

An Exploratory Study on Factors Influencing University Students' Intention to Patronize Food Trucks

Tan Poh Leong¹, Audrey Malenee Mariadass^{2*} and Lee Boon Kai¹

¹*Faculty of Social Science and Humanities, Tunku Abdul Rahman University College, 31900 Kampar, Perak, Malaysia*

²*Faculty of Accountancy, Finance, and Business, Tunku Abdul Rahman University College, 31900 Kampar, Perak, Malaysia*

ABSTRACT

Recognising the increase of food trucks as well as the failure rate of businesses in Malaysia, this study explores the patronization intention of university students towards food trucks. The results will contribute towards an increased understanding of the food truck business potential especially for its operators by firstly understanding what influences their customers or potential customers' intention to patronize food trucks. Theory of Planned Behaviour (TPB) has been employed in this quantitative study. Systematic sampling was used and the data was collected through an online survey from 263 respondents. SmartPLS software and Variance Based Structural Equation Modelling (VB-SEM) were used to analyse the data. Overall, the findings indicated a significant relationship between all the variables studied in the TPB model; attitude, subjective norms, perceived behavioural control, convenience and product attribute with patronization intention. The outcome of this research provides information to food truck business operators which can be taken into consideration when planning ways to increase students' patronage.

Keywords: Food truck business, food truck patronization, intention, theory of planned behaviour, university students

ARTICLE INFO

Article history:

Received: 23 January 2019

Accepted: 18 December 2019

Published: 26 June 2020

E-mail addresses:

tanpl@tarc.edu.my (Tan Poh Leong)

audreymm@tarc.edu.my (Audrey Malenee)

arhkai0708@outlook.com (Lee Boon Kai)

* Corresponding author

INTRODUCTION

A food truck provides various freshly cooked food from local and western cuisine to consumers. It has been identified as a new food trend that mostly influences the younger generation (Thomas, 2016). The food truck trend may encourage the existing street food hawker stalls to be transformed

into food trucks (Saw, 2017). In line with this food eating trend, the Malaysian government has made a great effort into legalizing the business of food trucks by locating them at a suitable place. Besides that, the government continues to improve its policy to enable a more conducive environment for food truck operators (Kong, 2016).

With more relevant food truck policies and system provided by the government, it gives a form of security and hopes to potential food truck operators. However, the food truck business may vanish if their business fails to be patronized by customers. In the end, this will affect their food truck's return on investment (ROI). It was reported that the failure rate of entrepreneurs was extremely high at 60% which included food truck business operators in Malaysia (Ahmad & Seet, 2009; Chong et al., 2012; Rahman et al., 2014). Therefore, this alarming rate of failure makes it necessary for all food truck business operators to recognize their business potential by first understanding the factors that contribute towards people patronizing their food trucks.

There have been many previous research done related to consumers' intention to patronize the restaurant business, for instance; fast food outlets, visiting a hotel's restaurant, eco-friendly restaurants, and halal restaurants (Al-Nahdi & Islam, 2011; Chen & Huang, 2013; Kim et al., 2013).

Regrettably, very few empirical studies which directly explored intention to patronize food truck from the university students' points of view have been done by

previous researchers. University students generally seek for convenience food that can be prepared in the fastest way since they may lack time for cooking and are occupied with other activities (Tan et al., 2016). Therefore, there are chances of them patronizing food stalls such as food trucks that offer convenience, food preparation speed and a variety of options to its patrons.

Despite many research on factors that influence consumers' intention to patronize a business premise, there is still a general agreement that there are other factors related to consumers patronizing food trucks which is still not well understood. Even though the food truck trend is popular nowadays, yet the university students' intention behaviour to patronize food trucks has not been fully well addressed. Hence, this gap leads to a call for further exploration for a different way to make clear about university students' intention to patronize food trucks.

The reason this study focuses on behavioural intention as it is the key determinant factor that forecasts future consumer activity such as purchasing products and patronizing a place (Ouellette & Wood, 1998). Behavioural intention is defined as a consumers' action of a purpose with a specific behaviour (Ajzen, 1991). Intention can also be classified as the person's determination to perform an action such as the purchase of certain products (Ramayah et al., 2010). Previous studies proved that behavioural intention theory was one of the top forecasting tools used in identifying consumer action or behaviour in marketing research (Jani & Han, 2013). Another study result indicated that consumer

purchase intention was positively influenced by the company's brand image which led to consumers performing specific actions (Wu, 2015).

Following that, to further explore this area in the context of food truck patronization, the Theory of Planned Behaviour (TPB) was utilized as it was the strongest predictor for the studies of consumer intention (Ajzen, 1991). Many studies found that consumer purchase intention was positively influenced by product attributes, subjective norm, perceived behaviour control, convenience and price (Suh et al., 2015). Previous studies proved that behavioural intention theory was an effective tool employed in the investigation of consumer behaviour and marketing research (Jani & Han, 2013). Hence, this study applied the Theory of Planned Behaviour (TPB) to determine university students' intention to patronize food trucks.

Hypotheses Development

Besides intention, attitude is defined as the level of positive or negative belief in a person to perform a specific action. According to Ajzen (1991), it is found that attitude can be "an educated preference towards conformity that is an unfavourable or favourable aspect of an item." In the TPB, attitude is the primary factor that interprets a consumers' intention. A consumer's decision can be led by the attitude that is judging on a specific action, object, issue and also a person, whatever is positive or, negative before making any decision to purchase (Han et al., 2010).

Attitude may lead to the individual perception of a certain object, which shows likes or dislikes and good or bad (Ajzen & Fishbein, 2000). For instance, the brand on a product label may affect the consumer's attitude towards the purchase intention. In other words, the more the consumer has a favourable preference for a certain brand; it could impact the consumer's attitude (Hidayat & Diwasasri, 2013).

Product brands could influence consumers to be loyal and more willing to pay more for their preferred brands such as that mentioned by Mokhtar et al. (2017) which found significance in the relationship between brand equity and customers' behavioural intention towards supporting food truck businesses. Han et al. (2010) discovered that attitude had a direct impact on the purchase intention towards a green food restaurant for the reason of preferring a healthy lifestyle, a friendly atmosphere and to feel socially accepted. In terms of food truck environment, the atmosphere of the food truck, layout and visible signage does have a significant influence on the attitude of patronising.

University students' attitude towards food trucks is also influenced by their preference for convenience food and food trucks certainly meet their needs because it provides quick service, varieties of food as well as a friendly environment (Habib et al., 2011). Other than that, the product that has details, labelling, reliable advertising, and certification can lead to a positive attitude on when to buy the product (Al-Swidi et al., 2014). Based on the previous research done

by Teng and Wang (2015), it was found that a person's attitude could be a major force that urged the customers' purchase. To sum up, although there are many previous studies done on attitude and the results are found to show significance with consumers' intention behaviour, there is still a need to further study its role in a different context.

In line with the previous studies, it is found that attitude has a significant effect towards intention, consequently, this study formulated the hypothesis as below:

Hypothesis 1: There is a significant relationship between attitude and university students' intention to patronize food trucks.

In the actual fact of society, individual behaviour may be influenced by social pressure to perform specific actions to compromise (Ajzen, 1991). It can be explained that a person will act upon receiving the pressure from other people to do so (Al-Nahdi & Islam, 2011). A person's behaviour may be influenced by another person's perception of the purchase decision. When a person is close to another person and their associate may share a negative perception towards a certain product, the negative sharing may influence the particular person to switch their purchase intention to another product (Al-Nahdi & Islam, 2011). The research found that Chinese people's culture was usually influenced by their close friends (Cheng & Lam, 2008).

Studies found that a person's social status among their friends would positively affect others' purchase intention (Gentina

& Bonsu, 2013). A study done on healthy eating behaviour found that the government and family members played an important role to influence the younger generation on adopting a healthy eating lifestyle (Chan & Tsang, 2011). University students undergo important transitions such as leaving home and decision-making on where to have their meals are usually influenced by friends. Suh et al. (2015) research concluded that the major factor that was essential in affecting the consumers' intention was the subjective norm.

Nolan et al. (2008) discovered subjective norm was the factor that drove a consumer's intention in ways of which they were usually not aware of. This study also hypothesized that people's perceived social pressure from significant others to eat at a food truck positively influenced their attitude toward eating at the food truck. Bakar et al. (2018) found a significant positive relationship between subjective norm and Halal Compliance food trucks. Several studies provided empirical evidence of the positive relationship that subjective norm had on intention (Han & Kim, 2009). Thus, this study has formulated the following hypothesis.

Hypothesis 2: There is a significant relationship between subjective norms and university students' intention to patronize food trucks.

Furthermore, factors such as perceived behavioural control (PBC) reflects an individual's confidence with the availability of resources and the person's ability to perform a specific task (Ajzen, 1991).

PBC may also be explained as the level of control that a person's recognition has upon the behaviour (Chen, 2007). In the marketing and economic context, the PBC described the ability of control that consumers think of in their purchase decision (Hee & Jae-Eun, 2011). In other words, consumer buying decisions can be stimulated by a personal feature such as an economic condition, age level, value and personal lifestyles (Al-Nahdi & Islam, 2011; Fazakas, 2013; Goh & Sandhu, 2013). However, Tikir and Lehmann (2011) found that perceived behavioural control was not a significant factor to anticipate consumer intention. Furthermore, McEachan et al. (2010) concluded that the younger group of consumers had weak associations in perceived behavioural control if compared to the older group of consumers who tend to show higher associations between the variables.

To sum up, there are many previous researches which had discovered that perceived behavioural control factor has the most significant relationship to intention, as a delegate to personal actual control on specific actions (Dommermuth et al., 2011). There are also other researchers who found that perceived behavioural control had no significant relationship to intention. For instance, perceived behavioural control was not found to be significant to patrons' support of Halal compliance food truck (Bakar et al., 2018).

Thus, there is an inconsistency of the relationship between perceived behavioural controls to intention in relation to this

particular argument. Furthermore, there is less understanding of the perceived behavioural control factor's influence on university students' intention to patronize food trucks in the existing literature. Therefore, the authors propose the following hypothesis in this study.

Hypothesis 3: There is a significant relationship between students' perceived behavioural control and intention to patronize food trucks.

Another interesting point to note is that students usually look for food that is convenient for them. Convenience level is determined by the effort of saving time and effort for a consumer such as an easement on searching for certain products in an outlet (Yunus et al., 2016).

Food truck business is about offering the right food product at the right place that is convenient to customers, at the right time, and at the right price (Kotler & Armstrong, 2010). The hard part is doing this properly as a food truck business needs to know every aspect of customer's behaviour. As a result, convenience and product attributes were employed in the research model to understand the food truck patronization in the research model.

Previous research found that convenience can be a major influence on the consumer's food choice. This is because consumers desire to seek for food that can be prepared in the fastest way and is ready to be consumed (Habib et al., 2011). Other studies done by Zhang et al. (2015) also proved that the convenience level could be the major impact to lead a person to

perform a task. Choi et al. (2013) explained that convenience was also classified as the extrinsic advantage on the street food benefits such as accessibility and speed on the food preparation.

A food truck business providing good food service is important as students might lack the skill and time to prepare their food. Certainly, the food truck business may solve students' need to satisfy their food cravings. Food truck owners should understand what their customers look for in their service and their products. It is noted that most food truck owners decide to locate themselves closer to office areas during lunch hours and in community areas during night time (Thomas, 2016).

However, exploring the effect of convenience factors and intention to patronize food trucks among university students is still less considered in previous research in Malaysia. As a result, this study has formulated the following hypothesis.

Hypothesis 4: There is a significant relationship between convenience and intention to patronize food trucks.

Other than that, product attributes are illustrated as the aspect of the product or service and attributes may be classified into two categories which are product-related attributes (example of a brand, colour, and price) and non-product related attributes (quality, style, and service) (Keller, 1999). Products are generally indicated as a pack of attributes as there are labelling, brand name, packaging and other aspects that consumers consider before making a purchase (Mueller & Szolnoki, 2010). Attributes play a vital

role in the consumer mind-set since it offers different benefits to each consumer (Soonhong et al., 2012).

In any food business, food safety should be placed as a priority. Previous studies discovered consumers' willingness to pay a higher price for safe products and of good quality (Marinelli, 2010). A study done by Lusk and Briggeman (2009) evaluated that food safety was a leading factor in the food value and which was then followed by taste and price. Besides food safety, food quality is also a product attribute focused on by consumers. Ordinarily, the price will be the key factor in the consumer purchase decision, but some of the consumers prefer to make their purchase decision based on the quality attributes that comprise the colour, cooking time, taste and others (Naidu, 2014).

Price can be defined as the amount of money that needs to be paid for any product or service being offered by the company to the consumer for the purpose of buying and selling (Kotler & Armstrong, 2010). Generally, the price is the critical factor that impacts consumers' views on the product value in relation to the total value of a particular product that the consumers exchanged (Wang & Chen, 2011). Another price factor could be the price discount or promotion that directly affects the consumers' intention to make a purchase decision (Choi et al., 2013). One of the similar studies on product attributes found that price was found to have a significant relationship towards intention to consume street food (Choi et al., 2013).

So far, however, there has been little discussion about food truck through various factors that discussed about affecting university students' intention to patronize food trucks in Malaysia. Consequently, this study has formulated the following hypothesis.

Hypothesis 5: There is a significant relationship between food truck product attributes and intention to patronize food trucks.

To conclude the review of the literature, this study has formulated the following research model with five hypotheses (Figure 1).

METHODS

Research Design

The purpose of this study was to explore the various factors influencing university students' intention to patronize food trucks; therefore, the Variance Based SEM (VB-SEM) is more appropriate compared to

Covariance Based SEM (CB SEM) which is used to confirm the research model (Chin, 1998; Hair et al., 2014). This study employed a quantitative survey method. Quantitative methods are defined as useful in large and complex issues (David et al., 2016). A previous study that has employed quantitative research states that it is a competent method to gain much of the response in studies related to consumers' behaviour towards food consumption (Suh et al., 2015). The advantage of applying survey methods could better gathering of more detailed information about consumers' preferences and attitudes (Zhang et al., 2016). Since the purpose of this study was to explore the various factors influencing university students' intention to patronize food trucks; therefore, the Variance Based SEM (VB-SEM) was more appropriate compared to Covariance Based SEM (CB SEM) which was used to confirm the research model (Chin, 1998; Hair et al., 2014).

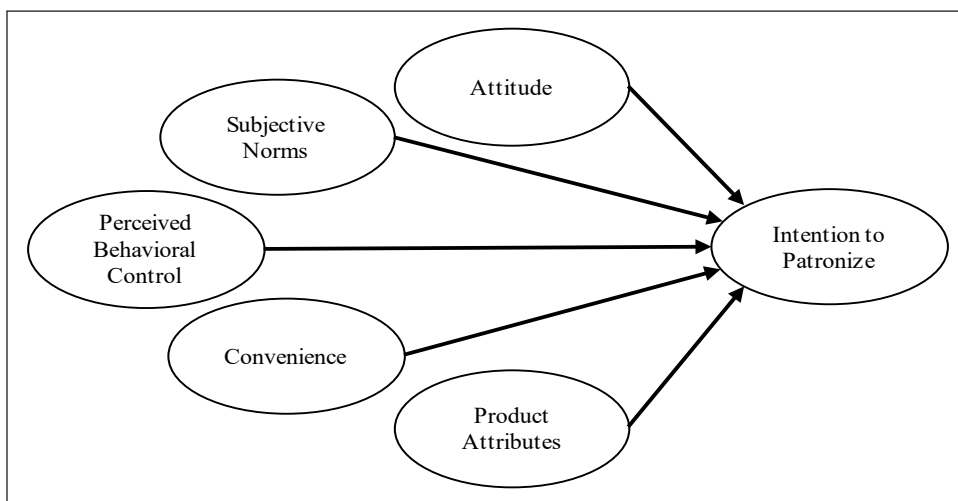


Figure 1. Research model

Population and Sampling

The target population of this research was university students. Annamdevula and Bellamkonda (2016) stated that university students played an essential role in a country's development in terms of economic, cultural and social progress. To determine the actual sample size for this study, with reference to Krejcie and Morgan's (1970) table was made as the table applies to any population of a definite size. Based on the table, when the population size, $N=800$, the sample size (n) = 260. Thus, the sample size for this study should be around 260 samples. Instead of using 260 samples, a total of 290 respondents from the university college were selected to participate in this study. The study employed a probability sample technique consisting of a systematic random sampling method.

The email addresses of the targeted respondents who were students were acquired from the Admissions office of a private university college located in Kampar, Perak. The students targeted as respondents ranged from first to final year students. From the list of student e-mail addresses, the researcher used systematic sampling using Microsoft Excel to select student emails to participate in the survey. All students without an email address were excluded and the researcher managed to obtain 600 email addresses. After obtaining the list of student e-mail addresses, the researcher performed a simple calculation, i.e. dividing 600 with the desired sample size, which was 290, and the answer was 2. Next, the email addresses were selected starting from email address number 2 and

then followed by email address 4, 6, 8, until a total of 290 subjects were obtained. The reason 290 samples were selected was that many students or internet users had multiple e-mail addresses and may frequently change their addresses; nevertheless, the error messages for unusable e-mail addresses were taken into account as the researcher would then need to select more participants to reach the planned sample size.

Survey Instrument

The online survey questionnaire applied the adopted and adapted survey questions which were modified to suit the intent of this study. The instrument employed an online survey and it has been designed into 41 items with 6 variables. Items attitude towards the patronization of food trucks (Jiang et al., 2013; Suki & Suki, 2015), subjective norm (Tan et al., 2016), perceived behavioural control (Chung, 2016), convenience (Jiang et al., 2013; Llyod et al., 2014), intention (Chih & Yu, 2015) and food truck product attributes (Chrysochoidis et al., 2007) were adapted from previous studies and revised based on experts' opinions and after pretesting to ensure content validity.

To measure the items the survey used a 5-point Likert scale. The 5-point Likert scale is the most popular model to test the attitude scale and for the researchers to plan for the respondents to answer (Schiffman & Wisenblit, 2015). Many researchers have applied 5-point Likert scales. The scope of 5-point Likert scales ranging from 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree) and 5 (Strongly Agree)

were utilized in the questionnaire pattern. The questionnaire had been separated into three sections comprising Section A that measured Students' Intention based on Five-Likert scales, Section B that measured Attitudes, Subjective norm, Perceived Behavioural Control, Convenience, Product Attributes, and Intention, and lastly Section C that measured Demographic details through multiple-choice questions. The questionnaire was designed using simple English to suit the respondents' level of competency. Before sending the online survey questionnaires, the online survey questionnaires had been tested through a pilot test. Feedback from the pilot test indicated that the respondents really understood the instrument used and as such; the questionnaire could then be used for this study.

Data Collection

The online survey questionnaire was sent to the 290 university students' email. Internet survey has become a popular tool to collect the data because people that are interested in an internet survey have been increasing rapidly (Schiffman & Wisenblit, 2015) as there are several advantages of using an online survey method. The online survey questionnaires were sent through email and also the social network by approaching university students as respondents (Evans & Mathur, 2008). Other than that, it also speeds up the collection of respondents' feedbacks online. However, a few weaknesses on the online survey method need to consider such as; the respondents assume the questionnaire

as junk mail and also some of the instructions of answering the questions may not be clear to the respondents (Evans & Mathur, 2008).

The Technique of Data Analysis

This research employed Smart Partial Least Square (SmartPLS) for the analysis purpose. The Structural Equation Modeling (SEM) was applied due to non-normality data distribution and also because the research objective is to predict the relationship between independent variables and dependent variables (Ramayah et al., 2018; Ringle et al., 2015). As a result, PLS modeling was employed to validate the model and test the hypotheses. The analysis was carried out in two stages (Wasko & Faraj, 2005): first, to examine the validity and reliability of the measurement model and second to determine the structural model.

Data Analysis

The total number of respondents who had filled in the online survey form was 263. The statistical analysis shows the frequency and percentage of the respondents' profile in Table 1. Gender shows Male was 51.3% (135) and Female 48.7% (128). Besides that, 76.1% were from age 21 - 25 years (200) and 23.9% from 26-30 years (63).

The student's education level shows that 84.9% was holding a Degree in Bachelor program (223) and only 15.1% were Master holder students (40). Furthermore, the marital status of students been categorized as two which was 74.9% were single (197) and 25.1% were in a relationship (66).

The cost of living of the students shown 71.1% of the respondents were from RM 500 – RM1000 (187), 7.6% from RM 1001 – RM 1500 (20), 6.5% from RM 1501 – RM 2000 (17) and the 14.8% were from RM 2001 and above (39).

Data Analysis Partial Least Squares Analysis-Structural Equation Modelling (PLS-SEM). Instrument Validity and Reliability. In Table 2, the results of all the constructs are between 8.08 and 8.77 which means that it has already exceeded the suggested value of 0.70 (Nunnally & Bernstein, 1994). The result further explained that all the constructs obtained a high level of construct reliability and internal consistency. This result can be

Table 1
Demographic variables of the study

	Frequency	Percentage
Gender		
Male	135	51.3
Female	128	48.7
Age		
21-25	200	76.1
26-30	63	23.9
Education Level		
Degree in Bachelor	223	84.9
Degree in Master	40	15.1
Marital Status		
Single	197	
In a relationship	66	25.1
Cost of Living (Pocket Money)		
Rm 500 – RM1000	187	71.1
RM 1001 – RM 1500	20	7.6
RM1501 – RM 2000	17	6.5
RM 2001 and Above	39	14.8

Table 2
Internal consistency and convergent validity reporting

Construct	Item	Loading	CR	AVE	Decision
Attitude	ATT1	0.714	0.808	0.585	YES
	ATT3	0.739			
	ATT4	0.836			
Convenience	Conv1	0.827	0.877	0.589	YES
	Conv2	0.782			
	Conv3	0.780			
	Conv4	0.667			
	Conv5	0.773			
Intention	INT1	0.806	0.865	0.617	YES
	INT2	0.719			
	INT3	0.815			
	INT4	0.798			
Perceived Behavioural Control	PBC1	0.819	0.866	0.565	YES
	PBC2	0.780			
	PBC4	0.735			
	PBC5	0.721			
	PBC6	0.698			

Table 2 (continue)

Construct	Item	Loading	CR	AVE	Decision
Food Truck Product Attributes	PA2	0.738	0.845	0.646	YES
	PA3	0.836			
	PA6	0.834			
Subjective Norms	SN3	0.893	0.823	0.617	YES
	SN4	0.559			
	SN6	0.860			

explained as that there is a high level of convergent validity of the total six reflective constructs measurement as also shown in Table 2.

Discriminative Validity. The Fornell and Larcker criterion (1981) is an ordinary and traditional approach to evaluate discriminant validity. To create discriminant validity, the value of the average variance extracted (AVE) of each latent variable must exceed the latent variance correlations (LVC). Table 3 indicated that the discriminant validity is achieved in this research since the square foot of AVE for Attitude, Convenience, Intention to Patronize Food Truck, Perceived Behavioural Control, Product Attributes and Subjective Norms have exceeded the

value the corresponding latent variance correlations.

The Heterotrait Monotrait (HTMT) Criterion for Discriminant Validity.

According to Dijkstra and Henseler (2015), Heterotrait Monotrait is the most suggested method to test the discriminative validity in the variance based on SEM. Many researchers found that HTMT is a more stable and accurate outcome compared to the other two criteria which are Cross Loading (Chin, 1998) and Fornell and Lacker criterion (Dijkstra & Henseler, 2015).

With the latest of PLS-SEM publication encouraging researchers to use HTMT to find the ratio of correlations for evaluating the discriminative validity, this study

Table 3
Fornell and Larcker criterion

	Attitude	Convenience	Intention to Patronize Food Truck	Perceived Behaviour Control	Product Attributes	Subjective Norm
Attitude	0.765					
Convenience	0.657	0.768				
Intention to Patronize Food Truck	0.715	0.682	0.785			
Perceived Behavioural Control	0.439	0.486	0.525	0.752		
Product Attributes	0.582	0.459	0.591	0.295	0.804	
Subjective Norm	0.337	0.348	0.419	0.316	0.376	0.785

measures the HTMT (Ringle et al., 2014). Compeau et al. (1999) mentioned that in the discriminant validity the item should be loaded higher and stronger than the other construct in the model itself. Teo et al. (2008) suggested the correlation value of HTMT level should not exceed 0.90. Table 4 showcases the HTMT level for the variables studied in the context of food truck patronization.

Assessment of the Structural Model

Hair et al. (2014) pointed out that it was essential to evaluate the level of collinearity in the structural model before moving to the assessment part. The independent variables of β value may be partial as the level of

collinearity exceeds the higher value, which makes us evaluate it before examining the structural model. To test this level of collinearity the SPSS was used for the assessment of the tolerance and VIF value was generated by the SmartPLS. Table 5 presents that there are no multicollinearity problems, the tolerance value all exceeded the value of 0.2 and all VIF values are below 5.

RESULTS

The results of the structural model analysis were succeeded by employing a PLS method and bootstrapping technique. The hypothesis's significance levels for loadings, weights, and paths were measured through

Table 4
Heterotrait Monotrait (HTMT) criterion

	Attitude	Convenience	Intention to Patronize Food Truck	Perceived Behaviour Control	Product Attributes	Subjective Norm
Attitude						
Convenience	0.847					
Intention to Patronize Food Truck	0.840	0.838				
Perceived Behavioural Control	0.591	0.569	0.655			
Product Attributes	0.799	0.530	0.585	0.369		
Subjective Norm	0.421	0.392	0.423	0.433	0.473	

Table 5
Assessment of multicollinearity

Construct	Intention as Dependent Variable	
	Tolerance	VIF
Attitude	0.509	1.966
Convenience	0.530	1.866
Perceived Behavioural Control	0.761	1.313
Product Attributes	0.729	1.373
Subjective Norm	0.607	1.647

bootstrapping. Ten thousand bootstrap samples (10000) were employed through empirically estimated standard errors and assessed statistical significance.

Based on Figure 2 and Table 6, the results show that there is a significant relationship between attitude and intention to patronize food trucks ($\beta = 0.319$, $t = 4.474$, $P < 0.000$); therefore Hypothesis 1 is supported.

This is in line with the discovery made by Quevedo-Silva et al. (2015) as well as Teng and Wang (2015) that found university students' intentions to patronize was because of their attitude. A student's intention could have an adequate positive attitude towards the food truck (Yilmaz & Aydeniz, 2012). These findings verify that attitude has a positive significant relationship with the intention to patronize a food truck. The findings results are also consistent with the previous research of Al-Swidi et al. (2014) as well as that by Han et al. (2010) which concluded that attitude positively affected the intention to patronize food trucks. As a result, to increase the university students' intention to patronize food trucks, the food

truck industry must have comprehensive strategies and tactics which are needed to improve food truck's product attribute, marketing, and should constantly have a good public relation with consumers.

Hypothesis 2 found a significant relationship between the subjective norm and intention to patronize food trucks ($\beta = 0.091$, $t = 1.993$, $P < 0.046$); thus hypothesis 2 is also supported.

The results indicated that subjective norm is found to be an essential factor that influences the students' intention to patronize food trucks. This finding is identical to the previous research by Smith et al. (2008) who mentioned that subjective norm positively influenced consumers' behaviour concerning their purchase decision. Besides that, this study is also supported by Louis et al. (2007) which found the same result that showed subjective norm played an important role in consumer decision. With this finding, it is reported that a student's friend could be a major influence on them to patronize food trucks. In addition, a person's social status may possibly affect a student's intention to

Table 6
Summary of hypothesis result

Path	β	Std Error	T values	P value	Decision
H1: Attitude \rightarrow Intention to Patronize Food Truck	0.319	0.071	4.473	0.000	Supported
H2: Subjective Norm \rightarrow Intention to Patronize Food Truck	0.091	0.045	1.968	0.046	Supported
H3: Perceived Behavioural Control \rightarrow Intention to Patronize Food Truck	0.167	0.053	3.207	0.002	Supported
H4: Convenience \rightarrow Intention to Patronize Food Truck	0.269	0.061	4.411	0.000	Supported
H5: Product Attributes \rightarrow Intention to Patronize Food Truck	0.199	0.045	4.429	0.000	Supported

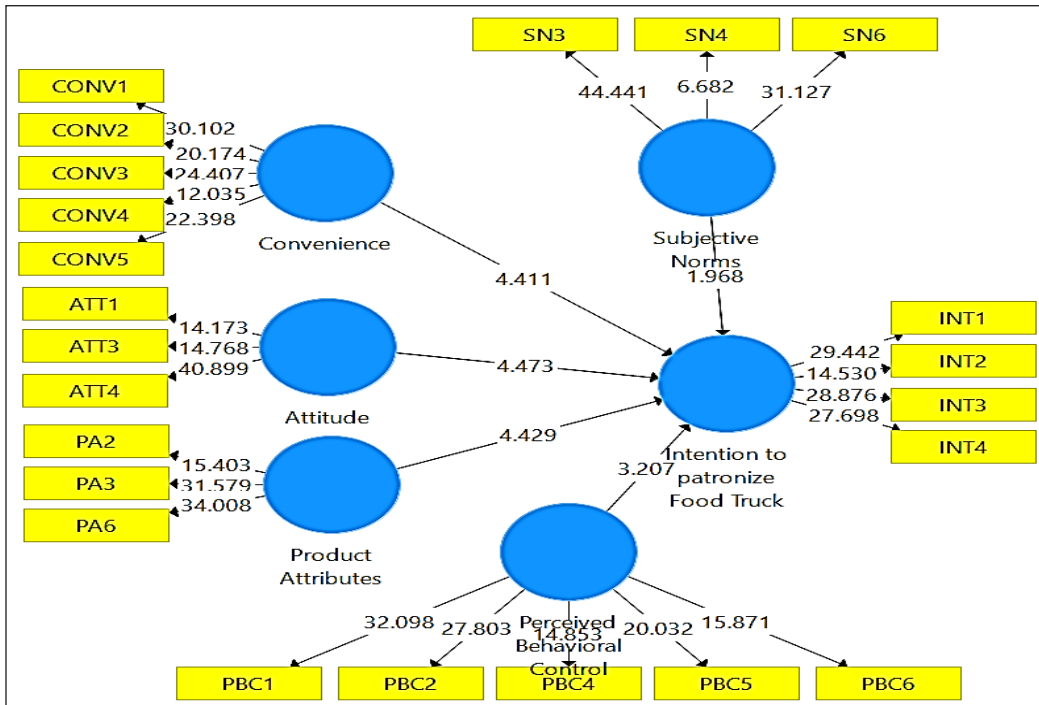


Figure 2. Direct effect structural research model

patronize food trucks too (Gentina & Bonsu, 2013).

Hypothesis 3 indicates that there is a significant relationship between perceived behaviour control and intention to patronize food truck ($\beta = 0.167, t = 3.136, P < 0.002$); as a result, the hypothesis 3 is supported as well.

The finding is consistent with Hee and Jae-Eun’s (2011) research that found that the ability to control a consumer was one of the important factors to influence consumer’s intention. The result is also in line with the finding by Al-Nadhi and Islam (2011) as it was found that economic conditions and personal lifestyles were the major factors that affected a consumer’s intention. Other results supported in this study are related to their resources and time (Goh & Sandhu,

2013). In addition, the determination of a student which resulted in encouraging or restricting them to perform a specific action will also affect intention (Fazakas, 2013). This finding can explain that a student’s intention to patronize a food truck is also influenced by perceived behavioural control factors.

Hypothesis 4 shows that there is a significant relationship between convenience and intention to patronize food trucks ($\beta = 0.269, t = 4.040, P < 0.000$); thus, this hypothesis is supported.

The finding is supported by the studies conducted by Habib et al. (2011) as well as Choi et al. (2013) that also found convenience as a major influence on customer’s intention towards food choice. Based on these findings, the convenience

factor may encourage food truck owners to set up their business near the university location for the students to patronize.

Hypothesis 5 reports that there is a significant relationship between product attributes and intention to patronize food truck ($\beta = 0.199, t = 4.416 > 1.5, P < 0.000$); therefore, hypothesis 5 is supported.

This result is consistent with the findings of a study by Min et al. (2012), which found that product attributes played an important role in the consumer's mindset. Product attributes such as, food safety and price are important effects that influence students' intention to patronize food trucks (Dekhili & d'Hauteville, 2009; Lusk & Briggemen, 2009). How to attract them to patronize food trucks is important as they are most likely to search for more information which would then lead them to purchase intention. Therefore, to improve university students' intention to patronize food trucks, the food product attributes such as price and food safety should be given priority by food truck owners.

Overall Model

Chin (1998) explained that to have good predictive relevance in the model, the Q^2 value must be larger than zero (Table 7). In order to search for the strength of the relationship in the path coefficient one to another, the R^2 value is to measure and predict the accuracy (Ang et al., 2015). Table 7 presents the R^2 value as follows: for Intention to Patronize food truck, $R^2 = 0.654$. This suggests that the exogenous variables in this study, namely attitude, subjective

norms, perceived behavioural control, convenience, and product attributes factors explained 65.4% of the variation in overall factors that are affecting university students' intention to patronize food trucks.

Generally, the predictive relevance Q^2 was examined by employing the blindfolding method. Table 7 indicates the Q^2 value of 0.372 predictive relevance for intention, which is larger than 0 in this research model and thus, it is more than the cut-off score recommended by Hair et al. (2014). This suggests that the attitude, subjective norms, perceived behavioural control, convenience, and product attributes factor, own a substantial predictive power over intention (Hair et al., 2014). The effect size (f^2) is a test applied to examine the relative impact of a predictor construct on an endogenous construct (Cohen, 1988). Based on this study, all the constructs found f^2 small effect sizes as seen in Table 8.

Table 7
R² and Q² value

Endogenous	R ²	Q ²
Intention	0.654	0.372

Source: Cohen (1988). Guidelines for assessing q^2 values: 0.02= small, 0.15= medium, 0.35=large

Table 8
f² effect value

Constructs	Intention to patronize
Attitude	0.138
Convenience	0.109
Perceived Behavioural Control	0.059
Product attributes	0.074
Subjective norms	0.070

Source: Cohen (1988). Guidelines for assessing f^2 values: 0.02= small, 0.15= medium, 0.35=large

DISCUSSION

Theory Contribution

At first, from the theoretical framework perspectives, this study has added two constructs to expand the original Theory of Planned Behaviour. The theory is appropriate to be used to explore the university students' intention to patronize food trucks. In conclusion, all constructs in the theoretical framework have been found to have a significant relationship with the university students' intention to patronize food trucks. This result shows that the theoretical framework has contributed to new findings for the food truck research field.

Practical Contribution

All the constructs were found to have a significant relationship with intention. Food truck operators are encouraged to provide sufficient and detailed information on the menu to attract the university student to patronize food trucks. In terms of food product attributes such as; quality food, price and food safety, food truck operators should place more emphasis on it in their daily operations. Furthermore, food truck operators should practice good hygiene and ensure the cleanliness of the areas in which they operate. The outcome of this research provides information to the food truck business to take into consideration in their plan's aspects of their products and services that could increase the students' patronage. On top of that, food truck operators should

prepare their food quickly and efficiently as students continue to seek for convenience in their food options.

Limitations

There are a few caveats that exist in this study. Firstly, the sample of the study is delimited to university students in one local private higher institution and not all consumer groups. Secondly, the study does not study consumption frequency based on types of food trucks' product offerings. Besides that, this study only focuses on direct effect but not an indirect effect of mediating or moderating variables. Furthermore, the study does not explore consumers' patronization that could be influenced by other variables such as consumers' perception of the hygiene of food preparation, the food trucks' overall marketing mix (product, price, place, and promotion) and competitors' product offerings.

Recommendations

It is recommended that future studies explore other consumer groups such as working adults who may patronize food trucks during their lunch breaks for the convenience it offers. This would help expand the pool of knowledge surrounding patronization of food trucks by consumers from all walks of life. Furthermore, it is also suggested that in-depth research on how the different types of food sold by food trucks influence patronization behaviour. Other than that, future studies could choose to

concentrate on mediating and moderating effects of other variables such as the food trucks' promotional efforts towards the intention to patronize food trucks. It may also be helpful to study in detail how various consumers' demographics influence food truck patronization as it would give a more holistic overview of the type of consumers who are more likely to be a repeat food truck customers in the long run.

CONCLUSION

To sum up, every variable is significantly towards the intention to patronize food trucks. The relationship between attitude factors and intention to patronize food trucks has the highest effect, followed by the convenience factors, product attributes and perceived behaviour control. In contrast, the subjective norm has the lowest effect on the intention to patronize food trucks. At last, the overall model indicated the R² value for university students' intention to patronize food truck was 65.4% which according to Hair et al. (2014) represented the moderate strength of the relationship in the path coefficient and the prediction of the accuracy.

ACKNOWLEDGEMENT

The authors would like to take this opportunity to express their heartfelt thanks to the management and staff of Tunku Abdul Rahman University College, Perak Branch Campus for their continual support of this paper.

REFERENCES

- Ahmad, N. H., & Seet, P. S. (2009). Dissecting behaviours associated with business failure: A qualitative study of SME owners in Malaysia and Australia. *Asia Social Science*, 5(9), 98-104.
- Ang, M. C., Ramayah, T., & Amin, H. (2015). A theory of planned behavior perspective on hiring Malaysians with disabilities. *Equality, Diversity and Inclusion: An International Journal*, 34(3), 186-200.
- Annamdevula, S., & Bellamkonda, R. S. (2016). Effect of student perceived service quality on student satisfaction, loyalty and motivation in Indian universities: Development of HiEduQual. *Journal of Modelling in Management*, 11(2), 488-517.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Process*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (2000). Attitude and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, 11(1) 11-33.
- Al-Nahdi, T. S. M., & Islam, A. (2011). Factors influencing Malaysian Muslims to patronage halal restaurants - Ambience as a mediator. *Business Review*, 6(2), 121-133.
- Al-Swidi, A., Huque, S., Hafeez, M., & Shariff, M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, 116(10), 1561-1580.
- Bakar, N. R. A., Shahwahid, F. M., & Eksan, S. H. R. (2018). Theory of planned behaviour and halal compliance. *International Journal of Academic Research in Business and Social Sciences*, 8(5), 816-829.
- Chan, K., & Tsang, L. (2011). Promote healthy eating among adolescents: A Hong Kong study. *Journal of Consumer Marketing*, 28(5), 354-362.

- Chen, M. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preferences*, 18(7), 1008(41).
- Chen, M. F., & Huang, C. H. (2013). The impacts of the food traceability system and consumer involvement on consumers' purchase intentions toward fast foods. *Food Control*, 33(2), 313-319.
- Cheng, S., & Lam, T. (2008). The role of the customer-seller relationship in the intention of the customer to complain: A study of Chinese restaurateurs. *International Journal of Hospitality Management*, 27(4), 552-562.
- Chih, C. T., & Yu, M. W. (2015). Decisional factors driving organic food consumption: Generation of consumer purchase intentions. *British Food Journal*, 117(3), 1066-1081.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Choi, J., Lee, A., & Ok, C. (2013). The effects of consumers' perceived risk and benefit on attitude and behavioral intention: A study of street food. *Journal of Travel & Tourism Marketing*, 30(3), 222-237.
- Choi, S., Park, S. J., Qiu, C., & Stanyer, M. (2013). The discount is unfair: Egocentric fairness in risky discounts. *Journal of Economic Psychology*, 39(C), 32-43.
- Chong, A. Y., Chan, F. T. S., & Ooi, K. (2012). Predicting consumer decisions to adopt mobile commerce: Cross country empirical examination between China and Malaysia. *Decision Support System*, 53(1), 34-43.
- Chrysoschoidis, G., Krystallis, A., & Perreas, P. (2007). Ethnocentric beliefs and country-of-origin (COO) effect: Impact of country, product and product attributes on Greek consumers' evaluation of food products. *European Journal of Marketing*, 41(11/12), 1518-1544.
- Chung, K. C. (2016). Exploring customers' post-dinning behavioral intentions towards green restaurants: An application of theory of planned behavior. *International Journal of Organization Innovation*, 9(1), 119-134.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, USA: Lawrence Erlbaum Associates.
- Compeau, D., Higgins, C.A., & Huff, S. (1999). Social cognitive theory and individual reactions to computing technology: A longitudinal study. *Journal MIS Quarterly*, 23(2), 145-158.
- David, R. A., Dennis, J. S., Thomas, A. W., Jeffrey, D. C., James, J. C., Fry, M. J., & Jeffrey, W. O. (2016). *Quantitative method for business* (13th ed.). Boston, USA: Cengage Learning.
- Dekhili, S., & d'Hauteville, F. (2009). Effect of the region of origin on the perceived quality of olive oil: An experimental approach using a control group. *Food Quality and Preference*, 20(7), 525-532.
- Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS Quarterly*, 39(2), 297-316.
- Dommermuth, L., Klobas, J., & Lappegård, T. (2011). Now or later? The theory of planned behavior and timing of fertility intentions. *Advances in Life Course Research*, 16(1), 42-53. doi:10.1016/j.alcr.2011.01.002.
- Evans, J. R., & Mathur, A. (2008). The value of online survey. *Internet Research*, 15(2), 195-219.
- Fazakas, O. (2013). Language shift and The Theory of Planned Behavior in the framework of Hungarian and Romanian bilingualism. *Revista Română de Studii Eurasiatice*, 9(1+2), 161-168.

- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gentina, E., & Bonsu, S. K. (2013). Peer network position and shopping behavior among adolescents. *Journal of Retailing and Consumer Services*, 20(1), 87-93.
- Goh, S. K., & Sandhu, M. S. (2013). Knowledge sharing among Malaysian academics: Influence of affective commitment and trust. *Electronic Journal of Knowledge Management*, 11(1), 38-48.
- Habib, F. Q., Dardak, A. R., & Zakaria, S. (2011). Consumer preference and consumption towards fast food: Evidences from Malaysia. *Business Management Quarterly Review*, 2(1), 14-27.
- Han, H., & Kim, W. (2009). Outcomes of relational benefits: Restaurant customers' perspective. *Journal of Travel & Tourism Marketing*, 26(8), 820-835. doi:10.1080/10548400903356236
- Han, H., Hsu, L. T. J., & Sheu, C. (2010). Application of the theory of planned behaviour to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334.
- Hair, J., Hult, G., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, USA: CVA-SAGE.
- Hee, Y. K., & Jae-Eun, C. (2011). Consumer purchase intention for organic personal care products. *Consumer Marketing*, 28(1), 41-47.
- Hidayat, A., & Diwasasri, A. H. A. (2013). Factors influencing attitudes and intention to purchase counterfeit luxury brands among Indonesian consumers. *International Journal of Marketing Studies*, 5(4), 143-151.
- Jani, D., & Han, H. (2013). Personality, social comparison, consumption emotions, satisfaction, and behaviour intentions: How do these and others relate in a hotel setting? *International Journal of Contemporary Hospitality Management*, 125(7), 970-993.
- Jiang, L., Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191-214.
- Keller, K. (1999). Managing brands for the long run: Brand reinforcement and revitalization strategies. *California Management Review*, 41(3), 102-125.
- Kim, Y. J., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behavior. *International Journal of Hospitality Management*, 34(September 2013), 255-262.
- Kotler, P., & Armstrong, G. (2010). *Principle of marketing* (13th ed.). Upper Saddle River, USA: Person Education.
- Kong, S. (2016, October 16). Food trucks: Rolling with the times. *The Borneo Post*. Retrieved January 18, 2019, from <http://www.theborneopost.com/2016/10/16/food-trucks-rolling-with-the-times/>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Louis, W., Davies, S., Smith, J., & Terry, D. (2007). Pizza and pop and the student identity: The role of referent group norms in healthy and unhealthy eating. *The Journal of Social Psychology*, 147(1), 57-74.
- Lusk, J., & Briggeman, B. (2009). Food values. *American Journal of Agricultural Economics*, 91(1), 184-196.
- Llyod, A. E., Chan, R. Y. K., Yip, L. S. C., & Chan, A. (2014). Time buying and time saving: Effects on

- service convenience and the shopping experience at the mall. *Journal of Service Marketing*, 28(1), 36-49.
- Marinelli, N. (2010). Information asymmetries and food safety in consumers' rights and the competitiveness of production system. *Italian Journal of Agronomy*, 5(4), 13-21.
- McEachan, R. R., Lawton, R. J., & Conner, M. (2010). Classifying health-related behaviours: Exploring similarities and differences amongst behaviours. *British Journal of Health Psychology*, 15(2), 347-366.
- Min, S., Overby, J. W., & Im, K. S. (2012). Relationships between desired attributes, consequences and purchase frequency. *Journal of Consumer Marketing*, 29(6), 423-435.
- Mokhtar, R., Othman, Z., Arsat, A., & Bakhtair, M. F. S. (2017). Brand equity and customer behavioral intention: A case of food truck business. *Journals of Tourism, Hospitality & Culinary Arts*, 9(2), 561-570.
- Mueller, S., & Szolnoki, G. (2010). The relative influence of packaging, labeling, branding and sensory attributes on liking and purchase intent: Consumers differ in their responsiveness. *Food Quality and Preference*, 21(7), 774-783.
- Naidu, G. (2014). Attributes and retail format preference for branded pulses. *South Asian Journal of Global Business Research*, 3(2), 190-208.
- Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative social influence is underdetected. *Personality and Social Psychology Bulletin*, 34(7), 913-923.
- Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric Theory*, 3, 248-292.
- Ouellette, J. A., & Wood, W. (1998). Habit and intention in everyday life: The multiple processes by which past behaviour predicts future behaviour. *Psychological Bulletin*, 124(1), 54-74.
- Quevedo-Silva, F., Lima-Filho, D., & Freire, O. (2015). The influence of environmental concern and attitudes towards sustainable consumption on beef meat purchase intention. *Brazilian Journal of Management*, 8(3), 463-481.
- Rahman, N. A., Yaacob, Z., & Radzi, R. M. (2014). Determinants of successful financial management among micro entrepreneur in Malaysia. *Journal of Asian Scientific Research, Asian Economic and Social Society*, 4(11), 631-639.
- Ramayah, T., Lee, J. W. C., & Mohamad, O. (2010). *The role of quality in e-learning satisfaction and usage among university students in Malaysia*. Paper presented at the International Conference on Business and Management Education, Bangkok, Thailand.
- Ramayah, T., Jacky, C., Francis, C., Hiram, T., & Mumtaz, A. M. (2018). *Partial Least Square Structural Equation Modeling (PLS-SEM) using SmartPLS 3.0*. Kuala Lumpur, Malaysia: Pearson Malaysia Sdn Bhd.
- Ringle, C., Sartstedt, M., & Schlittgen, R. (2014). Genetic algorithm segmentation in partial least squares structural equation modeling. *OR Spectrum*, 36(1), 251-276.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). *SmartPLS 3*. SmartPLS GmbH, Boenningstedt. Retrieved January 27, 2019, from <http://www.smartpls.com>
- Saw, S. F. (2017, March 1). City Hall to open six food truck sites this year. *The Malay Mail Online*. Retrieved January 18, 2019, from <http://www.themalaymailonline.com/malaysia/article/city-hall-to-open-six-food-truck-sites-this-year>
- Schiffman, L. G., & Wisenblit, J. (2015). *Consumer behavior* (11th ed.). Harlow, England: Pearson Education Limited.

- Smith, J. R., Terry, D. J., Manstead, A. S., Louis, W. R., Kotterman, D., & Wolfs, J. (2008). The attitude-behavior relationship in consumer conduct: The role of norms, past behavior, and self-identity. *The Journal of Social Psychology, 148*(3), 311-334.
- Soonhong, M., Overby, J. W., & Kun, S. I. (2012). Relationships between desired attributes, consequences and purchase frequency. *Journal of Consumer Marketing, 29*(6), 423-425.
- Suh, B. W, Eves, A., & Lumbers, M. (2015). Developing a model of organic food choice behavior. *Social Behavior and Personality, 43*(2), 217-230.
- Suki, N. S., & Suki, N. S. (2015). Consumers' environmental behaviour towards staying at a green hotel: Moderation of green hotel knowledge. *Management of Environmental Quality: An International Journal, 26*(1), 103-117.
- Tan, P. L, Zubir, M. H., Ibrahim, F. A., & Paim, L. (2016). An exploration of the factors influencing the intention of university students towards the consumption of instant noodles. *Journal of Advanced Research Design, 20*(1), 1-17.
- Teng, C., & Wang, Y. (2015). Decisional factors driving organic food consumption. *British Food Journal, 117*(3), 1066-1081.
- Teo, T., Srivastava, S., & Jiang, L. (2008). Trust and electronic government success; An empirical study. *Journal of Management Information System, 25*(3), 99-132.
- Thomas, B. I. (2016). *Exploring the potential for food trucks as a culinary tourism attraction in Auckland: Through the eyes of operators and tourism professionals* (Doctoral dissertation), Auckland University of Technology, Auckland, New Zealand.
- Tikir, A., & Lehmann, B. (2011). Climate change, theory of planned behavior and value: A structural equation model with mediation analysis a letter. *Climatic Change, 104*(2), 389-402.
- Wang, S. J., & Chen, L. S. L. (2011). Consumers' attitudes towards different product category of private labels. *African Journal of Business Management, 5*(17), 7616-7621.
- Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS Quarterly, 29*(1), 35-57.
- Wu, C. S. (2015). A study on consumers' attitude towards brand image, athletes' endorsement, and purchase intention. *International Journal of Organisation Innovation, 8*(2), 233-253.
- Yilmaz, E., & Aydeniz, B. (2012). Sensory evaluation and consumer perception of some commercial green table olives. *British Food Journal, 114*(8), 1085-1094.
- Yunus, N. S. N. M., Ghani, N. M. A., & Rashid, W. E. W. (2016). The acceptance and the intention of online groceries shopping in Malaysia. *Journal of Applied Environmental & Biological Sciences, 6*(6S), 29-34.
- Zhang, D., Huang, G., Yin, X., & Gong, Q. (2015). Residents' waste separation behaviors at the source: Using SEM with the Theory of Planned Behavior in Guangzhou, China. *International Journal of Environment, 12*(8), 9475-9491.
- Zhang, T., Stonebraker, I., & Promann, M. (2016). Understanding library users' preferences and expectations of online help. *Reference Services Review, 44*(3), 362-374.

