

## Students' perception, knowledge, attitude and behaviour towards halal food products in Malaysia

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### Abstract

The perception, knowledge, attitude, and behaviour of Muslims are important in determining their purchasing behaviour of halal food products. This study exclusively focused on the purchasing behaviour of young Muslim university students who live independently and hold their purchasing power. The main objective of this study is to investigate the perception, knowledge, attitude, and behaviour of university students towards halal food products in Malaysia. This study has adopted the framework based on Ajzen's Theory of Planned Behaviour (TPB) that hypothesized three determinants of behavioural intention; attitude, subjective norms and perceived behavioural control with the addition of two other variables; religiosity and ambience. This study has found that all the TPB determinants attitude ( $r = 0.187$ ,  $p < 0.05$ ), subjective norms ( $r = 0.266$ ,  $p < 0.01$ ), perceived behavioural control ( $r = 0.336$ ,  $p < 0.01$ ) including the other two additional; religiosity ( $r = 0.245$ ,  $p < 0.245$ ) and ambience ( $r = 0.254$ ,  $p < 0.01$ ) were positively and significantly associated with purchasing intention of halal food products among the students. This study also revealed that families and media play an important role in introducing halal food products to these young consumers. Therefore, it was suggested that the authorities create a positive social norm on halal products among society.

## 1. Introduction

According to Said and Hasan (2014), in halal concept, the word 'halal' is associated with the word 'good' or can be expressed in the context of the goodness of the things in which any consumables must not contain any unlawful or impure ingredients and free from any forbidden or dirty substance. The main objective of the maqasid syariah is the protection of human beings' health and body, where food and drinks must be safe for consumption and any harmful products, is forbidden even if there is no prohibiting legal evidence (Said and Hasan, 2014). Other than that, any foods or drinks if acquired through illegal means such as theft and robbery is also considered haram despite satisfying all the above-mentioned conditions (Said and Hasan, 2014). The origin source of the products is also considered where foods or drinks from haram sources will be considered haram even the final products have changed from their sources (Kashim *et al.*, 2015).

Malaysia's halal food sector is progressively

becoming a strong economic force locally and internationally. The demand for halal food products is expanding in the market aligning with the increase of knowledge and awareness on these products among 61.3% of Muslims in Malaysia. According to the Department of Statistics in Malaysia data in 2010, about 70.0% of Malaysia's population is between the ages of 15-64 years old, which means that there are approximately 14 million (Department of Statistics Malaysia, 2010). Muslim consumers with purchasing power will demand halal food products in the market (Department of Statistics Malaysia, 2010). The local halal industry is contributing less than 2.0% of the gross domestic product in 2007 and had increased to 7.8% in 2018 (Ministry of Economic Affairs Malaysia, 2018) and the trend is increasing towards 2020 (Said and Hasan, 2014). Department of Islamic Development Malaysia (JAKIM) is the organization that held the power in certification of halal products in Malaysia has only recognized about 15% from more than 300 bodies that offer halal certification globally (Said and Hasan, 2014). Malaysia's halal certification is strictly controlled which

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its ISO compliance developed by the Department of Standard Malaysia is complying with international standards such as Good Manufacturing Practice (GMP) and Good Hygiene Practice (GHP). Therefore, the certification is being acknowledged and trusted by other Muslims and non-Muslims globally. Since halal industry must develop together with solid syariah foundations, Malaysia has strongly focused on the importance of balanced knowledge of both Islamic principles and other essential areas such as food technology and food sciences, biochemistry and microbiology as well as in business administration and marketing (Said and Hasan, 2014).

In recent years, the demand for Kosher and Halal branded food products has become a new trend because of their religious belief as well as for their assured quality (Hossain *et al.*, 2020). As Muslims worldwide are more aware of the importance of consuming halal products, the halal sector in the economy has emerged to different products other than foods. This includes food and beverages, cosmetics and personal care, pharmaceutical, financial services, modest fashion, education, travel, entertainment and others (Masron *et al.*, 2014). In addition, the emerging halal sector has opened up the chance to many Small to Medium Enterprise (SME) that are being trained and developed to become the marketer and exporters of these products. Therefore, it will have a positive impact on Malaysia's economy since the demand for halal food is currently expanding exponentially. According to the Ministry of Economic Affairs Malaysia from the halal-Industry Master Plan 2030, the global halal market trade value is estimated at US\$3.1 trillion (RM13 trillion) in 2018 and is estimated to achieve the target of US\$5.0 trillion (RM21 trillion) by 2030.

Sungkar (2010) indicated that there are several factors influencing consumers' purchase decisions and behaviour on halal food products. The factors are the consumers' religiousness and beliefs, their confidence and trust towards halal logo/labels, the rising income levels, the higher educational levels, the limitless access to information, increasing demand for convenience goods (less time to prepare and consume) and rising concerns over health and nutritional values.

Some studies mention several factors that affect behaviour formation (Ajzen, 2001). One of them is culture (Mohayidin and Kamarulzaman, 2014). Culture is defined in several categories such as values, norms, religion and beliefs (Ardhanari, 2013). In addition to culture, product knowledge also encourages a person to behave in choosing products to consume. In a previous study, the relationship between consumers' perception, knowledge and religiosity on Malaysia's halal food

products were investigated (Said *et al.*, 2014; Hasan, 2016). The Theory of Planned Behaviour (TPB) is widely used as a foundation in the study of halal food selection and it was proven to be effective in predicting consumers' behaviour in purchasing halal food products (Khalek *et al.*, 2015). Some previous studies were also performed in Malaysian regarding halal food patterns, for instance, Elias *et al.* (2016) investigated halal awareness and knowledge among Muslim entrepreneurship students, similarly, Hasan (2016) showed awareness and perception towards halal foods among Muslim students in Sabah and Kota Kinabalu. However, all these studies partially investigated consumers 'especially students' perception, knowledge and religiosity towards Malaysia's halal food products. Our study is quite different from others because this study is initiated to investigate the perception, knowledge, attitude, and behaviour of university students towards halal food products or restaurants by using TPB as the main framework.

## 2. Methodology

This study is a quantitative descriptive study conducted using a cross-sectional method in one of the public universities in Malaysia which is Universiti Putra Malaysia. The number of students who participated in the study was 132. The sample size was determined using the sample size calculation method by Hulley (2013) as below:

$$\text{Sample size, } n = [(Z\alpha + Z\beta)/C]^2 + 3$$

$$C = 0.5 * \ln[(1+r)/(1-r)]$$

Where the standard normal deviate for  $\alpha = Z\alpha = 1.96$ , the standard normal deviate for  $\beta = Z\beta = 0.84$  and  $r =$  the expected correlation coefficient

The framework of this study has been adapted from Theory of Planned Behaviour (TPB) by Ajzen (1991) with an additional two other variables which are religiosity and ambience. The instruments used in this study is self-administered adapted from a validated questionnaire by Tawfik Al-Nahdi *et al.* (2011) which consists of questions on the perceptions, knowledge, attitude and behaviour towards halal food products. This questionnaire consists of eight sections which are: A) respondent particulars; B) knowledge of halal restaurants; C) behaviour beliefs; D) normative beliefs; E) control beliefs; F) behavioural intention; G) religiosity; H) ambience.

### 2.1 Socio-demographic and knowledge of halal restaurant

The first two sections are on respondents' socio-

demographic background and knowledge of halal restaurants. These questions consist of multiple choices answers which include age, gender, race, religion, education level, occupation, monthly income and sources of information on halal food restaurants.

### 2.2 Behaviour belief

The third part of the questionnaire is about behaviour belief that consists of 6 statements about halal food restaurants in which the answers in the form of Likert scale range from 1- strongly disagree to 5- strongly disagree. Next, there are also seven items on the evaluation of outcomes from the halal restaurant with a five-point Likert scale from 1 (least important) to 5 (very important). Lastly in this section, there are five items to test on the attitude about halal restaurant either there are beneficial or harmful, convenient or inconvenient, important or unimportant, cheap or too expensive, appealing or unappealing in which the answer is also in the form of Likert scale range from 1 to 5.

### 2.3 Normative belief

The fourth section consists of 3 statements on normative belief on halal restaurants being assessed using a Likert scale from 1 (strongly disagree) to 5 (strongly agree). There are also three items on motivation to comply with the normative belief with the same five-point Likert scale range. This section also included 1 item on subjective norms statement by answering to what extent the agreement of the statement using a five-point Likert scale.

### 2.4 Control belief

The fifth section assessed the control beliefs. There were 3 items asked on the relative degree of respondents' feelings about eating at a halal restaurant. The answers are in the Likert scale range from 1 (no control) at all to 5 (complete control). Next, there are two items on perceived facilitation in which the answer is on a five-point Likert scale from 1 (very difficult) to 5 (very easy). This section also includes a perceived behavioural control assessment with 1 item asking on respondent's agreement on their control of eating or not eating at halal restaurants ranging from 1 to 5 Likert scale.

### 2.5 Behavioural intention, religiosity and ambience

The last three sections are on behavioural intention, religiosity and ambience. These questions are about the relative degree of feelings or agreement of statement given, and the respondents need to select their agreeableness by using a five-point Likert scale answer ranging from 1 (strongly disagree) to 5 (strongly agree).

All the data from the five-point Likert scale are then

analysed and presented in mean and standard deviation. To investigate the correlation between all variables, Pearson correlation analysis is used with a significance level set at  $p < 0.05$ .

## 3. Results

### 3.1 Section A: Socio-demographic characteristics

This study involved a total of 132 Muslim students. Table 1 shows the socio-demographic characteristics of the respondents with a mean age of  $22.75 \pm 2.16$  years old. The highest proportion of age was among 21-23 years old (71.2%;  $n = 94$ ) and consisted of 19.7% ( $n = 26$ ) male and 80.3% ( $n = 106$ ) female. Among the 132 respondents, the majority of them were Malay (97.7%;  $n = 129$ ) with some of them categorised as 'others' (2.3%;  $n = 3$ ). Since all of them were in tertiary education level, most of them were undergraduate students which proportioned to 89.4% ( $n = 118$ ) whereas postgraduate level was just about 10.6% ( $n = 14$ ). Based on the year of study, 4<sup>th</sup>-year students held the highest percentage (37.9%;  $n = 50$ ) compared to others. Other than that, this study also analysed the financial characteristics of the

Table 1. Socio-demographic characteristics of the respondents

Characteristics	n (%) Total (n = 132)
<b>Age (Years)</b>	
18-20	12 (9.1)
21-23	94 (71.2)
24-26	20 (15.2)
27-29	3 (2.3)
30-32	1 (0.8)
33-35	2 (1.5)
<b>(Mean <math>\pm</math>SD)</b>	<b>22.75<math>\pm</math>2.16</b>
<b>Sex</b>	
Male	26 (19.7)
Female	106 (80.3)
<b>Ethnicity</b>	
Malay	129 (97.7)
Others	3 (2.3)
<b>Educational level</b>	
Undergraduate	118 (89.4)
Postgraduate	14 (10.6)
<b>Year of study</b>	
1 <sup>st</sup> year	13 (9.8)
2 <sup>nd</sup> year	34 (25.8)
3 <sup>rd</sup> year	28 (21.2)
4 <sup>th</sup> year	50 (37.9)
5 <sup>th</sup> year	7 (5.3)
<b>Monthly allowance</b>	
RM100-RM299	24 (18.2)
RM300-RM499	43 (32.6)
RM500-RM699	34 (25.8)
RM700-RM899	8 (6.1)
$\geq$ RM900	22 (16.7)
<b>(Mean <math>\pm</math>SD)</b>	<b>545.87<math>\pm</math>427.54</b>

respondents. The mean monthly allowance was RM545.87±427.54. The highest proportion of respondents had a monthly allowance between the range of RM300-RM499 (32.6%; n = 43) with the majority of them having a source of allowance from the loan (44.7%; n = 59).

### 3.2 Section B: Knowledge of halal restaurants/food products

In this study, knowledge of halal restaurants of food products was being analysed (Table 2). It is as expected that 100% (n = 132) of the respondents have heard of halal restaurant/food products before since all of them are Muslim. The majority of the respondents have heard about halal restaurant/food products from television or radio (37.9%; n = 50) and parents or family members (40.2%; n = 53). It can be concluded that media and family members play an important role in educating the students on halal restaurant/food products.

Table 2. Knowledge of halal restaurant/food products of the respondents.

Knowledge of Halal Restaurants/Food Products	n (%) Total (n = 132)
Have you heard of halal restaurant/food products?	
Yes	132 (100.0)
No	0 (0.0)
Where do you hear it from?	
Newspaper/magazine	9 (6.8)
Television/radio	50 (37.9)
Government publication	2 (1.5)
Parents/family	53 (40.2)
Teachers/lecturers	14 (10.6)
Others	4 (3.0)

### 3.3 Section C: Behaviour beliefs

This study had found that the majority of the respondents had a positive behaviour belief towards halal restaurant/food products. About 78% (n = 103) of the respondents agree that halal foods provide a satisfying level of nutritional food and 95.5% (n = 126) of them agree halal products provide foods that are following the Islamic shary'ah. However, there are 9.1% (n = 12) of the respondents disagree that halal restaurant/food products served foods that are important to health and there is an almost equivalent proportion of them answered 'neutral' (30.3%; n = 40) and 'strongly agree' (31.1%; n = 41) for this item (Table 3).

Other than that, the majority of them also answered 'agree' and 'strongly agree' (78.8%; n = 103) for the statement that halal restaurant/food products provide foods that are safe and free from harmful material. In terms of their belief in the government's role, the

majority of them still agree that the government encouraged the establishment of halal restaurant/food products (85.6%; n = 113) and 91.6% (n = 121) of the respondents also agree that halal restaurant/food products depict the halal logo. This shows that there is a strict rule in producing or marketing halal foods so they will not confuse the consumers.

#### 3.3.1 Evaluation of outcomes

Another component that had been analysed in this study was the evaluation of outcomes of the respondents towards halal restaurant/food products. Overall, the majority of the respondents believed that it is important for halal foods to be nutritive (97%; n = 128), not doubtful (98.5%; n = 130), beneficial to health (94.0%; n = 124) and free from harmful material (96.2%; n = 127) (Table 4). Most of them also believed that it is important for the government to encourage the public to eat at halal restaurant/food products (88.6%; n = 117) and to be checked by the government's inspector routinely (99.3%; n = 131). Furthermore, 99.3% (n = 131) of them also answered that it is important for the halal restaurant/food products to show halal logo.

#### 3.3.2 Attitude

According to Ajzen (1991) on the Theory of Planned Behaviour, the attitude was shaped by beliefs on what involved in performing the behaviour and the outcomes of the behaviour. Therefore, the analysis of behaviour belief and evaluation of outcomes also reflect on the attitude of the respondents. Majority of them, agree that halal restaurant/food products are beneficial (97.7%; n = 129), convenient (87.8%; n = 116), important (98.4%; n = 130) and appealing (75.7%; n = 100). In terms of the price, most of them answered '3' (60.6%; n = 80) which indicates that the price is not too expensive or too cheap (Table 5a).

### 3.4 Section D: Normative belief

The second component being analysed was the belief of the respondents on social standards or norms. This section focused on three different groups of people around them which are family, friends and society. Generally, most of them agree that their family (94.7%; n = 125) and closest friends (88.6%; n = 117) thinks they should eat at halal restaurant/food products (Table 5b). As for other people or the society's perception toward them, if they did not eat at halal food restaurant/food products, they had answered from the range of 'neutral' to 'strongly agree' which total up to 93.3% (n = 123).

#### 3.4.1 Motivation to comply

This section analysed the motivation of the

Table 3. Behaviour beliefs of the respondents on halal restaurants/food products.

Behaviour Beliefs	n (%) Total (n = 132)				
	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
1 Halal restaurants/food products provide a satisfying	0 (0.0)	2 (1.5)	27 (20.5)	73 (55.3)	30 (22.7)
2 Halal restaurants/food products provide food that is free of ingredients which is against Islamic shari'ah	0 (0.0)	0 (0.0)	6 (4.5)	45 (34.1)	81 (61.4)
3 Halal restaurants/food products served food that is important for health	1 (0.8)	11 (8.3)	40 (30.3)	39 (29.5)	41 (31.1)
4 Halal restaurants/food products provide food that is free from harmful material	0 (0.0)	11 (8.3)	18 (13.6)	43 (32.6)	60 (45.5)
5 Establishments of halal restaurants/food products are encouraged by the government	2 (1.5)	1 (0.8)	16 (12.1)	29 (22.0)	84 (63.6)
6 Halal restaurants/food products depict the halal	3 (2.3)	1 (0.8)	7 (5.3)	42 (31.8)	79 (59.8)

Table 4. Evaluation of outcomes of the respondents on halal restaurant/food products.

Behaviour Beliefs	n (%) Total (n = 132)				
	1 Least Important	2 Not Important	3 Do not know	4 Important	5 Very Important
1 Food served in halal restaurants/food products has	0 (0.0)	0 (0.0)	4 (3.0)	38 (28.8)	90 (68.2)
2 Food that is served in halal restaurants/food products is not doubtful	0 (0.0)	1 (0.8)	1 (0.8)	16 (12.1)	114 (86.4)
3 Food that is beneficial to health	0 (0.0)	1 (0.8)	7 (5.3)	36 (27.3)	88 (66.7)
4 Food that is free of harmful material should be served in halal restaurants/food products	2 (1.5)	1 (0.8)	2 (1.5)	32 (24.2)	95 (72.0)
5 The government encourage to eat at halal restaurant/food products	1 (0.8)	1 (0.8)	13 (9.8)	26 (19.7)	91 (68.9)
6 To depict halal logo is important for halal restaurant/food products	0 (0.0)	0 (0.0)	1 (0.8)	17 (12.9)	114 (86.4)
7 Halal restaurants/food products	1 (0.8)	0 (0.0)	0 (0.0)	17 (12.9)	114 (86.4)

Table 5. (a) Attitude of the respondents on halal restaurants/food products.

Behaviour Beliefs	n (%) Total (n = 132)					
	1	2	3	4	5	
Halal restaurants/food products are:						
1. Harmful	0 (0.0)	0 (0.0)	3 (2.3)	23 (17.4)	106 (80.3)	Beneficial
2. Inconvenient	0 (0.0)	2 (1.5)	14 (10.6)	32 (24.2)	84 (63.6)	Convenient
3. Unimportant	0 (0.0)	1 (0.8)	1 (0.8)	18 (13.6)	112 (84.8)	Important
4. Too expensive	2 (1.5)	10 (7.6)	80 (60.6)	28 (21.2)	12 (9.1)	Cheap
5. Unappealing	0 (0.0)	6 (4.5)	26 (19.7)	49 (37.1)	51 (38.6)	Appealing

Table 5. (b) Normative belief of the respondents on halal restaurants/food products.

Normative Belief	n (%) Total (n = 132)				
	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
1 My family thinks I should eat at halal restaurants/	0 (0.0)	1 (0.8)	6 (4.5)	22 (16.7)	103 (78.0)
2 My closest friend thinks I should eat at halal restau-	0 (0.0)	0 (0.0)	15 (11.4)	30 (22.7)	87 (65.9)
3 People will look awkwardly at me if I do not eat at	3 (2.3)	6 (4.5)	27 (20.5)	34 (25.8)	62 (47.0)

respondents to comply with their normative beliefs. Although most of them believe that their family thinks they should eat at halal restaurants/food products (94.7%; n = 125), however only 74.2% (n = 98) comply with their family's suggestion to follow the norms. This was also the same as the following what their close friends suggest which only 66.7% (n = 88) respondents agreed on it. In terms of other people's perception, 91.7% (n = 121) of them answered from the range 'neutral' to 'strongly agree' which also reflect their normative belief (Table 6a).

### 3.4.2 Subjective norms

According to the Theory of Planned Behaviour by Ajzen (1991), beliefs on social norms and motivation to comply with these norms affect subjective norms. The subjective norms were significantly reflected by the normative belief and motivation to comply in which the majority of the respondents believed that people that are important to them think they should eat at halal food restaurant/food products (96.2%; n = 127) (Table 6b).

### 3.5 Section E: Control beliefs

This section analysed the control beliefs of the respondent toward eating at halal restaurants/food products. The majority of the respondents (95.4%; n = 126) believed that they have control over their choice of eating at halal restaurant/food products and 74.3% (n = 98) thinks that there are only a few factors which they cannot control that may prevent them from eating at halal restaurant/food products. While 93.2% (n = 123) of them feels good when eating at halal restaurant/food products. It can be concluded that most of the respondents had good self-control on eating at a halal restaurant or choosing halal food products (7a).

#### 3.5.1 Perceived facilitation

Perceived facilitation analysed on respondents'

awareness on their ability or easiness to comply eating at halal restaurant/food products. For both items, about 94.7% (n = 125) of the respondents believed that they can easily eat at halal restaurants/food products in the present and also in the next three months. This is also reflected by their control belief in which most of them good self-control on eating halal food products has.

#### 3.5.2 Perceived behavioural control

Perceived behavioural control is also reflected by perceived facilitation where almost the same proportion of respondents believed that they have control over eating at halal restaurant/food products (93.1%; n = 123). Therefore, it can be inferred that the majority of the Muslim respondents had a positive perceived behavioural control which leads to their behaviour to comply with syari'ah to eat halal foods (Table 7b).

### 3.6 Section F: Behavioural intention

According to Ajzen (1991), one's belief, attitude, and intention will affect the behaviour. In behavioural intention, the majority of the respondents (94.7%; n = 125) answered that they will continue to eat at halal restaurant/food products in the future and 91.7% (n = 121) have the intention to eat at halal restaurant/food products frequently in the future. Based on the Theory of Planned Behaviour, a good intention will lead a person to do a positive behaviour. Therefore, it can be derived that more than 90% of the respondents had a good intention to continue eating at a halal restaurant or choosing halal food products in the future (Table 8).

### 3.7 Section G: Religiosity

Generally, the perception of religiosity of the respondents was positive with over 90% of them answering 'agree' and 'strongly agree' and almost none of them disagree for items 1 to 6. However, for item 7, there were about 12.1% (n = 16) of them disagree with

Table 6. (a) Motivation to comply of the respondents on halal restaurants/food products.

Normative Belief	n (%)				
	Total (n = 132)				
	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
1 Typically, I like to do what my family suggests.	0 (0.0)	2 (1.5)	32 (24.2)	59 (44.7)	39 (29.5)
2 Typically, I like to do what my closest friend suggests.	0 (0.0)	4 (3.0)	40 (30.3)	59 (44.7)	29 (22.0)
3 Peoples' perception of my behaviour is important to me	1 (0.8)	10 (7.6)	34 (25.8)	48 (36.4)	39 (29.5)

Table 6. (b) Subjective norms of the respondents on halal restaurants/food products.

Normative Beliefs	n (%)					
	Total (n = 132)					
Most people who are important to me think I:	1	2	3	4	5	
1 Should not eat at halal food restaurants/food products	0 (0.0)	0 (0.0)	5 (3.8)	26 (19.7)	101 (76.5)	Should

Table 7. (a) Control beliefs of the respondents on halal restaurants/food products.

Control Beliefs	n (%)				
	Total (n = 132)				
	1 No control at all	2	3	4	5 Complete control
1 As a consumer, I would have complete control over	0 (0.0)	1 (0.8)	5 (3.8)	32 (24.2)	94 (71.2)
2 Very few factors outside my control, prevent me from eating at halal restaurants/food products.	7 (5.3)	7 (5.3)	19 (14.4)	36 (27.3)	62 (47.0)
3 I feel good eating at halal restaurants/food products.	0 (0.0)	2 (1.5)	7 (5.3)	29 (22.0)	94 (71.2)

Table 7. (b) Perceived facilitation of the respondents on halal restaurants/food products.

Control Beliefs	n (%)				
	Total (n = 132)				
	1 Very Difficult	2	3	4	5 Very easy
1 I can easily eat at halal restaurants/food products.	0 (0.0)	2 (1.5)	5 (3.8)	32 (24.2)	93 (70.5)
2 If I want to, I could easily eat at halal restaurants/food products in the next three months.	0 (0.0)	0 (0.0)	8 (6.1)	31 (23.5)	93 (70.5)
3 I have complete control over (No eating at halal restaurant/	1 (0.8)	2 (1.5)	6 (4.5)	32 (24.2)	91 (68.9)

Table 8. Behavioural intention of the respondents on halal restaurants/food products.

Behavioural Intention	n (%)				
	Total (n = 132)				
	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
1 I will continue to eat at halal restaurants/food	0 (0.0)	0 (0.0)	7 (5.3)	30 (22.7)	95 (72.0)
2 I intend to eat at halal restaurants/food products	0 (0.0)	1 (0.8)	10 (7.6)	31 (23.5)	90 (68.2)

the statement that their religious faith had convinced them to focus on others than on themselves. The majority of them (93.2%; n = 123) agreed that patronage of halal restaurant/food products was considered Islamic behaviour. Less proportion of the respondents (83.3%; n = 110) answered agreed that prayer room is provided in the halal restaurant and the majority (93.2%; n = 123) agreed that halal restaurant/food products are free from harmful materials (Table 9).

### 3.8 Section H: Ambiance

This study also analyses the perceived ambiance of the respondents at halal restaurants. About 82.6% (n = 109) and 91.7% (n = 121) of the respondents agree that they feel good when eating in a halal restaurant that shows Islamic culture and halal restaurant that does not serve liquor respectively. 81.9% (n = 108) of the respondents feel that it is important to provide Islamic expressions at a halal restaurant and only more than half (57.6%; n = 76) of them agree that Islamic holy mosques pictures in halal restaurants provide a good impression (Table 10). Not more than half (46.2%; n = 61) agree that Qur'anic songs are played in halal restaurant. The majority of the respondents (97%; n = 128) answered 'neutral' to 'strongly disagree' that they feel good when eating at halal restaurant ambiance that does not contradict with syari'ah guidelines.

### 3.9 Descriptive analysis

Table 11 presents the mean scores and standard deviations of the item used in this study adapted from the TPB. The mean scores presented are based on the five-Likert scale which indicates the degree of acceptance of the statement within the range of 1 to 5. The attitude was rated 4.299, subjective norms at 4.727, perceived behavioural control at 4.591, religiosity at 4.594, the ambience at 4.194 and finally the behavioural intention to purchase halal food products or eat at a halal restaurant at 4.629. The highest means score is subjective norms at 4.727 which shows that majority of the respondents had answered between agreeing and strongly agreeing on the influence of subjective norms on their behaviour. The mean behavioural intention is considerably high with a mean score of 4.629. It shows that majority of the respondents had a positive behavioural intention to purchase or eat at halal food products or restaurants.

### 3.10 Correlation analysis of the variables

Each determinant of one's behavioural intention in the Theory of Planned Behaviour was also affected by other factors. Based on Table 11, it was found that behavioural belief (r = 0.429, p<0.01) and evaluation of outcomes (r = 0.287, p<0.01) were positively correlated

Table 9. Perception of religiosity of the respondents.

Religiosity	n (%)				
	Total (n = 132)				
	1	2	3	4	5
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1 Spirituality is a key to living a happy life	0 (0.0)	1 (0.8)	2 (1.5)	28 (21.2)	101 (76.5)
2 I feel responsible, because of religious values to help people who are less fortunate than I am	0 (0.0)	2 (1.5)	3 (2.3)	36 (27.3)	91 (68.9)
3 I feel it is important to worship regularly	0 (0.0)	0 (0.0)	3 (2.3)	27 (20.5)	102 (77.3)
4 Religious faith makes life an exciting and challenging journey	0 (0.0)	0 (0.0)	4 (3.0)	29 (22.0)	99 (75.0)
5 My religious beliefs help me to accept other people as they are	0 (0.0)	1 (0.8)	3 (2.3)	27 (20.5)	101 (76.5)
6 My religion gives focus and direction to my life	0 (0.0)	0 (0.0)	3 (2.3)	20 (15.2)	109 (82.6)
7 It is vital to support religious organizations financially	0 (0.0)	0 (0.0)	13 (9.8)	37 (28.0)	82 (62.1)
8 My religious faith convinces me that it is better to focus on others than on myself	6 (4.5)	10 (7.6)	22 (16.7)	30 (22.7)	64 (48.5)
9 Patronage halal restaurant/food products is considered Islamic behaviour	0 (0.0)	1 (0.8)	8 (6.1)	36 (27.3)	87 (65.9)
10 Prayer room is provided in halal restaurant	0 (0.0)	4 (3.0)	18 (13.6)	35 (26.5)	75 (56.8)
11 Halal restaurant/food products are clean from harmful	0 (0.0)	2 (1.5)	7 (5.3)	26 (19.7)	97 (73.5)

Table 10. Perception of the ambience of the respondents on halal restaurant/food products.

Ambience	n (%)				
	Total (n = 132)				
	1	2	3	4	5
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1 I feel good when I eat in a halal restaurant which	0 (0.0)	2 (1.5)	21 (15.9)	33 (25.0)	76 (57.6)
2 I feel good when eating at a halal restaurant that doesn't serve liquor	0 (0.0)	0 (0.0)	11 (8.3)	29 (22.0)	92 (69.7)
3 I feel it is important to provide Islamic expressions at a	0 (0.0)	3 (2.3)	21 (15.9)	27 (20.5)	81 (61.4)
4 Islamic holy mosques pictures in the halal restaurant provide a good impression	0 (0.0)	10 (7.6)	46 (34.8)	31 (23.5)	45 (34.1)
5 Halal restaurant plays Qur'anic songs on its pipe music	5 (3.8)	14 (10.6)	52 (39.4)	31 (23.5)	30 (22.7)
6 I feel good, eating at halal restaurant ambience which	1 (0.8)	3 (2.3)	10 (7.6)	45 (34.1)	73 (55.3)

Table 11. Descriptive analysis of respondents' intention behaviour in purchasing halal food products.

Variables	Muslim (N = 132)	
	Mean	SD
Attitude	4.299	0.472
Behavioural Belief	4.241	0.594
Evaluation of Outcomes	4.712	0.362
Subjective Norms	4.727	0.526
Normative Belief	4.457	0.621
Motivation to Comply	3.914	0.665
Perceived Behavioural Control	4.591	0.72
Control Belief	4.467	0.652
Perceived Power	4.64	0.557
Religiosity	4.594	0.432
Ambience	4.194	0.609
Behavioural Intention	4.629	0.582

Table 12. (a) Correlation between behavioural belief and evaluation of outcomes with attitude.

Variables	Attitude
Behavioural Belief	0.429**
Evaluation of Outcomes	0.287**

\*\*Correlation is significant at the 0.01 level (2-tailed)

Table 12. (b) Correlation between normative belief and motivation to comply with subjective norms.

Variables	Attitude
Normative Belief	0.396**
Motivation to Comply	0.486**

\*\*Correlation is significant at the 0.01 level (2-tailed)

Table 12. (c) Correlation between control belief and perceived facilitation with perceived behavioural control.

Variables	Attitude
Control Belief	0.456**
Perceived Facilitation	0.594**

\*\*Correlation is significant at the 0.01 level (2-tailed)



with attitude. Table 12 also showed that normative belief and motivation to comply were strongly and positively correlated with subjective norms ( $r = 0.396, p < 0.01$ ;  $r = 0.486, p < 0.01$ ). The third determinants of behaviour in the Theory of Planned Behaviour by Ajzen (1991) are perceived behavioural control in which control belief ( $r = 0.456, p < 0.01$ ) and perceived facilitation ( $r = 0.594, p < 0.01$ ) also had a positive and strong relationship with this determinant. The association between the three determinants were also being analysed. The religiosity of the respondents and ambience of halal food outlet was added to study further other related factors. From the results gained, almost all of the variables were positively and significantly correlated with each other. Only subjective norms and religiosity was found to be not significantly associated. Since according to the Theory of Planned Behaviour that the three determinants; attitude, subjective norms and perceived behavioural control lead to behavioural intention, this study also analyse the association between these variables. It was found that attitude ( $r = 0.187, p < 0.05$ ), subjective norms ( $r = 0.266, p < 0.01$ ), perceived behavioural control ( $r = 0.336, p < 0.01$ ), religiosity ( $r = 0.245, p < 0.245$ ) and ambience ( $r = 0.254, p < 0.01$ ) were positively and significantly associated with behavioural intention. This clearly shows that behavioural intention was affected by all the variables mentioned.

#### 4. Discussion

It was found that all of the respondents who are Muslim university students had heard of halal food products and the majority of them heard it from their family members and media. This was also supported by a study among young Muslim consumers in which family and friends have been found to increase positive influence on their purchasing behaviour (Khalek, 2014). A study conducted among university students in Sabah by Hasan (2016) also has shown that the majority of Muslim consumers received information about halal products from television and the internet and were strongly influenced by family and friends. This shows that those that are close to us tend to affect our knowledge of halal food products and our behavioural in

purchasing those products. Other than that, media plays an important role to convey the right knowledge and image of halal food products that may influence purchasing behaviour (Khalek, 2014; Helmyati *et al.*, 2019; Ismail *et al.*, 2019).

From this study, it was shown that behavioural intention in purchasing halal food products and eating at halal restaurants are determined by attitude, subjective norms, perceived behavioural control, religiosity and ambience, where all of these determinants are strongly and significantly correlate with behavioural intention. The correlation between attitudes, subjective norms, perceived behavioural control, religiosity and ambience are tabulated in Table 13. This was also supported by studies among Muslim consumers in Singapore (Abu-Hussin *et al.*, 2016) and Malaysia (Khalek *et al.*, 2015) in which all TPB variables have a positive and significant influence on the intention to purchase halal food products. A study conducted among Muslims and non-Muslims in Subang Jaya by Abdul Aziz *et al.* (2019) also proved that purchasing halal food is influenced by attitude and religion. This study also proves that perceived behavioural control is the most influential towards behavioural intention. It is also supported by Al-Nahdi (2011) where all of the TPB significantly affect purchase intention and perceived behavioural control is the strongest factor. The findings strongly show that all of the variables are correlated with each other to influence someone's purchasing intention towards halal food products.

This study also illustrates that each variable is positively and significantly correlates with each other except for subjective norms and religiosity. Ample evidence from previous studies has shown that religiosity influences purchasing behaviour of halal food products, especially among Muslims (Said *et al.*, 2014; Ahmad *et al.*, 2015; Çukadar, 2017). According to Al-Banna (2019) that has conducted a similar study among 200 Malaysian, those who has strong religious belief will highly care about what they eat or consume. This was also supported by a study among Iranian by Lotfizadeh (2013), that purchasing decision was greatly affected by religiosity and it creates their decision-making style in

Table 13. Correlation between attitudes, subjective norms, perceived behavioural control, religiosity and ambience.

Variables	Attitude	Subjective Norms	Perceived Behavioural Control	Religiosity	Behavioural Intention	Ambience
Attitude	1				0.187*	
Subjective Norms	0.214*	1			0.266**	
Perceived Behavioural Control	0.474**	0.409**	1		0.336**	
Religiosity	0.437**	0.12	0.423**	1	0.245**	
Ambience	0.331**	0.195*	0.325**	0.593**	0.254**	1

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

purchasing. Therefore, it can be concluded that religiosity plays a big role in halal food products purchasing behaviour which depends on the extent of how much the individuals follow the teachings.

Since this study only focused on one university in the state of Selangor, this finding cannot be generalized to other young consumers in Malaysia. A larger scale of study which includes university students from other states of Malaysia can be conducted in order to generalize the findings. It is also suggested to include non-Muslim respondents to study their knowledge, perception, attitude and behaviour towards halal food products and make a comparison with Muslim consumers. Apart from studying consumer's behaviour according to TPB, other factors have been suggested to be investigated on halal food products purchasing behaviour. Baazeem (2015) suggested including other factors such as value system, informal norms, moral character or personality such as egoism, shame and individuality.

## 5. Conclusion

This study results clearly show that family members play an important role in educating about halal food products. Besides, students at the tertiary education level have a good knowledge and positive perception, attitude and behaviour on halal food restaurants or products. All the respondents are aware of halal food products and they have heard about it mainly from their family members and media. Thus, it is suggested that media or marketers advertise and integrate a positive behavioural aspect to illustrate halal food products in Malaysia. Besides, Quality assurance (QA) of halal food products also need to be strictly monitored to create a positive social expectation of halal food products. QA should not only target the Muslim consumer, but also improved awareness and knowledge on halal products among non-Muslims to gain their trust in choosing these products which may help to increase the demand for halal food in the market. Additionally, the authority must strictly administer halal products in the market and halal food restaurants with halal certification to avoid any fraud in using the halal logo. This will create trust among consumers to keep on purchasing halal food products or dine in the halal restaurant thus will increase the halal foods market value.

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