

### YOUNG ADULT SARAWAKIAN PURCHASE INTENTION ON JUNK FOOD BASED ON PACKAGING DESIGN ELEMENTS.

### Fadilah Siali

Faculty of Economics and Business, Universiti Malaysia Sarawak Kota Samarahan, Malaysia

#### Winnie Kii Lin Lin

Faculty of Economics and Business, Universiti Malaysia Sarawak Kota Samarahan Malaysia

#### Mahani Muhammad Abdu Shakur

Faculty of Economics and Business, Universiti Malaysia Sarawak Kota Samarahan Malaysia

#### Norazirah Ayob

Faculty of Economics and Business, Universiti Malaysia Sarawak Kota Samarahan Malaysia

\*Corresponding author

Email address: sfadilah@unimas.my

#### **ABSTRACT**

An effective proactive product promotion is much needed to compete in the today's competitive global market. Together, the product packaging has come to play an important role to influence consumers' purchasing intention. The purpose of this study is to examine consumers' perceptions towards packaging design elements and to determine the most influential factors on their purchase intention. A survey was conducted using self-administered structured questionnaires from 385 young adult respondents in Kota Samarahan and Kuching, Sarawak. Two junk food packaging

with different package designs and attributes were used in this study. Major results show that the packaging colour, graphic, size, shape, material, and information have significant relationship with purchase intention. The finding could provide important insights to marketers and food manufacturers to adopt an appropriate packaging strategy for junk food to attract more sales from this particular group of consumers.

**Keywords:** Purchase intention; Packaging; Design; Consumer Perception; Junk food

#### INTRODUCTION

Today, Malaysia is considered as an upper middle income group country (Moore, 2001). Malaysia's economy grew in line with market expectations at 4% for the April-June quarter 2016 (Kok, 2016). The contribution of local and imported products has produce a large and fast growing food retail market in Malaysia. Total retail sales of food and beverages amount up to US\$15 billion today and predicted to grow to US\$21.17 billion by 2015 (USDA Foreign Agricultural Service, 2013). According to Hoover's Inc (2012) in Snack Foods Manufacturing report, the revenue of the world junk foods market is approximately to reach almost \$300 billion. Therefore it's expected that sophisticated consumers are mostly finding the product with eye-catching packaging but unimpressed with the superficial product in the market. This situation means a greater challenge for the company to stand out from the crowd in term of innovation and provide competitive advantages to their end customer.

The need for distinctive packaging of customers forced the manufacturers of a company to come up with new packaging materials and design to boost up their sales. Packaging design plays an important role in a business marketing efforts as it is defined as the containers and wrappers for a product. Packaging developers and designers have to make good use of their professional creativity and experience to further extend products marketability with new packaging design. Thus, this is the reason why there are numerous selections of packaging designs for snacks available on the supermarkets' shelves.

The major issue that should be concerned when designing a new package is the customer preferences and customer purchase intention. According to Kuvykaite et al., (2009), and Klimchuk and Krasovec (2013), many variables will affect consumers' attention and purchase intention. In spite of these variables; consumers are still the most important character in developing and implementing design packages. Therefore, effort to understand the consumer's background is the key factor for packaging design (Smith, 2011). The companies have to catch up consumers' needs and wants about the product successful weight loss or maintenance (Cummings et al., 2002). However, the recent data could have created uncertainties on label accuracy.

There is also a need to concern about the quality of packaging materials of a product. The package means by the natural quality of the contained product and reduces it after eating. The materials that normally been used in designing package include glass, metals, paperboards, and

plastics. Package materials design plays a significant role in marketing. The right selection of packaging materials can maintain a product's quality and originality during distribution and storage. Moreover, plastics still plays a role in food packaging due to the low cost of materials and it has better functional advantages than traditional materials. But, there have been some health concerns regarding residual monomer and elements in plastics which are the stabilizers, plasticizers, and condensation components such as bisphenol A (McKillup, 2005).

The size of packaging can also be an issue to the customers. In recent years, there are many complaints from consumers regarding the reduced portion of food in products but the price of the products remain the same. Some manufacturers strategically maintain the normal packaging and price with reduced portion size from before. Some other manufacturers decided to introduce new smaller size containers at normal price. Arguably, there is a benefit of reducing size portion in junk food specifically in the case of potato chips. The World Health Organization has continuously warned the general public that obesity is a leading the global death (Davies, 2014). Thus, consumers are aware about the bad effect of junk food for their body and starting to take actions reducing intakes of unhealthy food. Fast food restaurants and junk food manufacturers have also realized the importance of health trend among the consumers thus started to reduce the portion size and reformulate their food to contain less calories, salt and fat (Davies, 2014).

Additionally, packaging labels play an essential role to raise awareness towards the nutrition value of a food product and it act as the pivotal guideline to help consumer in regulating food intake. Food labels can help individual to keep an eye on caloric intake and ensure successful weight loss or maintenance (Cummings et al., 2002). Consumers in general have a mindset that organic foods found on food labels meant to be healthier than the conventional counterparts. But the truth is, manufacturers tend to use the word "organic" referring to processed foods (Donsky et al., 2011). When the natural ingredient is being processed, most of them consist of wide array of chemicals and it changes the texture of the ingredient and the nutritional values are zero. Consequently, consumers are more exposed to a variety of health issues over a period of time when they consume high processed "healthy foods" (Boyce, 2014). This problem must be listed properly on the lables to ensure comprehension among the young.

Consumer "needs and wants" continuously change as the consumer market had grown rapidly every year (Kuvykaite et al., 2009). Klimchuk and Krasovec (2013) stated that production has exceeded consumer demand in this society. The case of product failure has increased as profits diminished due to many new products entered the market rapidly. Seller hard to including functionality, aesthetic appeal, category appropriateness and so on. If the companies have a good design that catches consumers' attention, they are probably success in selling their product. The most consumers do judge products by their packaging. In order to know the perception of consumers towards junk food, the background of the consumers has to be investigating out.

The purpose of this study is to determine the customer perception toward package design elements (color, graphic, size, shape, and material). The second objective is to discover the

informational elements (product information) that involve in the consumers' purchase intention. This study also wanted to find out the impact of different package design elements on consumers purchase intention for two types of Potato chips packaging.

The research framework show in Figure 1 shows the impact package design attributes on junk food towards consumer purchase intention. Stimulus(S) – Response (R) model has been adapted to determine the influence of product attributes towards customers' purchase intention. This study is only focus on the Stimulus (S) –Response (R) relationship to investigate the packaging product attributes and the consumers' purchase intention. By drawing out the Stimulus(S) – Response (R) model, the packaging attributes act as stimulus, which in turn affect consumers' purchase intention (responses). The model explains that, when consumers are exposed to packaging attributes, it develops his or her internal state which is the perception towards packaging design and it generates purchase intention towards junk food (Mehrabian and Russell, 1974).

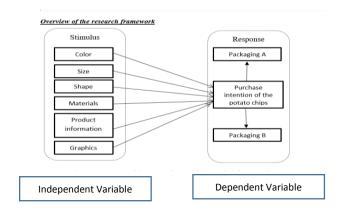


Figure 1: Adapted research framework (Mehrabian and Russell, 1974).

#### LITERATURE REVIEW

Smith (2011) mentioned that the junk food revolution started after the early nineteenth century. Before that, farmers stored wheat at farms and milled into flour at local mills. However, due to the new mill Oliver Evans created in Wilmington, the whole process can be done without human operation. This creation has been the basis of contribution of junk food making. The first contribution was that technology decreased labor cost. The other was that these technology speeds up production. Throughout the nineteenth century, peanuts and popcorn has been sold throughout at fairs. In 1896, the first commercialized successful junk food - the Cracker Jack was created (Sherwood, 1999). He added that over the past fifty years, junk food sales have drastically increased. Thus, promoting globalization, such as the invention of soda it causes junk food to start selling worldwide and the trend has been escalating ever since. Nowadays, junk food has evolved into various kinds such as chocolate, soda, popcorn, potato chips and more. However, the rapid growth of junk foods has cause a tremendous impact on health. Diseases such as type 2 diabetes,

heart problems, stroke and even cancers are speculated as the impact of junk foods (Smith, 2011). Potato chips are used as a basis in this study.

Burhans' (2008) study states that the first of potato chips was created in New York, where a cook at the Moon's Lake House in Saratoga was the first to fry thin potato slices. He explained in 1899, Katie Wicks of George Crum's sister took credit of being the chef in inventing potato chips. In the interview, Katie Wicks proclaimed that potato chips were invented due to an accident, by dropping a thin slice of potato into frying oil. Thus marks the beginning of potato chips (Burhans', 2008). Then she added that potato chips are being mass-produced after that, by manufacturers such as John E. Marshall and William Tappendon. Chips are sold in barrels to grocery stores and shops put chips in paper bags for customers. However, the packaging at that time could not keep the chips fresh. In 1930, a breakthrough in packaging was to create vacuum-sealed bags, which created potato chips as a snack food today (Sherwood, 1999).

Due to the fact that potato chips is a junk food, major health issues were concerned. Burhans (2008) founded that creation of potato chips involved using hydrogenated oil. This type of oil has undergone a hydrogenation process where "cis" double bonds in a fat molecule are removed, causing other parts of the fat molecule to create "trans" double bonds. Thus this type of fats is also known as Tran's fat. Health studies indicate that Tran's fats lower the HDL cholesterol, which are the good cholesterol, and also raise the bad cholesterol, LDL cholesterol (Burbans, 2008). However, as Smith (2011) concluded, nowadays, many chips manufacturers create healthy chips. The difference is that no oil was used in the chip making process, thus reducing the fats of potato chips.

### 1. The packaging attributes influence the consumers' purchase intention

Packaging is defined as the science, art and technology of protecting products (Madden et al., 2000) and it is direct contact with the product (Armstrong & Kotler, 2005). According to Armstrong and Kotler (2005), the role of packaging is to protect the inner part of product, makes it recognizable and easily to cope with logistics purposes. Packaging and packaging design plays an important role in marketing diverse "consumer goods" as it communicates product benefits of a product to the customer (Sanchez, 1996). When all the elements of a good package design product including the thought, the concept, the ideas, the colors, the shape, and the type of the product works together, it will create something more than just a product (Gibbs, 2010). Other than that, the uniqueness and the originality of a product can be highlighted by evaluating the packaging and package design of a product. This is because in marketing literature, good package design has the power to directly influence the emotions of the consumer, and makes the potential customer take a closer look for it and fall in love with the product (Gibbs, 2010). Hence, not just as branding, packaging could affect consumers' attitudes regarding the product.

### 2. <u>Consumers' buying decision with visual elements (colour, graphic, size, shape and materials) of package design</u>

Aaker et al., (1992) identify the packages elements of a product conveys benefits to consumers in order to meet their satisfaction. A package consists of various elements such as colors, graphics, size, shape, materials and product's information that are able to grab consumer's attention. Therefore, marketers is concerned about the consumers perception toward packages attributes and how of these elements influences the customers. Visual imagery on the package is one of the essential attribute which can become a strategic method of differentiation and to enhance access to consumer consciousness (Smith, 2011).

Color is a part of visual elements of packaging as the designers expect that different types of colors are especially on behalf of particular product (Keller, 2001; Sioutis, 2011). Singh (2006) explained that consumers' perceptions towards colour are varying across cultures and some of the colours are represent the scared colours to certain religions. Normally, the consumers are easily being attracted by the colour such as red, orange or yellow on the packaging at the time of purchase because it attracts more attention (Draskovic, et al., 2009). The understanding of the usage of colours in certain location should be figure out when it is necessary to take the colors of a particular logo, package, or product design from one to another (McKillup, 2005). Hence, marketers need to identify the meaning of colours in different cultures and the colour combinations as this is critical to ensure purchase intention of the consumers. The relationship of certain brand and the representative colour are positively related. Consumers nowadays are perceived the associations of colours that can lead them to discover the relationship between certain colour in certain product categories (Erikson, 1950). Thus, the following hypothesis is posited:

# H1: The packaging colour has a significant relationship on the purchase intention of junk food.

Graphic of the packaging is an overall appearance of products which consists of layout, colour combinations, typography, and product photography. These components combined together to communicate an image (Raghubir, & Krishna, 1999). A successful package design is able to defeat their competitors by using an interesting graphics to attract consumer attention (Silayoi, & Speece, 2007). There were a statistics shown, over 43 percent of consumers declare the quality of a product can be illustrated by the pack photography of a product (Zeithaml, 1988). When look at the graphic on the packaging, consumers tend to imagine the tastes, feels, or smells of that product (Van Der Linde & Tutz, 2008). These graphic attributes will help consumers to have the intention to purchase the product when the graphics on the packaging meet consumer's preferences. This is called as the pictorial attribute in the psychology research (Rundh, 2005). According to Rundh (2005), and Rettie and Brewer (2000), the graphics on the packaging may influence consumer's imaginative position on the packaging due to the visual stimuli will likely to be recall by them when the graphics is placed at the left hand side of the package. Thus, the following hypothesis is posited:

# H2: The packaging graphic has a significant relationship with the purchase intention of junk food.

Size also appear to be an essential elements in when customer making purchase decision. Sioutis (2011) found out, even though customer has the experience in buying certain product, but they still wish to look for the larger size of the packaging product. Rocha et al., (2004), and Raghubir et al (1999) found out, the consumers will not revise their volume judgments of product in long term after purchasing the product with disconfirmation package size. This is because the package size of product has the positive relationship with usability (Smith & Taylor, 2004). Silayoi, and Speece (2007) further explained that consumers tend to use visual criterion to make volume decisions on particular product. Nevertheless, the packaging of generics is usually in larger size as Prendergast and Marr (1997) found that when the quality of the product is difficult to perceive, the package with the bigger size reflected better value of money. The effect of packaging size is stronger than the product quality. However, emergence of different involvement of consumers is differ from the products in different sizes (Smith & Taylor, 2004). Some of the consumers from small households remain committed to small package size although a bigger packaging comes with better value and is more easily noticed by consumers. Hence, many products have to be sold in variety choices of package size in order to meet market demand and flexibility in particular industry (Schiffman & Kanuk, 2004). Thus, the following hypothesis is posited:

### H3: The packaging size has a significant relationship with the purchase intention of the junk food.

Bloch (1995) claimed that the shape of product packaging attracts attention due to the uniqueness of a brand. With the uniqueness shape of the packaging, it has encouraged consumers to buy the product. Schoormans et al (1999) has found out the shapes of packages is put in consideration when consumers are seeking for different brand choices. According to them, the shapes of packages are regard as package appearance. When there are a gap between the typical package appearance and the unique package appearance, the packaging with unique package appearance can easily catches attention (Singh, 2006). Therefore, distinctive packaging shapes can helps a product becomes more attractive and stand out from the crowd from their competitors (Underwood et al., 2001). Hence, the elongated shape and the product with acceptable size brings to consumer a better impression that the package has better value for money and product volume (Smith & Taylor, 2004). Thus, the following hypothesis is posited:

### H4: The packaging shape has a significant relationship with the purchase intention of

### the junk food

Materials used in packaging, just like other visual elements, can be act as a communication tool to create consumers' perception and association in intrinsic values association that related to material of a product (Trochim, & Donnelly, 2005). They make an explanation that different types of material that used in packaging can alter the consumer perception regarding the quality of that certain product.

Quality evaluation of a product is usually made by consumers when they look at the product package on the shelf. Holmes and Paswan (2012) investigate the relation of consumer make quality assumption of the product based on its product package, the higher the quality of the packaging, the higher the quality of the product and vice versa. Materials that used in packaging not only creates the quality assumption, it also play an important role that helps maintain the quality of the product especially freshness of products during the process of distribution and storage. Preservation- free products such as potato chips required packaging that featuring barrier property in order to avoid product degradation (Bertrand, 2006). Traditionally, materials such as glass, metals, paper, paperboards and plastics are often used in food packaging (Madden et al., 2000). Among these materials, glass can be considered as the 'ancestor' in food packaging history. Plastics are popular material that used in food packaging due to its low cost and variety choices of physical and optical properties. But plastics have its drawbacks as it may cause health issue and cause environmental problems. Usage of paper and paperboards in food packaging starts late than any other materials as mentioned above. Lee and Lye (2003) conducted the study about food packaging material that paper as food package is very different from other materials such as metal, plastics and glass because of paper can only protect food for a short term periods, poor water resistant, low durability and only suitable for certain type of foods such as dehydrated foods. But, among all these materials that used in food packaging, paper is the most environmentally friendly material. Therefore, the selection of packaging materials must take into account both consumers' desire for convenience and interest in earth-friendly packaging (Bertrand, 2006). Thus, the following hypothesis is posited:

# H5: The packaging material has a significant relationship with the purchase intention of the junk food.

3. <u>Consumers' buying decision with the informational element (packaging information) on the package.</u>

There are also cases of consumer need more information on the product package design. According to Hassan et al., (2012), informational elements such as the nutritional value, added ingredients, country of origin, the producer and best before date is normally provides on the packaging of a product. The information element shows on the packaging helps consumers to reduce uncertainty and creates product credibility when making purchase decisions (Smith & Taylor, 2004).

In reality, consumers become alert and concentrate more on the label information as well as the packaging information. Consumers tend to be confusing when the manufacturers often use small fonts and thick writing styles to produce the extensive information to the label. Besides, as stated by Silayoi et al (2007) the act of convey too much information on packaging lead to poor readability and misunderstanding of consumers. Hence, the marketers tend to narrow down the choice sets of product with the purpose of trim down misunderstanding from information overload. Mitchell and Papavassiliou (1999) explained that this method could decrease the probability of consumers to be confused by excessive choice and information overload. One of the survey have

done in UK indicates that nearly two-thirds of consumers read food labels, but the others wants to see clearer labelling (IGD, 2003). Mitchell and Papavassiliou (1999) conducted another survey about the importance of nutritional information on packaging shows that 90 percent of people agreed that nutritional information panels should be laid out on the label for all food products so they consumers are easy to understand quickly. Perception is the process by which consumer select, organize and interpret the five senses (sight, smell, taste, touch, and hearing) into a significant and coherent picture (Lamb et al.,2008). These five senses will lead consumers to determine a cue and identify the distinctive of the product. In other word, perception is "the task of making sense of sensation" (New Zealand Trade & Enterprise. 2012). For example, when consumers have the positive perception towards a product, his or her tends to have the purchase intention towards that particular product. Consumers' perception toward the packaging of a product is about how a consumers figure out a substance which is the packaging and design attributes of a product based on their own feeling, and this will influences the consumers' decision to purchase (Smith & Taylor, 2004).

Besides that, consumers can easily identify their perspective toward packaging as the communicational dimensions of packaging are communicates with the consumer with the senses (Donsky, Boyer, & Tsakos, 2011). Most of the food products using packaging attributes, cues in other word such as the colours, graphic, size and shape of the packaging, packaging materials, and the product's information to catch the attention of the consumers. According to Polyakova (2013), consumers will normally notice only for a certain cues according to their individual understanding and based on his needs and experiences. Thus, in this situation, the better the product is perceived; the more purchasing intention will be made by the consumers (Rettie, & Brewer, 2000). Thus, the following hypothesis is posited:

H6: The packaging information element has a significant relationship between with the purchase intention of the junk food

#### **METHODOLOGY**

The scope of respondents will be concentrated mainly for young adults who the age 19 years old until 30 years old. The reason of choosing young adult to become the respondents of this study is because of the lifestyles of young adult. Most of the young adult skipped the proper meal as they have the hurries lifestyles. Young adult rely on junk food to keep them energized throughout the day and junk foods can help them to prevent between meal hunger and fatigue (Rocha et al., 2004). In addition, young adults take junk food to ease anxiety. In this fast-paced culture, young adult faced different levels of stress and anxiety in order to get good result in University. This may cause the body to expend more energy in this situation. The requirements of energy cause young adult to intake more junk food and treat it as a means of comfort.

The questionnaire consisted of twenty (20) questions and it had be given with straight forward and exact answers. The questionnaire will be divided into 3 sections which are the section

A regarding the demographics, section B is concerned about the packaging attributes and lastly, section C is referring the purchase intention of consumers towards packaging attributes. Section A is to identify the consumers' background which includes the respondents' gender, age, race, year, frequency to purchase junk food and design preferences. Section B of questionnaire is used to observe the independent variable, purchase intention of the consumers toward different packaging design which adopted from Rodgers (2003) and Vila and Ampuero (2006). Lastly, the last section, section C is concerned about the dependent variables which is the packaging attributes, developed by Desai and Keller (2002) and Silayoi and Speece (2004), from the empirical studies.

In the questionnaire, there are two pictures were used in the questionnaire. The respondents' purchase intention was examined by using two images of potato chips packages with different design styles. The main objective of this study is to investigate consumer perception on visual and information elements towards purchase intention. In order to investigate it, two potato chips package with different design styles have been selected and included in the questionnaire. The two potato chips package with hot and spicy flavour has been chosen by two criteria. The first criterion: Different information and different design elements represents on the package. Image 1, the (Packaging A) in Figure 2 below has an eye-catching graphics and clear font size with less information. Meanwhile, the second package which is image 2, the (Packaging B) in figure 2 below has visible product's information and with white colour packaging. The second criterion: the package shape and package material. Here, image 1 is present in square shape and the package is made up by the plastics whereas the image 2 has a form of an elongated shape and its build up with paperboard. The researchers note that the objects of this study were two packages of snacks with different design styles where, the brand name or manufacturer's name was not being considered in this study for the product examining.



Figure 2. Potato chips packages

In addition, Likert- Type Rating Scale which developed by Renis Likert has been used in questionnaire to answer the questions. The 5 Likert-Type Rating Scale is used for educated respondents. 1= strongly disagree, 2 = disagree, 3= neutral, 4= agree, 5 = strongly agree. The respondent have to tick ( $\sqrt{\ }$ ) and circle for the choices each of the listed questions. Subsequently,

the data were collected and analysed according to the answers provided by the respondents who were working with the two images during the whole survey.

This questionnaire is design to test the sixth formulated research hypotheses. The larger part of the questions in this questionnaire is adapted from the previous studies which are suitable to this study. The questionnaire development is showed as the Table 1 below:

Table 1 Adapted source for each variable in questionnaire

| Items                   | Adapted sources  |
|-------------------------|--|
| Packaging<br>Attributes | Important of product's attributes scale by Desai & Keller, (2002).         |
|                         | Consumer perceptions of product packaging scale by Vila & Ampuero, (2006). |
| Purchase<br>Intention   | Consumer's likelihood of purchasing scale by Rodgers, (2004).              |
|                         | Packaging and purchase decisions scale by Silayoi & Speece, (2004).        |

There were 385 set of questionnaires were collected in Kuching and Kota Samarahan area from respondents between age of 19 to 30 years old. The sampling method used in this study was convenience sampling. Thus, this study distributed the questionnaires to the respondents based on their ease of access and convenient, and also to those who volunteered as suggested by Wiederman (1999). According the table 2, respondents' demographic profile in this study and the characteristics of respondents in this study included age, gender, race, frequency of purchasing junk food and the availability to choose the design of junk food. The analysed data is presented in table 2. Ninety five percent of respondent were in the age between 20 to 25 years old and 80% of respondents were women. Based on this study, 45% of respondents said they did frequently purchase junk food once a week and on 58% of the respondents were considered food packaging while they are purchasing junk food.

Table 2. Respondents' demographic profile

| Variable |              | Frequency | Percent |
|----------|--------------|-----------|---------|
| Age      | Less than 20 | 2         | 0.5     |
|          | 20-25        | 369       | 95.8    |
|          | 25-30        | 14        | 3.6     |
| Gender   | Male         | 76        | 19.7    |
|          | Female       | 309       | 80.3    |
| Race     | Chinese      | 111       | 28.8    |
|          | Malay        | 160       | 41.6    |
|          | Bumiputera   | 67        | 17.4    |
|          | Others       | 47        | 12.2    |

| How often do you purchase junk food?     | Everyday     | 50  | 13   |
|--|--------------|-----|------|
|  | Once a week  | 172 | 44.7 |
|  | Once a month | 153 | 39.7 |
|  | Never        | 10  | 2.6  |
| Do you choose the design of food         | Yes          | 222 | 57.7 |
| packaging when you purchasing junk food? | No           | 163 | 42.3 |

#### **Result and Discussion**

Reliability is used to measure the data consistent especially for the independent and dependent variable. The data is reliable indicate that there is consistent scores on all test. Hence, after reliability test all the dependent and independent variables were exceeding the Cronbach's alpha value of 0.7. According to Sekaran (2003), Cronbach's alpha less than 0.6 are weak, those in the 0.7 range are considered good, and those over 0.8 are very good. Hence, all the variables in this study were reliable. The dependent variable of purchasing intention considered as good reliable with Cronbach's Alpha of 0.779. Besides that, independent variables of colour, graphic, material and product's information showed a good reliability while the size and shape in independent variable showed the very good reliability with the value of 0.804 and 0.802.

Correlation is used to show the relationship between the independent variables towards dependent variable. (Zikmund et al., 2012). In this study, color, graphic, size, shape, material, and information is the independent variables and purchase intention of consumers is the dependent variable. The relationship of independent variables and dependent variable is evaluated by Pearson Correlations Coefficients (r) with the range in between -1 to +1. All of the variables in this study is achieved. If the value indicates at +1, there is total positive correlation between the variables, at 0 there is no correlation, and at -1 there is total negative correlation between the variables. According to Junoh et al (2011) the magnitude relationship will be explained as r = 1.0 as perfect relationship; r = -0.7 - 0.9 as high relationship; r = 0.5 - 0.69 substantial; r = 0.3 - 0.49 as moderate; r = 0.1 - 0.29 as low relationship and r = 0.01 - 0.09 Slight of relationship or Negligible. Table 3 exhibited the result of Person Correlations Coefficients both packaging of junk food towards consumers purchase intention.

**Table 3 Pearson Correlations Coefficients** 

|             | Purchase Intention | Purchase Intention | Purchase Intention |
|-------------|--------------------|--------------------|--------------------|
|             | for Packaging A    | for Packaging B    | (Overall)          |
| Color       | .510**             | .474**             | .592**             |
| Graphic     | .379**             | .467**             | .512**             |
| Size        | .325**             | .296**             | .374**             |
| Shape       | .289**             | .344**             | .382**             |
| Material    | .414**             | .425**             | .506**<br>.437**   |
| Information | .372**             | .354**             | .437**             |

### **Hypothesis**

### Hypothesis 1: The packaging colour has a significant relationship with the purchase intention of junk food.

Based on Table 3, color has positive relationship with purchase intention with correlation coefficients of 0.510 for packaging A. However, color for packaging B is also substantially related with purchasing intention with value of 0.474 at p value = 0.00. This concluded that packaging colour has a positive relationship with consumers' purchase intention and H1 is accepted.

According to the result, colour has strong influence on young adults' purchase intention towards junk food. In comparison of packaging, colour for packaging A has stand out of the crowd if compare with packaging B. This is due to the bright colour which is red, yellow, and blue on packaging A. These bright colours can attracts consumer to purchase at the point of sale because it can attract consumer's eye tracks when scanning the shelf to display junk food inside supermarket. According to Eldesouky and Mesias (2014), consumers are easily being attracted by the colour such as red, orange, or yellow on the packaging when making purchasing decisions because it attracts more attention.

# Hypothesis 2: The packaging graphic has a significant relationship with the purchase intention of junk food.

Based on Table 3, graphic on packaging A has positive relationship towards consumers' purchase intention with correlation coefficient value of 0.379 whereas, graphic on packaging B is also positively related toward consumers' purchase intention with the value of 0.467. The findings of this study has same finding of Underwood et al., (2001) which claims that graphic attributes can help consumers to have intention to purchase. This concluded that packaging graphic has a positive relationship with consumers' purchase intention and H2 is accepted.

# Hypothesis 3: The packaging size has a significant relationship with the purchase intention of the junk food.

Size has a significant and positive relationship with purchase intention towards junk food as well. Based on Table 3, for packaging A, size has correlation coefficient value of 0.325 and 0.296 for packaging B at P value = 0.00 respectively. This concluded that packaging size has a positive relationship with consumers' purchase intention and H3 is accepted.

The reason of packaging size has positive relationship on purchase intention is that the consumers be likely to use visual criterion to make volume decisions on purchases. Similar to the finding of

Silayoi and Speece (2004), the packaging size has effect on the purchase intention towards junk food. In this attribute, package A has more influence on young adult's purchase intention. This is due to package A has bigger size than package B, and this brings better value for young adults

### Hypothesis 4: The packaging shape has a significant relationship with the purchase intention of the junk food.

Based on Table 3, shape has a significant and positive relationship with consumers purchase intention towards junk food. The correlation coefficient for packaging A and packaging B is approximately similar which is 0.289 for packaging A and 0.344 for packaging B at P value = 0.00 respectively. This concluded that packaging shape has a positive relationship with consumers' purchase intention and H4 is accepted.

Some of the consumers tend to purchase a product that has unique and distintive shape of packaging. Silayoi and Speece (2007) supported that, with the unique shape in the packaging, it has encouraged consumers to buy the unique product compared to other normal shaped products. Schoormans and Robben (1997) added that, shape of packages is put in consideration when consumers are seeking for different brand choices. According to the result shown, shape of package B has more influence on purchase intention. This is due to the elongated shape brings a consumer a better impression that the package has better value for money. Nevertheless, elongated shape is convenient to hold if compared with the rectangle size packaging.

# Hypothesis 5: The packaging material has a significant relationship with the purchase intention of the junk food.

Packaging material has a significant and positive relationship with consumers' purchase intention towards junk food. Based on Table 3, the correlation coefficient value for packaging A is 0.414 and 0.425 for packaging B at P value = 0.00 respectively. This concluded that packaging material has a positive relationship with consumers' purchase intention and H5 is accepted.

The material of packaging is also influential to young adults' purchase intention towards junk food. Packaging material has strong influence on purchase intention because a high quality packaging can attract consumer to purchase and vice versa. Besides that, choice of material is also take into concern when determining purchases. In the study of Smith and Taylor (2004), materials that used in packaging can act as a communication tool and is able to alter the customer perception towards the quality of the product. From finding, material used in packaging A is plastic meanwhile paperboard for packaging B. Respondents showed high interest in packaging B is also influences by the packaging material. This is maybe because some of the respondents perceived that plastics has drawback on health issues and it also may cause environmental problems.

# Hypothesis 6: The packaging information element has a significant relationship with the purchase intention of the junk food.

The packaging information has a significant and positive relationship with consumers' purchase intention towards junk food according to the Table 3. Packaging information has positive relationship with purchase intention with correlation coefficients of 0.372 for packaging A. However, color for packaging B is also substantially related with purchasing intention with value of 0.354. The p-value for the independent variable of information is 0.000. This concluded that information has a positive relationship with consumers' purchase intention and H6 is accepted.

Most of the young adult evaluated message information on packaging and rely on message quality in order to form their intention to purchase. Finding shows that the information for package A has more influence on purchase intention comparing to package B. This might due to the volume of information provided on package A is just right to the consumer in terms of font size and colour can brings a clear message to young adult about the potato chips. The findings of this study concur to findings from Coulson and Oakley (2000). Coulson and Oakley (2000) found out that consumers are alert and normally focus on the packaging information. Essentially, the information provided on the packaging can help consumers to reduce their uncertainty during purchasing.

#### **CONCLUSION**

In this study, all of the independent variables are examined and all of the hypotheses of the study were accepted with succession evidence. Besides that, all of the research questions and objectives in this study have been answered and achieved. In nutshell, the research findings show packaging B is preferable by young adult compared to packaging A. According to the results, packaging attributes for packaging B such as graphics, shape and product material are seen to have more influential on purchasing intention. In short, young adults in Sarawak, Malaysia tend to purchase based on the packaging colour, graphic, size, shape, material, and information.

#### **IMPLICATION**

#### **Theoretical Implication**

The determinant of packaging attributes and theoretical framework were formed by combination of previous study and empirical study. The model of Stimulus(S) and Response (R) was adapted in this study to investigate the packaging attributes with consumers' purchase intention. Then, the six determinant focused in this study are colour, graphic, size, shape, material and packaging information. All of these determinants are significantly influence on consumer purchase intention and the package attribute of colour scored the highest. Meanwhile, all the hypotheses of this study were accepted and positive correlated. This shows the selected variables from previous studies were supported the hypotheses.

### **Managerial Implication**

The purpose of this study is to examine how the consumers' perception towards packaging attributes of the junk food influences the purchase intention based on two different packaging style. Based on the finding of this study, it is concluded that variables like colour, material, and graphic are highly and significant related with consumer purchase intention. Thus, marketers and food manufacturers in companies should input these elements into designing the best packaging style.

This study highlights color, size and information of the packaging attributes need to be improved for Packaging B. Hence, these bring important implication to the managers in the packaging strategy making process. Manager is needed to improve the quality of information on the packaging in order to overcome the misunderstanding of information overload and materials that make up the products. Food manufacturers and marketers should understand consumer perception towards the packages and mix the inputs and findings together to design the best packaging style.

However for Packaging A, graphic, shape and material should be focused on and crucial for consumer purchase intention. Therefore, manager can focus and improve on these packaging attributes in order to attract more consumers' purchase intention. By improving these, manager can design a distinctive, unique and innovative shape of packaging to help the product stand out from the competitors and grab consumer's attention to purchase.

#### LIMITATIONS AND RECOMMENDATION

There are several limitations to restrict the further findings of this study. Firstly, the population of this study is only focus on young adult consumer from Kota Samarahan and Kuching only and it was not represent the whole perception of Sarawakian young adult particularly. Secondly, the findings are not popularized to the perception of consumer above age of 30 towards purchase intention. This is due to different age group of consumer consist of different perception towards purchase intention in junk food. Other than that, there is only one selection of junk food which is the potato chips in this study. The findings of this study were unable to give explanation and relate the other type of junk food towards consumer purchase intention. It's recommended to future researcher for varieties the junk food types and broadens the scope of respondents to understand customer perception in purchase intention.

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