

Halal Cluster Design Interaction: Is It Important For Enhancing Product Quality Perception?

Yolanda Masnita^{a,1,*}, Pipie Puspitasari^a

^a Faculty of Economic and Business, Trisakti University, Jakarta, Indonesia

¹ yolandamasnita@trisakti.ac.id

* corresponding author

ARTICLE INFO

Article history

Received May 23, 2021

Revised August 20, 2021

Accepted September 26, 2021

Keywords:

Halal cluster design

service perception

healthiness perception,

organization perception

quality of food

JEL codes: M31, Z12, Z33

ABSTRACT

This study focuses on the perception of product quality influencing consumers to buy halal food products due to a better processing and purchasing concept. Hence, the consumers not only obtain halal food from the substance or product itself but also the process and acquisition. Structured surveys and interviews were conducted on 319 general public in Indonesia's major cities. There were 6 hypotheses proposed and tested to analyze the halal cluster's effect on Product Quality. This study shows that service, health standards, and organization perceptions moderated by Halal Cluster Design influence consumers to purchase quality halal food products. The study focuses on consumer perceptions, such as service, hygiene, and health, as well as the existence of a cluster design for granting halal certificates and logistics, which ultimately influence consumers in purchasing decisions. This research proves that the halalness of food is shown by its substance, process and acquisition. Consumers purchase quality halal food products based on product quality perceptions. This include service, health, organizational perceptions, and a halal cluster design as standardization in the production process.

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



1. Introduction

The Pew Research Center estimated that Muslims' population growth may increase and become the largest religion in the world by 2070 (Rudgard, 2017), (Willingham, 2018). It also appraises Islam is to become the second-largest religion in the American continent, which is currently dominated by Christianity with 70.6% of the world's population. The Asian continent, including Southeast Asia and the Middle East, has 112 Muslim majority countries, such as Indonesia, with 85% of its population (Thomson Reuters, 2015). However, this global development would influence industries, including the food, which generates 16.7% of the total economic factors and possibly 16.9% by the end of 2020 (Thomson Reuters, 2016).

Muslims view the *halal* concept as very important in consuming a product (Azam, 2016). In Islamic law, *halal* means allowed. This means that an object or activity allowed to be consumed or carried out is under Islamic *sharia* (provisions of Allah SWT and the Hadith of the Prophet Muhammad SAW). Consuming *halal* food products is obligatory for Muslims. Additionally, *halal* means that the products consumed are of good quality and safe for one's health. The Quran (Quran 2; 168, Quran 2; 172-173, Quran 5; 88), and the Hadith of the Prophet Muhammad explain that Verily Allah is all good, and accepts nothing but good.

The processed food and beverage industries in Indonesia are increasing rapidly. They have to engage all *halal* standards, as evidenced by a halal certificate officially issued by the Indonesian Ulema Council Food and Cosmetics Assessment Institute (LPPOM MUI) 2018. Also, several other countries have institutions that issue *halal* standards such as Singapore MUIS, Malaysia JAKIM, Japan MPJA, UK HFA, and United States HFC. According to LPPOM MUI (2017), during 2011-2018, the number of *halal*-certified products was 59,951 out of the 309,115 distributed in Indonesia. Therefore, only 19.4% of food, cosmetic, and medicinal products have been certified, while 80.6% are not. To speed up *halal* certification, LPPOM MUI launched an online system (CEROL-SS23,000) to ensure service quality and transparency. Obtaining a *halal* certificate is aimed to convince consumers. It also proves that their products abide by Islamic law, from raw material selection to production.

In a large halal market segment, such as *halal* food, the certificate logo, and consumer perceptions on raw materials, food storage, and health are essential (Franklin and Bardie, 2015). Government regulations support the production of *halal* food products. This support indirectly develops food products and attract investors. Moreover, government support is obtained as business capital loans through Islamic financial institutions or SME banking (Sheffi, 2012). A new paradigm in organizing the production process through *halal* clusters is essential in ensuring the availability and access for food products (Trappey et al., 2011). The *halal* cluster theory refers to a group of companies or industries that collaborate and complement each other in certain fields (Karlsson et al., 2014).

2. Material and Methods

In food and beverages, *halal* is not only limited to the substance or product itself but also the processing and acquaintance (QS, 2: 168; QS 2: 188). Many studies have been conducted on *halal* food. Table 1 below shows the previous studies on halal food and beverages from various aspects. However, this study examines the aspects of food based on the *halal* cluster design - HCD.

Table 1. Research on Halal Food

Sources	Variable	Finding
Zakaria and Abdul-Talib, 2010	Market orientation, Islamic, Culture, Organizational culture, National cultures	Customers could understand the difference between <i>halal</i> and <i>haram</i> products
Abdul et al., 2009	Assurance, halal food, Muslim consumers	There is a significant relationship between the respondents' religion, as well as their perception of the <i>halal</i> logo and material
Azam, 2016	<i>Halal</i> awareness, Islamic brand, and product ingredients	There is a significant relationship between the <i>halal</i> symbols that influence Muslim consumers to buy products produced by non-Muslim producers
Tieman and Ghazali, 2013	<i>Halal</i> supply chain management, Halal logistics, Supply chain management, Halal management system, Halal performance, <i>Halal</i> , Distribution management.	This research shows that the product's characteristic and supply of raw material from the markets of Muslim and non-Muslim countries affect the sensitivity of <i>halal</i> products
Wilson et al., 2013	Islamic marketing and branding analyzes young people's behavior in the search of halal products with culture theory approach	This research found the importance of Islamic marketing through branding to provide education for the Muslim population globally about Islam's business context and how to conduct national and international business practices.
Zulfakar et al., 2014	Trust and commitment of supply chain member and role of government become the standard in conducting the proper halal certification.	This research shows how the supply chain affects <i>halal</i> foods consumers based on their status, such as all the activities involved in the production from the beginning.
Talib et al., 2013a	<i>Halal</i> , Small and Medium Enterprises, Exploratory Factor Analysis	organizational factors, such as <i>halal</i> integrity, halal awareness, and top management support significantly affect halal market demand, consumer needs, competitive pressures, and government support
Verbeke et al., 2013	Halal label in supermarket willingness to pay is highly influenced by the consumer contingent valuation.	Findings indicate that female and religious consumers are more willing to purchase certified <i>halal</i> labeled meat in supermarkets. Another essential condition in supermarkets guarantees, such as separate <i>halal</i> from non- <i>halal</i> meat, and

Sources	Variable	Finding
Ab Talib et al., 2016	Using institutional theory in implementing <i>Halal</i> Food certificate.	the organization can provide an adequate verification and control process. Government regulations, consumer demand, and competition in the industry are pillars in applying institutional theory. It is proven that institutional theory offers more strength of understanding than internal motivation factors in applying <i>halal</i> food certification.
Prabowo et al., 2015	Explore various factors that hinder <i>halal</i> certification in the foodservice sector	By using the nominal group technique (NGT), the lack of socialization and information has resulted in a lack of knowledge and awareness of the <i>Halal</i> Food business actors.
Katuk et al., 2020	Analysis of <i>halal</i> food certificates, as a <i>halal</i> tourism service.	Food operators' <i>halal</i> certification plays a significant role in knowledge about <i>halal</i> tourism and market segments.
Shahzad et al., 2020	The decision to purchase and consumption of <i>halal</i> food, in a religious context, is significantly different. Local culture is something that needs to be analyzed.	Habit, Religious Self Identity, Moral Attitude, individualism affect <i>Halal</i> Food Consumption.

2.1. Halal Cluster Design

The *halal* cluster design is required in regulating the production and marketing of food. The design produces quality, specific *halal* food products according to consumer needs. It has several pillars used as standards or criteria for *halal* food companies, such as Muslims. Consumption of *halal* and healthy food is an obligation for Muslims. According to Zakaria and Abdul-Talib (2010), consuming *halal* food and the prohibition from using *haram* products and indecisive things are included in Islamic values. *Halal* food products with Islamic values are distinguished from those not by the *halal* logo or Islamic brand (Wilson et al., 2013). This could be a marketing strategy for companies that produce *halal* food products.

The company's workforce must have good abilities that support development. The *halal* cluster design is standardized for employees by providing training based on Islamic law. Before production, the company should research the latest innovations, and have operational machines in making quality *halal* food products. They also require a good and professional workforce. Therefore, training is needed to support the development of a *halal* food product in procurement, production, logistics, and sales (Sheffi, 2012).

Halal integrity network in food products has several considerations, including logistics and network. The *halal* logistics provide consolidation facilities to improve integration among logistics providers (Talib et al., 2013a). In this case, the advanced-cross control center (Lindert, 2013) functions as the flow management of *halal* goods, such as packaging and physical control, shipping processes, providing codes, and registering certification data. The *halal* network exists for trust or personal relationships with colleagues in establishing cooperation. The community and institutions' role that issue *halal* certification is significant in promoting food product activities, opening networks, and forming national and international clusters (Boisen et al., 2011).

The *halal* cluster's supply chain has several standards that must be considered, one of which is the supplier of raw materials. MSMEs play an essential role in developing raw material supplier activities for *halal* clusters in a country. Suppliers avail raw materials to producers, enhancing efficient production. Moreover, in the *halal* cluster, MSMEs have a standardized classification in providing raw materials for products (Tieman and Ghazali, 2013).

Halal food production focuses on healthy and nutritious products. This is achieved by maximizing natural energy resources, such as water, sun, oil, and coal (Lehr et al., 2013). Product distributors have an essential role since they are directly involved with outlet and retail *halal* logistics. Some distributors and retailers are not dedicated to one type of *halal* food production or a particular brand. They separate *halal* from non-*halal* food products, greatly affecting the production cluster (Verbeke et al., 2013).

The government, trade, and Islamic finance are significant factors for *halal* food entrepreneurs. The government provides support through regulations related to *halal* food trade and Islamic finance for SMEs. Furthermore, it facilitates access to financial services or *sharia* banking. Therefore, the government does not only influence but also supports investment in developing the *halal* food product segment (Sheffi, 2012).

2.2. Perception of Halal Food Product

Perception relates to how the good service accepted by consumers impacts the *halal* food products and business success. It develops the quality of a *halal* food product (Fontanillas et al., 2013). This includes politeness in serving, concern for consumer products, and packaging hygiene (Rossi et al., 2012). Service is a process or performance involving consumer trust in buying products. It aims at providing solutions for consumers (Santos et al., 2012).

Healthiness perception in *halal* food products is one of the determining factors for consumers in purchases (Rheinländer et al., 2008). It is invisible but has an impact on consumers. Health benefits received by consumers create perceptions that prompt them to readily buy products (Grunert, 2010). It is unconsciously related to disease prevention and health promotion. Therefore, sufficient health assessments in *halal* food products increase purchases (Schnettler et al., 2015). Furthermore, Stojanovic et al. (2013) stated that a *halal* food product's healthiness is usually reflected in its color and aroma at the time of purchase. Also, consumers are influenced by convenience, safety, availability, and accessibility in purchasing products.

Organization perception describes consumers' awareness of the safety of the products to be consumed. They must know about the food's aesthetic appearance and the sales location (Rheinlander et al., 2008). Clean, safe, and strategic locations make consumers feel comfortable making purchases (Loriato et al., 2017). Also, the product quality depends on the location. Although sellers and buyers have adequate knowledge about *halal* food products, location also affects consumer purchases (Oliveira et al., 2008). Determination of location and distance encourages consumers to make purchases. The decrease in food product sales is influenced by location, strategies undertaken, service, and product quality (Walsh, 2014).

Product quality is a global concept assessed and evaluated by consumers based on standardized factors. This value is felt before and after purchasing a product (Grunert, 2010). In assessing product quality, consumers focus on food sales conducted indoors or outdoors. Consumers generally perceive product quality based on the comparisons between expectations and reality after making a purchase, and the service received, the sale's location, food safety (health), and cleanliness (Tinoco and Ribeiro 2008). The product quality from fast food also needs to be considered based on the perceptions of taste, environment and cleanliness, service, location and perceived health after consumption (Tiwari and Verma, 2008).

Consumers' perceptions of *halal* food products' quality are determined by several factors, including service, cleanliness, sales location, health impacts, and moderation of the *halal* cluster design (Santos et al., 2012). Good, friendly, and fast service improves consumer perceptions of a product. Moreover, it influences them to purchase and recommend the product to others (Fontanillas et al., 2013). Healthiness perception results from the effects felt after consuming *halal* food products (Grunert, 2010). A clean, safe, and strategic place of sale also makes consumers feel comfortable in making purchases (Liberato et al., 2011). The *halal* cluster design mediates these several perceptions. It is significant in regulating production and making more specific trades. Furthermore, it has several strategic pillars of consideration, such as *halal* certification, cluster standardization in employee training, as well as logistics and networks for production and marketing. Other factors to be considered include supply chains and government support through regulations regarding *halal* food products (Wilson et al., 2013).

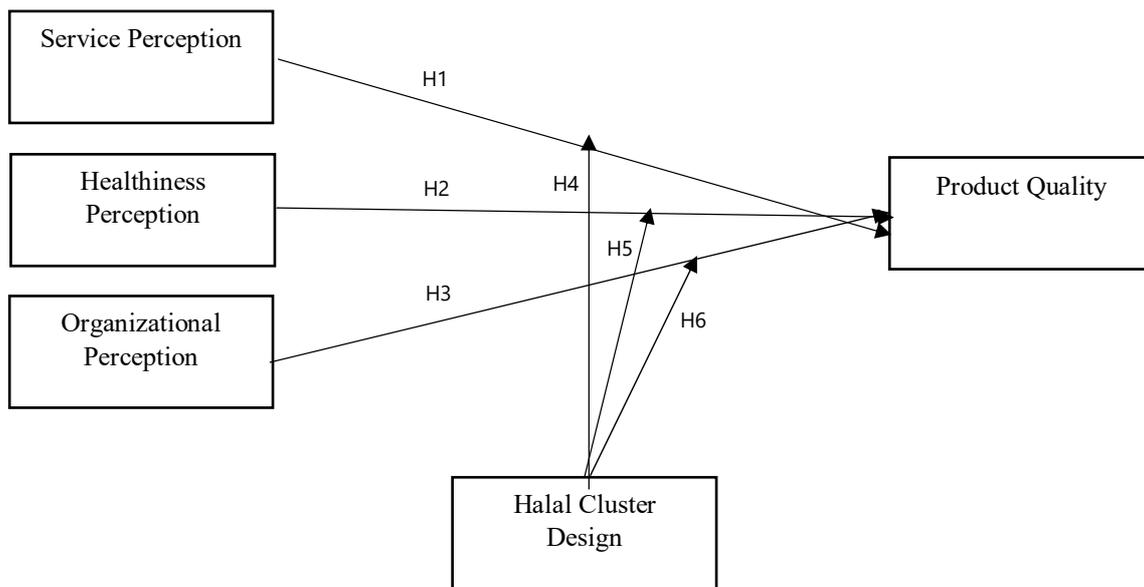


Fig 1. Conceptual model

2.3. Service Perception

Good service to consumers is reflected in cleanliness, attendant behavior, and politeness. Consumers' service perception results in a feeling that the product to be consumed is good (Rossi et al., 2012). This service is significantly essential for sellers of *halal* food products and a vital necessity for business processes (Fontanillas et al., 2013). Additionally, Loriato and Pelissari (2017) stated that service is a complement to people that sell *halal* food products, and influences consumers in making purchase decisions. Therefore, it is more important than the price of the *halal* food product.

Hypothesis 1: Service perception has a positive and significant influence on Product Quality

2.4. Healthiness Perception

Healthiness perception in consuming *halal* food products is indirectly related to disease prevention and health improvement. Also, raw materials and production processes positively influence consumers' assessment of the product's health standards (Chrysochou and Grunert 2014). Healthy, quality *halal* food products are consumed more by people with families, such as children. The children factor strongly influences the purchase of *halal* and healthy food products (Stojanovic et al., 2013). This affects the purchasing style of *halal* food products in developing countries. Consumers tend to focus and look for *halal* food products in a closed environment (Schnettler et al., 2015).

Hypothesis 2: Healthiness perception has a positive and significant influence on Product Quality

2.5. Organizational Perception

Perceptions of *halal* food product quality are based on health, as well as the location of sales. The knowledge of the safety and quality of the product to be consumed affects the consumers' purchasing desire (Oliveira et al., 2008). Determining the sales' location significantly affects the quality of *halal* food products. It is one indicator used by consumers in evaluating the quality of food products (Grunert et al., 2012). A clean, safe, and strategic sales location makes consumers feel comfortable in making purchases (Liberato et al., 2011).

Hypothesis 3: Organization perception has a positive and significant influence on Product Quality

2.6. Halal Cluster Design of Product Quality

The *halal* cluster design moderates product quality from the production to the consumers. Consumer perceptions of service, health, and organization are the basis for interest in purchasing quality food products. Therefore, the cluster design convinces consumers to buy quality *halal* food products (Abdul et al., 2009). It regulates production and transactions through several *halal* standards and criteria used as the basis for business actors. Quality food products with a *halal* certificate logo are prioritized. As a result, employee training is needed to support the development of quality, *halal* food production. Moreover, *halal* logistics, network, and supply chain significantly complement the production process. The government not only influences the *halal* business segment but also provides support as regulations, as well as capital through Islamic finance (Wilson et al., 2013).

Halal cluster design affects the role of;

Hypothesis 4: Halal cluster design affects the role of service perceptions on Product Quality.

Hypothesis 5: Halal cluster design affects the role of healthiness perceptions on Product Quality.

Hypothesis 6: Halal cluster design affects the role of the organizational perception of Product Quality.

3. Research Methodology

3.1. Procedure and Sample

The analysis process was implemented in two steps. Step 1 involved testing the model's convergent validity. According to Hair et al. (2018), the Cronbach Alpha, factor loadings, and Composite reliability are the most common approaches. Initial data was distributed to 30 respondents to test all the instruments used. After the validity and reliability tests, the data was distributed to 350 respondents, resulting in 319 testworthy responses. In step 2, the structural model and hypotheses were tested with LISREL 8.80.

The questionnaires were distributed using google documents. The info link was sent via social media (WhatsApp and Facebook) of the Muslim community. Respondents' answers were saved to a Google spreadsheet. The Google forms allowed interviewers to easily collect a wide range of information from the surveys at minimal costs.

Based on the data, the respondents consisted of 78.2% females and 21.8% males. Out of the total number of respondents, 97.5% live in urban areas, while 2.5% live in the regions. Also, they had various educational backgrounds, including high school by 5.9%, diploma by 10.1%, bachelor's degree by 58.8%, and others by 25.2%.

3.2. Measure

The 5 factors examined in this study were service perception, healthiness perception, organization perception, *halal* cluster design, and product quality. The study used a five-point Likert scale. Service perception was measured by 3 items adapted from Fontanillas et al., (2013). The healthiness perception was measured by 3 items from Viana (2013). Similarly, organization perception was measured by 3 items adapted from Rheinländer et al., (2008). The *halal* design cluster was measured by 5 items adapted from (Wilson 2013), while product quality was assessed by 3 items adapted from Almeida et al. (2014).

The questionnaire was written originally in English and later translated into Indonesian to enhance understanding by respondents. It consisted of personal information, main questions, and demographic data.

3.3. Empirical Result and Discussion

3.3.1. Measurement model

The reliability and convergent validity of the measurement model were first tested. According to Hair et al. (2018), Cronbach Alpha, factor loadings, and composite reliability (CR) are the most common approaches. Additionally, Hair et al. (2018) indicated that items with a Cronbach alpha \leq

0.60, and a factor loading <0.40 had to be eliminated. As shown in Table 1, Cronbach alpha's coefficient and all item loadings achieved the expected results. Then, validity and reliability tests were conducted. According to Table 1, the reliability test results show that all variables have a Cronbach's alpha value of more than 0.6, while the validity test was conducted by looking at the factor loading value of more than 0.5. Therefore, all indicators used to measure variables in this study have good reliability and validity.

Table 1. Validity and reliability of the construct

Variable	Statement	Convergent Validity	Reliability
		Factor Loading	Cronbach's Alpha
Service Perception (SP)	- Seller being helpful and kind while serving the customers	0.697	0.823
	- Seller handle money and food adequately	0.589	
	- The seller is clean and appropriately attired to sell food.	0.765	
Healthiness Perception (HP)	- The product is good for health	0.795	0.917
	- Food from the kiosk or stand does not cause any illness	0.865	
	- Food product does not cause any harm to health	0.871	
Organization Perception (OP)	- Location Food stands or stalls are very strategic	0.710	0.858
	- The products sold at the stand or kiosk are well organized and well presented	0.730	
Halal Cluster Design (HCD)	- Products sold at the stand or kiosk are well advertised	0.761	0.864
	- Consumers prioritize the symbol of halal in making purchases on food products	0.643	
	- The owner gives proper training to their employees about the halal production process	0.769	
	- In selling halal products, (the seller) is willing to provide information to consumers about the process of making these products, as well as conducting promotions.	0.637	
	- Products sold at the stand or kiosk are well advertised	0.661	
	- In the production of halal products, seller have their classification and standard regarding the raw materials used	0.725	
	- Government support the production and sales of halal food	0.637	
Product Quality (HFP)	- Serving high-quality products	0.680	0.840
	- Raw materials that are used are coming from a trustworthy resource	0.698	
	- Products are served hygienically	0.747	

Source: Authors' research

From Table 1 above, several measurers are marginal fit, although there is the goodness of fit. Therefore, the conclusion of the model is produced in the goodness of fit.

Table 2. Goodness of Fit Model

The goodness of Fit index	Result	Cut-off	Decision
Chi-square	193.90	Expected to be small	Marginal Fit
Significant probability RMSEA	0.00	<0.10	Goodness of fit
NFI	0.92	>0.90	Goodness of fit
RFI	0.90	>0.90	Goodness of fit
CFI	0.95	>0.90	Goodness of fit
AGFI	0.72	>0.90	Marginal Fit

Table 2 presents the complete results of the structural model and hypotheses testing. The analysis results show that the perceptions of service, healthiness, and organization influence the success in producing quality *halal* food products. The *halal* cluster design variable moderates the relationship between food product qualities. These results contribute to the acceptance of all the proposed hypotheses.

3.3.2. Discussion

Tabel 3. Structure estimate (Hypothesis testing)

Hypothesis		β	CR	P	Decision
H1: SP	→ PQ	0.52	4.38	0.000	Supported
H2: HP	→ PQ	0.57	3.62	0.000	Supported
H3: OP	→ PQ	0.51	2.55	0.000	Supported

Good, friendly, and fast service create consumer perceptions of a *halal* food product. It influences them to buy and recommend the products to others (Fontanillas et al., 2013). For business people that sell *halal* food products, service is more important than the product price (Loriato and Pelissari 2017). This study found that service perception affects the quality of *halal* food products. Costumers' service perception is significant since it influences their decision to buy the product. ($\beta = 0.52$; $CR\ 4.38 \geq 2$; $P \leq 0.05 \rightarrow H_1$ accepted).

Healthiness is very important for consumers of *halal* food products. This perception is formed when consumers feel satisfied after consuming the products (Grunert, 2010). It is indirectly related to disease prevention and health improvement. Furthermore, raw materials and production processes positively influence consumer assessments regarding health points of product quality (Chrysochou and Grunert 2014). This study showed that healthiness perception affects the quality of *halal* food products. The perception is felt after consumption ($\beta = 0.57$; $CR\ 3.62 \geq 2$; $P \leq 0.05 \rightarrow H_2$ accepted).

A clean, safe, and strategic location makes consumers feel comfortable in making purchases (Liberato et al., 2011). Perceptions of *halal* food product quality are not only related to health but also the location of sales. Consumers are usually aware of the safety of the food they consumed, as well as the quality of the *halal* food products (Oliveira et al., 2008). These findings are synergized with previous research that determining a strategic, safe, comfortable location could prompt consumers to purchase *halal* food products ($\beta = 0.51$; $CR\ 2.55 \geq 2$; $P \leq 0.05 \rightarrow H_3$ accepted).

Tabel 4. Structure estimate (Hypothesis testing Moderating)

Hypothesis		Moderating	β	CR	P	Decision
H4: SP	→ PQ	HCD	0.74	2.35	0.002	Supported
H5: HP	→ PQ	HCD	0.66	2.49	0.000	Supported
H6: OP	→ PQ	HCD	0.64	-0.98	0.082	Rejected

Consumers' perceptions when purchasing quality *halal* food products are inseparable from service, healthiness, and organization. Also, the *halal* cluster design significantly influences food products' quality from the production to the selling process. Several standardization and criteria applied to the *halal* cluster design of a product change this study's statement. In moderating service and healthiness perceptions, the *halal* cluster design supports the production of quality food products (Abdul et al., 2009). The two perceptions are strengthened by *halal* cluster design ($\beta = 0.74$; $CR\ 2.35 \geq 2$; $P \leq 0.05 \rightarrow H_4$ accepted; $\beta = 0.66$; $CR\ 2.49 \geq 2$; $P \leq 0.05 \rightarrow H_5$ accepted).

In contrast to the organizational perception, the moderation resulting from the *halal* cluster design is not in line with this study ($\beta = 0.64$; $CR\ -0.98 \leq 2$; $P \geq 0.05 \rightarrow H_6$ Rejected). The *halal* cluster design has several standards, and the regulation of the food production system does not synergize with the organization perception. Perceptions of the quality of *halal* food products are not only related to health and service, but the location of food stands. This affects consumers' desire to purchase, because they are usually aware of the safety and quality of the product they consumed (Oliveira et al., 2008). Furthermore, *halal* cluster design regulates logistics, network, and supply chain as a complement of production. Employee training and development by companies or entrepreneurs of *halal* food products is essential for production of quality products. Regarding the organization perception, determining the production or selling location of *halal* food products needs to be considered since it influences consumers' purchase decisions.

4. Conclusion, implications, and limitations

4.1. Conclusion and implications

In producing quality *halal* food products, entrepreneurs need to consider the service, healthiness, organizational perceptions, and cluster design. The symbol of *halal* in quality food products remains a priority for consumers. Additionally, several standards and criteria owned by the *halal* cluster design, such as logistics, network, and supply chain, complement the production of food products.

Currently, the *halal* food product business is highly profitable due to the growth of the Muslim population. Therefore, the business supports economic development for the community in the future. The government should not only influence but also develop *halal* and *sharia* businesses in Indonesia.

4.2. Limitations and Implication

The *halal* industry is one of the fastest-growing consumer segments in the world. Respondents in this study were only limited to Muslim consumers. Hence, it is fascinating to conduct a study on non-Muslim communities. Currently, many people are aware of using *halal* certificates to obtain quality food (Islam and Madkouri, 2018; Peristiwo, 2020). Therefore, it is expected that all food producers should compete for *halal* certification. This would greatly benefit Muslims in the ease of obtaining *halal* food.

This study analyzed consumers in purchasing quality, *halal* food products. They pay attention to perceptions of service, health, and organization. Moreover, *halal* cluster design is essential in ensuring that production follows Islamic law. Further research should focus on the influence of consumer convenience in purchasing quality *halal* food products, by including *halal* parks variable (Islam and Madkouri, 2018). This includes the environment that supports the *halalness* of a product, such as providing incentives by local authorities and the availability of waste collection services in the area around the park. It increases consumer confidence since the production in areas that use Islamic law ensures the implementation of *halal* food processing.

References

- [1] 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. doi:10.1108/mrr-06-2015-0147.
- [2] Abdul, M., Ismail, H., Hashim, H. and Johari, J. (2009), "Consumer decision-making process in shopping for halal food in Malaysia", *China-USA Business Review*, Vol. 8 No. 9, pp. 40-47.
- [3] Almeida, S.P., Araujo, R.M., Mota, P.S., Barros, M.S. and Mendonça, M.C. (2014), "Percepção de qualidade de um bar da orla de Aracaju-SE pelos frequentadores: estudo de caso", *Scientia Plena*, Vol. 10 No. 6, pp. 1-13.
- [4] Azam, A. (2016), "An empirical study on non-Muslim's packaged halal food manufacturers: Saudi Arabian consumers' purchase intention," *Journal of Islamic Marketing*, Vol. 7 No. 4, pp. 441-460.
- [5] Boisen, M., Terlouw, K., and Gorp, B. van (2011), "The selective nature of place branding and the layering of spatial identities," *Journal of Place Management and Development*, Vol. 4 No. 2, pp. 135-147.
- [6] Chrysochou, O. and Grunert, K.G. (2014), "Health-related ad information and health motivations effects on product evaluations," *Journal of Business Research*, Vol. 67 No. 6, pp. 1209-1217.
- [7] Fontanillas, C.N., Cruz, E.P. and Ferreira, S.L. (2013), "A utilização dos fatores críticos de sucesso Paruum restaurant", XXXIII Encontro Nacional de Engenharia de Produção, Salvador.

- [8] Franklin, S. and Badrie, N. (2015), "Vendor hygienic practices and consumer perception of food safety during the carnival festival on the island of Tobago, West Indies," *International Journal of Consumer Studies*, Vol. 39 No. 2, pp. 145-154.
- [9] Grunert, K.G. (2010), "European consumers' acceptance of functional foods," *Annals of the New York Academy of Sciences*, Vol. 1190 No. 1, pp. 166-173.
- [10] Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. (2018). *Advanced issues in partial least squares structural equation modeling*. Los Angeles: SAGE.
- [11] Islam, R. and Madkouri, F.E. (2018), "Assessing and ranking HALMAS parks in Malaysia: An application of importance-performance analysis and AHP," *Journal of Islamic Marketing*, Vol. 9 No. 2, pp. 240-261. <https://doi.org/10.1108/JIMA-03-2016-0027>.
- [12] Karlsson, C., Johansson, B. and Stough, R.R. (2014), *Agglomeration, Clusters, and Entrepreneurship: Studies in Regional Economic Development*, Edward Elgar Publishing, Cheltenham.
- [13] Katuk, N., Ku-Mahamud, K.R., Kayat, K., Abdul Hamid, M.N., Zakaria, N.H., and Purbasari, A. (2020), "Halal certification for tourism marketing: the attributes and attitudes of food operators in Indonesia," *Journal of Islamic Marketing*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JIMA-03-2020-0068>.
- [14] Lehr, C.B., Thun, J.H. and Milling, P.M. (2013), "From waste to value—a system dynamics model for strategic decision-making in closed-loop supply chains," *International Journal of Production Research*, Vol. 51 No. 13, pp. 4105-4116.
- [15] Liberato, S. C., Brimblecombe, J., Ritchie, J., Ferguson, M., & Coveney, J. (2011). Measuring capacity building in communities: a review of the literature. *BMC Public Health*, 11(1). doi:10.1186/1471-2458-11-850.
- [16] Lindert, M. (2013), "Control towers are emerging everywhere," *Supply Chain Movement*, No. Q.3, pp. 16-25, available at www.supplychainmovement.com/wp-content/uploads/Controltowers-En.pdf (accessed May 5, 2014).
- [17] Loriato, H.N. and Pelissari, A.S. (2017), "Atributos determinantes na decisão de compra e satisfação dos clientes: um estudo em estabelecimentos que comercializam comida de rua", *Revista Brasileira de Pesquisa em Turismo*, Vol. 11 No. 1, pp. 109-132.
- [18] LPPOM MUI (2018), "Statistik Sertifikasi Halal Indonesia", Lembaga Pengkajian Pangan Obat-obatan dan Kosmetika Majelis Ulama Indonesia (LPPOM MUI) (Institute for Food Assessment of Drugs and Cosmetics Indonesian Council of Ulama), available at: www.halalmui.org/mui14/index.php/main/detil_page/59/22325 (accessed August 7, 2018).
- [19] Oliveira, A.G., Spoto, M.F., Canniatti-Brazaca, S.G., Souza, C.O. and Souza, C.P. (2008), "Percepção dos consumidores sobre o comércio de alimentos de rua e avaliação do teste de mercado do caldo decana processado e embalado em seis municípios do estado de São Paulo, Brasil", *Alimentos e Nutrição, Araraquara*, Vol. 18 No. 4, pp. 397-403.
- [20] Peristiwo, H. (2020), "Indonesian and Malaysian potential for a halal tourism industry," *African Journal of Hospitality, Tourism, and Leisure*, Vol. 9 No. 9, pp. 1-16.

- [21] Prabowo, S., Rahman, A.A., Rahman, A.S. and Samah, A.A. (2015), "Revealing factors hindering halal certification in east Kalimantan Indonesia", *Journal of Islamic Marketing*, Vol. 6 No. 2, pp. 268-291.
- [22] Rheinländer, T., Olsen, M., Bakang, J.A., Takyi, H., Konradsen, F. and Samuelsen, H. (2008), "Keeping up appearances: perceptions of street food safety in urban Kumasi, Ghana," *Journal of Urban Health*, Vol. 85 No. 6, pp. 952-964.
- [23] Rossi, G.B., Silva, D., Debessa, F.N. and Garcia, M.N. (2012), "Percepção de valor dos consumidores deserviços de restaurantes: um estudo com modelagem de equações estruturais", *Revista Brasileira de Marketing*, Vol. 11 No. 3, pp. 27-53.
- [24] Rudgard, O. (2017), "Islam will be the largest religion in the world by 2070, says report", Telegraph, available at www.telegraph.co.uk/news/2017/03/01/islam-will-largest-religion-world-2070-saysreport/ (accessed March 13, 2018).
- [25] Santos, V.A., Santos, M.P., Matos, V.D., Lôbo, L.N., Freitas, F. and Silva, I.D. (2012), "Perfil dos consumidores de alimnetos de rua", *Revista Baiana de Saúde Pública*, Vol. 36 No. 3, pp. 777-791.
- [26] Schnettler, B., Miranda, H., Lobos, G., Sepulveda, J., Orellana, L., Mora, M. and Grunert, K. (2015), "Willingness to purchase functional foods according to their benefits: consumer profiles in Southern Chile," *British Food Journal*, Vol. 117 No. 5, pp. 1453-1473.
- [27] Shahzad, M.A., Jun, D., Noor, G. and Zubair, A. (2020), "Causation of halal food consumption in China," *Journal of Islamic Marketing*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JIMA-07-2019-0153>.
- [28] Sheffi, Y. (2012), *Logistics Clusters: Delivering Value and Driving Growth*, MA Institute of Technology, MIT Press, London.
- [29] Stojanovic, Z., Filipovic, J., and Mugosa, B. (2013), "Consumer acceptance of functional foods in Montenegro," *Montenegrin Journal of Economics*, Vol. 9 No. 3, pp. 65-74.
- [30] Talib, M.S.A., Rubin, L. and Zhengyi, V.K. (2013a), "Qualitative research on critical issues in halal logistics," *Journal of Emerging Economies and Islamic Research*, Vol. 1 No. 2.
- [31] Thomson Reuters (2015), "State of the global Islamic economy report 2015/16", Thomson Reuters, *Dubai the Capital of Islamic Economy, Dinarstandard*, NY, pp. 20-36.
- [32] Tieman, M. and Ghazali, MC (2013), "Principles in halal purchasing," *Journal of Islamic Marketing*, Vol. 4 No. 3, pp. 281-293.
- [33] Tinoco, M.A. and Ribeiro, J.L. (2008), "Estudo qualitativo dos principais atributos que determinam a percepção de qualidade e de preço dos consumidores de restaurantes a la carte", *Gestão and Produção*, Vol. 15 No. 1, pp. 73-87.
- [34] Tiwari, P. and Verma, H. (2008), "Consumer perception about fast food in India: an empirical study of Dehradun City," *ICFAI Journal of Consumer Behavior*, Vol. 3 No. 4, pp. 80-91.
- [35] Trappey, C.V., Lin, G.Y., Trappey, A.J., Liu, C.S. and Lee, W.T. (2011), "Deriving industrial logistics hub reference models for manufacturing-based economies", *Expert Systems with Applications*, Vol. 38 No. 2, pp. 1223-1232.

- [36] Verbeke, W., Rutsaert, P., Bonne, K. and Vermeir, I. (2013), "Credence quality coordination and consumers' willingness-to-pay for certified halal labeled meat," *Meat Science*, Vol. 95 No. 4, pp. 790-797.
- [37] Viana, M.M. (2013), "Atitude do consumidor em relação a alimento cárneo com atributos de saudabilidade", Dissertação de Mestrado, Universidade de São Paulo, Faculdade de Zootecnia e Engenharia de Alimentos, Pirassununga.
- [38] Walsh, J. (2014), "Business strategies used by micro-SMEs in a Bangkok street market," *Journal of Enterprising Communities*, Vol. 8 No. 2, pp. 147-158.
- [39] Willingham, A.J. (2018), "By 2040, Islam could be the second-largest religion in the US", CNN, available at: <https://edition.cnn.com/2018/01/10/politics/muslim-population-growth-second-religiousgroup-trnd/index.html> (accessed March 13, 2018).
- [40] Wilson, J.A.J. (2013), "The halal value system," Changing world, new relationships [report] 9th World Islamic Economic Forum (WIEF), October 2013, PricewaterhouseCoopers Malaysia, pp. 71-72, available at <http://read.pwc.com/i/190845/68> (accessed August 11, 2014).
- [41] Zakaria, N. and Abdul-Talib, S.N. (2010), "Applying Islamic market-oriented cultural model to sensitize strategies towards global customers, competitors, and environment," *Journal of Islamic Marketing*, Vol. 1 No. 1, pp. 51-62.
- [42] Zulfakar, M.H., Anuar, MM and Talib, MSA (2014), "Conceptual framework on halal food supply chain integrity enhancement," *Procedia - Social and Behavioral Sciences*, Vol. 121, pp. 58-67.
- [43] <http://www.halalmui.org/mui14/main/detail/strategi-umkm-indonesia-dalam-persiapan-wajib-sertifikasi-halal>.