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Measuring Indonesian young consumers' halal purchase intention of foreign-branded food products

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This article is among the few focusing on halal young consumer behavior in Indonesia. The focus is to examine the topic of halal food product purchase intention. Here, we focus specifically on Muslim teenagers in Indonesia to explore whether they still hold on to the halal principle that most Muslims adhere to when consuming food. This research examines their halal awareness based on theory of planned behavior (TPB) theory and compares it to the previous publications so far. To reach this objective, we used quantitative methodology. Our data was acquired from 161 Indonesian young Muslim consumers. Furthermore, the variance-based structural equation modeling and Theory of Planned Behavior (TPB) research model were utilized. Our findings demonstrate that subjective norm and attitude are significant determinants of halal food buying intent. However, perceived behavioral control has not been established as a purchase intention component. Finally, this study provides additional research on halal consumer behavior, focusing on the empirical findings of young Indonesian consumers, especially seen from TPB perspective.

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Introduction

Indonesia, a country with a large Muslim population, has kept the halal label requirement for nearly all food sold in public markets (Kartawinata et al. 2021). However, there has been a shift in the purchasing habits of the younger population in Indonesia. Several studies have shown that young Muslims in Indonesia consume halal meals differently than their parents and grandparents (Amalia et al. 2020; Kurniawati and Savitri 2019). The consumption of foreign-branded goods under halal conditions in nations with majorities of Muslims has, so far, only been the subject of a small number of studies.

In Indonesia, the rising halal awareness of the younger Muslim generation is one of the causes contributing to the emergence of new Muslim behavioral trends (Briliana and Mursito 2017). The younger generation of Muslims is coming to understand the importance of avoiding all haram (unlawful according to Islamic principles) commodities in all aspects of human life, including food, cosmetics, and personal care products (Elisa et al. 2022). According to Pradana et al. (2020, 2022), there is a correlation between religiosity and consumption behavior, such that the consumption of halal products increases as religious understanding increases. In order to protect the quality of life, Indonesian religious beliefs require the consumption of halal products (Kartawinata et al. 2021).

As the nation with the largest Muslim population in the world, Indonesia must ensure the circulation of safe and halal-compliant products (Briliana and Mursito 2017; Pradana et al. 2023). Especially considering the invasion of foreign food products into Indonesia during the past three decades. The amount of halal awareness among young Indonesian Muslim customers offers a significant deal of possibilities for consumer behavior or halal marketing research (Kartawinata et al. 2021, Marmaya et al. 2019). Almost all food products sold in Indonesia must have the halal label, although a small amounts of foreign chain restaurants or foreign branded snacks or candies do not feel the urge to be certified halal (Dewi et al. 2022). However, young consumers tend to be less concerned because other factors, like brand equity and service quality, motivate them more to visit the restaurants or consume the certain types of food (Kurniawati and Savitri 2019).

Numerous foreign companies produce dishes that are popular among Indonesia's youth, contributing to the diversity of the nation's cuisine trends. Japanese and Korean restaurants are prevalent in shopping malls and are frequented by young people. It is vital to see how young Indonesians respond to the halal status of foreign food products sold in supermarkets or restaurants.

As a result, we see this as a phenomenon worthy of examination. Several research, such as Abu-Hussin et al. (2017), have explored the characteristics of Muslim consumers who are interested in halal items. This study reveals that the uncertainty of the products' halal status have a significant negative impact on consumer purchasing interest. The next research result, however, reveals contradictory findings that create a research gap.

Overall, research on consumer acceptance of halal alimentation have focused on values, beliefs, and personal standards in shaping consumer behavior (Bhutto et al. 2023). Despite abundant research on halal food using theory of planned behavior (TPB), little study has been done to examine how these factors affect young consumers, especially generation Z, and in the context of foreign-branded food products. Therefore, this research expands the well-known theory of planned behavior (TPB) to analyze attitude and perceived behavioral control along with subjective norms to analyze young consumers' preferences for halal food with foreign brands in order to close the literature gap.

According to Amalia et al. (2020), younger customers tend to be less loyal to the halal designation and more receptive to

alternative food brands. This behavior is impacted by the fact that younger consumers may obtain information about food and nutrition fast and easily through technology, which influences their purchasing decisions (Ishak et al. 2019). It is necessary to do scholarly research on halal food consumer behavior (Alam and Sayuti 2011). Despite a growing body of work over the past decade, the connection between halal notions and consumer purchasing has not been adequately investigated (Aziz and Chok 2013). Given the paucity of research and the limited knowledge of the relationship between the notion of halal and the concepts of marketing and consumer purchase intentions, we propose to analyze the halal food purchase intention of young customers in greater detail. The objective of the research is to make a contribution to the field of halal consumer behavior, with a particular emphasis on young consumers in Indonesia, a nation with a majority of Muslims.

Literature review

Research on halal consumer behavior. Due to their increased understanding of the mindset, the younger generation contributes to the development of new trends among Muslims (Briliana and Mursito 2017). Younger Muslims are learning to appreciate the necessity of avoiding all 'haram' commodities, which include pork and alcohol (Vanany et al. 2019). Pradana et al. (2020) state that customers who closely monitor a product's halal certification will keep buying the same things. This trend of halal attitude is becoming more prevalent in academic consumer behavior research as well as the marketing world.

Several consumer behavior theories can explain the phenomenon of halal product consumption, including the Theory of Reason Action (TRA), Theory of Consumer Values (TCV), and Theory of Planned Behavior (TPB), among others (Elisa et al. 2022). We think it essential to define TPB because consumer behavior variables can provide more explanation. Alam and Sayuti (2011), Garg and Joshi (2018), and Pradana et al. (2020, 2022) are a few of the studies on halal food consumer behavior which use TPB principles (2020). They introduce consumer wants and aspirations and then link them to consumer purchasing decisions, including the connections of attitudes and intention variables prior to the actual purchase decision.

Theory of Planned Behavior (TPB). Numerous studies applying the theory of planned behavior (TPB) have investigated halal food purchasing intentions (TPB). As it incorporates the impact of subjective norms and attitudes, it is, according to some, the most accurate model for forecasting behavioral intentions (Alam and Sayuti 2011; Mariana et al. 2020). The purchase intentions of halal cosmetic items among young people have previously been the subject of several articles (Khan et al. 2021; Bhutto et al. 2023). However, especially in Indonesia, there aren't many books that specifically address how young people buy halal food goods. Pradana et al. (2022), one of the few, have revealed details regarding the halal consumer behavior of Spanish students. We believed the outcome to be an intriguing area for investigation since customer behavior might differ based on their family circumstances.

According to Bhutto et al. (2023), the focus of research on consumer acceptability of halal food has mostly been on the role that values, beliefs, and personal standards have in determining consumer behavior. Although the theory of planned behavior (TPB) has been extensively used in studies on halal food, little has been done to analyze how these variables impact young consumers, particularly members of generation Z, and in the context of food goods with foreign brands. In addition,

individuals frequently face social pressure and tend to replicate the activities of a group or an individual whose behavior is influenced by the message of the social marketing campaign in order to determine whether the halal features influence the purchasing choice (Kartawinata et al. 2021). In order to fill the vacuum in the literature, this study extends the well-known theory of planned behavior (TPB) to examine attitude and perceived behavioral control as well as subjective standards to examine young consumers' preferences for halal cuisine with international brands.

In the recent literatures such as Azizan et al. (2022) and Kasri et al. (2023), Theory of Planned Behavior (TPB) model shows how halal awareness influences food purchase intention. Depending on an individual's level of understanding, halal awareness can result in either good or negative attitudes toward behavior (Ajzen 2015). Observed behavior will be governed by subjective criteria governing the use of halal items (Mariana et al. 2020). Behavior-related attitudes, subjective norms, and behavioral control make up intention (Pradana et al. 2020). The higher a person's attitude, subjective norms, and apparent control, the greater his or her desire to buy a product (Loussaief et al. 2023).

The food-related sector of TPB research can be considered as several frameworks suitable to investigations of food-related behavior (Garg and Joshi 2018). The vast majority of literature on halal consumer behavior asserts that perceived behavioral control, subjective norms, and attitudes have a significant impact on purchase intentions for halal-certified food products (Dewi et al. 2022). In addition, we will discuss the factors or components of the TPB, such as attitude, subjective norms, and perceived behavioral control, as well as their relationship to purchase intention and purchase behavior.

Attitude's effect on purchase intention. Attitude reveals a person's perspective and thoughts regarding the outcomes of his actions (Meixner et al. 2018). Previous research assumed that human attitudes are positively or adversely associated with other behavioral traits (Ajzen 2015). It is based on an individual's evaluation of an object they have seen or are familiar with, and it can produce evaluation results in the form of likes or dislikes, happiness or unhappiness, a bad or good attitude, and a positive or negative attitude (Ajzen 1985). To understand consumer behavior, we must examine consumer attitudes that influence purchase or consuming intents and actions (Elisa et al. 2022). In different civilizations, the business sector is driven by the relationship between attitudes and behavioral intentions (Briliana and Mursito 2017). Therefore, we constructed hypothesis 1.

H1: Attitude has a significant positive effect on purchase intention

Subjective norm's effect on purchase intention. Subjective norms are frequently viewed as the outcome of pressure on prevalent social norms, such that social norms have the power to stimulate and generate intents to behave or act (Ajzen 1985). Social values are the perceived utility of a product or service as a result of a social group's promotion of an alternative association (Elisa et al. 2022). The subjective norm construct, according to Ajzen (1991), also refers to the felt social pressure to exhibit and adopt a person's behavioral style. Subjective standards represent external societal influences in opposition to an individual's intent (Elisa et al. 2022). Personal norms and moral attitudes constitute the principles or ideals that guide personal and individual motivation in relation to the impact of reward and punishment (Garg and Joshi 2018).

In a smaller context, subjective norm is an individual's perception of a conduct that inspires someone to try or imitate

a social behavior (Pradana et al. 2020). The halal label is considered as a control for the increase in individual desire, which influences subjective norms, in accordance with the TPB theory (Wilson 2012). Subjective norms include beliefs held by individuals or other contextual elements that affect someone's inclination to eat packaged foods with the halal label. Higher psychological processes, such as emotion and behavior control, are necessary for subjective norms (Amalia et al. 2020). For instance, worries about food safety, dietary preferences, the chain of distribution and processing of food, and knowledge of food intake may all be considered subjective norms that affect a person's decisions (Billah et al. 2020). Based on the description, we constructed hypothesis 2.

H2: Subjective norm has a significant positive effect on purchase intention

Perceived behavioral control's effect on purchase intention. An individual's reaction to a thing, event, or activity is what Ajzen characterises as behavioral control within the context of TPB (1985). As a result, perceived behavioral control is the assessment of a person's capacity to manage planned behavior based on how they perceive the effects of their actions (Billah et al. 2020). Some research suggests that rather than being considered as a perceptual variable, this variable should be seen as an activity control to achieve the primary aim (Elisa et al. 2022). Meanwhile, perceived behavioral control is defined as the person's impression of control over the performance of a certain behavior, according to Fishbein and Ajzen (1977). For purchase intention and behavior for halal food products, the extent to which Muslims comprehend concerns related to the idea of halal is relevant (Briliana and Mursito 2017). Therefore, we constructed hypothesis 3.

H3: Perceived behavioral control has a significant positive effect on purchase intention

Purchase intention's effect on purchase behavior. Purchase intentions are the result of customers' curious interest in a good or service, which motivates them to make a purchase (Rahmawaty et al. 2021). Regarding halal food items, customers are more interested in learning more about them when they have a deeper comprehension of the significance of halal (Zannierah et al. 2012). Once customers have sufficient information, they will utilize it to develop attitudes and actions that can lead to brand loyalty (Al-Ansi et al. 2019). The majority of prior research confirms that a product's value and quality have a substantial impact on purchase intention and, ultimately, purchase behavior (Fu et al. 2018; Pradana et al. 2020).

H4: Purchase intention has a significant positive effect on purchase behavior

Relationship between variables. In accordance with the issue formulation and the objective of this study, we investigated the effects of attitude, subjective norm, and perceived behavioral control on purchase intention and conduct. Figure 1 below depicts the research procedure. The independent variables of attitude, subjective norms, and perceived behavioral control are connected to the dependent variable, conduct (purchase intention and behavior). Figure 1 illustrates the connection between developed hypotheses and constructs. Our research model does not involve mediating effect between perceived behavioral control and purchase behavior as mentioned in the original TPB model. We follow the directions of Alam and Sayuti (2011) and Ali et al. (2018) which focus on the effects of the three TPB predictors on halal purchase intention and purchase behavior.

With this research, we follow the steps of several previous studies which have focused on exploring the purchase intention

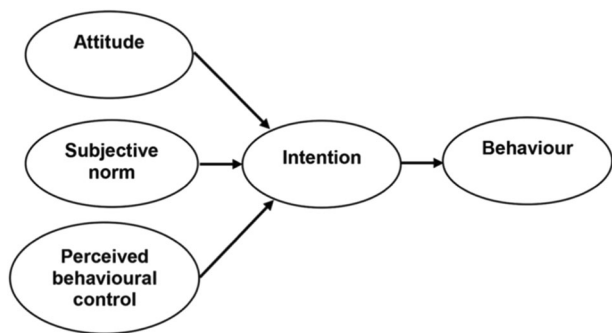


Fig. 1 Conceptual Framework. This modified Theory of Planned Behavior model shows that ‘Attitude’, ‘Subjective Norm’, and ‘Perceived Behavioral Control’ affect ‘Intention’ and ‘Behavior’ of halal food purchase.

of halal food product among young generation in Muslim countries. However, we found that there have not been many studies on this topic besides the published and peer-reviewed works by Hassan and Pandey (2019); Amalia et al. (2020).

Method, data, and analysis

We begin data gathering after demonstrating the formation of hypotheses, variables, and statistical measures. Using non-probabilistic cluster sampling, respondents were recruited from Muslim youth; they are all college, university, and high school students. 161 individuals were recruited to participate in the online questionnaire-based data collection over the period of data collection. The minimum R-squared obtained in this third experiment was much lower than .1, which was used to produce the estimate employing the minimum R-squared method, the minimum sample is 110 (Kock and Hadaya 2018).

All respondents enrolled volunteered voluntarily in this study. We chose students because they are the most accessible respondents to us and accurately represent the segment of young consumers. In actuality, we received more than 200 responses, but we opted to poll 161 respondents because they participated in our halal consumer behavior focus group discussion (FGD) In order to decide whether the students are qualified to become our sample, we conducted an FGD to observe their knowledge and perspectives about halal principles. The characteristics of our respondents are detailed in Table 1.

Measurement. Five constructs are measured: attitude (three items), subjective norm (four items), perceived behavioral control (three items), purchasing behavior (four items), and buy intention (four items) (3 items). The questionnaire consists of twenty questions and was sent online to young Muslim consumers who have purchased food products from foreign brands. Each statement was evaluated using a five-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree).

Convergent validity. Due to the fact that this study used a structural equation model to assess the relationships, we conducted numerous tests and gathered information regarding factor loadings and convergent validity. The results of the convergent validity test, including the loading factors of each indicator and AVE values for each study variable, are presented in Tables 2 and 3.

According to the processing findings shown in Tables 2 and 3, all indicators have a loading factor greater than 0.7 and an AVE value greater than 0.5, hence the statement is genuine. This indicates that all indicators measure their respective latent variables accurately.

We also measured dependability or internal consistency reliability, which reflects the degree to which the indicator

Table 1 Respondents’ Profiles.

Variables	Categories	Frequency	Percentage
Gender	Male	67	41.6
	Female	94	58.4
	Total	161	100.00
Education	High School	75	46.58
	Undergraduate	71	44.10
	Post-Graduate	15	0.09
	Total	161	100.00
Age	< 17 Years	60	37.2
	17–22 Years	85	52.7
	22–25 Years	16	0.09
	Total	161	100.00
Expenses (currency in Indonesian Rupiah)	< 2 Million IDR/ month	45	27.95
	2–5 Million IDR/ month	95	59.01
	5–10 Million IDR/ month	19	11.80
	> 10 Million IDR/ month	2	1.24
	Total	161	100.00

Source: Author’s Own Elaboration.

Table 2 Factor Loadings and Convergent Validity.

Variable	Items	Factor loadings	P-Values	Verdict
Attitude	ATT1	0.905	0,000	Valid
	ATT2	0.943	0,000	Valid
	ATT3	0.895	0,000	Valid
Subjective Norm	SN1	0.886	0,000	Valid
	SN2	0.925	0,000	Valid
	SN3	0.908	0,000	Valid
	SN4	0.896	0,000	Valid
Perceived Behavioral Control	PBC1	0.895	0,000	Valid
	PBC2	0.802	0,000	Valid
	PBC3	0.703	0,000	Valid
Purchase Intention	PIN1	0.900	0,000	Valid
	PIN2	0.910	0,000	Valid
	PIN3	0.892	0,000	Valid
Purchase Behavior	PB1	0.807	0,000	Valid
	PB2	0.901	0,000	Valid
	PB3	0.911	0,000	Valid
	PB4	0.829	0,000	Valid

Source: Author’s Own Elaboration.

Table 3 Average extracted variance (AVE).

Variable	AVE	Cronbach’s Alpha	Composite Reliability
Attitude	0.611	0.902	0.939
Subjective Norm	0.619	0.925	0.947
Perceived Behavioral Control	0.501	0.776	0.844
Purchase Intention	0.588	0.884	0.928
Purchase Behavior	0.590	0.885	0.921

Source: Author’s Own Elaboration.

Table 4 The summary of the discriminant validity test (HTMT).

	Attitude	Subjective Norm	Perceived Behavioral Control	Purchase Intention	Purchase Behavior
Attitude	0.711				
Subjective Norm	0.684	0.751			
Perceived Behavioral Control	0.502	0.675	0.670		
Purchase Intention	0.469	0.567	0.614	0.643	
Purchase Behavior	0.388	0.475	0.511	0.449	0.783

Source: Author's Own Elaboration.

Table 5 Discriminant Validity (Fornell Larcker Criterion).

	ATT	P-Beh	P-Int	PBC	SN
ATT	0.915				
P-Beh	0.730	0.863			
P-Int	0.795	0.897	0.901		
PBC	0.368	0.469	0.392	0.804	
SN	0.759	0.725	0.771	0.342	0.904

Source: Author's Own Elaboration
Diagonal bold values are square root of average variance extracted (AVE).

variable grows when the latent variable increases. Composite Reliability (CR) and Cronbach's Alpha (CA) are utilized, as shown in Table 3. We can see that all latent variables have Composite Reliability (CR) and Cronbach's Alpha (CA) values more than 0.70, indicating that they are reliable. This demonstrates that all indicators measure each concept consistently. After choosing a suitable assessment model, the structural model will be examined (Hair et al. 2016). A thorough collinearity evaluation methodology is used to identify common method bias (CMB) for PLS-SEM (Kock 2015). When two or more independent variables or exogenous constructs have a high degree of correlation, the model's ability to predict outcomes is shown to be subpar (Sekaran and Bougie 2016). The CMB is analyzed (VIF) by looking at the VIF (Variance Inflation Factor) value. The VIF values need to be lower than the 3.3 threshold for the model to be CMB-free (Hair et al. 2016; Kock 2015). High VIFs might distort standardized estimates and make it challenging to find significant connections. According to our findings, the VIF values that actually occurred are in the range of 1.305 to 1.480, which indicates the model is devoid of any signs of CMB. Moreover, HTMT values are generally recognized and have a decent degree of discriminant validity. It is feasible to draw the conclusion from the information provided by Table 4 that all of the data complies with the requirements of the measurement model, proving its validity and dependability.

Discriminant validity. To test the validity of the discriminant, we used the test *fornell larcker criterion*, which can be seen in Table 5.

Table 3 demonstrates that the AVE root value of each latent variable is greater than its greatest correlation value with other variables, hence the model has good discriminant validity.

Result and discussion

Structural model analysis. According to Sekaran and Bougie (2016), a structural model is one that links exogenous latent variables with endogenous latent variables or endogenous variables with other endogenous factors. The entire structural model produces the following findings based on the bootstrapping test (Fig. 2).

We can see from the summary in Table 6 that the path coefficient indicates the subjective norm variable, with a path coefficient of 0.382, and the attitude variable, with a path value of

0.473, have the greatest effects on the purchase intention variable. Furthermore, the perceived behavioral control (PBC) path coefficient is 0.088. There is a 0.897 path correlation between intention to buy and actual buying.

Before going to structural model analysis, Hair et al. (2016) believe that model fit must be measured (Fit Model). We performed the calculation by examining the Henseler et al. proposed standard root-square residual (SRMR) (2015). The author determined the SRMR value to be 0.087%. Any SRMR value between 0.10 and 0.08 indicates a satisfactory model fit (Henseler et al. 2016; Hu and Bentler 1999).

Discussion. The *p*-value in Table 6 is less than 0.05, indicating that 'attitude' has a strong effect on purchase intention. Subjective norms have a substantial impact on purchasing intent, since their *p* value is less than 0.05 and less than a thousand. Nevertheless, perceived behavioral control is not statistically significant because the *p*-value (0.176) is below the significance threshold (above 0.05). Moreover, purchase intentions have a significant influence on purchasing behavior. This result is consistent with the one by Mariana et al. (2020).

The relationship between customer attitudes and consumer behavior intentions is investigated by this hypothesis. Consumers' propensity to purchase halal-certified food is substantially influenced by their opinions. According to Ajzen's (1985, 2015) TPB theory, one of the components that determine behavioral intentions is consumer attitude. Other variables, such as perceived behavioral control, had no significant effect on purchase intent in this study. This is conceivable due to the fact that consumers, who are primarily college students, are more independent and consequently unaffected by their social environment.

The fifth hypothesis investigates the connection between consumers' purchasing intentions and their purchases of halal-certified foods. The higher the consumer's intention to purchase halal food, the more frequently they will do so, which corresponds with the findings by Pradana et al. (2022) and Ali et al. (2018).

Our findings imply that our proposed relationship between perceived behavioral control and purchase intent is not substantiated. This is because young consumers do not believe that their behavior should be limited by how they seem to society. Typically, as young minds, children are free to express themselves through the meals they consume. Nonetheless, halal certification protects consumers, particularly Muslim consumers, from inquiries regarding the products' ingredients. As evidence that the product has been certified as halal, the halal label is a source of product quality information; a halal label notifies consumers that the product is guaranteed to be halal. This accreditation has turned into a subjective standard that favorably influences our purchasing intent.

Our reasoning provides further support for the statements presented by Bonne and Verbeke (2008) and Pradana et al. (2020). The nature of halal compliance, which Muslims have

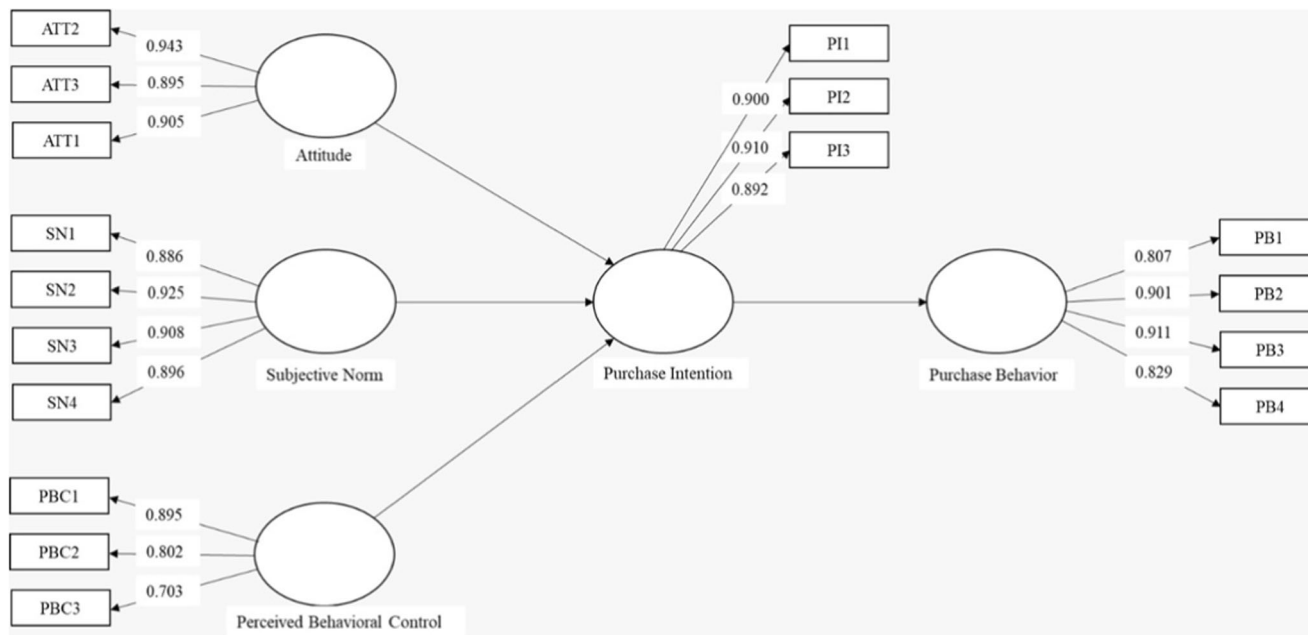


Fig. 2 Structural model (bootstrapping). Source: Author’s Own Elaboration.

Table 6 Statistical Summary.

Hypothesis	Relation	Path Coefficient	P-Values	Verdict	Significance
H1	Attitude -> Purchase Intention	0.473	0.000	H1 accepted	Significant
H2	Subjective Norm -> Purchase Intention	0.382	0.002	H2 accepted	Significant
H3	PBC -> Purchase Intention	0.088	0.176	H3 rejected	Not Significant
H4	Purchase Intention -> Purchase Behavior	0.897	0.000	H4 accepted	Significant

Source: Author’s Own Elaboration.

practiced for millennia, affects perspectives on halal values. This result may also suggest that the Muslim community has a great deal of faith in the halal label/logo published by halal certification agencies. Based on our findings, young Muslim consumers continue to rigorously adhere to the halal norm. We continue to rely on the assumption that the more complex the halal concept is to customers, the higher their tendency to purchase (Pradana et al. 2020). Increased specificity and experiential engagement will convince Muslim consumers to choose halal food.

Conclusion

There are two main goals for this research. Initially, the TPB was employed to look into the young consumers sample’s consumption of halal cuisine. Generally speaking, compared to earlier halal food choice research utilizing the TPB, the path coefficients are high and the traditional TPB determinants of intention explain greater variance in intention to consume foreign halal food products. Second, in order to gain a deeper understanding of the concept of religious food intake, we included the TPB variables that are connected to dietary preferences among the young Muslim consumers.

Instead of adhering to other religious directives, young consumers in this case still depend on their attitudes, their perception of control over consuming halal food, and the subjective norm about the halal concept. These customers might believe that purchasing halal meals is a socially acceptable thing to do among their families and relatives.

Implications. The results of our recent study have shown that, even in this day and age, young consumers are still persuaded to purchase foreign-branded halal food by emphasizing the social benefits of doing so. In terms of practical implications, the results of this study may help business owners to develop more successful but appropriate marketing plans that draw in the young Muslim generation as the target market.

In a similar vein, marketing managers can advertise Islamic ideals (such as solidarity and non-materialism) in their advertising campaigns to attract these consumers and promote halal food goods. This will undoubtedly support those customers in upholding and advancing their cultural values and in connecting with halal food items.

For theoretical implications, our study adds to the body of research on halal consumer behaviour using in the TPB model. As far as we are aware, this is the first study to investigate the halal consumer behaviour on young Indonesian Muslims’ behavioral intention toward halal food products. Researchers, marketers, and legislators may find the paper’s analyzed TPB model framework useful.

Limitation and suggestions for future research. We believe this study’s sample size is adequate to answer our research questions. By focusing on young Muslims, occasionally innovative questions are posed to responders. However, we believe that our respondents properly comprehend our questions. Future research must also include a little risk with biased assessment. There is a need for research on diverse types of Muslim society with lower levels

of religious engagement. In order to compare our findings with those of other nations, future research must be conducted in a place where Muslims are a minority.

Data availability

The data and research instruments can be requested through the corresponding author.

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References

- Abu-Hussin MF, Johari F, Hehsan A, Mohd Nawawi MS (2017) Halal purchase intention among the Singaporean Muslim minority. *J Food Prod Mark* 23(7):769–782
- Amalia FA, Sosianika A, Suhartanto D (2020) Indonesian millennials' halal food purchasing: merely a habit? *Br Food J* 122(4):1185–1198
- Ajzen, I (1985) From intentions to actions: A theory of planned behavior", In J Kuhl and J Beckmann (Eds.). *Action control: From Cognition to Behavior, Berlin, Heidelberg*, New York: Springer-Verlag: 11–39
- Ajzen, I. (1991) The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2):179–211
- Ajzen I (2015) The theory of planned behavior is alive and well, and not ready to retire: a commentary on Sniehotta, Priesseu, and Aratijo- Soares, Health. *Psychol Rev* 9(2):131–137
- Alam S, Sayuti M (2011) Applying the theory of planned behavior (TPB) in halal food purchasing. *Int J Commer Manag* 21(1):8–20
- Ali A, Xiaoling G, Sherwani M, Hussain S (2018) Expanding the theory of planned behaviour to predict Chinese Muslims halal meat purchase intention. *Br Food J* 120(1):2–17
- Al-Ansi A, Olya HGT, Han H (2019) Effect of general risk on trust, satisfaction, and recommendation intention for halal food. *Int J Hosp Manag* 83:210–219. <https://doi.org/10.1016/j.ijhm.2018.10.017>
- Aziz YA, Chok NV (2013) The role of Halal awareness, Halal certification, and marketing components in determining Halal purchase intention among non-Muslims in Malaysia: A structural equation modeling approach. *J Int Food Agribus Mark* 25(1):1–23. <https://doi.org/10.1080/08974438.2013.723997>
- Azizan, FL, Ahmad, Z, Afendi, NA (2022) Consumers' halal products purchase: An integration of TPB. *Insight J*. <https://doi.org/10.24191/insightjournal.v0i0.18473>
- Bhutto MY, Ertz M, Soomro YA, Khan MA, Ali W (2023) Adoption of halal cosmetics: extending the theory of planned behavior with moderating role of halal literacy (evidence from Pakistan). *J Islam Mark* 14(6):1488–1505
- Billah A, Rahman MA, Hossain MTB (2020) Factors influencing Muslim and non-Muslim consumers' consumption behavior: A case study on halal food. *J Foodserv Bus Res* 23(4):1–26
- Bonne K, Verbeke W (2008) Religious values informing halal meat production and the control and delivery of halal credence quality. *Agric Hum Values* 25(1):35–47. <https://doi.org/10.1007/s10460-007-9076-y>
- Briliana V, Mursito N (2017) Exploring antecedents and consequences of Indonesian Muslim youths' attitude towards halal cosmetic products: A case study in Jakarta. *Asia Pac Manag Rev* 22(4):176–184. <https://doi.org/10.1016/j.apmr.2017.07.012>
- Dewi CK, Pradana M, Huertas-García R, Rubiyanti N, Syarifuddin S (2022) Developing halal consumer behavior and tourism studies: Recommendations for Indonesia and Spain. *Front Psychol* 13:863130
- Fishbein, M., & Ajzen, I. (1977) *Belief, attitude, intention, and behavior: An introduction to theory and research*
- Fu S, Yan Q, Feng GC (2018) Who will attract you? Similarity effect among users on online purchase intention of movie tickets in the social shopping context. *Int J Inf Manag* 40:88–102
- Elisa HP, Fakhri M, Pradana M (2022) The moderating effect of social media use in impulsive buying of personal protective equipments during the COVID-19 pandemic. *Cogent Soc Sci* 8(1):2062094
- Garg P, Joshi R (2018) Purchase intention of "Halal" brands in India: the mediating effect of attitude. *J Islam Mark* 9(3):683–694. <https://doi.org/10.1108/JIMA-11-2017-0125>
- Hair, JF, Hult, GTM, Ringle, C, Sarstedt, M (2016), *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications
- Hassan Y, Pandey J (2019) Examining the engagement of young consumers for religiously sanctioned food: the case of halal food in India. *Young- Consum* 21(2):211–232
- Henseler J, Hubona G, Ray PA (2016) Using PLS path modeling in new technology research: Updated guidelines. *Ind Manag Data Syst* 116(1):2–20. <https://doi.org/10.1108/IMDS-09-2015-0382>

- Hu, L. T., & Bentler, P. M. (1999) Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling*, 6(1):1–55
- Ishak S, Omar ARC, Khalid K, Ghafar ISA, Hussain MY (2019) Cosmetics purchase behavior of educated millennial Muslim females. *J Islam Mark* 11(5):1055–1071
- Kartawinata BR, Pradana M, Maharani D, Fakhri, Kurniawan H (2021) Culinary MSME's Consumers' Attitude toward Halal Label: Its Effect on Purchasing Decision. *Sosioteknologi* 20(1):56–65. <https://doi.org/10.5614/sostek.itbj.2021.20.1.6>
- Kasri RA, Ahsan A, Widiatmoko D, Hati SR (2023) Intention to consume halal pharmaceutical products: evidence from Indonesia. *J Islam Mark* 14(3):735–756
- Khan N, Sarwar A, Tan BC (2021) Determinants of purchase intention of halal cosmetic products among Generation Y consumers. *J Islam Mark* 12(8):1461–1476
- Kock N (2015) Common method bias in PLS-SEM: A full collinearity assessment approach. *Int. J. e Collab (ijec)* 11(4):1–10
- Kock N, Hadaya P (2018) Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Inf Syst J* 28(1):227–261
- Kurniawati DA, Savitri H (2019) Awareness level analysis of Indonesian consumers toward halal products. *J Islam Mark* 11(2):522–546
- Loussaief, A, Ying-Chao Lin, J, Phuc Dang, H, Bouslama, N, & Cheng, JMS (2023) Eating halal: a serial mediation model for the effect of religiosity on the intention to purchase halal-certified food. *Asia Pacific J Mark Logist*
- Mariana, T, Suhartanto, D, & Gunawan, AI (2020) Prediction of Interest in Buying Halal Fast Food: Application Theory of Planned Behavior. In *Proceeding Industrial Research Workshop and National Seminar* (Vol. 11, No. 1, pp. 1180–1185)
- Marmaya NH, Zakaria Z, Desa MNM (2019) Gen Y consumers' intention to purchase halal food in Malaysia: a PLS-SEM approach. *J Islam Mark* 10(3):1003–1014
- Meixner O, Friedl R, Hartl B (2018) Preferences for Attributes of Halal Meat: Empirical Evidence from the Muslim Community in Vienna, Austria. *Int J Food Syst Dyn* 9(3):265–278
- Pradana M, Elisa HP, Syarifuddin S (2023) The growing trend of Islamic fashion: A bibliometric analysis. *Cogent Soc Sci* 9(1):2184557
- Pradana, M, Huertas-García, R, Marimon, F (2020) Spanish Muslims' halal food purchase intention. *Int Food Agribusiness Manag Rev* 23(2):1–14
- Pradana M, Wardhana A, Rubiyanti N, Syahputra S, Utami DG (2022) Halal food purchase intention of Muslim students in Spain: testing the moderating effect of need-for-cognition. *J Islam Mark* 13(2):434–445
- Rahmawaty, S, Kartawinata, BR, Akbar, A, & Wijaksana, TI (2021, March). The effect of e-service quality and E-trust on E-customer loyalty through E-customer satisfaction as an intervening variable (Study on gopay users in Bandung). In *Proceedings of the International Conference on Industrial Engineering and Operations Management* (Vol. 7, No. 11, pp. 5495–5506)
- Sekaran, U, Bougie, R (2016) *Research methods for business: a skill building approach*. John Wiley and Sons, Hoboken, NJ, USA
- Vanany, I, Maarif, G. A., & Soon, J. M. (2019). Application of multi-based quality function deployment (QFD) model to improve halal meat industry. *Journal of Islamic Marketing*, 10(1):97–124
- Wilson JA (2012) The new wave of transformational Islamic marketing: reflections and definitions. *J Islam Mark* 3(1):5–11
- Zannierah S, Hall CM, Ballantine PW (2012) Restaurant managers' perspectives on halal certification. *J Islam Mark* 3(1):47–58

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Author contributions

MP laid the fundamental body of the paper, conceived the instruments, and wrote the final paper. NR analyzed and interpreted the data and was also a major contributor in writing the manuscript. FM compiled a research design and the previous theoretical background. All authors read and approved the final manuscript.

Competing interests

The authors declare no competing interests.

Ethical approval

This study received ethical approval from the Research Ethics Committee, Telkom University (Ethics approval number: II/2020). The procedure used in this study adheres to the tenets of the Declaration of Helsinki.

Informed consent

This study did not ask respondents to state their identity other than age, gender, education level, and amount of expenses. Informed consent was obtained before the respondent proceeded to the stage of filling out the online survey. The information written includes an overview of the research, procedures carried out to maintain the confidentiality of respondent data, and researchers who can be contacted if further explanation is needed.

Additional information

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