

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Malaysia

Abstract

Generally, frozen food businesses have experienced a huge demand for their products since the pandemic began as consumers were stocking up on frozen foods to reduce close contact with others. The popularity of international food including Japanese food among Muslims and non-Muslims are growing in Malaysia, developing a Japanese cuisine community. However, strong competition in the food industry especially in the frozen food market may not be easy for Japan-made frozen foods to achieve a competitive position in the Malaysian market. Hence, this study aims to investigate the role of intrinsic factors (brand reputation, price perception, Halal label and product information) and extrinsic factors (convenience, health consciousness, food quality and social influence) on attitude towards Japanese frozen food. The findings show that brand reputation, Halal label, and food quality were positively related to attitude whereas, health consciousness was negatively associated with attitude. The outcome of this research is expected to provide insights to Japanese frozen food manufacturers on the appropriate marketing strategies to be adopted to penetrate into the Malaysian frozen food market, which is expanding rapidly at present.

Keywords: *Extrinsic factors; intrinsic factors; attitudes; purchase intention; Japanese frozen food; Malaysia*



This is an open access article under the CC-BY-NC license

INTRODUCTION

The frozen food manufacturing industry in Japan has been expanding over the past decade and in 2019 the estimated production value of frozen food stood at 713 billion Japanese yen (Diep 2021). Japan has been growing its variety of frozen food production to include different types of bread and fruit products made using a more advanced technology that can store the products for over three years while retaining their quality, texture, and taste (Henmi 2020). This can make the export of Japanese frozen food products to countries like Malaysia more favorable. In Malaysia, the frozen food market is expected to grow at a CAGR of more than 7% and will reach a market size of USD 800 million by 2023 (MIDA 2021). The increase in consumers' preference for frozen food products is mainly due to the minimal preparation and cooking time it involves while offering a longer storage duration avoiding food wastage (Chianardi & Permatasari 2020). The frozen food businesses in Malaysia experienced huge demand for their products since the pandemic began (MIDA 2021; Whitehead 2021). Malaysia being an Islamic country and majority of its consumers being Muslim (Malaysian Bar 2021), the Halal label on the food product packaging is important (Zadeh 2018). The popularity of international food including Japanese food among Muslims and non-Muslims are growing in Malaysia, developing a Japanese cuisine community (The Japan Times, 2017; The Star 2021a; 2021b). However, over the last two decades exports from Japan to Malaysia

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

have dropped at an annual rate of 1.13% from USD 17.1 billion in 1995 to USD 13 billion in 2019 (OEC 2021).

For consumers' to be empowered to find and decide on their purchases easily, the product attributes play a vital role (Tarasenko 2022). Information on consumer preferences and how they make their purchase decisions help marketers develop effective product attributes that can affect the consumer's choice. These attributes play an instrumental role from both the marketers' and consumers' perspectives which can be used as a benchmark to differentiate their brands from competitors (Battour et al., 2011; Jaafar et al., 2013). Research conducted by Wu et al. (1988) stated that product attributes are measurable at both the quantitative and objective levels. Several key attributes, such as brand name, product quality, style, utility, and value are included as a benchmark to evaluate product characteristics. Many of the stated areas of discussion on product attributes have been intensely investigated; however, the stated factors have not been explored in detail by establishing a connection between product attributes and consumer purchase behavior toward Japanese frozen food in Malaysia.

Previous studies on Japanese frozen food were conducted in the area of food science, chemistry, technology (Men et al. 2020), industrial relations (Endo et al. 2017) and economy (Ikegawa 2016; Ikegawa & Akune 2014). Furthermore, the current literature have addressed on food traceability systems of frozen food (Kimura 2003). In the context of business and marketing, scarce empirical studies exist that encompass both intrinsic and extrinsic factors to provide a holistic understanding of consumer behavior toward Japanese frozen food to assist manufacturers in forming their marketing strategies.

Given the interest shown by Japanese companies to expand their frozen food market in Malaysia which is a multi-racial population and experiencing rapid economic growth, creating a huge demand for frozen food makes it crucial to explore the extrinsic and intrinsic factors that affect the attitude towards Japanese frozen food among consumers in Malaysia. Thus, this study aims to examine the effect of extrinsic factors (brand reputation, price perception, halal label, product information) and intrinsic factors (convenience, health consciousness, food quality, and social influence) on attitudes toward Japanese frozen food among consumers in Malaysia.

LITERATURE REVIEW

The frozen food industry is experiencing rapid and exponential growth due to improved socio-economic conditions in developing countries like Malaysia (MIDA 2021). The change in lifestyle and modernization has increased frozen food's popularity (Horning et al. 2017). Past studies show that there are intrinsic (e.g., convenience and product quality) and extrinsic factors (e.g., brand and price) that affect consumers' attitudes towards frozen food and hence, purchasing behavior (Dabadi & Gurung 2020; Sen et al. 2021). Attitude has been defined as favorable and unfavorable consumer evaluation of a given subject (Ajzen 1991). Past studies suggested that customers' opinions of a product's brand reputation (Sen et al. 2021), fair price (Cranfield & Magnusson, 2003), Halal certification (Birruntha, 2022), adequate product information (Elliott & Speck, 2005), convenience (Horning et al., 2017), product quality (Basha et al., 2015), and social

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

influence (Varshneya et al., 2017) influence how they feel about the product (Baek et al. 2010; Sen et al. 2021).

Based on this, a proposed research model (Figure 1) indicating the hypotheses has been developed. Therefore, it is hypothesized that:

H1a: Brand reputation is related to attitude.

H1b: Price perception is related to attitude.

H1c: Halal label is related to attitude.

H1d: Product information is related to attitude.

H1e: Convenience is related to attitude.

H1f: Health consciousness is related to attitude.

H1g: Food quality is related to attitude.

H1h: Social influence is related to attitude.

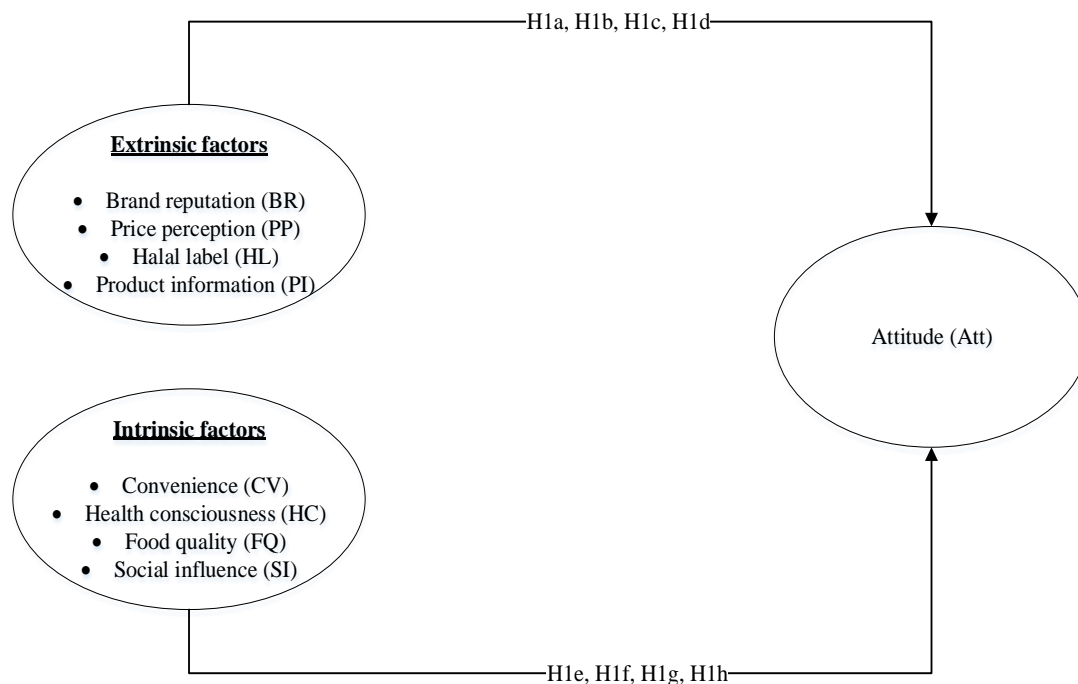


Figure 1. Research Model

RESEARCH METHOD

This study has sought to examine the relationship between extrinsic attributes (brand reputation, price, halal label, and product information), intrinsic attributes (convenience, health consciousness, food quality, and social influence), and attitude toward Japan-made frozen food in

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

Malaysia. Frozen foods are pre-packaged, ready-made fresh or frozen means that have generally been partially cooked for use before freezing that only need heating before being served (Ahuja, 2011). Thus, consumers who were aware of Japan-made frozen food were chosen as the sample for this study. This study applied convenience sampling coupled with a cross-sectional, self-administered online survey questionnaire to collect data from the respondents in 2021.

The respondents were asked to fill in an anonymous online questionnaire that would take about 15 minutes. The participants were reminded about the voluntary nature of the research and told that they could exit the survey at any time. A total of 550 participants were approached to participate in this study. Only 307 participants agreed to be involved, representing a response rate of 56 percent.

This study used an established measurement scale adapted from previous studies with slight modifications for this research context (Veloutsou and Moutinho, 2009; Han et al., 2015; Sen et al., 2019; Nasution & Rossanty, 2018; Dai et al., 2008; Lichtenstein and Bearden, 1986; and Hoque et al., 2018. A five-point Likert scale, ranging from “1 = strongly disagree” to “5 = strongly agree,” was used in this research to measure the constructs. The data analysis used both descriptive and inferential statistical analyses. For descriptive statistical analysis, Statistical Package for Social Sciences (SPSS version 26) was used. While, to conduct the inferential statistical analysis, Structural Equation Modelling (SEM) using Partial Least Square (Smart PLS 4.0) was employed.

FINDINGS AND DISCUSSION

Respondent Profile

Three hundred and seven respondents participated in the survey. The findings of the study show that 65.2% of the respondent were women (Table 1). The sample was predominantly Malays (64.5%) followed by Chinese (29.7%), Indians (5%), and others (1%). The majority of the respondent were between the age group of 26-40 years old (56.2%) and 65.9% were single. Most respondents (55.4%) have an average income of between RM2,000 to RM3,999. Table 1 also shows that the majority of the respondent highest education were Bachelors' Degree (57.4%). In terms of frozen food purchases, 36.6% of respondents indicated that they purchase frozen food more than two times a month while the majority of respondents (31.8% and 21.6%) reported to spent RM50–RM100 and RM101–RM200 respectively.

Table 1. Demographic profile of the respondents (n=307)

Respondent	Number of respondents	Percentage (%)
<u>Gender</u>	107	
Male		34.8
Female	200	65.2
<u>Ethnicity</u>		
Malay	197	64.1
Chinese	91	29.7
Indian	15	5.0
Others	4	1.2
<u>Age</u>		

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

18 – 25 years old	84	27.3
26 – 40 years old	173	56.2
41 – 55 years old	35	11.5
56 years old and above	15	5.0
<u>Marital Status</u>		
Single	137	44.7
Married and others	170	55.3
<u>Personal Income</u>		
Less than RM 1000	32	10.3
RM 1,000 – RM 1,999	63	20.6
RM 2,000 – RM3,999	120	39.1
RM 4,000 – RM5,999	56	18.3
RM 6,000 – RM 7,999	20	6.4
RM 10,000 and above	16	5.3
<u>Education</u>		
Primary school	8	2.5
High school	10	3.2
Certificate/ Diploma	87	28.2
Bachelors' Degree	170	55.4
Postgraduate Degree	32	10.7

Measurement model

To confirm the reliability and validity of the constructs, the measurement model was assessed using SmartPLS 4.0. The reliability, discriminant validity, and convergent validity of the constructs were checked using factor loadings, Cronbach alpha (CA), composite reliability (CR), average variance extracted (AVE) and heterotrait–monotrait (HTMT) ratio. The results in Table 2, and Table 3 showed that all criteria were satisfactory and above the cut-off value (Hair et al., 2019; Henseler et al., 2015)

Therefore, the predicted model and observed data fit together reasonably well, and the measurement model as a whole passes the validity test (see Figure 2).

Table2. Results of convergent validity

Construct	Indicator	Loadings	CA	CR	AVE
Attitude	ATT1	0.830	0.792	0.878	0.707
	ATT2	0.867			
	ATT3	0.825			
Brand Reputation	BRAND1	0.846	0.847	0.908	0.766
	BRAND2	0.901			
	BRAND3	0.878			
Convenience	COV 1	0.907	0.892	0.932	0.819
	COV2	0.911			
	COV3	0.898			

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

Halal Label	HA1	0.841	0.741	0.852	0.657
	HA2	0.843			
	HA3	0.745			
Food Quality	FQ1	0.829	0.710	0.858	0.721
	FQ3	0.869			
Health Consciousness	HC1	0.968	0.847	0.867	0.688
	HC2	0.711			
	HC3	0.789			
Price	PC1	0.881	0.806	0.885	0.720
	PC2	0.908			
	PC3	0.749			
Product Information	PINFO1	0.712	0.818	0.865	0.638
	PINFO2	0.784			
	PINFO3	0.835			
	PINFO4	0.855			
Social Influence	SPRO1	0.834	0.855	0.912	0.776
	SPRO2	0.912			
	SPRO3	0.894			

Table 3. Results of discriminant validity (HTMT criterion)

	1	2	3	4	5	6	7	8	9
1. Attitude									
2. Brand reputation	0.379								
3. Convenience	0.294	0.538							
4. Food quality	0.731	0.234	0.279						
5. Halal label	0.634	0.217	0.194	0.406					
6. Health consciousness	0.081	0.539	0.376	0.145	0.227				
7. Price	0.328	0.369	0.326	0.414	0.494	0.327			
8. Product information	0.244	0.32	0.371	0.459	0.169	0.389	0.243		
9. Social influence	0.332	0.337	0.196	0.326	0.375	0.314	0.71	0.233	

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

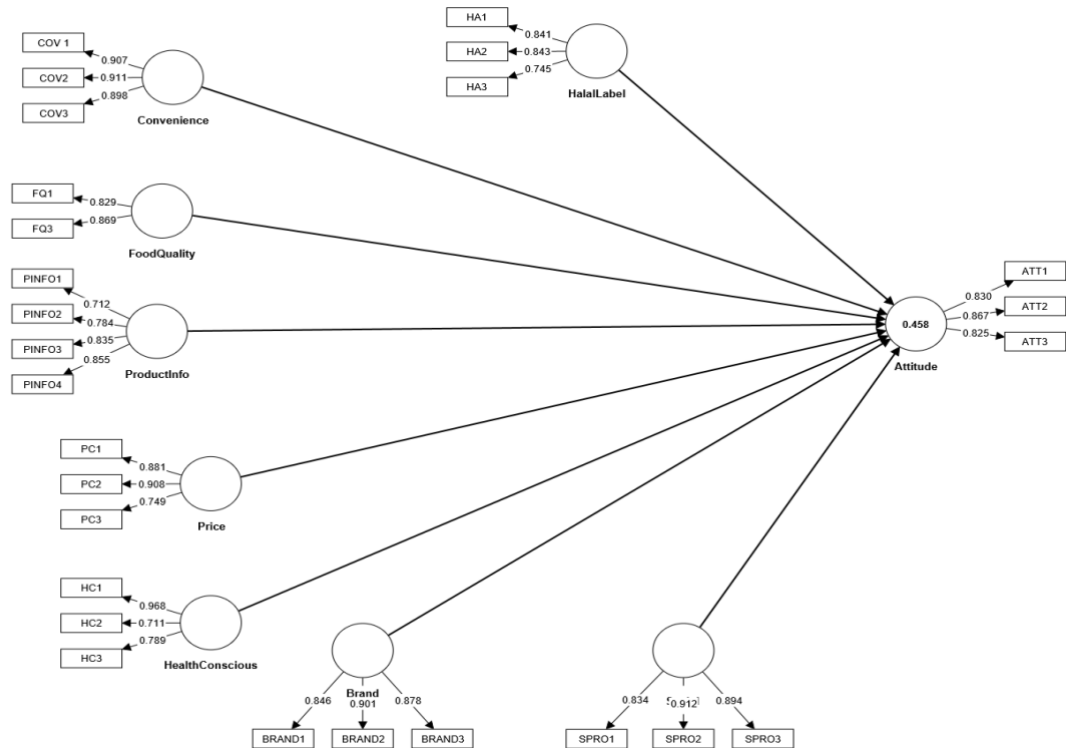


Figure 2. Measurement model

Structural model

To test the hypotheses, a bias-corrected bootstrapping with 5000 resample was run to examine the significance of path coefficients (Hair et al. 2019). The R² values for the endogenous variables indicate that the proposed theoretical model explains 46% of the variance in attitude, which exhibits a satisfactory level of model predictability. The results for path coefficients, standard errors, t-values, p-values, bias correct intervals and effect size (f²) are shown in Table 4. The effect size (f²) was evaluated based on Cohen’s (1988) criteria, according to which f² values of 0.02, 0.15, and 0.35 of the predictive variables are considered small, medium, and large in terms of effect size. The results revealed a small effect size for all the relationships between the extrinsic, intrinsic factors and attitude, with the exception of the halal label and attitude, and food quality and attitude both relationships have a medium effect size.

This study found that brand reputation, halal label, health consciousness and food quality were significant predictors of attitude ($\beta = 0.234, p < 0.05$; $\beta = 0.368, p < 0.001$; $\beta = -0.171, p < 0.05$; $\beta = 0.337, p < 0.001$ respectively). Thus, H1a, H1c, H1f, and H1g were supported. On the other hand, this study found no relationship between price, product information, convenience, social influence, and attitude. Hence, H1b, H1d, H1e, and H1h were not supported (refer to Figure 3).

Table 4. Results from direct hypotheses

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

	Description	Std. Beta	Std. error	t-value	p-value	BCI (LL)	BCI (UL)	Effect Size (f ²)	Decision
H1a	Brand reputation -> Attitude	0.234	0.072	3.225	0.001	0.123	0.364	0.065	Supported
H1b	Price consideration -> Attitude	-0.072	0.068	1.054	0.146	-0.184	0.041	0.005	Not supported
H1c	Halal label -> Attitude	0.368	0.055	6.643	0.000	0.273	0.455	0.203	Supported
H1d	Product Information -> Attitude	0.014	0.061	1.385	0.083	-0.073	0.093	0.000	Not supported
H1e	Convenience -> Attitude	0.069	0.044	1.560	0.059	0.009	0.154	0.006	Not Supported
H1f	Health consciousness -> Attitude	-0.171	0.088	1.960	0.026	-0.342	-0.061	0.038	Supported
H1g	Food quality -> Attitude	0.337	0.050	7.558	0.000	0.299	0.461	0.209	Supported
H1h	Social influence -> Attitude	0.085	0.061	1.385	0.083	-0.067	0.142	0.008	Not supported

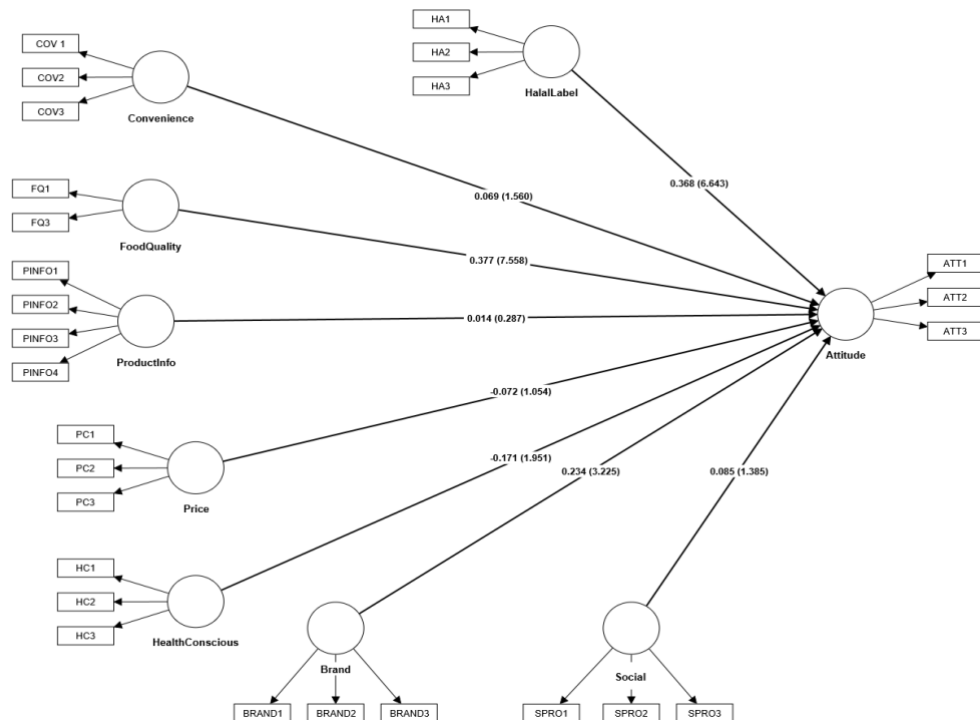


Figure 3. Structural model

CONCLUSION

This study advances the knowledge on consumer purchase behavior in the context of Japanese frozen food among consumers in Malaysia. Specifically, this study investigated the role of

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

intrinsic factors (brand reputation, price perception, Halal label and product information) and extrinsic factors (convenience, health consciousness, food quality and social influence) on attitude towards Japanese frozen food. The findings show that brand reputation, Halal label, and food quality were positively related to attitude whereas, health consciousness was negatively associated with attitude. This might be due to a common misconception that frozen food is not healthy (NorthShore News 2021) and hence, consumers develop a less favorable attitude towards Japanese frozen food. It is interesting to note that this study also found an insignificant relationship between price, product information, convenience, social influence and attitude. The findings of this research have enriched the literature on the extrinsic and intrinsic factors from the perspective of the Japanese frozen food in Malaysia.

LIMITATION & FURTHER RESEARCH

While this study is one of the first to develop an understanding of the extrinsic and intrinsic factors of consumers' attitudes toward Japanese frozen food in Malaysia, it has some limitations as highlighted below.

The first limitation is that the scope of this study is limited to a selected group, which is specifically Malaysian who are aware of Japanese frozen foods. Examining the extrinsic and intrinsic attributes is crucial for Malaysia as the awareness and preference for Japanese frozen food is still low, and there is limited knowledge of the product. This has led to a lower response rate among respondents who had agreed to answer the survey questions. Moreover, the data were collected only from consumers in areas of Kuala Lumpur and Selangor, and this might influence the results due to the differences in economic growth, demographics, and the level of health consciousness between urban and semi-urban areas. Thus, it is possible that different results may be obtained when the study is to be conducted in other locations in Malaysia. Perhaps, future research may want to examine the proposed framework across different nations, and samples to tap into this potential market.

Another limitation is that the research was only restricted to an online survey questionnaire. In reality, although online-based questionnaire surveys have been widely used in collecting data for research, there are several issues raised. Bryman (2004) highlighted that many participants are worried about the privacy of their answers at a time when fraud and hackers are common. Moreover, the participants may be concerned with the privacy of the data they shared online. Another issue that might occur is that the respondents might not be able to finish the survey due to technical problems, such as a server crash that would cause the results to be lost, as well as the older age group that might have unwilling to answer the questions.

Lastly, the current research is limited to investigating the effect of extrinsic and intrinsic attributes on attitudes toward Japanese frozen foods. The study has reported that the R² value of the key dependent variable - attitude is 46.0%. This indicates that the model is able to explain the factors that are associated with customer attitudes toward Japanese frozen foods. However, future work should add the relevant constructs to improve the prediction and the effect of attitude on consumer behavior to enhance the explanatory power of the research framework.

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

ACKNOWLEDGEMENT

This research work was supported by the MPOB and Malaysia Research University Network (MRUN) grant no: EP-2019-004; UPM.800-4/11MRUN/2019/5539140; And MPOB-UKM-2021-012

REFERENCES

- Ahuja, H.K. 2011. A comparative study of attitude and adoption of frozen food amongst the consumers of Ludhiana and Delhi cities.
- Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50(2): 179–211.
- Baek, T.H., Kim, J. & Yu, J.H. 2010. The differential roles of brand credibility and brand prestige in consumer brand choice. *Psychology and Marketing* 27(7): 662–678.
- Basha, M.B., Mason, C., Shamsudin, M.F., Hussain, H.I. & Salem, M.A. 2015. Consumers Attitude Towards Organic Food. In *Procedia Economics and Finance*. pp. 444 – 452.
- Battour, M., Ismail, M. N., & Battor, M. (2011). The impact of destination attributes on Muslim tourist's choice. *International Journal of tourism research*, 13(6), 527-540.
- Belch, G.E. and Belch, M.A. (1995), *Introduction to Advertising and Promotion. An Integrated Marketing Communication Perspective*, 3rd ed., Irwin, Boston.
- Birruntha, S. 2022. Demand for halal-certified products among non-Muslims on the rise.
- Bryman, A. (2004). *Social research methods*. New York: Oxford University Press Inc.
- Chianardi, D.H. & Permatasari, A. 2020. Factors Affecting Frozen Food Purchase Intention During the Covid-19 Outbreak in Indonesia (Case of Greater Jakarta). The 4th International Conference on Family Business and Entrepreneurship, pp. 412–428. <http://repository.unair.ac.id/87188/1/ABSTRAK.pdf>
- Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. *Health psychology*, 7(3), 269.
- Cranfield, J.A. & Magnusson, E. 2003. Canadian consumers' willingness to pay for Pesticide-Free food products: An ordered probit analysis. *International Food and Agribusiness Management Review* 6(4): 13–30.
- Dabadi, S. & Gurung, B. 2020. Consumer's Motivation to Purchase Frozen Food in Kathmandu. *Management Dynamics* 23(2): 229–242.
- Dai, H., Salam, A.F., King, R., 2008. Determinants and influences of service convenience in electronic mediated environment (EME): an empirical study of Chinese consumers. In: *Americas*

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

- Conference on Information Systems , Retrieved 25 March, 2009, from <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1154&context=icis2008>.
- Diep, C. 2021. Production value of the frozen food manufacturing industry in Japan from 2010 to 2019. Statista, <https://www.statista.com/statistics/1178205/japan-production-value-frozen-food/> [27 September 2021].
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3), 307-319.
- Elliott, M.T. & Speck, P.S. 2005. Factors that affect attitude toward a retail web site. *Journal of Marketing Theory and Practice* 13(1): 40-51.
- Endo, T., Srinivas, N., & Tsuboyama, Y. (2017). The Role of Meta-organising in Legitimacy Recovery: The Case of Frozen Food Category in Japan (No. DP2017-10).
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. saGe publications.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Han, S. H., Nguyen, B., & Lee, T. J. (2015). Consumer-based chain restaurant brand equity, brand reputation, and brand trust. *International Journal of Hospitality Management*, 50, 84-93.
- Henmi, J. 2020. Japan's food industry grows hot with high-tech freezing. *Nikkei Asia*, <https://asia.nikkei.com/Business/Technology/Japan-s-food-industry-grows-hot-with-high-tech-freezing> [27 September 2021].
- 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.
- Hirschmann, R. 2020. Frozen food items stocked up on during COVID-19 outbreak Malaysia 2020. Statista, <https://www.statista.com/statistics/1110409/malaysia-stocked-up-frozen-food-items-during-covid-19-outbreak/> [25 September 2021].
- Hoque, M. Z., Alam, M. N., & Nahid, K. A. (2018). Health consciousness and its effect on perceived knowledge, and belief in the purchase intent of liquid milk: Consumer insights from an emerging market. *Foods*, 7(9), 150.
- Horning, M.L., Fulkerson, J.A., Friend, S.E. & Story, M. 2017. Reasons Parents Buy Prepackaged, Processed Meals: It Is More Complicated Than "I Don't Have Time." *Journal of Nutrition Education and Behavior* 49(1): 60-66.

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

- Ikegawa, M. (2016). Location choice for Japanese frozen food industry and the household refrigerators. *Journal of Rural Economics*, 88(3), 339-344.
- Ikegawa, M. & Tokunaga, S. 2018. Location choice for Japanese frozen food industry in East Asia using domestic market access with the penetration rate of refrigerators. *Annals of Regional Science* 61(1): 209–227.
- Ikegawa, M., Akune, Y., & Tokunaga, S. (2014). Domestic and foreign supplier access and location choice in the Japanese frozen food industry in East Asia-before and after the Asian currency crisis. *Journal of Rural Economics*, 86(Special Issue), 159-164.
- Jaafar, S.N., Lalp, P.E , Naba, M.M. (2013), 'Consumers' Perceptions, Attitudes and Purchase Intention towards Private Label Food Products in Malaysia', *Asian Journal of Business and Management Sciences*, Vol. 2(8), pp. 73-90.
- Jeng, S.P. 2016. The influences of airline brand credibility on consumer purchase intentions. *Journal of Air Transport Management* 55: 1–8.
- Kimura, A. (2003). Research on introduction of food traceability systems by Japanese pre-cooked frozen food manufacturers in China. *Agricultural Economic Studies-Osaka Prefecture University. College of Agriculture (Japan)*.
- Lichtenstein, D. R., & Bearden, W. O. (1986). Measurement and structure of Kelley's covariance theory. *Journal of Consumer Research*, 13(2), 290-296.
- Malaysian Bar. 2021. Is Malaysia an Islamic state? <https://www.malaysianbar.org.my/article/news/press-statements/press-statements/is-malaysia-an-islamic-state> [30 September 2021].
- Men, L., Li, Y., Wang, X., Li, R., Zhang, T., Meng, X.,... & Gou, M. (2020). Protein biomarkers associated with frozen Japanese puffer fish (*Takifugu rubripes*) quality traits. *Food chemistry*, 327, 127002.
- MIDA. 2021. Kawan to ride on growing frozen food demand. <https://www.mida.gov.my/mida-news/kawan-to-ride-on-growing-frozen-food-demand/> [25 September 2021].
- MyCC. 2019. Market Review of Food Sector in Malaysia under the Competition Act 2010.
- Nasution, M. D. T. P., & Rossanty, Y. (2018). Country of origin as a moderator of halal label and purchase behaviour. *Journal of Business and Retail Management Research*, 12(2).
- NorthShore News. Frozen Foods: Myth or Fact? NorthShore Health Centers, 24 March.
- OECD. 2021. Exports from Japan to Malaysia 2019. The Observatory of Economic Complexity, <https://oec.world/en/profile/bilateral-country/jpn/partner/mys> [25 September 2021].

Impact of Extrinsic and Intrinsic Attributes on Consumer Attitude with Reference to Japanese Frozen Food in Malaysia

Nor Asiah Omar, Aishath Lahath, Muhamad Azrin Nazri, Siti Ngayesah Ab. Hamid

Sen, S., Antara, N. & Sen, S. 2021. Factors influencing consumers' to Take Ready-made Frozen Food. *Current Psychology* 40(6): 2634–2643.

Tarasenko, M. 2022. Product Attributes Role In eCommerce Brand's Success.

The Japan Times. 2017. Japanese ramen shops prove popular in competitive Malaysian market. <https://www.japantimes.co.jp/news/2017/06/13/business/corporate-business/japanese-ramen-shops-prove-popular-competitive-malaysian-market/> [30 September 2021].

The Star. 2021a. M'sian is Japan food ambassador. <https://www.thestar.com.my/news/nation/2021/01/28/msian-is-japan-food-ambassador> [30 September 2021].

The Star. 2021b. Over a third of Japanese companies in Malaysia keen to expand. <https://www.thestar.com.my/business/business-news/2021/03/15/over-a-third-of-japanese-companies-in-malaysia-keen-to-expand> [25 September 2021].

Varshneya, G., Pandey, S.K. & Das, G. 2017. Impact of Social Influence and Green Consumption Values on Purchase Intention of Organic Clothing: A Study on Collectivist Developing Economy. *Global Business Review* 18(2): 1–16.

Veloutsou, C., Moutinho, L., 2009. Brand relationships through brand reputation and brand tribalism. *J. Bus. Res* 62, 314–322.

Zadeh, A.Y. 2018. Effect of halal label on food on purchasing behavior with moderating role of country of origin. *Amazonia Investiga* 7(15): 332–344. <https://www.amazoniainvestiga.info/index.php/amazonia/article/view/464>