The impact of consumption value on consumer behaviour
A case study of halal-certified food supplies

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Abstract

Purpose – The purpose of this paper is to investigate the influence of halal concern as well as emotional and epistemic values on consumer behaviour in the choice and purchase of halal-certified food supplies.

Design/methodology/approach – This study used a quantitative methodology of convenience sampling to collect survey data from 1,550 Muslim respondents in Malaysia. It also employed multiple regressions by covariance-based structural equation modelling in the data analysis as well as in the validation of the proposed model.

Findings – The empirical results showed that the importance of halal certification had the highest impact on consumer choice behaviour, particularly in the purchase of halal-certified food supplies. Also, epistemic and emotional values were both statistically significant in terms of their influence on the consumer decision-making process.

Research limitations/implications – The results emphasize the importance of enhancing the hedonic (halal concern and emotional value) aspect as a way for the halal food industries to obtain an added value advantage for their products and services.

Originality/value – This paper is the first to employ an empirical approach to consider the halal sentiment as a determinant of consumer purchasing behaviour in the context of halal-certified food supplies.

Keywords Consumer behaviour, Malaysia, Halal food, Theory of consumption value

Paper type Research paper

1. Introduction

The growing demand for halal food has increased over the past few years and it has been recently estimated that the market is worth $415bn (Ab Talib and Ai Chin, 2018; Thomson Reuters, 2018). This growing demand is not only due to the high manufacturing standards and the practices employed to maintain a smooth supply chain (manufacturers, retailers and logistics) (Ahmed et al., 2019; Arsil et al., 2018; Muhamed et al., 2019) as well as the producers obtaining the required halal certification for their products and services, it is also due to the increasing size of the global Muslim population, which is expected to reach 2.2bn in 2030, an increase of 1m compared to 2.1bn in 2015 (Temporal, 2011). The religious endorsement of products as halal which have been targeted at specific markets by global brands such as McDonald's and Subway has also helped to increase the attractiveness of such products (Al-Hyari et al., 2012; Ayyub, 2015). These two companies have successfully increased their product sales through gaining and leveraging the halal certification of their merchandise, as
shown by the enthusiastic response of Muslim consumers (Ayyub, 2015). As products that are endorsed by halal certification are deemed by Muslim to be better as well as of higher quality and hygiene than other goods (Havinga, 2010), this also prompted McDonald’s to initiate another trial of its halal-certified merchandise in the UK (Mohamad and Hassan, 2011; Schlegelmilch et al., 2016).

Like these fast food outlets, some well-known European supermarket chains such as Asda, Tesco and Carrefour have also made significant efforts to attract and fulfil consumer demand by retailing halal-certified meat products in their stores due to the increasing acceptance as well as the perceived hygiene and additional health benefits of these products among non-Muslim consumers (Haque et al., 2015). Moreover, it has been shown that the global halal market is a promising future revenue stream for B2C firms with a projected value of £1.5bn in 2020 (Arsil et al., 2018). As the consumption market for halal products predominantly consists of Asian (63 per cent), Middle Eastern (23.6 per cent) and European (10.5 per cent) markets (Aoun and Tournois, 2015), it is important for the halal food industries to understand consumer choice behaviour so that this knowledge can be used to elevate halal food consumption and future market performance (Wilson and Liu, 2011).

Therefore, to gain a better understanding of the relationship between the values placed on halal food consumption and consumer choice behaviour, a credible model is needed to determine consumer purchasing behaviour. By using an empirically grounded consumption model, in this paper, the authors present the results of their investigation of the relationship between emotional and epistemic values, halal concern and consumer behaviour in the purchase of halal-certified food supplies.

The remainder of this paper is organized as follows: first, Section 2 presents the development of the proposed model and hypotheses. Next, Section 3 describes the research design and methodology. Then Section 4 presents the results of the data analysis. This is followed by a discussion of the findings in Section 5 and finally, a conclusion, together with the limitations of this research, is provided in Section 6.

2. Model and hypothesis development

The theory of consumption value (TCV) is a cohesive model that integrates the variables from several consumer values, such as the inferences of consumer choice (social and epistemic values as well as the information and concern about value-for-money), as a function of numerous consumption values (Lin and Huang, 2012; Mohd Suki, 2016). The term consumption value generally describes the degree to which a consumer’s needs are fulfilled and is obtained from an overall assessment of the customer’s net satisfaction with a product (Biswas and Roy, 2015). In this study, three proposed inferences, namely emotional value, epistemic value and concern about halal certification, were regarded as indicators in the TCV model because customer choice is composed of various consumption beliefs that have autonomous and diverse influences under specific choice conditions (Lin and Huang, 2012). As this study took the value of halal food consumption into consideration, the authors chose to focus on the above three inferences (emotional and epistemic values and concern about halal certification) in determining consumer purchasing behaviour towards halal-certified food supplies.

2.1 Emotional value

Emotional value is defined as an individual’s feeling towards some event or scenario that can possibly change their initial natural sentiment (Mohd Suki, 2016; Sheth et al., 1991). According to some researchers, emotional value is often seen as an accompanying factor that results from the consumption value of products and services (Khan and Mohsin, 2017; Lin and Huang, 2012). The emotional value is basically made up of two different perspectives, namely utilitarian and hedonic measures (Chahal and Kumari, 2012). The use
of both the utilitarian and the hedonic measures in the emotional value construct is deemed necessary because the need to consumer is seen as an amalgamation of rational and emotional factors (Maehle et al., 2015; To et al., 2007). It has been argued that, on the one hand, the utilitarian measure reflects the making of a goal-oriented, rational and efficient decision, while the hedonic measure is related to the pleasure, satisfaction or emotional gain that is experienced or anticipated from performing a certain action (Lee et al., 2009). This viewpoint has been corroborated by empirical studies conducted by Dhar and Wertenbroch (2000) and by Maehle et al. (2015), in which it was found that a heavier weightage on the hedonic aspect was salient in determining the consumption value. Generally speaking, both of the above-mentioned works showed that the confidence placed on the consumption aspect not only serves as a functional value, but also as emotional fulfilment that results from the purchasing behaviour.

However, To et al. (2007) emphasized that the emotional and satisfaction aspects are more significant than the functional or utilitarian motivation because each customer’s emotions and experience may differ or vary according to circumstances. For instance, a consumer with a positive emotional value may find it enjoyable to purchase halal-certified provisions as doing so helps him/her to improve his/her credence and behaviour as a good Muslim in his/her adherence to Islamic law (Bei and Simpson, 1995).

Thus, taking the above arguments into consideration, emotional value can be regarded as a salient factor in influencing the economic value of a customer’s decision to purchase halal-certified merchandise, which is represented by the following hypothesis:

**H1.** Emotional value plays a significant role in determining the Muslim consumer purchasing behaviour towards halal-certified food supplies.

### 2.2 Epistemic value

According to Sheth et al. (1991) and Lin and Huang (2012), epistemic value is the perceived utility acquired from the capacity of an alternative product that arouses feelings or other affective states, such as the gaining of knowledge during the stimulation of the decision-making process. This viewpoint has been corroborated by Bian and Maumitinho (2011), who emphasized that consumers with superior product knowledge are more analytical and knowledgeable about their consumption choices. It has also been supported by Laroche et al. (2001), who highlighted that knowledge and awareness play a significant role in the acceptance of new products. Furthermore, Haque et al. (2015) found that increased knowledge about the benefits of halal consumption results in the gradual acceptance of halal-certified provisions among non-Muslim consumers, while Koenig-Lewis et al. (2015) highlighted that the adoption of new products such as halal-certified merchandise requires an equivalent elaboration between perceived situational traits and product qualities. Likewise, distinctive and novel features have also been found to be factors that can influence consumers’ consumption decisions about certain products (Mohd Suki, 2016). As highlighted by Biswas and Roy (2015) and Lin and Huang (2012), novelty-seeking not only serves to fulfil the preservation instinct, which may be beneficial in creating a useful knowledge database, but can also improve problem-solving skills, which affects an individual’s consumption of products.

Moreover, it has been found that customers are more inclined to choose halal-certified products that are marketed effectively, for instance, when healthier ingredients, better packaging and more extensive product information are provided (Akbari et al., 2018; Bonne et al., 2007). Past studies have also demonstrated that consumers are more likely to search for facts and information on the production process prior to making a purchase (Biswas and Roy, 2015; Mohd Suki, 2016), particularly in the selection of halal-certified food supplies because some customers were found to seek information on the product ingredients as well as on the certification process of the relevant bodies (Talib et al., 2015). Although
research has proven that epistemic value is a significant predictor for halal consumption
behaviour (Biswas and Roy, 2015), the literature has also highlighted that the lack of
information on, for instance, ingredients and dietary value is a cause of a gap between
consumer attitude and consumer buying behaviour of halal-certified merchandise
(Bonne et al., 2007). Hence the above gives rise to the following hypothesis:

H2. Epistemic value has a significant impact on the Muslim consumer purchasing
behaviour towards halal-certified food supplies.

2.3 Halal concern
The customer orientation and sentiment towards the halal issue are both known to be
reflected in the emphasis placed on the halal concern itself (Ireland and Rajabzadeh, 2011).
As a result, it is common to see both individual and religious beliefs being used
interchangeably (Al-Hyari et al., 2012; Bonne et al., 2008; Kilbourne and Pickett, 2008)
because these two terms share almost the same definition (Rauschnabel et al., 2015).
However, on the one hand, religious belief is defined as a social network with a specific code
of behaviour in a hierarchal system (Heiman et al., 2017), whereas individual beliefs have
been described as referring to the individual's trust in a system that affects his/her
individual code of behaviour (Becerra and Korgaonkar, 2011). Similarly, Veer and Shankar
(2011) emphasized that an individual's behaviour can be affected by the degree of influence
of his/her religiousness on his/her self-beliefs, while Souiden and Rani (2015) as well as
Al-Hyari et al. (2012) stated that concern about halal-certified products is one of the
determinants that affects consumer behaviour. As an example, the prohibition of Muslims
from consuming pork or alcoholic products and beverages is constantly used as a guideline
by Muslim consumers in forming their choices and decisions about the goods they purchase.

The concern that Muslim consumers have about the issue of halal certification is
possibly due to the compromise that is often made between fulfilling religious requirements
and complying with specific abattoir standards in order to obtain halal-certified food
supplies in non-Muslim countries. This concern not only applies to the manufacturing
process, but also to the packaging of products as well as the handling procedure in the
supply chain management process (Aoun and Tounois, 2015; Tieman, 2013). As a case in
point, while the manufacturing process of halal-certified food supplies may adhere to the
halal certification standard, the halal status of these supplies could be jeopardized by cross-
contamination with non-halal provisions during the logistical process (Zailani et al., 2015).
This then further emphasizes the importance of consumer perception as one of the salient
factors in determining consumer purchasing behaviour (Chen et al., 2009).

Therefore, taking the literature on the significance of religious values in influencing
consumer behaviour towards the purchase of halal-certified products (Ahmed et al., 2019;
Akbari et al., 2018; Arsil et al., 2018) into consideration, the following hypothesis
was developed:

H3. The concern about halal certification significantly influences Muslim customer’s
choice behaviour towards halal-certified food supplies.

3. Methodology
For this study, the authors chose a quantitative approach to either prove or disprove the
phenomenon (Jain et al., 2017) as well as a positivist perspective for hypotheses testing and
for the snowballing of the results in order to improve the generalizability of the findings of
the research (Harwell, 2011).

In addition to utilizing a questionnaire, which is the most common data collection
technique employed in consumption value studies (Hur et al., 2012), this study also applied
the quicker and cheaper convenience sampling method as it is a way of gauging a community’s reaction in a more efficient manner (Bornstein et al., 2013). By employing a questionnaire as the data collection tool, this assured the respondents of the anonymity and confidentiality of their responses, which prompts respondents to be more truthful in their responses (Harwell, 2011).

3.1 Survey instrument
The questionnaire was developed by adapting value-oriented items from the literature (Biswas and Roy, 2015; Han et al., 2010; Lin and Huang, 2012; Maehle et al., 2015; Mohd Suki, 2016). In addition, the authors employed the survey data collection method to test the antecedent hypotheses through the use of a questionnaire that consisted of 20 measurable items that were grouped under four constructs in order to measure emotional and epistemic values as well as concern about halal-certified products. As a construct has to be comprised of a minimum of three items to ensure an adequate internal consistency and reliability of a study (Hair et al., 2014), the questionnaire was divided into five sections. The first section contained questions designed to obtain demographic data on the respondents, while the second, third, fourth and fifth sections required the respondents to rate their emotional values, epistemic values, concern about halal-certified products and choice behaviour, respectively. To facilitate the analysis of the responses, the authors adopted a Likert-type scale with a range of 1 to 5 with the following indications: 1: strongly disagree; 2: disagree; 3: neutral; 4: agree; and 5: strongly agree, which is in line with prior research (Lin and Huang, 2012; Mohd Suki, 2016).

Also, as content validity is defined as the degree to which an instrument sufficiently samples the study area of interest in order to measure the phenomenon (Henseler et al., 2014), the initial items for the questionnaire were pre-tested through face-to-face interview with three academic experts who had extensive experience in consumer behaviour research in order to enhance the content validity and readability and thus enhance the reliability of this study (Chen et al., 2009). Based on the feedback received, the questionnaire was modified by rephrasing and restructuring some of the questions in order to prevent possible misinterpretations and associated issues that might affect the robustness of the research.

3.2 Sample characteristics
A total of 1,550 questionnaires were completed within the given time frame, which was set between February 2018 and April 2018. By employing the convenience sampling method, this study not only ensured that each member who valued halal certification had an equal and known chance of being selected from the sample population (O’Regan and Ghobadian, 2005), it was also consistent with the methodology used in previous studies conducted in the same context (Abd Rahman et al., 2015; Ahmed et al., 2019).

In this study, the sample size of 1,550 surpassed the minimum requirement for the covariance-based structural equation model (CB-SEM) analysis (Astrachan et al., 2014; Hair et al., 2014). Moreover, the questionnaire was distributed among targeted respondents from different sociodemographic backgrounds (Souiden and Rani, 2015). The study used the sampling frame of all Muslim consumers residing in West Malaysia (Kuala Lumpur, Selangor, Putrajaya and Negeri Sembilan) who were above 18 years of age and had previously purchased halal-certified food supplies. A self-administered questionnaire was handed to the targeted respondents. Each respondent was given a flexible time period in which to fill in the questionnaire as per their comfort and ease. The respondents were informed about the purpose of the research prior to the data collection and their consent was obtained by assuring them that all the information they provided would be used solely for this research study and would be kept confidential. The original questionnaire, which was developed in English, was translated into Bahasa Melayu (the national language of Malaysia) with the help of two bilingual
Translators and then back-translated by two bilingual translators to ensure similarities of meaning and understanding in the two versions. A summary of the demographic data of the respondents is shown in Table I.

### 3.3 Measurement

For this study, the authors adopted emotional value, epistemic value, concern about halal-certified products and choice behaviour as the multidimensional constructs. According to Edwards (2001), a construct is considered multidimensional when it refers to several distinct but related items that are being treated as a single theoretical concept, and this allows the matching of excellent predictors with wide-ranging outcomes. Emotional value was measured by three indicators that were adapted from the study conducted by Lin and Huang (2012), while the assessment of epistemic value was based on the five measurement items that were used in the study undertaken by Mohd Suki (2016). As for concern about halal-certified products and choice behaviour, the former was weighed by the four indicators employed by Maehle et al. (2015), while the latter was operationalized by the seven measurable items used by Han et al. (2010). As the reflective measurement model represents the manifestation of the first construct and theory-testing research (Astrachan et al., 2014; Hair et al., 2014; Lowry and Gaskin, 2014), this model was deemed suitable for using together with the first-order factor in measuring all of the exogenous latent variables (Hair et al., 2014).

### 4. Results and data analysis

In addition to using a nonparametric SEM for a CB analysis, which is known for its effectiveness in the simultaneous testing and estimating of the variables in a structural model (Astrachan et al., 2014; Hair et al., 2014), this study also utilized a two-step approach as advocated by Liu et al. (2011) to test the hypotheses. Therefore, first, this study used confirmatory factor analysis to evaluate the construct validity of the measurement model before undertaking the second step of assessing the paths and hypotheses through the utilization of a structural model. In addition, the estimation of maximum likelihood as well as Analysis Moment of Structure (AMOS) version 18 software were utilized to test the constructs of the whole model, while Statistical Package for the Social Sciences (SPSS) software was used to evaluate sampling adequacy.

#### 4.1 Analysis of the measurement model

First, SPSS software was used for the factor analysis, in which sampling adequacy was assessed by using the Kaiser–Meyer–Olkin (KMO) and Bartlett’s tests. The KMO result of 0.863 was considered to be favourable because the value of the KMO measure must be greater or equal to 0.6 (≥ 0.6) for it to be considered acceptable (Hair et al., 2014). Meanwhile,
the level of significance \( p < 0.001 \) of the Bartlett’s test was overruled by the approximate \( \chi^2 \) value of 938.86, indicating that the coefficients of the model were not equal to zero.

Next, AMOS software was used to assess the goodness of fit (GOF) of the model, where GOF refers to the degree of compliance between the estimated covariance matrix and the observed matrix. According to Hair et al. (2014), the estimated and observed matrix should be analogous for the proposed theory to be impeccable, and the closer the matrix values the better the model fit.

Then, the psychometric properties of the model were further assessed to determine the reliability and validity of the model. The reliability test yielded results that surpassed the threshold values, where the composite reliability (CR) value was above 0.8 (Fornell and Larcker, 1981) and the Cronbach’s \( \alpha \) was greater than 0.7 (Nunnally and Bernstein, 1994). These results indicated that the model did not have any internal consistency issues. In addition, convergent validity was assessed by calculating the average variance extracted (AVE), and the result showed that multicollinearity was not present (AVE > 0.5) in the individual factors. Hence, the CR and AVE values validated that the model had adequate reliability and validity. Moreover, the model was also found to be free from any discriminant validity issues because the value of the AVE was greater than the maximum share variance (MSV) value (Hair et al., 2014). Furthermore, discriminant validity was also assessed by calculating the square root of the AVE (diagonal value). The result showed that the AVE value was greater than the inter-construct correlation and hence it was acceptable (Hair et al., 2014). The reliability and validity outcomes of the measurement model are shown in Table II.

4.2 Analysis of the structural model
An analysis of the structural model was carried out to test the proposed hypotheses and the GOF indices (Table III) in order to determine whether the structural model was a good fit to the sample data. The analysis showed that the data were satisfactory because all of the parameters \( (C_{min} = 265.554; \ df = 105; \ C_{min}/df = 2.53; \ GFI = 0.954; \ RMSEA = 0.052; \ TLI = 0.964; \ CFI = 0.971) \) surpassed the threshold values (Hair et al., 2014). The next step involved analysing the structural paths of the model that represented the proposed hypotheses.

The model showed that emotional value had a positive and direct impact on consumer choice behaviour towards halal-certified food supplies \( (\beta = 0.424, \ p < 0.001) \). This indicates that the emotional value of a customer has a significant influence on their choice behaviour. This supports \( H1 \), which posited that emotional value would play a significant role in determining the Muslim customer’s choice behaviour towards halal-certified food supplies.

In addition, the model indicated that epistemic value had a significant influence on consumer choice behaviour towards halal-certified products \( (\beta = 0.272, \ p < 0.001) \). This implies that knowledge and awareness play a significant role in influencing consumer choice behaviour. This result supports \( H2 \), which postulated that epistemic value would have a significant impact on the Muslim customer’s choice behaviour towards halal-certified food supplies. This result therefore adds to the literature on the influence of epistemic value and consumer choice behaviour on the purchase of the halal-certified food supplies by Muslim consumers.

Furthermore, the model revealed that the halal concern of customers had an influence on their choice behaviour with respect to the purchase of halal-certified food supplies. The significant relationship between concern about halal-certified food supplies and consumer choice behaviour, as represented by the regression coefficient \( (\beta = 0.460, \ p < 0.001) \), provides evidence of the extent of the influence of halal concern in determining choice behaviour. This result also fills a gap in the literature by empirically proving that the religious value of halal concern has a role to play in influencing consumer choice behaviour.

Hence the analysis of the model showed that emotional value, epistemic value and halal concern are good predictors of consumer choice behaviour in the context of halal-certified food supplies. The combined predictive value of these three factors was 74.3 per cent \( (R^2 = 0.743) \).
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<tr>
<th>Factor</th>
<th>Item</th>
<th>Loading</th>
<th>Cronbach’s α</th>
<th>Mean</th>
<th>CR</th>
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<th>EV</th>
<th>EPV</th>
<th>HC</th>
<th>CB</th>
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<tbody>
<tr>
<td>Emotional value (EV)</td>
<td>EV1 I feel like making a good personal contribution to something better by purchasing a halal product</td>
<td>0.918</td>
<td>0.886</td>
<td>3.701</td>
<td>0.929</td>
<td>0.813</td>
<td>0.354</td>
<td>0.902</td>
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<td>EV2 Purchasing a halal product instead of a non-halal product would feel like an appropriate behaviour</td>
<td>0.859</td>
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<td>EV3 I feel like a better person by purchasing a halal product</td>
<td>0.927</td>
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<td>Epistemic Value (EPV)</td>
<td>EPV1 I would obtain a substantial amount of information about available product brands before buying a halal version of the same product</td>
<td>0.927</td>
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<td></td>
<td>EPV2 I would like to acquire a great deal of information about different brands before purchasing a halal product</td>
<td>Deleted due to low factor loading</td>
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<td>EPV3 I prefer to check the halal logo and certification on a halal product before making a purchase</td>
<td>Deleted due to low factor loading</td>
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<td>EPV4 I like to search for new and different halal products available in the market</td>
<td>0.751</td>
<td>0.724</td>
<td>3.225</td>
<td>0.844</td>
<td>0.644</td>
<td>0.480</td>
<td>0.442</td>
<td>0.802</td>
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<td>EPV5 I like to know the origin of a halal product</td>
<td>0.846</td>
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<td>Halal Concern (HC)</td>
<td>HC1 I prefer to vote for a candidate in an election at least in part because he/she is in favour of enhancing the halal integrity of products</td>
<td>0.817</td>
<td>0.811</td>
<td>3.516</td>
<td>0.876</td>
<td>0.641</td>
<td>0.057</td>
<td>0.212</td>
<td>0.173</td>
<td>0.800</td>
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<td>HC2 I have avoided buying a certain product because the halal status of the product is arguable</td>
<td>0.899</td>
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<td>HC3 I have read newsletters, blogs, magazines, and social media etc. to obtain information on and discuss the issue of halal integrity</td>
<td>0.769</td>
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<td>HC4 I have boycotted and avoided purchasing a halal product because the halal integrity of the manufacturer is doubtful</td>
<td>0.704</td>
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<td>Choice Behaviour (CB)</td>
<td>CB1 I will make a special effort to buy a halal product</td>
<td>0.816</td>
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<td>CB2 When I have a choice of two halal products, I like to purchase the product that has the most trusted halal integrity</td>
<td>Deleted due to low factor loading</td>
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<td>CB3 I have switched a product due to halal integrity of the previous product being doubtful</td>
<td>0.912</td>
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<tr>
<td>CB4</td>
<td>I make a special effort to purchase a consumable product that is</td>
<td>0.900</td>
<td>0.896</td>
<td>0.367</td>
<td>0.923</td>
<td>0.708</td>
<td>0.480</td>
<td>0.595</td>
<td>0.693</td>
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<td>0.841</td>
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<td>certified a halal by an authorized body</td>
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<td>CB5</td>
<td>I have avoided purchasing a product because the halal certification</td>
<td>0.795</td>
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<td>of the product is doubtful</td>
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<tr>
<td>CB6</td>
<td>I am willing to pay more money to purchase a halal product</td>
<td>0.774</td>
<td></td>
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<tr>
<td>CB7</td>
<td>I am willing to buy a halal product at a higher price for the health</td>
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Notes: CR, composite reliability; AVE, average variance extracted; MSV, maximum share variance

Deleted due to low factor loading
5. Discussion

The results of this study provided empirical data to support the three proposed hypotheses by specifically revealing the key drivers of halal food consumption value, namely the positive influence of emotional value, epistemic value and halal concern on the choice behaviour towards the purchase of halal-certified food supplies. This initial attempt to statistically verify the influence of the TCV towards the halal food choice behaviour thus prompted a study on the religious aspect of halal concern (Aoun and Tournois, 2015).

First, this study evidently showed that emotional value \((H1)\) has a significant effect on consumer choice behaviour towards halal foods. As such, this finding refutes the conclusion made by Mohd Suki and Mohd Suki (2015), who found that emotional value does not have a significant impact on choice behaviour. Although the use of purposive sampling in the sampling methodology for this study create some drawbacks in respect of the generalizability of the results, the usage of CB-SEM in the statistical analysis ensured the statistical validity of the proposed model (Teddlie and Yu, 2007). However, this result is consistent with those of Hur et al. (2012), who stated that emotional value has a significant effect in determining halal food choice behaviour. Besides, Lin and Huang (2012) also found that emotional value plays a vital role in choice behaviour and Groves et al. (2009) highlighted that the importance of the sampling methodology in the determination of consumer choice behaviour.

<table>
<thead>
<tr>
<th>Index</th>
<th>Measurement model indices</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>(C_{\text{min}}/df)</td>
<td>(C_{\text{min}} = 265.554)</td>
<td>(df = 105) (C_{\text{min}}/df = 2.53) (C_{\text{min}}) is involved in figuring the statistical probability of the difference between observed and estimated matrices. The fitness of the model incorporates the ration of (C_{\text{min}}) and degree of freedom (df) in which the threshold value is less than 3 (&lt; 3).</td>
</tr>
<tr>
<td>Goodness Fit Index (GFI)</td>
<td>GFI = 0.954</td>
<td>GFI is referring to the adjustment measure that is insensitive to the sample size, and there is no statistical test to evaluate the GFI value, however, the specific guideline of the GFI value ranges from zero to one, in which the fitness of the model is linearly proportional to the value. Generally, the cut-off value of GFI = 0.9 is contemplated for assessing the fit of the model.</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA):</td>
<td>RMSEA = 0.052</td>
<td>RMSEA is a prevalent assessment in correcting (C_{\text{min}})'s sensitivity to the variable's number and sample size. The clear threshold value of RMSEA is 0.8, where the model fit is inversely proportional to the value; the less the value, the fitter the. RMSEA is the prominent statistical method in the confirmatory research.</td>
</tr>
<tr>
<td>Tucked-Lewis Index (TLI):</td>
<td>TLI = 0.964</td>
<td>TLI equates the normed (C_{\text{min}}) value for the specified model with the null model, in which the TLI value is not normed; the range of the value is zero to above one. In general, the greater the value of TLI, the better the model's fit.</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>CFI = 0.971</td>
<td>CFI is referring to the statistical index which calculates the variance between (C_{\text{min}}) and df between the model (saturated and non-saturated). The value of CFI is ranged from zero to one, where the best fit of the model is directly proportional to the value of CFI in which the cut-off value is 0.9 and represents the good fit.</td>
</tr>
</tbody>
</table>

Table III. Measurement model indices and description
On the other hand, epistemic value (hedonic and utilitarian aspects) was inimitably assessed in this study to ensure its compliance with \( H2 \) and it is found that the epistemic value has a significant effect on Muslim choice behaviour towards halal food supplies. This result is consistent with that reported by Holbrook (2006), who highlighted that the hedonic and utilitarian aspects are important in terms of the influence they can exert on the consumer. Although Lee et al. (2009) and Chandon et al. (2000) also observed that it is essential to include a hedonic and utilitarian aspects in marketing strategies for food supplies and in elevating the value of food products to a premium status, the significance of epistemic value in consumption behaviour was, however, later refuted by Koenig-Lewis et al. (2015). These conflicting findings could be attributed to the random sampling in data collection process employed by the above-mentioned studies and the usage of partial least squares (PLS)-SEM in determining the influence of the variables, which then produced results that contrast with those produced by CB-SEM, the analysis method adopted by this study. According to Lowry and Gaskin (2014), the application of CB provides an advantage in terms of model validation, while PLS-SEM is more suited to theory testing. In this study, CB was proven to be an appropriate statistical technique for simultaneously testing the latent variable as well as validating the proposed model for the determination of the influence of epistemic value on halal food consumption behaviour.

Interestingly, while this study found that emotional and epistemic values had a significant influence on halal food consumption behaviour, it also revealed that the religious value of placing a high emphasis on halal certification, as postulated in \( H3 \), was highly significant in terms of its effect on the halal food consumption value. This result not only corroborates the finding of Al-Hyari et al. (2012), who showed that over 70 per cent of American consumers cite religious value to be an influencing factor in their choice behaviour, but also that halal concern is a dominant influence in the halal food consumption value as shown by this study \( (\beta = 0.460, p = 0.001) \). Likewise, Essoo and Dibb (2004) noted a linkage between consumption value and a consumer’s piousness level, while Bonne and Verbeke (2008) found that level of religious involvement is a crucial factor in determining the consumer’s choice and consumption behaviour with respect to the purchase of provisions. Although the validity of assessing religiosity in determining a consumer’s intention or behaviour was refuted by Vitell (2009), especially in the areas of marketing and consumerism, this study has nevertheless produced some compelling empirical evidence with respect to religious concerns being a vital factor in determining consumer behaviour.

In light of the above, it is considered that this study has provided sufficient empirical evidence to distinguish the effect of four main variables (emotional value, epistemic value, halal concern and choice behaviour) on the halal food consumption value, which largely corresponds with the findings in the literature (Biswa and Roy, 2015; Bonne et al., 2008; Holbrook, 2006; Lee et al., 2009; Lin and Huang, 2012). In this study, the proposed model demonstrated a variance of \( R^2 = 0.743 \). This not only suggested that 74.3 per cent of the halal food consumption value was affected by emotional and epistemic values as well as halal concern, it also corresponded to the objective set in the CB-SEM study. Furthermore, this study also offered a new insight by showing that a religious value (halal concern) was a determinant of purchasing behaviour. Hence this study has thereby made a valuable contribution to the consumer behaviour literature.

6. Conclusion
The TCV method that was employed in this study revealed that all three key drivers (emotional value, epistemic value and halal concern) had a statistically significant influence on the antecedent variable in the halal food consumption value. This study also identified and empirically proved that emotional value, epistemic value and halal concern was the precursor that was necessary for motivating customers’ halal food purchasing behaviour.
This study showed that the religious value (halal concern) was evidently the most statistically significant factor in determining purchasing behaviour in respect of halal food products, and that this in turn led to a higher consumption level. It also established that the hedonic and utilitarian aspects play an important role in determining consumer purchasing behaviour, which corresponded with the findings in the literature. For these reasons, players in the halal industry are encouraged to restructure their strategies in order to reach Muslim consumers by achieving the halal certification standard as well as implementing good branding and attractive packaging for their food products.

A proper consideration of the values that were identified as driving halal food purchasing behaviour in this study is expected to contribute to market growth. As this study found that emotional value had a statistically significant effect on consumer behaviour, this suggests that the halal industry taking on board the importance of these values will drive market growth rather than the values themselves and also need to ensure the optimum branding of their food products in order to maintain their customers’ interest because good marketing has been found to have an influence on consumer’s emotional value and, consequently, purchasing behaviour. This study finding is similar to the conclusions drawn in the literature, which showed that good advertising can elevate sales performance. As such, the findings of this study suggest that it may be possible for the halal industry to increase Muslim consumer loyalty by achieving a positive brand image through the implementation of corporate social responsibility.

Another salient key driver that was highlighted in this study was epistemic value, which denotes that customers tend to seek information about products and products that have novelty value. As the epistemic value is considered to represent the hedonic and utilitarian aspects, the TCV-based model employed by this study considered it to be a factor that would affect halal food purchasing behaviour. In this sense, knowledge seeking is perhaps the most potent element of the epistemic value. The findings of this study in respect of the significance of epistemic value also support the literature by highlighting that a combination of hedonic and utilitarian factors is involved in determining consumer purchasing behaviour. As such, this study advocates for the display of information such as the list of ingredients, nutritional facts as well as the halal logo on food labels in order to entice consumers to purchase said products. The halal industry could also use the nutritional value of their products as a unique selling point in their marketing strategy to stimulate the consumer’s desire to try something out of the ordinary because epistemic value is not only confined to providing facts and information, but also includes product presentation as well. Apart from that, the halal industries may also wish to consider implementing a “provenance” system, which would enable the consumer to track the halal product to a specific manufacturer as well as across the supply chain process, especially in the case of high-value products.

The core finding of this study is that religious value (halal concern) has a significant influence in determining customer consumption behaviour towards halal food products. The study clearly demonstrated that halal concern played a crucial role in the consumption value of halal-certified food supplies. While the degree of faith in determining the religiosity of an individual was statistically proven to be an important factor affecting an individual’s daily life and particularly their purchasing behaviour towards halal-certified products, there are still a few researchers who question whether religious value is a strong determinant of customer consumption behaviour. Nevertheless, in light of the findings reported here, this study recommends that the halal food industries seek to achieve a higher degree of compliance with halal standards by engaging the services of globally recognized halal certification bodies such as the Malaysian Department of Islamic Development (JAKIM), The Central Islamic Committee of Thailand (CICOT), Halal Food Authority of the UK (HFA), Islamic Food and Nutrition Council of America (IFANCA), Halal Food Council of Europe (HFCE), and China Islamic Association (CIA).
Finally, in conclusion, the results obtained by this study lay the foundation for the improvement of halal food consumption, where its success would depend highly on the cooperation exerted between both the consumers and the halal industries. This study not only suggested that the halal industries take the combination of the utilitarian (epistemic value) and hedonic (emotional value and halal concern) factors into consideration in order to find ways to increase the consumer consumption value for halal food and, consequently, improve market performance, it also attempted to fill existing gaps in the literature. The methodology and techniques that were employed in this study overcame some of the issues in previous quantitative studies, such as weak sampling techniques and statistical analyses as well as lack of data that were particularly evident in respect of the inclusion of the religious value as a potential influence on purchasing behaviour. Therefore, this study, which endeavoured to close a gap in knowledge by providing a broader view of consumption value through the inclusion of halal concern as a potential factor in the enhancement of the consumption value of halal food, has thus eliminated the disparity between consumption value and purchasing behaviour.

References


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