Intention To Consume Towards Functional Foods Among Senior Citizen In Malaysia

Flaviana Ivy Febian, Sharifah Nurafizah Syed Annuar

Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Sabah, Kampus Kota Kinabalu, Sabah, Malaysia

Corresponding author email: flavianafebian@gmail.com

***Abstract* - The trend nowadays is that when consumers prefer convenient food compared to healthy food. Due to numerous health threats, the demands for health foods are increasing. This can be seen from the number of purchases of functional foods which have improved tremendously in the market. This study was conducted to examine the influence of perceived susceptibility, perceived benefits and cue to action on intention to consume functional food among senior citizen. The respondents were 250 conveniently selected senior citizen who are visiting shopping mall. Data were collected by using a self-administered questionnaire. The findings revealed that one factor such as perceived benefit recorded a significant and positive influence on intention to consume functional food. On the other hand, perceived susceptibility and cue to action were deemed as not significant in influencing functional food consumption intention. Future study was also proposed.**

***Keywords* -** *Consumption, Functional food, Intention, Malaysia, Senior Citizen*

ARTICLE INFO

Received 9 October 2020
Received in revised form 5 December 2020
Accepted 16 December 2020
Published 31 December 2020

I. Introduction

In today's world, the modern and hectic lifestyle has resulted to many changes including in food consumption or eating habits of Malaysians which leads to negative impact towards their health (Nor, Masdek, and Sulaiman, 2016). In 21st century, assessing the requirements of a balanced diet that will meet the needs of a rapidly increasing global population, it is first essential to consider and review human eating habits (Uauy, 2016). This is because, Malaysians are more likely to consume more unhealthy foods rather than healthy foods and beverages (Tam, Bonn, Yeoh and Wong, 2014), which behavioral disorder that could increase the risk of the health problems. Behavioral belief is the perception of an individual about the consequences whether the behaviour is good or negative, which then leads to an attitude towards the behavior (Mobil, Kasuma, Adenan, Mejri, & Rajan, 2019). According to Abdul Manan, Ariffin, Ratul Maknu, & Zakaria (2020), consumer will take actions that reflect their attitude where consumer behavior has established the consistency between the

attitude and behavioral intentions of consumers. By eating unhealthy habit, the existence of functional food could avoid individuals from getting certain chronic diseases (MOH, 2010), such as obesity, heart disease, diabetes, hypertension and others (Lau, Chan, Tan and Kwek, 2012).

On the other hand, functional foods are those food products which provide essential nutrients needed for good health and which potentially have a positive impact on human health besides providing the necessary nutritional requirements (Wilson et al, 2017). Besides, a consumer is only likely to consider switching conventional with functional food if the latter is perceived as healthier in comparison to conventional (Ali and Rahut, 2019). The awareness of functional food is growing, and its demand is increasing even in developing countries. The consumption of functional foods are likely to decrease the risk of the chronic diseases (Tripathi, Mishra, Maurya, Singh, and Wilson, 2019). Nowadays foods are not only intended to provide essential nutrient for human body but also to prevent nutrition-related diseases (Fanzo and McLaren, 2020). Therefore, consumers display favourable intentions and strengthen their willingness to buy functional food when it is projected as healthy and have advantageous nutritional facts (Gok and Ulu, 2019).

II. Literature Review

2.1 Perceived Susceptibility

Perceived Susceptibility to be an effective predictor of various health-protective behavior practices (Redding, Rossi, Rossi, Velicer & Prochaska, 2000). According to Ethier, Kershaw, Niccolai, Lewis, and Ickovics, (2003), accurately assessing personal risk and making the connection between behavior and susceptibility to infection are important first steps in preventing disease. Perceived susceptibility can influence individuals to be vaccinated for influenza to consume healthy food and use sunscreen to prevent skin cancer (Chen, Fox, Cantrell, Stockdale & Kagawa-Singer, 2007). In addition, perceived susceptibility measures the respondents' beliefs of their vulnerability to disease. Hence it is proposed that the higher the perception of vulnerability the more positive will be an intention to purchase and consume functional food. However, the negative elements in the perceived susceptibility of the Health Belief Model (HBM) significantly affect the consumer's willingness to use functional breads (Vassallo et al., 2009).

According to Hur and Jang (2015), perceived susceptibility positively influence individual intention towards dietary concern. In contrast, perceived susceptibility is not significant in tuberculosis cases (Llongo, 2004). This study focuses on examination of within group differences based on housing which among stable versus unstable. The results indicate that those who resided in unstable housing held more compatible overall beliefs and they regarded tuberculosis treatment as being more beneficial as opposed to those who lived in stable living arrangements.

2.2 Perceived Benefits

Perceived benefits for consuming functional foods were evidently the best predictor of willingness to use these foods and it described how consumption functional foods can improve performance and mood, disease prevention and establish a healthy lifestyle (Urala et al., 2004). According to Dobrenova, Grabner-Kräuter, and Terlutter, (2015) benefit of ingredient healthiness positively affects the promotion of functional ingredients and functional foods of Japanese products with probiotic properties. Perceived benefits indicated that this factor is a significantly important determinant of the consumption of functional foods (Niva and Makela, 2007).

Moreover, perceived benefits conveys positive messages to understand consumer belief about the benefits of taking specific actions including accurate information about how effective functional foods are at reducing the problems of one health condition. Prati, Pietrantoni and Zani (2012) found that perceived benefits independently and strongly predicted intention to consume towards genetically modified food.

2.3 Cue to Action

Strategy to activate "readiness" which for instance, the thought of readiness to take action which are perceived susceptibility and perceived benefits that may only increase the effect by other determinants, predominantly by cues to initiate action by environmental events like media publicity (Glanz et al., 2008). According to Stawarz, Cox and Blandford (2015), cue to action is a belief that a vital individual or group of people will agreCue to action is a e, support and approve a specific behavior. Cue to action are intents by the perceived social pressure from others for a person to perform in a certain manner as well as their motivation to fulfill with one's views (Stawarz et al., 2015).

Conner, McEachan, Lawton and Gardner (2017) hold the view that there is a narrow conceptualization by cue to action determinant where the results revealed that there is a weak relationship between normative beliefs and intentions. However, if perceived threat and benefits are high and perceived barriers are low, cues to action will have larger influence on behavior (Glanz et al., 2008). According to Tarkiainen and Sundqvist (2005), the result on the relationship between cue to action and attitudes towards buying organic food is significant, as it

can be seen that attitudes towards buying organic food and cue to action are not independent from each other. In contrast, according to Stawarz et al. (2015) the intention to purchase green food items was found to have a statistically significant correlation cue to action.

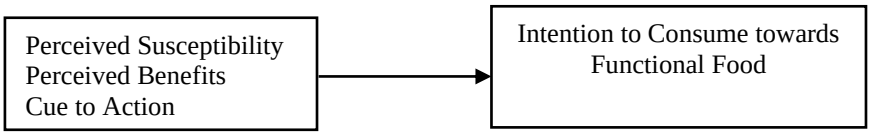

Figure 1: Conceptual Framework

III. Methodology

In applying a quantitative approach to examine the proposed hypotheses, empirical data has been collected through a structured self-administered questionnaire. The sample questionnaires were distributed to senior citizen aged 55 years old until 75 years old who are visit top shopping malls in Malaysia. A total of 300 survey questionnaires were distributed. Out of the questionnaires received back, 250 were fully complete, valid and usable for the study. The purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participant possesses. According to Bernard (2002), the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience. It is typically used in qualitative research to identify and select then information-rich cases for the most proper utilization of available resources (Patton, 2002).This yielded an 83.3% response rate. Participation of respondents was entirely voluntary..

IV. Results

This section addressed on how the research model was tested using Structural Equation Modeling (SEM). All of the scale was assessed using scales of second order. Each of these the confirmatory factor analysis was initially conducted unidimensional scales to demonstrate underlying factors. Hair, Sarstedt, Hopkins and Kuppelwieser (2014), pointed out that in order to obtain acceptable convergent validity, each item must justify for at least 50 percent of the assigned indicators' variance (AVE≥0.50). Table 1 portrays that the average variance extracted (AVE) scores for perceived susceptibility (0.699), perceived benefits (0.651) and cue to action (0.765).

Table 1: Internal Consistency Reliability and Convergent Validity

Item	Item	Loadings	AVE	CR	Cronbach's Alpha
Perceived Susceptibility	PS1	0.570	0.699	0.932	0.916
	PS2	0.895			
	PS3	0.914			
	PS4	0.888			
	PS5	0.856			
Perceived Benefits	PBT1	0.914	0.651	0.842	0.712
	PBT2	0.906			
	PBT3	0.545			
Cue to Action	CA1	0.931	0.765	0.906	0.846
	CA2	0.925			
	CA3	0.758			
Intention to Consume	IC1	0.552	0.673	0.909	0.874
	IC2	0.727			
	IC3	0.914			
	IC4	0.936			
	IC5	0.906			

Note: AVE= Average Variance Extracted, CR= Composite Reliability

Table 2 shows heterotrait-monotrait ratio of correlations (HTMT) is recommended by Henseler, Ringle, and Sarstedt (2015) to assess discriminant validity. The usage of Fornell and Larcker (1981) was claimed as not

sufficient to detect discriminant validity in ordinary studies and therefore, heterotrait-monotrait ratio of correlations (HTMT) test was also performed.

Table 2: Discriminant Validity: Heterotrait-Monotrait ratio of correlations (HTMT)

	CA	**IC**	**PBT**	**PS**
Cue to Action				
Intention to Consume	0.596			
Perceived Benefits	0.860	0.867		
Perceived Susceptibility	0.310	0.238	0.298	

Note: Heterotrait-Monotrait ratio of correlations (HTMT) = 0.85 (Kline, 2011), 0.90 (Gold, Malhotra, & Segars, 2001). IC= Intention to Consume, PBR= Perceived Susceptibility, PS= Perceived Benefits, CA= Cue to Action

Table 3 depicts the measurement model and validity in this study, the structural model is assessing the relationship between the independent variables and dependent variable. Perceived susceptibility have been identified to have no significant relationship on intention to consume (t value= 0.770, p=0.221). Hence, H1 is not supported. Perceived benefits show a significant relationship on intention to consume (t value= 9.582, p=0.000) and hence, H2 is supported. Regarding cue to action, no significant relationship is uncovered between cue to action and intention to consume (t value= 1.754, p=0.040). Therefore, H3 is not supported.

Table 3: Hypotheses Testing

Hypothesis	**Relationship**	**Std. Beta**	**Std. Error**	**T Value**	**P Value**	**Decision**	**5%**	**95%**
H1	Perceived Susceptibility Intention to Consume	-0.027	0.035	0.770	0.221	Not Supported	-0.076	0.035
H2	**Perceived Benefits Intention to Consume**	**0.646**	**0.067**	**9.582****	**0.000**	**Supported**	**0.533**	**0.750**
H3	Cue to Action Intention to Consume	0.108	0.062	1.754	0.040	Not Supported	0.000	0.204

Note: t-value = 1.96 at p<0.05*, t-value = 2.58 at p<0.01**

V. Conclusion

This study was conducted to identify the influence of perceived susceptibility, perceived benefits and cue to action on the intention to consume functional food among senior citizen. Based on the statistical analyses performed, one out of three influencing factors recorded a significant positive relationship on intention to consume functional food. As such, it can be concluded that perceived benefits play a significant and positive effect on influencing intention to consume functional food among senior citizen. However, other factors such as perceived susceptibility and cue to action are deemed as not significant in predicting intention to consume functional food among senior citizen.

Being health conscious is one of the most vital factor for developing a positive perception of functional food. Thus, recognizing consumers' needs and wants, their behavior and intention, their knowledge and perception towards functional food would help the food industry to encourage production of functional food and for that reason increase consumers' intention to buy functional food. This study can assist older customers by consuming functional foods to practice a healthy eating habit and understand which functional foods could benefit them or prevent them from getting certain chronic diseases. Conversely, this study only focus on senior

citizen. Other segments, such as teenagers and university students who may have different intention to consume towards functional food, should be investigated. Future researchers can also include other variables such as mediating or moderating factors. Furthermore, future studies are also recommended to use other types of instruments and include other statistical tests.

References

Abdul Manan, H., Ariffin, S., Ratul Maknu, T. S., & Zakaria, F. N. (2020). Effects of social media advertisements on intention to purchase health and beauty products. *Journal of International Business, Economics and Entrepreneurship (JIBE)*, 5(1), 59-68.

Ali, A., & Rahut, D. B. (2019). Healthy foods as proxy for functional foods: consumers' awareness, perception, and demand for natural functional foods in Pakistan. *International journal of food science*, *2019*.

Bernard, H. R. (2002). Research methods in anthropology: Qualitative and quantitative approaches (3rd ed.). Walnut Creek, CA: Alta Mira Press.

Chen, J. Y., Fox, S. A., Cantrell, C. H., Stockdale, S. E., & Kagawa-Singer, M. (2007). Health disparities and prevention: racial/ethnic barriers to flu vaccinations. *Journal of community health*, *32*(1), 5-20.

Conner, M., McEachan, R., Lawton, R., & Gardner, P. (2017). Applying the reasoned action approach to understanding health protection and health risk behaviors. *Social Science & Medicine*, *195*, 140-148.

Dobrenova, F. V., Grabner-Kräuter, S., & Terlutter, R. (2015). Country-of-origin (COO) effects in the promotion of functional ingredients and functional foods. *European Management Journal*, *33*(5), 314-321.

Ethier, K. A., Kershaw, T., Niccolai, L., Lewis, J. B., & Ickovics, J. R. (2003). Adolescent women underestimate their susceptibility to sexually transmitted infections. *Sexually Transmitted Infections*, *79*(5), 408-411.

Fanzo, J., & McLaren, R. (2020). An Overview of the Ethics of Eating and Drinking. *Handbook of Eating and Drinking: Interdisciplinary Perspectives*, 1095-1115.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50.

Glanz, K., Rimer, B. K., & Viswanath, K. (2008). Health behavior. *Theory, Research, and Practice*, *5*.

Gok, I., & Ulu, E. K. (2019). Functional foods in Turkey: marketing, consumer awareness and regulatory aspects. *Nutrition & Food Science*.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. Journal of management information systems, 18(1), 185-214

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European business review*.

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*(1), 115-135.

Hur, J., & Jang, S. S. (2015). Consumers' inference-dynamics about healthy menu promotions in a bundle context. *International Journal of Hospitality Management*, *44*, 12-22.

Kline, R. B. (2011). *Convergence of structural equation modeling and multilevel modeling* (pp. 562-589). na

Lau, T. C., Chan, M. W., Tan, H. P., & Kwek, C. L. (2012). Functional food: A growing trend among the health conscious. *Asian Social Science*, *9*(1), 198–208.

Llongo, I. (2004). Tuberculosis health belief gaps of tuberculosis and suspected tuberculosis cases in New York City. *International Journal of Clinical and Health Psychology*, *4*(1).

Mobil, S. S., Kasuma, J., Adenan, M. A., Mejri, N., & Rajan, R. (2019). Influence of perceived quality and self-esteem on women's purchase intention: Luxury makeup brands. *Journal of International Business, Economics and Entrepreneurship (JIBE)*, 4(2), 73-79.

Niva, M., & Mäkelä, J. (2007). Finns and functional foods: socio-demographics, health efforts, notions of technology and the acceptability of health-promoting foods. *International Journal of Consumer Studies*, *31*(1), 34-45.

Nor, N. A. A. M., Masdek, N. R. N. M., & Sulaiman, N. H. (2016). Functional food business potential analysis in Malaysia, Thailand, Indonesia and The Philippines. Economic and Technology Management Review, 99-110.

Patton, M. Q. (2002). Qualitative research and evaluation methods. Thousand Oaks. *Cal.: Sage Publications*.

Prati, G., Pietrantoni, L., & Zani, B. (2012). The prediction of intention to consume genetically modified food: Test of an integrated psychosocial model. *Food Quality and Preference*, *25*(2), 163-170.

Stawarz, K., Cox, A. L., & Blandford, A. (2015, April). Beyond self-tracking and reminders: designing smartphone apps that support habit formation. In *Proceedings Of The 33rd Annual ACM Conference On Human Factors In Computing Systems* (pp. 2653-2662). ACM.

Tam, C. L., Bonn, G., Yeoh, S. H., & Wong, C. P. (2014). Investigating diet and physical activity in Malaysia: education and family history of diabetes relate to lower levels of physical activity. Frontiers in psychology, 5(1328), 1-9.

Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British food journal*.

Tripathi, A. D., Mishra, R., Maurya, K. K., Singh, R. B., & Wilson, D. W. (2019). Estimates for world population and global food availability for global health. In *The role of functional food security in global health* (pp. 3-24). Academic Press.

Uauy, R., Aro, A., Clarke, R., Ghafoorunissa, L'Abbé, M. R., Mozaffarian, D., Tavella, M. (2009). Who scientific update on Trans fatty acids: Summary and conclusions. *European Journal of Clinical Nutrition, 63*, 68–75.

Urala, N., & Lähteenmäki, L. (2004). Attitudes behind consumers' willingness to use functional foods. *Food Quality and Preferences, 15*, 793-803.

Vassallo, M., Saba, A., Arvola, A., Dean, M., Messina, F., Winkelmann, M., & Shepherd, R. (2009). Willingness to use functional breads. Applying the Health Belief Model across four European countries. *Appetite*, *52*(2), 452-460.

Wilson, D. W., Nash, P., Buttar, H. S., Griffiths, K., Singh, R., De Meester, F., & Takahashi, T. (2017). The role of food antioxidants, benefits of functional foods, and influence of feeding habits on the health of the older person: an overview. *Antioxidants*, *6*(4), 81.