign	25.00	34.20	75.00	80.80	8549.00	0.000

Description: * = Retain the null hypothesis

In choosing food products to consume, young Muslim consumers who are "neutral" are more concerned with "aspects of cleanliness" and "aspects of price affordability".

Young Muslim consumers who are "quite religious" are more concerned with "aspects of price affordability", "aspects of cleanliness", and "aspects of freshness, benefits, quality, and taste". Young Muslim consumers who are "religious" are more concerned with "aspects of cleanliness", "aspects of freshness, benefits, quality, and taste", and "aspects of price affordability". Meanwhile, young Muslim consumers who are "very religious" are more concerned with "aspects of cleanliness", "aspects of freshness, benefits, quality, and taste", "the presence of a Halal label or sign", and "the presence of certification from the Ministry of Health or BPOM".

The results of the Jonckheere-Terpstra's test in Table 6 mean that there is a statistically significant trend of a higher median of the importance level of criteria in deciding the halalness of a food product ("the existence of intoxicants or alcohol ingredients", "credibility of the Halal Certification Agency", "aspects of the legality of the food products' source", and "the presence of Halal labels or signs") with higher levels of religiosity, or the median of the importance level of criteria in deciding the halalness of a food product increases with increasing religiosity level. Meanwhile, the importance level of "the existence of pork ingredients", "the existence of toxic ingredients", and "aspects of damage or expiration date" in deciding the halal status of a food product does not increase significantly, even though religiosity levels increase. It happens because the perceptions of young Muslim consumers towards the importance of "the existence of pork ingredients", "the presence of toxic ingredients", and "aspects of damage or expiration date" in deciding the halalness of a food product do not differ too much at each level of religiosity. The majority of young Muslim consumers have an almost similar perception that halal food products are "not containing pork", "not containing toxins", and "not damaged or expired".

Table 6. The main criteria for deciding the halalness of a food product based on the choices of young Muslim respondents.

Independent Variables (Criteria)	Respondents Who Said "Very Important" Based on Religiosity Level (%)				Jonckheere-Terpstra's Test	
	Neutral	Quite Religious	Religious	Very Religious	Test Statistics	Monte Carlo's Significance (2-tailed)
Not containing pork	62.50	86.80	90.70	90.40	6933.00	0.199*
Not containing intoxicants or alcohol	50.00	78.90	88.00	88.50	7226.00	0.029
Not containing toxins	50.00	84.20	90.70	86.50	6984.50	0.189*
Not damaged or expired	62.50	81.60	82.40	86.50	7004.50	0.267*
Halal certified by LPPOM MUI	25.00	44.70	78.70	86.50	8479.50	0.000

Not from illegal sources	25.00	60.50	79.60	84.60	7922.00	0.000
Putting a Halal label or sign	37.50	55.30	84.30	88.50	8122.00	0.000
Not containing pork	62.50	86.80	90.70	90.40	6933.00	0.199*

Description: * = Retain the null hypothesis

In choosing halal food products to consume, young Muslim consumers who are "neutral" are more concerned with "the existence of pork ingredients", "aspects of damage or expiration date", "the existence of toxic ingredients", and "the existence of intoxicants or alcohol ingredients". Young Muslim consumers who are "quite religious" are more concerned with "the existence of pork ingredients", "the existence of toxic ingredients", and "aspects of damage or expiration date". Young Muslim consumers who are "religious" are more concerned with "the existence of pork ingredients", "the existence of toxic ingredients", and "the existence of intoxicants or alcohol ingredients". Meanwhile, young Muslim consumers who are "very religious" are more concerned with "the existence of pork ingredients", "the existence of intoxicants or alcohol ingredients", and "the presence of Halal labels or signs".

4 Conclusions

All in all, religiosity level significantly affects the perceptions of young Muslim consumers when choosing halal food products. Religiosity level has a significant impact on young Muslim consumers' level of concern about the presence of Halal labels or signs on a food product. Therefore, the higher the level of religiosity, the higher the level of concern of young Muslim consumers for the presence of Halal labels or signs on food products that will be consumed. Young Muslim consumers have a tendency to choose to buy a food product or decide the halalness of a food product subjectively through physical appearance or criteria that can be seen directly and physically on the food product, such as aspects of cleanliness, freshness, benefits, quality, and taste, price affordability, and compositions of food products in the form of pork, toxins, and intoxicants or alcohol which can be seen directly or through a list of ingredients on the food product packaging. Meanwhile, other criteria that are difficult to assess subjectively through food products' physical properties, such as aspects of the legality of food products' sources, are not prioritized.

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