The Social Sciences 12 (12): 2326-2331, 2017

ISSN: 1818-5800

© Medwell Journals, 2017

Visual Elements, Information Elements and Purchase Intentions on Small Medium Enterprises Frozen Food Products among Consumers in Malaysia

¹Mohd Izwan Mohd Zaki, ²Mohd Aliff Abdul Majid, ¹Samsul Bahri Usman and
¹Mohd Hazrin Iman Noorkhizan

¹Faculty of Hotel and Tourism Management, Universiti Teknologi MARA,
23000 Dungun, Terengganu, Malaysia

²Faculty of Food Science and Technology, Universiti Putra Malaysia,
43400 Serdang, Selangor, Malaysia

Abstract: There is a considerable body of literature on consumer's purchase intentions, however little is known about the influence of packaging as a marketing tool to promote Small Medium Enterprises (SMEs) food products. Looking at the importance of SMEs on nation economic growth there is a discernable need to examine the significance of packaging attributes on consumer's purchase intentions within the context. This study investigates the influence of packaging attributes, i.e., visual elements and information elements on consumer's purchase intentions on SMEs frozen food products. A 25-item questionnaire was adapted from previous literature and distributed to participants (N = 336). The 292 usable sets were analyzed and analysis showed that the model was statistically significant (F (1.290) = 462.1, p<0.001). Statistically, packaging attributes explained 72.7% of the variance of purchase intentions ($R^2 = 0.727$). It was found that information elements made the largest contribution ($\beta = 0.484$). This study provides necessary empirical support for the impact of packaging on consumer's purchase intentions in the SMEs food industry. Understanding the influential factors of packaging on consumer's purchase intentions might help the SMEs food manufacturers and operators to devise appropriate strategies for promoting their food products to consumers. Likewise, the benefits of packaging attributes should not be ignored but improved by SMEs food operators because it is regarded as one of the competitive edges that could leverage in the food industry business.

Key words: Packaging, SME, visual element, information element, purchase intention, food product

INTRODUCTION

Small Medium Enterprises (SMEs) are considered as the mainstay of the national economy, development and employment growth (Ramayah et al., 2016; Dahnil et al., 2014) and offer substantial contribution especially in developing countries. Particularly, Small and Medium Enterprises (SMEs) in Malaysia play an imperative role in the economic growth in regard to its contribution to industrial development and expansion (Tahir et al., 2016; Saleh and Ndubisi, 2006). Moreover, in 2011, Malaysian SMEs has contributed approximately 32.5% of Gross Domestic Product (GDP) and provided 56% to the total employment to the country (Chin et al., 2014). In 2015, SME GDP has shown a positive growth recording 36.3% and contributed 65.5% of total employment (SMECM, 2017). Hence, it is fair to state that SMEs stand

committed to the development of the country and recognized as driving Malaysian financial enlargement.

Evidently, Malaysian SMEs largely concentrate on various sectors and manufacturing sector contributed 6% of total SMEs distribution (SMECM, 2017). At the manufacturing sector level, food and beverages were the second largest contributor following petroleum, chemical, rubber and plastic products sub-sector (DSM, 2016). Hoq et al. (2009) suggest that the production types of the sector need to be improved for future development of Malaysian SMEs. The competitiveness of the SMEs is struggled to compete with their counterparts due to lack of improvement efforts to introduce something innovative. Looking at the global market, a local business might easily lose to foreign competitors if they are not sufficiently innovative to develop and improve existing products and services. As

a result, SMEs resumes imitating and adopting foreign products where this might impede the development of the business.

Various strategies have been launched with a special focus on the competitiveness of SMEs. However, Khalique et al. (2011) assert that more than 50% of Malaysian SMEs has found to decline within the first 5 years of operation. This might be owing to the fact that SMEs suffer from limited resources compared to bigger business companies (Dahnil et al., 2014). Since, SMEs products are competing with other bigger companies, consumers tend to deal with uncertain risk with SMEs products. Owing to that limitation, SMEs need to be innovative in order to obtain consumer acceptance and intention to purchase of their products. Nevertheless, the lack of knowledge pertaining to pricing, branding, product strategy, promotion and packaging among operators of SMEs is the common issue when competing and sustaining the business with their counterparts (Hashim, 2007) and this has made SMEs products losing its competitiveness in the market.

Numbers of consumer behavior studies investigated consumer's perception on packaging (Ford et al., 2012). However, few studies have examined the influence of food packaging on consumer's purchase intention in the context of SMEs. Despite the prevalence of research on SMEs in various areas, little is known about the influence of packaging as a marketing tool to promote SMEs food products. Rundh (2005) mentioned that the attention paid on the importance of packaging was marginal. Apparently, the packaging is regarded as one of the elements in attracting consumer's attention and consideration prior to purchasing decision (Rokka and Uusitalo, 2008). Similarly, food packaging has become an important selling point to stimulate consumer's impulse buying decision (Kuvykaite et al., 2009). Seemingly, it is essential to differentiate the products as well as to gain consumer's attention (Agariya et al., 2012). Indeed, it presents a promising growth for the sector to compete with other Malaysian business sectors as more small-scale businesses entering the domestic market. Improving and implementing better packaging by particular SMEs might create not only opportunity but also enhancing the product competitiveness. Therefore, this study intended to investigate the perceptions of consumers towards packaging attributes and examine the influence of food packaging attributes in terms of its visual and information elements on consumer's purchase intention of SMEs frozen food products. Figure 1 shows the framework illustrates the conceptual framework of the study.

The framework of this study was adapted from Silayoi and Speece (2004) looking into purchase intentions of consumers on SMEs frozen food

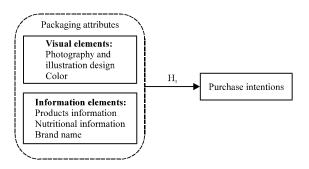


Fig. 1: Conceptual framework

products. The predictors of the framework, the packaging attributes consist of two dimensions that are visual and information elements. Visual elements serve to interact more with consumer's affective decision-making (Silayoi and Speece, 2004) and strategic method of differentiation (Ampuero and Vila, 2005). On the other hand, information elements interact with consumer's cognitive decision-making (Sial et al., 2011) and to communicate information on packaging. Enhancing attributes of food packaging might increase consumer's quality perception, thus signify advantageous strategies for business (Magnier et al., 2016). In this study, visual elements comprise of photography and illustrations design and color whilst information elements contain product information, nutritional information and brand name. Therefore, researchers hypothesize:

- H₁: packaging attributes have significant influence on purchase intentions
- H_{1a}: visual elements have significant influence on purchase intentions
- H_{1b}: information elements have significant influence on purchase intentions

literature review

Purchase intentions: Purchase intentions looking at the probability of consumers to purchase any products (Dodd and Supa, 2011). Importantly, Silayoi and Speece (2004) assert that visual and information elements are important in consumer decision-making process. Indeed, a recent study indicated that packaging positively influences consumer's purchase intentions (Magnier and Schoormans, 2015). Thus, the factors influencing consumer's purchase intention in term of packaging attributes are thereby discussed.

Photography and illustration design: Previous studies on food product packaging identified that consumers were visualizing the senses of a particular product at the time they were looking at the picture and illustration design on the packaging (Omar *et al.*, 2011; Underwood *et al.*,

2001). In a recent study on a food package, the graphical design has significantly influenced consumer's decision to purchase at the point of sale (Hamlin, 2016). Looking at the scenario, there is a possibility that the elements might assist consumers to make a purchase decision (Omar *et al.*, 2011). Thus, the importance of graphical designs is deemed crucial for packaged products as it might attract consumer's intentions to purchase.

Color: The presence of color enhances consumer's attention because consumers tend to first notice most products by the color of the packaging (Omar et al., 2011). Apparently, Silayoi and Speece (2007) assert that it is commonly used to convey information and it influences how the consumer feels on both conscious and subconscious level. In the sense, state that marketers seem to understand the importance of color with other associated aspects such as healthiness. They suggest using color for identification (e.g., yellow for less healthy products and green for healthier products) and found that package color influenced consumer's purchase intention of packaged products. Adding to that, color displays general appearance of the product, indicating a considerably important role in consumer's quality perception and purchase decision (Bix et al., 2013).

Product information: Information on products, i.e., food labeling should be descriptive and clear to consumers. Labeling assists to stimulate consumer's decision to purchase (Yuwono, 2016). The description presents as the communication tools about the particular products and beneficial to consumers before they make the decision to purchase the products. Efthalia Dimara and Dimitris Skuras (2005) support the notion by noting that such information functions as an important communicative tool that provides relevant information to select suitable products during the decision-making process. Typically, in regard to food packaging, product information have important and influential factor during consumer's purchase decision (Priyadarshini, 2014; Prinsloo et al., 2012; Peters-Texeira and Badrie, 2005).

Nutritional information: Ogba and Johnson (2010) identified that product that emphasizes on healthy food marketing have an impact on consumer's purchasing behavior. Adding to that, it has said to provide consumers with information pertaining to the nutritional content to help consumers to choose (Grunert *et al.*, 2010) that depends on consumer's reading and interpretation of the information (Affram and Darwa, 2015). Particularly for a food product, nutritional information has potential to influence consumer's food choice and dietary behavior (Mackison *et al.*, 2010).

Brand name: Brand might represent an individual's personality (Park et al., 2006) and often establish links between brand and their self (Thomson et al., 2005). In a current competitive marketplace, products with unfamiliar brands are introduced (Fenko et al., 2016). It makes more difficult for SMEs frozen food products to compete with familiar and well-known products in the market. Seemingly, consumers tend to have higher purchase intentions with familiar brand products (Yuwono, 2016) as it offers a critical indicator to consumers reducing their risk at the time of purchasing decision (Keller, 2003). However, Fenko et al. (2016) contended that the success of a new product does not only rely on its brand but also other factors such as packaging design. Thus, there is a need for this study to reveal the importance of brands among SMEs product's consumers. In this study, the brand name is specifically included as one of the elements under information elements.

MATERIALS AND METHODS

This study was crafted based on quantitative research and cross-sectional designs. The sample of the study was obtained through convenience sampling technique. Researchers conducted the data collection through a personally administered questionnaire to $336 \, (N = 336)$ respondents. Subsequently, $292 \, (N = 292)$ responses were included for data analysis, suggesting 86.9% of usable data from the total responses. The respondents consist of male (29.5%) and female (70.5%) with most respondents (39%) are in the range between 30 and 39 years old. It was also found that most of the respondents (62%) were married and have annual family income between RM2001 and RM4000 (61.3%).

In the data collection, researchers selected 3 frozen food products that are associated with SMEs. Researchers presented the products on the printed package. Researchers conducted the data collection at five hypermarkets in Klang Valley, Malaysia and approached each of the respondents individually. Then, they were asked to complete the survey based on five-point Likert scales ranging from strongly disagree to strongly agree. Photography and illustration design (5 items), color (5 items), product information (4 items), nutritional information (4 items), brand name (3 items) and purchase intention (4 items) were composed in order to measure the influence of packaging attributes on consumer's purchase intention. The 25-item instrument was adapted from previous studies (Silayoi and Speece, 2004; Bix et al., 2010; Mayfield et al., 2014) and researchers made necessary adjustments to fit the context of the study. Each item of the questionnaire was constructed in Malay and English languages and

subjected to back translation. For statistical analyses, the mean score on each scale was computed and further analyzed using SPSS Version 21.0 to achieve the research objectives.

Data analysis: Researchers considered descriptive analysis and multiple linear regression approaches to achieve the research objectives. The model was assessed using multiple linear regression and the results were presented in Table 1. Internal consistency of the items was analyzed and Cronbach's alpha values ranged from 0.762-0.889, exceeding the recommended value of 0.70 (Pallant, 2016; DeVellis, 2012). Cronbach's alpha was calculated for photography and illustration design $(\alpha = 0.820)$, color $(\alpha = 0.817)$, product information ($\alpha = 0.749$), nutritional information ($\alpha = 0.786$), brand name ($\alpha = 0.762$) and purchase intention ($\alpha = 0.889$). Researchers postulated that packaging attributes significantly influence consumer's purchase intention. The analysis shows that the model as a whole was statistically significant (F (1.290) = 462.1, p<0.001) and therefore H₁ is supported. In addition, constructs of visual and information elements, i.e., photography and illustration design, color, product information, nutritional information and brand name were also found influence consumer's purchase intention. Moreover, packaging attributes explained 72.7% of the variance of purchase intentions ($R^2 = 0.727$). The remaining 27.3% is explained by other predictor variables. The analysis also demonstrates that visual elements and information elements significantly influence consumer's purchase intention on SMEs frozen food products. Thus, H1a and H_{1b} were supported (p<0.001). In terms of importance, information elements ($\alpha = 0.484$) made a highest unique contribution as compared to visual elements ($\alpha = 0.435$). It indicates that information elements were the key determinant in predicting consumer's purchase intention on SMEs frozen food products in Klang Valley (Table 1).

Besides that mean scores of visual and information elements were also obtained using descriptive statistics. Specifically, among items of photography and illustration design, consumers agreed that the picture and illustration design on the SMEs packaging portray of high quality of product ($M=3.68,\ SD=0.767$) and recorded the highest mean score. However, the item "I enjoy the attractive picture and illustration design on the packaging" showed the lowest mean score (M=3.53,

Table 1: Summary of multiple regression analysis

Variables	В	SEB	β
Constant	-0.059	0.137	
Visual elements	0.525	0.053	0.435
Information elements	0.526	0.048	0.484
D2 0.707 <0.001			

 $R^2 = 0.727$, p<0.001

SD = 0.826). While, the transparent packaging that allows viewing of food made them confident to purchase the items (M = 3.87, SD = 0.782) recorded the highest mean score in color however "I like the color on the packaging" recorded the lowest mean score (M = 3.52, SD = 0.843).

Moreover, most of the respondents understand the instructions on the packaging (M = 3.44, SD = 0.981) where it recorded the highest mean score among product information items. Conversely, perceptions of consumers showed that the information on the SMEs packaging portray of high quality of product (M = 3.22, SD = 0.899) seemed to record the lowest evaluation. In terms of nutritional information, respondents perceived that the detail of nutritional information was important in choosing the product (M = 3.42, SD = 0.969) but the nutritional information on the packaging portray of high-quality product (M = 3.27, SD = 0.908) was recorded as the lowest mean score. Besides that, brand attributes showed that most respondents signified that the brand name is very important for them in choosing SMEs food products (M = 3.33, SD = 0.989) as it recorded the highest mean score. However, it was shown that "I will choose the familiar SMEs brand name to purchase the product" (M = 3.26, SD = 0.928) recorded the lowest mean score. All the items recorded had standard deviations of <1.000, indicating the perceptions of consumers were not widely scattered.

RESULTS AND DISCUSSION

In the modern marketing world, SMEs products are competing against products of bigger companies in the market. It is relevant to assume that there are several factors that could influence consumer's decision to purchase the products. Commercials are some of the examples to help achieving the objectives. However, food operators in SMEs need to understand the influential predictors to continue promoting their business activities. The current study suggests that SMEs food operators should focus on packaging innovativeness as the research findings revealed that there are significant influence of packaging attributes on consumer's purchase intentions. These findings further endorsed the significant role of packaging in Malaysian SMEs frozen food products. Rundh found that packaging attributes created a positive impression and similarly, influence consumer's attention to purchase the products. Findings from this study support previous studies on consumer's behavior pertaining to the importance of nutritional information (Sun, 2013; Din, 2012; Burton and Creyer, 2004) and food product information (Kim et al., 2013).

Results of the study showed that information elements consisting of product information, nutritional information and brand name are the major influence in the purchase intention among SMEs consumers. Zaidi and Muhammad (2012) assert that appropriate information on packaging builds a strong impact on consumer's purchase intentions. It is apt for food operators in SMEs to understand and take advantage of packaging significance as strategic marketing tool to compete in the market. Therefore, marketers in SMEs food industry could use the constructs of packaging attributes as way to promote the product and to enhance the opportunities for growth.

CONCLUSION

The outcome of this study hopefully could assist to provide greater information for Malaysian SMEs, specifically in their strategic planning with regard to the particular aspects of packaging to face competitive frozen food market.

REFERENCES

- Affram, P.C. and S. Darwa, 2015. Consumers knowledge, understanding and use of food label information and how it affects purchasing decision in Ho, Ghana. Asian J. Empir. Res., 5: 24-39.
- Agariya, A.K., A. Johari, H.K. Sharma, U.N. Chandraul and D. Singh, 2012. The role of packaging in brand communication. Intl. J. Sci. Eng. Res., 3: 1-13.
- Ampuero, O. and N. Vila, 2005. Consumer perceptions of product packaging. J. Consumer Market., 23: 100-112.
- Bix, L., W. Seo and R.P. Sundar, 2013. The effect of colour contrast on consumers attentive behaviours and perception of fresh produce. Packaging Technol. Sci., 26: 96-104.
- Burton, S. and E.H. Creyer, 2004. What consumers don't know can hurt them: Consumer evaluations and disease risk perceptions of restaurant menu items. J. Consum. Affairs, 38: 121-145.
- Chin, T.A., A.B.A. Hamid, A. Rasli and H.H. Tat, 2014. A literature analysis on the relationship between external integration, environmental uncertainty and firm performance in Malaysian SMEs. Procedia Social Behav. Sci., 130: 75-84.
- DSM., 2016. Small and medium enterprises 2014. Department of Statistics Malaysia, Putrajaya, Malaysia.
- Dahnil, M.I., K.M. Marzuki, J. Langgat and N.F. Fabeil, 2014. Factors influencing SMEs adoption of social media marketing. Procedia Social Behav. Sci., 148: 119-126.

- DeVellis, R.F., 2012. Scale Development: Theory and Applications. 3rd Edn., Sage Publisher, Thousand Oaks, California, Pages: 206.
- Din, N., M.S.M. Zahari and S.M. Shariff, 2012. Customer perception on nutritional information in restaurant menu. Procedia Social Behav. Sci., 42: 413-421.
- Dodd, M.D. and D.W. Supa, 2011. Understanding the effect of corporate social responsibility on consumer purchase intention. Pub. Relat. J., 5: 1-19.
- Efthalia Dimara and Dimitris Skuras, 2005. Consumer demand for informative labeling of quality food and drink products: A European Union case study. J. Consum. Market. 22: 90-100.
- Fenko, A., H. Lotterman and M. Galetzka, 2016. What's in a name? The effects of sound symbolism and package shape on consumer responses to food products. Food Quality Preference, 51: 100-108.
- Ford, A., C. Moodie and G. Hastings, 2012. The role of packaging for consumer products: Understanding the move towards plain tobacco packaging. Addiction Res. Theor., 20: 339-347.
- Grunert, G.K., L. Fernandez-Celemin, J.M. Wills, S.S. Bonsmann and L. Nureeva, 2010. Use and understanding of nutrition information on food labels in six European countries. J. Public Health, 18: 261-277.
- Hamlin, R.P., 2016. The consumer testing of food package graphic design. Br. Food J., 118: 379-395.
- Hashim, M.K., 2007. SMEs in Malaysia: A Brief Handbook. August Publisher, Malaysia, ISBN:9789833317424, Pages: 179.
- Hoq, M.Z., N.C. Ha and S.M. Said, 2009. SMEs in the Malaysian economy. Int. J. Marketing Stud., 1: 3-17.
- Keller, K.L., 2003. Strategic Brand Management: Building, Measuring and Managing Brand Equity. 2nd Edn., Prentice-Hall, Englewood Cliffs, New Jersey, USA.,.
- Khalique, M., A.H.B.M. Isa, N. Shaari, J. Abdul and A. Ageel, 2011. Challenges faced by the Small Medium Enterprises (SMEs) in Malaysia: An intellectual capital perspective. Intl. J. Curr. Res., 3: 398-401.
- Kim, E., S. Ham, I.S. Yang and J.G. Choi, 2013. The roles of attitude, subjective norm and perceived behavioral control in the formation of consumer's behavioral intentions to read menu labels in the restaurant industry. Intl. J. Hospitality Manage., 35: 203-213.
- Kuvykaite, R., A. Dovaliene and L. Navickiene, 2009. Impact of consumer package communication on consumer decision making process. Econ. Manage., 14: 441-447.

- Mackison, D., W.L. Wrieden and A.S. Anderson, 2010. Validity and testing of a short questionnaire developed to assess consumers use, understanding and perception of food labels. Eur. J. Clin. Nutr., 64: 210-217.
- Magnier, L. and J. Schoormans, 2015. Consumer reactions to sustainable packaging: The interplay of visual appearance, verbal claim and environmental concern. J. Environ. Psychol., 44: 53-62.
- Magnier, L., J. Schoormans and R. Mugge, 2016. Judging a product by its cover: Packaging sustainability and perceptions of quality in food products. Food Qual. Preference, 53: 132-142.
- Mayfield, K., L. Tang and R. Bosselman, 2014. Nutrition labeling for restaurant menu items: College students preferences for nutrition information and its influence on purchase intention. J. Quality Assurance Hospitality Tourism, 15: 310-325.
- Ogba, I.E. and R. Johnson, 2010. How packaging affects the product preferences of children and the buyer behaviour of their parents in the food industry. Young Consum., 11: 77-89.
- Omar, M.W., M.I. Fadzil, M.N.M. Ali and M.R. Shaharudin, 2011. The effectiveness of bumiputra SME food product packaging in the Malaysian customers perception. Canadian Social Sci., 7: 102-109.
- Pallant, J., 2016. SPSS Survival Manual. 6th Edn., McGraw-Hill, Berkshire,.
- Park, C.W., D.J. MacInnis and J. Priester, 2006. Beyond attitudes: Attachment and consumer behavior. Seoul Nat. J., 12: 3-36.
- Peters-Texeira, A. and N. Badrie, 2005. Consumers perception of food packaging in Trinidad, West Indies and its related impact on food choices. Int. J. Consumer Stud., 29: 508-514.
- Prinsloo, N., D.V.D. Merwe, M. Bosman and A. Erasmus, 2012. A critical review of the significance of food labelling during consumer decision making. J. Family Ecol. Consum. Sci., 40: 83-89.
- Priyadarshini, V., 2014. Awareness and use of food labelling information among consumers in Bhubaneswar city. Food Sci. Res. J., 5: 114-119.
- Ramayah, T., N.S. Ling, S.K. Taghizadeh and S.A. Rahman, 2016. Factors influencing SMEs website continuance intention in Malaysia. Telematics Inform., 33: 150-164.

- Rokka, J. and L. Uusitalo, 2008. Preference for green packaging in consumer product choices: Do consumers care?. Intl. J. Consum. Stud., 32: 516-525.
- Rundh, B., 2005. The multi-faceted dimension of packaging: Marketing logistic or marketing tool? Br. Food J., 107: 670-684.
- SMECM., 2017. SME in Malaysia: Profile and importance to the economy. SME Corporation Malaysia, Kuala Lumpur, Malaysia.
- Saleh, A.S. and N.O. Ndubisi, 2006. An evaluation of SME development in Malaysia. Int. Rev. Bus. Res. Pap., 2: 1-14.
- Sial, M.F., A. Gulzar, N. Riaz and B. Nawaz, 2011. Impact of labeling and packaging on buying behavior of young consumers with mediating role of brand image. Interdiscipl. J. Contemp. Res. Bus., 3: 1022-1029.
- Silayoi, P. and M. Speece, 2004. Packaging and purchase decisions: An exploratory study on the Impact of involvement level and time pressure. Br. Food J., 106: 607-628.
- Silayoi, P. and M. Speece, 2007. The importance of packaging attributes: A conjoint analysis approach. Eur. J. Marketing, 41: 1495-1517.
- Sun, Y.H.C., 2013. Menu nutrition labels effects on customers attitudes toward menu and restaurant dining intentions: The moderating role of psychosocial factors. J. Food Serv. Bus. Res., 16: 139-154.
- Tahir, P.R., J. Hanaysha and M. Sultana, 2016. Level of success of halal small and medium entrepreneurs in Malaysia. Asian J. Sci. Res., 9: 214-218.
- Thomson, M., D.J. MacInnis and C.W. Park, 2005. The ties that bind: Measuring the strength of consumer's emotional attachments to brands. J. Consum. Psychol., 15: 77-91.
- Underwood, R.L., N.M. Klein and R.R. Burke, 2001.
 Packaging communication: Attentional effects of product imagery. J. Prod. Brand Manage. 10: 403-422.
- Yuwono, M.A.B., 2016. Impact of coffee product packaging and labeling on purchase intentions with mediating of brand image. Acad. Strategic Manage. J., 15: 150-154.
- Zaidi, S.H.A. and B. Muhammad, 2012. Awareness of Pakistani consumers towards nutritional labeling on product packaging in terms of buying behavior. Intl. J. Bus. Social Sci., 3: 97-103.