

Factors Affecting Willingness To Accept Foreign Halal Foods By Urban Malaysian Malays

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ABSTRACT

The significant shifts in urbanites' lifestyles have been the catalyst behind the increased in the consumption of foreign foods and beverages in Malaysia; particularly those made in western nations. Notably, Malaysia's total import for food had risen significantly from RM26.7 billion in 2009 to RM42.6 billion and RM 45.4 billion, in 2014 and 2015 respectively. These days, urban Malaysian Malays are being inundated with various foreign Halal food products in local markets however, these can also leave them in a rather risky circumstance as the likelihood that some of these foreign food products are not suitable (i.e. Haram) for their consumptions, is relatively high. Halal food issues (namely those foods originated from non-Muslim countries) have created lots of anxieties within the Malaysian Malays' society. Hence, this study aims to examine factors affecting willingness to accept foreign Halal foods by urban Malaysian Malays. Convenience sampling technique was used to obtain responses from 450 urban Malaysian Malays in designated areas within the Greater Kuala Lumpur/Klang Valley region. The results demonstrated urban Malaysian Malays willingness to accept foreign Halal foods were significantly affected by trust but displayed no relationships with subjective knowledge and attitude. Also, the insignificant attitude-willingness relationship signified the presence of the attitude-behavior gap. The study's outcomes may perhaps offer new understandings on urban Malaysian Malay markets particularly for global brand owners and marketers.

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1. Introduction

The significant shifts in urbanites' lifestyles (i.e. evolving toward higher sophistication and modernization) have been the catalyst behind the increased in the consumption of foreign foods and beverages in Malaysia; particularly those made in western nations (Pin, 2014). As well, Lee (2012) mentions the rise of foreign foods demand in Malaysia is due to better living standard, growth in domestic tourism industry and the growing numbers of expatriates in the country. Moreover, Pin (2014) suggests more than 60 % of the total Malaysian populations belong in the middle to high income cluster; and have high purchasing power. Also, this group of people is known to be dynamically shifting their dietary habits from traditional to western diet; thus, further contributed to Malaysia's high dependency on foreign foods (Pin, 2014). * Corresponding author. E-mail address: correspondingauthor@email.com

Meanwhile, Radhi (2017) reveals the total cost of food imports to Malaysia from January to October 2016 was around RM38.1 billion. Likewise, Chan (2017) reveals the Malaysia's total import for food had risen significantly from RM26.7 billion in 2009 to RM42.6 billion and RM 45.4 billion, in 2014 and 2015 respectively. According to Chong (2017), one the major factors that is affecting food production in Malaysia is due to the move to transform the usage of agricultural lands from food crops to more lucrative commodities like palm oil. Also, the perception of the younger generation on agro industry as a low paying job with very limited career development opportunity added to shortages of local workers in the industry; since the aging workforce and greater dependency in foreign labors have also been identified as part of the root causes in the declining of Malaysia's food productivity (Chong, 2017). Interestingly, Lee (2012) points out that almost every single food product in local hypermarkets and supermarkets is of foreign origin; particularly from western countries.

It has been widely acknowledged that Halal requires a supply chain approach in ensuring the integrity of the Halal products for the end-consumers and export markets; consequently, extending Halal from source to the point of consumption (Tieman, 2013). Notably, "eating is a matter of faith in Islam" (Morrow, 2014, p.150). Then again, AlQudsi (2012) argues that little is known about the effects of Halal food supply chain on Malay Muslim consumers' food-related behaviors in extant literature. Therefore, further studies in the area concern are required (Tieman, 2011) particularly due to Malaysia's heavy reliance on foreign foods to satisfy its local demands (Ibrahim, 2015). Hence, this study aims to examine factors affecting willingness to accept foreign Halal foods by urban Malaysian Malays. The study's outcomes may perhaps offer new understandings on urban Malaysian Malay markets particularly for global brand owners and marketers.

2. Literature review

There are three types of knowledge constructs i.e. subjective knowledge, objective knowledge, and prior experience (Brucks, 1985). These three variations of knowledges are unique and were found to be positively correlated between one another as well as having somewhat different effects on consumers' choice behaviors (Raju et.al, 1995; Moorman et.al, 2004). Nonetheless, prior experience which refers to consumer's usage experience has only little influence on behavior. Brucks (1985) explains subjective knowledge and objective knowledge are distinctive constructs since the former represents one's perceived self-estimated knowledge whereas the latter denotes an individual's factual knowledge. However, extant literatures revealed that consumers' buying-related behaviors are strongly motivated by subjective knowledge rather than objective knowledge (Aertsens, 2011). Also, Raju et.al (1995) implies subjective knowledge significantly affect consumers' decision-making outcomes rather than objective knowledge. Besides, Verbeke (2008) posits subjective knowledge is a better antecedent of individuals' food choice behaviors; which are consistent with Steyn (2010) and Mirsanjari et.al (2012) studies that confirmed the effect of knowledge on influencing people behaviors. Thus,

H1: Subjective knowledge of Halal food supply chain has a significant positive effect on attitude toward foreign Halal foods.

Wang et.al (2009) posit knowledge is the strongest factor to influence consumers' trust in online shopping. Moreover, the degree of subjective knowledge among consumers has shown to have dissimilar impacts on their level of cognitive trust and emotional trust in the expert and attractive avatars respectively (Lee et.al, 2015). Likewise, Puspa and Kuhl (2006) reveal subjective knowledge influence consumers trust in market mavens. Besides, subjective knowledge played an influential role on consumers purchasing behaviors, perceptions, and attitude, as well as on their trust toward (organic) foods (Vermier & Verbeke, 2006; O'Fallon et.al, 2007; Gracia & Magistris, 2008). Also, subjective knowledge has been proven to be a significant predictor of consumers' trust toward organic foods (O'Fallon et al., 2007; Teng & Wang, 2015). Hence,

H2: Subjective knowledge of Halal food supply chain has a significant positive effect on trust toward foreign Halal foods.

Verbeke (2008) remarks subjective knowledge is a significant predictor of consumers' acceptance of functional foods. Additionally, Von Normann (2009) reveal findings from previous studies have shown there are relationships between knowledge of food, lifestyles and eating patterns. Equally, knowledge on cancer was found to have a positive effect on lifestyle choices as well as a key antecedent of healthy behaviors (Nelissen et.al, 2015). Moreover, those with higher level of subjective knowledge are more confident and self-assured with the quality of their choices (Raju et.al, 1995). Additionally, existing literatures recognized knowledge as one of the key determinants in foods acceptance and decision-making behavior (Wardle et.al, 2000; House et.al, 2004; Hassan, 2011). Therefore,

H3: Subjective knowledge of Halal food supply chain has a significant positive effect on willingness to accept foreign Halal foods.

Epuru & Al Shammany (2014) mention psychological determinants such as knowledge about food, attitudes, beliefs, and mood; are among the factors that would influence individuals' food-related behaviors. Likewise, findings from Pieniak et.al (2010) study showed consumers' subjective knowledge on organic vegetables has both direct and indirect (via attitude) impacts on consumption behavior. Perner (2010) suggests those consumers' attitudes toward products or services are composite of their beliefs, feelings, and behavioral intentions toward objects; where individuals would develop either positive or negative belief (or feelings) toward given brands or retail stores. Likewise, Solomon (2008) explains attitudes shaped people's general assessments of products or services as time passes; or in other words, attitudes denote ones' evaluation toward goods and services (Tomalieh, 2015). Thus,

H4: Attitude toward foreign Halal foods has a significant positive effect on willingness to accept foreign Halal foods.

Trust is quite prominent in situation where Muslim consumers are making purchasing decisions particularly concerning their food choices. Also, trust is important in the absence of product warranties coupled with the elements of uncertainty and risk involved in purchasing products (Crosby et.al, 1990, as cited in Ali et.al, 2017). Moreover, Ou and Sia (2010) postulate trust is reflected by many as a belief that would eventually manifest into purchase intention. As well, trust is an important element in one's decision to purchase new products (Yun et.al, 2008). The ability to trust firms' Halal claims (i.e. compliance to Halal standard in the processing and handling of products from farm to fork) and Halal label/certification have significant effects on Muslim consumers' perceptions about the food products and their obligations to Islamic dietary laws. Notably, trust is crucial in the consumption of Halal foods; of

which, this specific trust together with trust on Halal certification and channel members would significantly affect Muslims' attitudes and behaviors (Ali et.al, 2017). Hence,

H5: Trust toward foreign Halal foods has a significant positive effect on willingness to accept foreign Halal foods.

3. Methods and results

A self-administered (voluntary basis) structured questionnaire was used to obtain responses from 450 urban Malaysian Malays living and working in the Greater Kuala Lumpur/Klang Valley (KL/KV) region through a convenience sampling technique. The collection of data was by means of the mall-interception technique (i.e. an interception method used in shopping malls to gather the respondents of the study). The results specified that 41.6 % and 58.4% of the sample demographics were males and females respectively. Most of the respondents were between 26 to 40 years old (51.3%), 79.6% had tertiary level education and 77.8% attended religious schools. Meanwhile, the samples' self-evaluation of their level of religiosity found the majority believed they were religious (53.3%) and interestingly, 13.1% felt they were not religious.

Hair et.al (2010) explain the rule-of-thumb for good reliability should be no less than 0.70; where higher reliability indicates the presence of internal consistency. Table 1 demonstrates the values for Cronbach alpha and Composite reliability for the study's constructs. Essentially, the values for all variables were greater than 0.70, therefore, signifying the reliability of the measured constructs and denoting the presence of convergent validity (Hair et.al, 2010).

Table 1: Reliability Analysis

Variables	Cronbach Alpha	Composite Reliability
Subjective Knowledge (SK)	0.912	0.918
Trust (TR)	0.939	0.941
Attitude (AT)	0.864	0.862
Willingness to Accept (WTA)	0.853	0.867

The Fornell-Larcker criterion where the average variance extracted (AVE) value for an individual variable must be larger than the squared correlation estimates with all other variables (Fornell & Larcker, 1981 as cited in Henseler et.al, 2009) was utilized to examine discriminant validity. The rationale behind this assumption is that a latent construct must explain more of the variance with its indicators than with another latent construct with a different set of measured items (Hair et.al, 2011). The outcome in Table 2 showed that every AVE surpassed its inter-construct correlations estimate thus, inferring that discriminant validity existed between the variables (Henseler et.al, 2015).

Table 2: Discriminant Validity

	Standardized Correlations (squared correlations) Estimates			
	SK	TR	AT	WTA
Subjective Knowledge	0.789			
Trust	0.130	0.793		
Attitude	0.068	0.255	0.679	
Willingness to Accept	0.035	0.278	0.072	0.660

Hair et.al (2010) recommend the use of minimum three fit indices (i.e. absolute, incremental, parsimonious) and integrating them in at least one of the model fit's categories to represent several criteria and, construct the best overall representation of the model fit. The outcomes in Table 3 denoted

that the hypothesized structural model provides a good fit the observed data. Theoretically, this statistical fit signifies a meaningful representation of the observed data (Hair et.al, 2010).

Table 3: Fit Indices of Structural Model

Indices	Desirable Range	Value
GFI	≥ 0.90 (good fit); $0.80 < x < 0.90$ (acceptable fit)	0.933
RMSEA	$0.05 \leq x \leq 0.08$ (acceptable fit); Value up to 0.1 and not less than 0.05 is accepted	0.080
CFI	≥ 0.90 (good fit); $0.80 < x < 0.90$ (acceptable fit)	0.962
TLI	$x > 0.90$	0.949
CMIN/df	$1 \leq x \leq 5$	3.851

Table 4: Regression Weight

			Estimate	S.E.	C.R.	P
AT	<---	SK	.248	.049	5.10	***
TR	<---	SK	.384	.050	7.69	***
WTA	<---	SK	-.027	.057	-.474	.636
WTA	<---	AT	.027	.059	.461	.645
WTA	<---	TR	.584	.058	10.0	***

Table 5: Hypothesis Testing

	Hypothesis	Result
H1	Subjective knowledge of Halal food supply chain has a significant positive effect on attitude toward foreign Halal foods.	Supported
H2	Subjective knowledge of Halal food supply chain has a significant positive effect on trust toward foreign Halal foods.	Supported
H3	Subjective knowledge of Halal food supply chain has a significant positive effect on willingness to accept foreign Halal foods.	Not Supported
H4	Attitude toward foreign Halal foods has a significant positive effect on willingness to accept foreign Halal foods.	Not Supported
H5	Trust toward foreign Halal foods has a significant positive effect on willingness to accept foreign Halal foods.	Supported

Meanwhile, the results (Table 4) permitted the study to draw its conclusions. Hypothesis one, two, and four were significant at the 0.05 level whereas, hypothesis three and five showed not significant relationships among the variables. As well, Table 5 summarized the hypothesis testing results.

4. Discussions

The result had indicated subjective knowledge of Halal food supply chain and attitude toward imported Halal foods were significantly correlated (β -value = 0.248, $p < 0.05$). The outcome was consistent with Putit and Johan (2015) works where they indicated product knowledge is a significant predictor of individuals' attitudes toward the acceptance and usage of Islamic credit cards. Also, finding had established the existence of a significant ($p < 0.05$) positive relationship between subjective knowledge of Halal food supply chain with trust toward foreign Halal foods (β -value = 0.385). According to Teng and Wang (2015), knowledge is statistically proven to have a critical impact on individuals' trust toward (organic) foods. Then again, subjective knowledge was not a predictor of willingness to accept foreign Halal foods ($p > 0.05$); which is consistent with Thomas and Muga (2014) and, Maichum et.al (2016) findings that demonstrated knowledge has no effect on behavior. As Fishbein and Azjen (2011) imply, knowledge is essential, but it is not sufficient to inspire people to engage in given behaviors since

knowledge is in association with motivational factors (such as attitude, subjective norm, and perceived behavioral control) rather than behaviors (as cited in Mullan et.al, 2013).

Then again, result had shown attitude toward imported Halal foods and willingness to accept foreign Halal foods were not correlated. Hence, the outcome contradicted with the Principle of Consistency where it describes a person's behavior is consistent with the attitude that he or she holds (McLeod, 2014). As well, this insignificant relationship may be due to the attitude-behavior gap; which would occur when there is a non-correlated circumstance existed between attitude and behavior. The gap described individuals could have positive attitudes toward given behaviors (or objects) however; they may not take any action (Kollmuss & Agyeman, 2002); or in other words, attitudes do not always serve as the predictor of behaviors (McLeod, 2014). Meanwhile, finding had indicated trust and willingness to accept were significantly correlated (β -value = 0.584, $p < 0.05$); which is in line with Chang and Fang (2013) works, where online shoppers with vast Internet knowledge and ability are most confident in performing online transactions in addition to very likely to trust e-retailers (Chang & Fang, 2013). Essentially, this empirical outcome denoted trust contributes to urban Malaysian Malays acceptance behaviors.

5. Conclusion

Findings revealed the proposed structural model appropriately fits the observed data. Hence, the results allowed the study to draw its conclusions. The results demonstrated subjective knowledge of Halal food supply chain were predictors of urban Malaysian Malays' trust and attitude but, failed to show any correlation with willingness to accept foreign Halal foods; however, the construct was found to be indirectly correlated with the dependent variable through the former. Essentially, enhancing Halal food supply chain's awareness may well increase urban Malaysian Malays' trust and attitude in relation foreign Halal foods. Therefore, brand owners and marketers should pay close attention to the causal relationships between knowledge, trust, and perceptions; to increase urban Malaysian Malays' acceptance of foreign Halal foods particularly from Muslim-minority nations. Conspicuously, consumers make responsible and informed purchases whenever they have sufficient knowledge about the goods as well as having a positive perception concerning the products (Niemann, 2010).

Additionally, the study discovered the lack of predictability of attitude with willingness to accept. The variation in the attitude-behavior relationship would become visible when the correlation between behavior and the strength of attitude is nonexistent (Foxall et.al, 2013). The variability in the attitude-behavior relation may well be due to urban Malaysian Malays' reservations pertaining to the Halal status of food products due to Halal fraud issues worldwide since in Islam, eating is a matter of faith (Morrow, 2013, p.150). Thus, Awang (2016) stresses that brand owners should be more sensitive to Halal's issues to protect the well-being of Muslim consumers. Then again, the inconsistency in the attitude-receptiveness relationship may be due to habitual factor (i.e. food habits). Mostly, repetitive behaviors would eventually transform into routine-type behaviors, and these actions do not require lots of conscious controls to enact them (Anderson, 2004).

Besides, performing repetitive brand purchasing behavior could well proceed independently of attitudes (Ji & Wood, 2007). Notably, individuals would execute strong habits irrespective of their intentions since "implementing intentions had little effect when they did not correspond with people's goal intentions" (Ji & Wood, 2007, p.275) In this sense, the study agreed with Ji and Wood (2007) recommendation where it is crucial for firms to understand the mechanical behaviors of consumers in the marketplaces. Even so, further studies are essential to ensure the consistency of outcomes thus, offer support to the study's results; or simply put, the replication of the original findings is apparent in other major cities in Malaysia. The diversity of Muslims worldwide (in terms of their ethnicity, purchasing power, Halal awareness level and others) has created a unique scenario for brand owners and marketers where the one-size-fits-all approach is no longer suitable since different markets have dissimilar needs and desires (Mohamad & Hassan, 2011).

References

- Aertsens, J., Verbeke, W., Mondelaers & Huylenbroeck, G.V. (2010). The influence of subjective and objective knowledge on attitude, motivations, and consumption of organic food. *British Food Journal*. 113(11), 1353-1378.
- Ali, A., Xiaoling, G., Sherwani, M. & Adnan, A. (2017). Factors affecting Halal meat purchase intention: evidence from international Muslim students in China. *British Food Journal*. 119(3), 527-541.
- Alqudsi, S.G. (2013). Awareness and Demand for 100% Halal Supply Chain Meat products. Paper presented at 4th International Conference of Marketing and Retailing. Shah Alam, Malaysia.
- Awang, N. (2016). Halal should concern non-Muslims too. Retrieved 1 April 2017 from <http://www.thestar.com.my/opinion/columnists/ikim-views/2016/05/31/halal-should-concern-non/>
- Brucks, M. (1985). The effects of product class knowledge on information search behavior. *Journal of Consumer Research*. 12(1), 1-16.
- Carvalho, M., Shagar, L.K., Cheng, N. & Kanyakumari, D. (2016). RM45bil for food import bill. Retrieved 15 January 2018 from <https://www.thestar.com.my/news/nation/2016/03/15/rm45bil-for-food-import-bill-amount-is-rm18bil-higher-than-export-tag-says-shabery/>
- Chan, A. (2017). Minister: relying on food imports affects ringgit's value. Retrieved 15 January 2018 from <https://www.thestar.com.my/news/nation/2017/02/14/minister-relying-on-food-imports-affects-ringgits-value/>
- Chang, Y.S. & Fang, S.R. (2013). Antecedents and distinctions between online trust and distrust: predicting high-and-low risk Internet behaviors. *Journal of Electronic Commerce Research*. 14(2), 149-166.
- Chong, E.S. (2017). How food-secure is Malaysia? Retrieved 1 April 2017 from <https://www.themalaysianinsight.com/s/25677/>
- Epuru, S. & Al Shammary, M.U.H. (2014). Nutrition knowledge and its impact on food choices among students of Saudi Arabia. *Journal of Dental and Medical Sciences*. 13(1), 68-74.
- Foxall, G. Pallister, J. & de Oliveira, T. V. (2013). Persuading others to volunteer: is attitude change enough? *European Advances in Consumer Research*. 10, 98-103.
- Gracia, A. and Magistris, T.D. (2008). The demand for organic foods in the south of Italy: a discrete choice model. *Food Policy*. 33 (5), 386-396.
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010). *Multivariate Data Analysis: A Global Perspective* 7th Edition (2010). New Jersey: Pearson.
- Hassan, S.H. (2011). Managing conflicting values in functional food consumption: the Malaysian experience. *British Food Journal*. 113(8), 1045-1059.
- Henseler, J., Ringle, C.M. & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*. 43, 115-135.
- Henseler, J., Ringle, C.M. & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*. 20, 277-319.

- House, L., Lusk, J., Jaeger, S., Traill, W.B., Moore, M., Valli, C., Morrow, B., & Yee, W.M.S. (2004). Objective and subjective knowledge: impacts on consumer demand for genetically modified foods in the United States and the European Union. *AgBioForum*, 7(3), 113-123.
- Ibrahim, M.H. (2015). Oil and food prices in Malaysia: a nominal ARDL analysis. *Agricultural and Food Economics*. 3(2), 1-14.
- Ji, M.F. & Wood, W. (2007). Purchase and consumption habits: not necessarily what you intend. *Journal of Consumer Psychology*. 17(4), 261-276.
- Kollmuss, A. & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*. 8(3), 239-260.
- Lee, H.S., Sun, P.C., Chen, T.S. & Jhu, Y.J. (2015). The effects of avatar on trust and purchase intention of female online consumer: consumer knowledge as a moderator. *International Journal of Electronic Commerce Studies*. 6(1), 99-118.
- Lee, P. (2012). RM92m spent on imported food every day. Retrieved 1 April 2017 from <http://www.freemalaysiatoday.com/category/nation/2012/02/14/rm92m-spent-on-imported-food-every-day/>
- Maichum, K., Parichatnon, S. & Peng, K.-C. (2016). Application of the Extended Theory of Planned Behavior Model to Investigate Purchase Intention of Green Products among Thai Consumers. *Sustainability*. 8, 1077, 1-20.
- McLeod, S. (2014). Attitudes and behavior. Retrieved from <http://www.simplypsychology.org/attitudes.html>
- Mirsanjari, M., Wan Muda, W.A.M., Ahmad, A., Othman, M.S., Mosavat, M. & Mirsanjari, M.M. (2012). Relationship between nutritional knowledge and healthy attitude and practice during pregnancy. *Borneo Science*. 31, 104-112.
- Mohamad, A.B. & Hassan, H. (2011). The influence of Halal integrity on product adaptation strategy for global trade. *International Business Management*. 5(6), 421-426.
- Moorman, C., Diehl, K., Brinberg, D. & Kidwell, B. (2004). Subjective knowledge, search locations and consumer choice. *Journal of Consumer Research*. 31(3), 673-680.
- Morrow, J.A. (2014). *Islamic Images and Ideas: Essays on Sacred Symbols*. Jefferson, NC: McFarland & Company Inc., Publishers
- Mullan, B.A., Wong, C. & Kothe, E.J. (2013). Predicting adolescents' safe food handling using an extended theory of planned behavior. *Food Control*. 31(2), 454-460.
- Nelissen, S., Beullens, K., Lemal, M. & Van den Bulck, J. (2015). Media use, cancer knowledge and lifestyle choices: a cross-sectional analysis. *The European Journal of Public Health*. 1-5.
- Niemann, A.M. (2010). Male and female consumers' knowledge, perceptions and use of clothing labels. Unpublished Master's Thesis, North-West University, South Africa.
- O'Fallon, M.J., Gursoy, D. and Swanger, N. (2007). To buy or not to buy: impact of labelling on purchasing intentions of genetically modified foods. *International Journal of Hospitality Management*. 26(1), 117-130.
- Ou, C.X. & Sia, C.L. (2010). Consumer trust and distrust: an issue of website design. *International Journal of Human-Computer Studies*. 68, 913-934.

- Perner, L. (2010). Consumer behavior: the psychology of marketing. Retrieved October 2, 2010, from <http://www.consumerpsychologist.com/>
- Pieniak, Z., Aertsens, J., & Verbeke, W. (2010). Subjective and objective knowledge as determinants of organic vegetables consumption. *Food Quality and Preference*, 21, 581-588.
- Pin, L.L. (2014). Malaysia Retail Foods Annual 2014. Retrieved 1 April 2017 from http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Foods_Kuala%20Lumpur_Malaysia_11-19-2014.pdf
- Puspa, J. & Kuhl, R. (2006). Building consumer's trust through persuasive communication in a saturated market: the role of market mavens. Paper presented at 99th EAAE Seminar, Bonn, Germany.
- Putit, L. & Johan, Z. J. (2015). Consumers' acceptance of Halal credit card services: an empirical analysis. *Journal of Emerging Economies and Islamic Research*. 3(1), 1-9.
- Radhi, N.A.M. (2017). Agriculture ministry to combat heavy dependency on food imports, improve nation's self-sufficiency. Retrieved 15 January 2018 from <https://www.nst.com.my/news/nation/2017/08/265748/agriculture-ministry-combat-heavy-dependency-food-imports-improve-nations>
- Raju, P.S., Lonial, S.C. & Mangold, W.G. (1995). Differential effects on subjective knowledge, objective knowledge and usage experience on decision making: an exploratory investigation. *Journal of Consumer Psychology*. 4(2), 153-180.
- Solomon, M. (2008). Consumer behavior buying, having, and being 8th ed. Upper Saddle River, NJ: Pearson Prentice Hall.
- Steyn, N. (2010). Does dietary knowledge influence the eating behavior of adolescents? *South Africa Journal of Clinical Nutrition*. 23(2), 62-63.
- Teng, C.C. & Wang, Y.M. (2015). Decisional factors driving organic food consumption: generation of consumer purchase intentions. *British Food Journal*. 117(3), 1066-1081.
- Thomas, K.D. & Muga, H.E. (2014). Handbook of research on pedagogical innovations for sustainable development. Information Science Reference: USA.
- Tieman, M (2013). Establishing the principles in Halal logistics. *Journal of Emerging Economics and Islamic Research*. 1, 1-13.
- Tomalieh, E.F. (2015). The impact of Jordanian women's motives, on their attitudes towards cosmetic treatment. *European Journal of Business and Management*. 7(11), 11-22.
- Verbeke, W. (2008). Impact of communication on consumers' food choice. *Proceedings of the Nutrition Society*. 67, 281-288.
- Vermier, I. & Verbeke, W. (2006). Sustainable food consumption: exploring the consumer "attitude-behavioral intention" gap. *Journal of Agriculture and Environment Ethics*. 19(2), 169-194.
- Von Noormann, K. (2009). The impact of lifestyles and food knowledge on the food patterns of German children. *International Journal of Consumer Studies*. 33 (4), 382-391.
- Wallgren, L.G. & Hanse, J.J. (2010). The impact of job characteristics and motivators on perceived stress among information technology (IT) consultants. *The Ergonomics Open Journal*. 3, 25-31.
- Wang, C.C., Chen, C.A. & Jiang, J.C. (2009). The impacts of knowledge and trust on e-consumers' online shopping activities: an empirical study. *Journal of Computers*. 4(1), 11-18.

Wardle, J., Parmenter, K. & Waller, J. (2000). Nutrition knowledge and food intake. *Appetite*. 34, 269-275.