

**FACTORS INFLUENCING CONSUMERS' PURCHASE
INTENTION FOR MILK POWDER IN PENANG**

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ABSTRAK

Kajian ini menggunakan Teori Planned Behavior untuk menguji hubungan antara pengetahuan produk, penglibatan produk, persepsi manfaat, persepsi risiko dan imej negara pembuatan dengan niat untuk membeli tepung susu. Kajian ini juga menguji peranan sikap konsumen sebagai pengantara dalam hubungan factor-faktor berkenaan dengan niat konsumen untuk membeli tepung susu. Kajian dijalankan ke atas 200 responden di Penang, Malaysia melalui pengedaran borang soal-selidik bertalian. Statistical Package for the Social Science (SPSS) telah digunakan untuk menganalisis data. Keputusan kajian ini menunjukkan bahawa pengetahuan produk, penglibatan produk dan persepsi manfaat mempunyai hubungan positif dan ketara dengan niat untuk membeli. Persepsi risiko mempunyai hubungan negatif tetapi tidak ketara dengan niat untuk membeli. Imej negara pembuatan tiada kesan yang ketara terhadap niat untuk membeli. Selain itu, pengetahuan produk, penglibatan produk dan persepsi manfaat mempunyai hubungan positif dan ketara dengan sikap konsumen. Persepsi risiko mempunyai hubungan negatif dan ketara terhadap sikap konsumen. Imej negara pembuatan tiada hubungan yang ketara dengan sikap konsumen. Sikap konsumen didapati mempunyai kesan pengantara dalam hubungan antara pengetahuan produk, penglibatan produk, persepsi manfaat, persepsi risiko, imej negara pembuatan dengan niat untuk membeli tepung susu. Kajian ini terhad untuk konsumen di Penang sahaja, oleh itu keputusan yang diperolehi tidak dapat mewakili seluruh Malaysia. Kajian masa depan dicadangkan untuk merangkumi konsumen dari negeri-negeri yang lain. Kajian ini membekalkan kefahaman secara menyeluruh tentang niat konsumen di Malaysia untuk membeli tepung susu. Keputusan yang diperolehi boleh digunakan oleh syarikat-syarikat tepung susu dan ahli-ahli akademik untuk membentuk strategi dalam perancangan pemasaran tepung susu.

ABSTRACT

This study demonstrate the adaption of Theory of Planned Behavior (TPB) to examine how product knowledge, product involvement, perceived benefit, perceived risk and country of origin image influence consumers' purchase intention for milk powder and how consumers' attitude mediates these variables on consumers' purchase intention. A self-administered questionnaire was developed using established scales. A survey on 200 respondents was conducted in Penang, Malaysia through online survey questionnaire. Statistical Package for the Social Science (SPSS) was used to analyze the data. The study findings revealed that product knowledge, product involvement and perceived benefit were positively and significantly related to purchase intention. Perceived risk had negative but no significant relationship with purchase intention. Country of origin image had no significant effect on purchase intention. In addition, product knowledge, product involvement and perceived benefit had positive and significant relationship with consumers' attitude. Perceived risk was negatively and significantly affected consumers' attitude. Country of origin image was found no significant relationship with consumers' attitude. Attitude which is the mediating variable in this study was found to have a mediation effect in the relationship between product knowledge, product involvement, perceived benefit, perceived risk, country of origin image and purchase intention for milk powder. The findings were limited to include only consumers in Penang which cannot be generalized across the whole Malaysia. It is recommended to include other states in Malaysia for future study. This study provides an in-depth understanding of Malaysia consumers' purchase intention towards milk powder. The research findings can be used by the milk powder companies and marketing academicians to formulate strategies in the marketing planning of milk powder.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter elaborates the background of the study, problem statement, research objectives, research questions, definition of key terms and significance of the study.

1.2 Background of Study

1.2.1 Food Scare Issue

Food safety is an important criterion when consumers choosing their foods. Some argued that there may be a negative impact on the food market resulting from the concern for the food safety risk issue (Yeung and Yee, 2012). In recent years, series of food scares and scandals over the world had caused consumers lack of confident in food safety and the food chain, thus, consumers were getting more concerned about certain food substances and food technologies and they also not confident with new food technologies (Banati, 2011).

In September 2008, the scandal of melamine-tainted milk powder happened in Sanlu, China was a grievous food safety incident which had sickened and killed thousands of children in China (Lu et al., 2010). The Chinese Ministry of Health reported that more than 50,000 babies had been hospitalized, and six infants had died from kidney stones or kidney damages (WHO, 2009).

This food scare incident was not only adversely impacted the milk industry and related markets for a long time, it had also raised concerns about food safety

issues and spoiled the reputation of China's food exportation (Zhang, Bai, Lohmar, & Huang, 2010). According to the statistic of Ministry of Industry and Information Technology in China, sales volume of dairy products in October 2008 had dropped to 50 percent of that before the scandal and it did not meet 70 percent until June 2009 (Zhou and Wang, 2011).

The World Health Organization referred to the milk scandal as one of the largest food safety incidents in recent years, where it greatly reduced the confidence level among Chinese consumers towards domestic milk products (WHO, 2009). After the scandal, Hong Kong's shop retailers had reported a rush for imported milk formula by the cross-border Chinese consumers because the Chinese consumers had lost confidence in the safety of local milk powder and lost faith in local brands (Zhou and Wang, 2011).

In Malaysia, the most recent milk scandal happened in August 2013 where dairy company Fonterra from New Zealand sparked a global recall of milk products after it had discovered botulism bacteria in some of its whey protein concentrate (The Star Online, 4 August 2013). However it was ended with false alarm when New Zealand government officials announced that they had found no sign of harmful botulism bacteria after retesting ingredients used in recalled milk products (The Star Online, 4 August 2013).

Due to the contamination scare in Fonterra, Danone Dumex who is the milk company using raw material from Fonterra forced to launch a precautionary recall of all the suspected batches of stocks in Malaysia and destroyed. Danone Dumex

recalled several batches of its infant formula products under the brand name Mamil Gold PreciNutri Step 2, Dupro Step 2 and Dulac Step 1 (The Star Online, 4 August 2013; New Straits Times, 4 August 2013; Danone Dumex website, 8 August 2013). However, the New Zealand ministry declared on August 28 that subsequent tests revealed that there was no clostridium botulinum found in any of the batches concerned (Fonterra website, 6 Sept 2013).

1.2.2 Malaysia Dairy Market

It is estimated that a substantial increase in dairy consumption will be stimulated in Asia and this growth will provide prominent opportunities for world dairy exporters with the fast-paced economic growth, population growth, change in consumption patterns, urbanization and modernization of marketing infrastructures (Dong, 2006). The increasingly total population in Malaysia resulted relatively high food consumption among Malaysian population where the per capita food consumption is estimated at US\$580 (as of 2013), which is high by regional and emerging market standards (Malaysia food & drink report -Q1 2014, 2014) (refer Figure 1.1 and Figure 1.2). The wealth discrepancies between the country's urban rich and rural poor in Malaysia still exists but the situation is not as problematic as other countries in the Asia Pacific region, owing to its thriving agricultural sector (Malaysia food & drink report -Q1 2014, 2014).

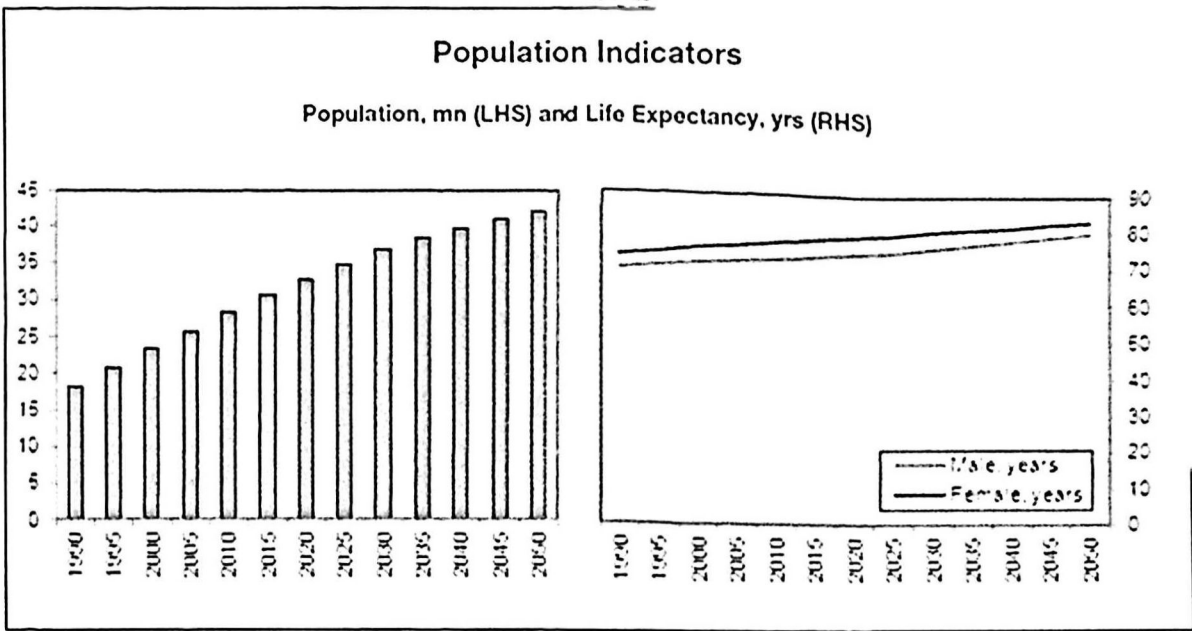


Figure 1.1 Malaysian Population Indicator

Left chart: Total population (million); Right chart: Life expectancy (years)

(Source: Malaysia food & drink report -Q1 2014, 2014)

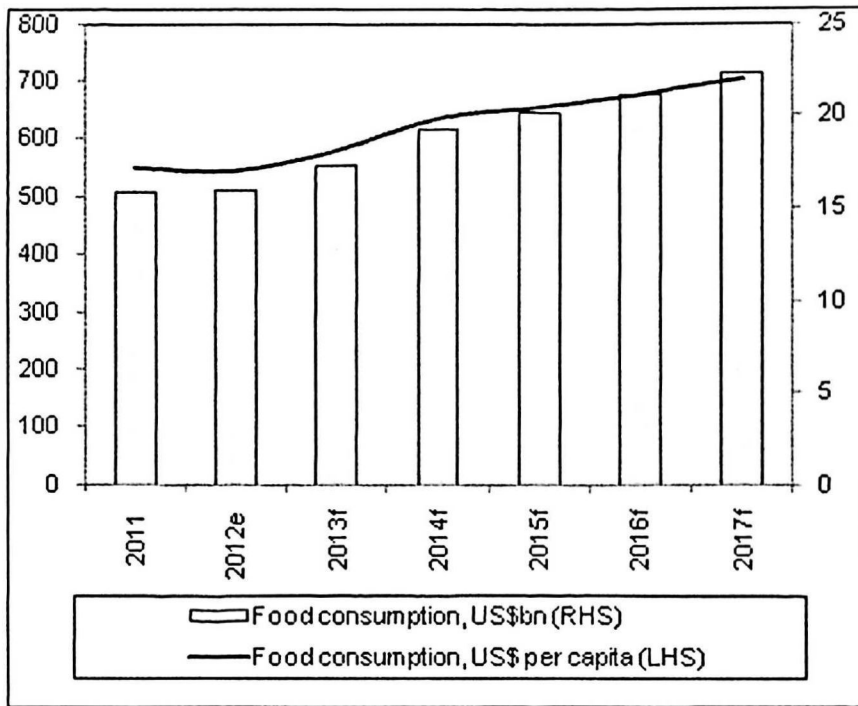


Figure 1.2 Food Consumption among Malaysian Population

(Source: Malaysia food & drink report -Q1 2014, 2014)

The demand for milk among the Malaysian population is estimated to grow by higher than 30 percent in the half decade durations leading up to year 2014 (Dong, 2006) (refer Table 1.1). Dong (2006) stated that Malaysia’s dairy industry is experiencing a rapid change due to growth of income, shift in diets patterns, urbanization, investment policies and more liberalized trade boosted competition among the milk producers. Although there is a speedy growth, Malaysia local dairy industry is keeping pace with its overall market share at only about 5 percent (Boniface, 2012). Dairy industry is not as well established in Malaysia as in western countries. Domestic dairy production supplies much of the market, which focus more on halal-certified foods. Imported processed dairy products also feature in the market. Although Malaysian dairy consumption is high by regional standards, it is still quite small by global standards. Taking powdered milk into account, per capita milk consumption is estimated at 42kg by the agriculture ministry (Malaysia food & drink report -Q1 2014, 2014).

Table 1.1 *Outlook for Asian dairy markets*

	Production			Consumption		
	2005	2009	2014	2005	2009	2014
	(Thousand Metric Tons)					
Milk						
China	20036	23957	29138	10445	12922	15475
Urban				9607	11800	14116
Rural				838	1122	1359
India	95009	103319	112680	39459	42072	45553
Indonesia	589	637	704	321	359	404
Japan	8319	8356	8410	4967	5052	5120
Malaysia	41	46	49	46	52	60
Philippines	13	15	18	58	65	77
S. Korea	2342	2445	2641	1537	1641	1768
Thailand	911	1058	1276	884	1026	1241
Vietnam	145	162	184	163	183	215

(Source: Dong, 2006)

The local dairy companies are looking for strategies of how they can gain competitive advantage to remain profitable and continuously expanding in the market (Boniface, Gyau and Stringer, 2012). The leading local dairy producer is the Malaysia Dairy Industries (MDI). MDI produces a range of dairy products which includes pasteurized milk, sweetened condensed milk, evaporated milk and some soft drinks. MDI supplies to Malaysia and Singapore, with its annual sales of SGD250 million in Singapore, and annual sales of MYR400 million in Malaysia (Malaysia food & drink report -Q1 2014, 2014).

Few top players in the milk product market in Malaysia are Mead Johnson Nutrition (M) Sdn Bhd, Nestle (M) Bhd, Dutch Lady Milk Industries Berhad, Danone Dumex (M) Sdn Bhd, Abbott Laboratories (M) Sdn Bhd, Wyeth (M) Sdn Bhd, Fonterra Brands (M) Sdn Bhd and Snow Brand Marketing Sdn Bhd. There are various types of milk powder available in the market such as cow's milk powder, soy milk powder, oat milk powder, rice base milk powder and goat's milk powder. Different category of milk powder for different age group such as infant formula is formulated for 0 to 12 months infant, follow-up formula for 6 months to 36 months, growing up formula for 1 year old and above, maternal milk for pregnant and lactating mother, milk powder for teenager, adult, and older people (Euromonitor, 2013). Malaysia government and some milk manufacturers had been collaborated to held some events in order to increase milk consumption among Malaysian population, e.g. in conjunction with World Milk Day, Malaysia Milk Sdn Bhd involved in a 6-day fair to encourage milk intake. To educate children the advantage of drinking milk, milk distribution day was also carried out in primary schools in Malaysia (Euromonitor, 2013).

There are various scholars had done research on how is consumers' purchase intention was influenced by product knowledge, product involvement, perceived benefit, perceived risk, country of origin image and attitude (Bian and Moutinho, 2011; Lin and Chen, 2006; Shirin and Kambiz, 2011; Wang, Wiegerinck, Krikke, and Zhang, 2013). All these researchers had provided highly important and insightful information on how these factors lead to the consumers' intention to purchase a product. Wang et al. (2013) examined the direct and indirect effect of the factors on purchase intention, and thus confirmed that the effective strategies to enhance consumers' purchase intention depend on coordinated policies built on multiple factors instead of single factors.

1.3 Problem Statement

Malaysia's per capita milk consumption is lower as compared to other Asian countries (Euromonitor, 2013). Malaysia remains import-dependent for almost all of its dairy needs because of the less establishment of the local dairy industry (Malaysia food & drink report -Q1 2014, 2014). Low incomes and incompatibility of dairy products with local diets have further impediments to the growth of local dairy industry. However, some of the dairy company indicates that the Malaysian dairy sector is under well development. For example, Dutch Lady Milk Industries, a subsidiary of Friesland Campina which is a global dairy player, reported that the sales are to have broken the MYR1 billion in year 2013. New Zealand's Fonterra also identified that Malaysian dairy sector has an opportunity to grow. The company has invested MYR25 million to double production at its Kuala Lumpur factory, which is operated by its Fonterra Brands Malaysia subsidiary. The factory produces 30000

metric tonnes of milk powder annually (Malaysia food & drink report -Q1 2014, 2014).

Various scholars have studied the Malaysian dairy sector and had explored the role of long term relationships between milk buyers and sellers by examining the variations in relationship quality, price satisfaction dimension and loyalty (Boniface, 2012); and determined how was the relationship performance between dairy producers and the dairy processors who buy their milk was affected by price satisfaction (Boniface et al., 2012). There is a study in infant formula industry which investigated on how marketing mix elements and customer satisfaction influencing customer loyalty (Khoo, 2012). Other than that, Prescott et al. (2002) found that Malaysian consumers rated health as the most important factor when buying powdered milk and product familiarity as the least important. Only a few studies have studied Malaysian dairy consumption patterns (Hendijani and Ab Karim, 2010; Prescott et al., 2002).

There are several major challenges that milk companies facing today in Malaysia. An intense competition among the top key milk companies in Malaysia making them more difficult to broaden its consumer base and increases sales opportunities in this country (Malaysia food & drink report -Q1 2014, 2014). In year 2011, the commodity price inflation incurred higher costs of raw materials such as milk and sugar, causing the milk companies witnessed a massive increase in its cost of goods sold and operating business under stronger inflationary burden (Malaysia food & drink report -Q1 2014, 2014). Milk companies in Malaysia also facing an impending need to restore consumers' confidence after several milk safety issues. The

milk scare issue had created a crisis of confidence among consumers towards milk products and thus affects the consumption (Malaysia food & drink report -Q1 2014, 2014). Therefore, it is crucial to find an approach to mitigate the influence of the tainted milk scandal over the milk powder market in order to restore consumers' confidence in milk safety and to promote the sound development of dairy market (Zhou and Wang, 2011).

Owing to the intense competition among milk companies and the need to restore consumers' confidence after milk scare incidents, a theory-driven research is required to facilitate a better understanding of the attitudinal and behavioral factors that influence consumers' purchase intention for milk powder in Malaysia, which ultimately facilitates effective design and implementation of programs that aim to promote the purchase intention towards milk powder. Thus, this research proposes to apply the Theory of Planned Behavior (TPB) to study the factors that influencing the purchase intention for milk powder among consumers in Malaysia context. The TPB is an extension of the earlier Theory of Reasoned Action (TRA), which posits that behavior is proximally determined by behavioral intention (Ajzen, 1991). Prior studies indicated that TPB is a useful tool in predicting purchase intention for various food products (Alam and Sayuti, 2011; Cook and Fairweather, 2007; Chung, Stoel, Xu and Ren, 2012). Many previous studies that employed the TPB model indicated that attitude is an important predictor of consumers' intentions to engage in certain health-related behaviors, for example, attitude was one of the main predictors of purchase intention for genetically-modified foods (Chen, 2008). Therefore, this study aims to employ TPB to explore how consumer's purchase intention for milk powder is influenced by their product knowledge, product involvement, perceived benefit,

perceived risk, country of origin image and attitude in order to provide more valuable insights about the determinants of consumers' purchase intention towards buying milk powder in Malaysia.

1.4 Research Questions

There are several questions which are concerned in the current research, as stated below:

1. Is there any relationship between product knowledge, product involvement, perceived benefit, perceived risk and country of origin image on consumers' purchase intention for milk powder?
2. Is there any relationship between product knowledge, product involvement, perceived benefit, perceived risk and country of origin image on consumers' attitude towards purchasing milk powder?
3. Is there any relationship between attitude and purchase intention for milk powder?
4. Does mediating effect of attitude exists between product knowledge, product involvement, perceived benefit, perceived risk, country of origin image and consumers' purchase intention for milk powder?

1.5 Research Objectives

The role of product knowledge, product involvement, perceived benefit, perceived risk and country of origin image as independent variables are investigated. At the same time, the role of attitude as the mediating variable is investigated. In this study, purchase intention is determined as the dependent variable. This research aims to achieve objectives below:

1. To examine the relationship between product knowledge, product involvement, perceived benefit, perceived risk and country of origin image and their significant effect on purchase intention.
2. To investigate the relationship between product knowledge, product involvement, perceived benefit, perceived risk and country of origin image and their significant effect on attitude.
3. To determine the relationship between attitude and its significant effect on purchase intention.
4. To explore the relationship between product knowledge, product involvement, perceived benefit, perceived risk, country of origin image and purchase intention is mediated by attitude.

1.6 Significance of the Study

This research is significant for its contribution to examine the role of product knowledge, product involvement, perceived benefit, perceived risk, country of origin image as well as attitude on purchase intention for milk powder among consumers and to contribute helpful information about the milk powder market in Malaysia context.

This study plans to benefit the current business practitioners of milk powder to boost their customers' purchase intention for milk powder by providing insightful information about the factors influencing purchase intention towards buying milk powder. By recognizing the factors namely product knowledge, product involvement, perceived benefit, perceived risk and country of origin image which are influencing consumers' purchase intention, the outcome of this research can assist managers of

the milk powder companies to establish more effective marketing strategies to enhance consumers' purchase intention for milk powder.

This study is also significant for academicians because this study can be used as a reference about consumers' purchase intention in Malaysian context. The empirically tested theoretical framework in this study and the result of this study will provide new insights for the academicians in their future research regarding consumers' purchase intention, product knowledge, product involvement, perceived benefit, perceived risk country of origin image and attitude.

1.7 Definition of Key Term

Definition of key terms are included to ensure the comprehension and consistency towards the terminology applied in this study.

1.7.1 Purchase Intention

Purchase intention is the individual assessment of future willingness to buy (Wang et al., 2013).

1.7.2 Product Knowledge

Product knowledge is the consumer's awareness or understanding level of a specific product (Shirin and Kambiz, 2011).

1.7.3 Product Involvement

Product involvement is the consumer's subjective self-perception of product importance and his or her involvement level concerning a specific product (Shirin and Kambiz, 2011).

1.7.4 Perceived Benefit

Perceived benefit is the beliefs about a product benefits, e.g. health (Verbeke, 2005).

1.7.5 Perceived Risk

Perceived risk is defined as the pre-purchase risky information (e.g. safety and quality) about the unfavorable potential consequences and losses in evaluating and consuming a product (Tuu and Olsen, 2012).

1.7.6 Country of Origin Image

Country of origin image is defined as consumer's overall recognition to a country of origin (Sanyal and Datta, 2011).

1.7.7 Attitude

Attitude is the individuals' positive or negative evaluation of the purchase (Wang et al., 2013).

1.8 Organization of Remaining Chapters

This study is conducted in an organized and systematic way. This thesis covers five chapters. After the introduction of Chapter 1, the remaining chapters are Chapter 2, 3, 4 and 5.

Chapter 2 reviews the previous literature and includes theory, theoretical framework and hypotheses development. Chapter 3 discuss the research methodology which covers the research design, variables, unit of analysis, population and sample, procedure, measure and using SPSS (Statistical Package for Social Science) software, Version 22. Chapter 4 discusses the findings of the statistical tests. Respondents' profile, goodness of measure, descriptive analysis and summary of hypothesis testing are demonstrated in this chapter. Finally, Chapter 5 presents the discussion and conclusion of this research's findings. This chapter covers the major findings, implications of study, limitations of study, final conclusions and recommendations for future study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Previous literatures on product knowledge, product involvement, perceived benefit, perceived risk and country of origin image as well as purchase intention are reviewed in this chapter. Hypotheses are proposed and attitude is tested as the mediating variable in the conceptual model.

2.2 Review of the Literature

2.2.1 Purchase Intention (Dependent Variable)

Purchase intention is an essential and useful concept in marketing literatures (Tsiotsou, 2006). It is important in developing marketing strategies to influence consumers positively (Espejel, Fandos, and Flavian, 2008; Paul and Rana, 2012). The concept of purchase intention is important for marketing managers in order to forecast sales and make decision on the market demand for existing and new products, promotional strategies and market segmentation (Tsiotsou, 2006).

Several researchers had performed studies to investigate the consumers' purchase intention for the protected denomination of origin (PDO) food (Espejel et al., 2008; Herrera and Blanco, 2011). Chung et al. (2012) found that Theory of Planned Behavior (TPB) model is effective to be used to examine the purchase intention for imported soy-based dietary supplement among the Chinese consumers. Sabbe, Verbeke, and Damme (2008) had conducted a research on 290 subjects to examine the purchase intention among Belgium consumers towards tropical fruits (in

fresh and processed form). This study explained the perceived importance of food choice determinants and their effects on the purchase intention for tropical fruits.

In Finland, Tarkiainen and Sundqvist (2005) applied the theory of planned behavior in an organic food study where they examined the intention among Finnish peoples to purchase organic foods. Study by Paul and Rana (2012) had provided valuable insights in consumer behavioral regarding organic foods by exploring the antecedents of purchase intention for organic foods among the Indian consumers. Kim and Chung (2011) conducted a research on 207 online panel members in US to examine the factors that influence consumers' purchase intention for organic personal care products.

Cook and Fairweather (2007) conducted a study to determine the purchase intention of New Zealanders towards buying genetically-modified lamb or beef using nanotechnology. In Taiwan, research had been conducted to examine consumers' purchase intention towards genetically-modified foods (Chen, 2008). Alam and Sayuti (2011) had examined the purchase intention as dependent variable in their study to assess the purchase intention for halal food among Malaysian consumers.

In the context of green marketing, Chen and Chang (2012) examined the purchase intention among the Taiwanese consumers who had experience in purchasing information and electronics products. In Spain, Hartmann and Apaolaza-Ibanez (2012) investigated 726 consumers who were exposed to experimental advertisements for a fictitious green energy brand to examine their intention to purchase green energy brands.

Son, Jin and George (2013) tested on 210 Indian college students from four universities to understand their purchase intention of foreign brand goods in order to assist US companies in exploring India's market potential. Pan, Kuo, Pan, and Tu (2013) examined the antecedents of purchase intention among Taiwanese online consumers in Internet shopping and the results suggested prescriptive strategies for online sellers.

2.2.2 Product Knowledge

Product knowledge has a vital role in the study regarding consumer behavior, thus it is a key research subject in related fields of study (Lin and Chen, 2006). Product knowledge has been measured in subjective knowledge or objective knowledge, which both are difficult to separate from each other (Aertsens, Mondelaers, Verbeke, Buysse and Van Huylenbroeck, 2011). According to Bian and Moutinho (2011), consumers who have higher product knowledge have better cognitive capacity to assess comparative alternatives given more complex and better developed schemata; which means the level of product knowledge was indirectly related to evaluation bias, if the consumer had higher level of product knowledge, the less chance the consumer will create evaluation bias.

A study of genetically modified food indicated that consumers perceived more benefits but not less risks from genetically modified foods if they viewed themselves as having better knowledge about genetically modified foods (Chen, 2008). Research by Chung et al. (2012) on soy-based dietary supplement revealed that an individuals' attention was attracted to the purchase decision by their knowledge of the benefits or efficacy of a product. If an individual was aware of the knowledge about product

benefits or efficacies, the individual with high health value had more positive attitudes toward taking imported soy-based dietary supplement (Chung et al., 2012).

Shirin and Kambiz (2011) conducted a study on cell phone in Iran and revealed that product knowledge was one of the factors influencing consumer purchase intention. Lin and Chen (2006) surveyed on 369 Taiwanese consumers in Taipei city in a study of insurance and catering services, and confirmed the association between product knowledge and purchase intention.

2.2.3 Product Involvement

The concept of involvement had been the topic of interest in attitude and consumer behavior, and had received widespread attention in marketing and advertising research (Tsiotsou, 2006). Product involvement has been defined by de Wulf, Odekerken-Schroder and Lacobucci (2001) as consumer's enduring perceptions of the importance of the product category based on consumer's inherent needs, interests and values. Warrington and Shim (2000) stated that the level of involvement with a product explains the consumer's differential responses to different products and thus is an important segmentation criterion.

There is a rising interest in agro-food and academic sectors to understand how is the level of consumer involvement impact on consumers' behavior (Espejel, Fandos, and Flavian, 2009). Individuals' involvement in foods products consumption had raise prominently due to the growing concerns regarding health and recent food crises (Espejel et al., 2009).

Previous researchers who conducted study on protected designation of origin (PDO) food suggested that it is important to recognize how consumers' decision-making processes is influenced by consumer involvement level regarding their products (Espejel et al., 2009). Bian and Moutinho (2011) showed that there was no influence of product involvement in the relationship of consumers' perceptions toward a counterfeit branded product on purchase intention. Several researchers confirmed that product involvement was one of the factors which exerted significant effect on purchase intention (Lin and Chen, 2006; Shirin and Kambiz, 2011).

2.2.4 Perceived Benefits

According to Chandon, Wansink and Laurent (2000), perceived benefits are beliefs of positive outcomes which associated with a behavior in response to a real or perceived threat. The perceived benefit of buying construct was commonly applied to normal shopping behavior, and it is specific to an individual's perception of a benefit that give satisfaction by involving in a specific shopping action (Liu, Brock, Shi, Chu and Tseng, 2013).

Bian and Moutinho (2011) performed a study to explore the consumers' purchase intention for counterfeit branded products (CBPs) involving 321 consumers in Glasgow, UK; and the results found that consumers' purchase intention was influenced by their perceived benefits. This finding revealed that the consumer showed higher intention to purchase a product because of the satisfaction (e.g. value for money) by purchasing a product.

Wang et al. (2013) examined the association between perceived benefit and purchase intention in a study of remanufactured automobile spare parts which involved 288 respondents in China; the results confirmed that perceived benefit exerts indirect effect on purchase intention through attitude. A study in genetically-modified foods by Chen (2008) on 564 Taiwanese consumers showed that consumers who perceived more benefits from gene technology are more optimistic about applying such biotechnology to food production and form a positive attitude toward it.

Yin, Wu, Du, and Chen (2010) investigated on 432 consumers in China to investigate consumer purchase intention for organic foods. They found that safety concern is the most essential criteria in choosing for safe food, and then followed by health, nutrition and taste. They found that environmental concerns are less importance, indicating that the perceived benefits of safe food are more important than environmental concerns.

In online group buying study, Liu et al. (2013) who surveyed on 578 consumers confirmed that perceived benefits is one of the important significant factor influencing consumers' attitude towards online group buying. In a research of co-branded products in China which involved 433 co-branded credit card holders, the researchers proved that perceived benefit exerted significant effect on consumers' attitude toward bank or department store co-branded credit cards (Liu, Chu, Wong, Zuniga, Meng and Pang, 2012).

2.2.5 Perceived Risk

Perceived risk had been known as the personal belief that one can be potentially harmed, remains a central construct in health behavior research (Kuttschreuter, 2006). Yeung and Yee (2012) related the concept of consumer's perceived risk to the possibility of harmful or hazardous outcomes that maybe threatening consumer's welfare, and also related the concept to the uncertainty of product performance. In addition, they revealed that consumers' food safety perception related to risk such as health concerns and emotional pressure as a part of psychological risk.

Chen and Chang (2012) demonstrated an approach about perceived risk in building the process of purchase intention in the environmental management context. This research established a conceptual framework of green purchase intentions to examine its relationships with green perceived risk, green perceived value, and green trust. Previous study had been conducted based on 533 respondents in United Kingdom to explain how different levels of risk perception and trust in food safety information affect food purchasing intentions (Lobb, Mazzocchi and Traill, 2007).

Wang et al. (2013) revealed the indirect impact of perceived risk on purchase intention via attitude. The scholars stated that the risks perception of consumers were originated from their doubts about the performance and quality of remanufactured products; financial, performance, time, physical, resource and social risks all arose as negative factors in the purchase attitude when they made decision to purchase for remanufactured products.

2.2.6 Country of Origin Image

Country of origin image (COO image) is defined as the stereotypic perception that consumers hold toward the country's representative products or brands (Bluemelhuber, Carter and Lambe, 2007). Previous research stated that consumers may hold different appraisals related to products from different countries, therefore significantly influenced their purchase decision (Yasin, Noor dan Mohamad, 2007). Scholars had found that the COO image exerted a profound impact on consumers' perception when selecting products (Ahmed, Zbib, Sikander and Farhat, 2010).

Josiassen and Assaf (2010) highlighted the general importance of COO image in influencing consumers' product evaluations and purchase intentions. Diamantopoulos, Schlegelmilch and Paliyawadana (2011) had empirically tested the potential effect of country of origin image on purchase intention by based on 300 consumers in United Kingdom, the scholars revealed the indirect impact of COO image on consumers' intentions to buy specific US and Chinese brands' refrigerators.

The COO image had found to be an important driver to influence consumers' purchase intention (Shirin and Kambiz, 2011). Wang and Yang (2008) who conducted a study in China's auto industry had confirmed the relationship between COO image and consumers' purchase intention. In the study of insurance and catering services in Taiwan, Lin and Chen (2006) postulated that COO image was significantly affected consumer's purchase intention.

Researchers proven that Malaysian consumers' perception of country of origin image is one of the factors that consumers consider in making their purchase decision

(Yasin et al., 2007). According to Yasin et al. (2007), Malaysian consumers perceive countries with good image as technologically advanced countries and brands that originate from these countries are reliable and high quality. Although consumers are facing with many alternative brands in the market, which they perceive as equally good in terms of product attributes and functionality, information about the country would be an added advantage. Consumers' perception towards country-of-origin is often transferred to the brands originate from that country due to carry-over effect. These consumers feel that brands from countries with good image are more reliable than brands produced by countries with less favorable image (Yasin et al., 2007).

2.2.7 Attitude

Attitude towards a given behavior refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question (Ajzen, 1991). According to Ajzen (1991) the more favorable the attitude with respect to the behavior, the stronger is the individual's intention to perform the behavior under consideration.

Chen (2008) confirmed that attitude toward purchasing genetically-modified foods influenced consumers' intention to purchase the foods. In addition, Theory of Planned Behavior had been used to clarify that consumers' attitudes exerted significant effect on purchase intention towards using soy-based dietary supplements (Chung et al., 2012). Tarkiainen and Sundqvist (2005) who studied in consumers' intentions to buy organic food found that consumers' attitude is an important factor to affect their purchase intention. A research study by Son et al. (2013) revealed that

attitude had significant influence on consumers' purchase intentions toward foreign brand jeans among Indian consumers.

Previous research had shown that purchase intention of consumer towards buying genetically-modified lamb or beef using nanotechnology was influenced by attitude (Cook and Fairweather, 2007). Besides, Kim and Chung (2011) who explored consumers' purchase intention for organic personal care products had found that attitude significantly influence consumers' purchase intentions. Sabbe et al. (2008) revealed that attitude had significant influence on Belgium consumers' purchase intention towards tropical fruits (in fresh and processed form).

In addition, attitude also had been confirmed by some researchers that it had influences on intention to take precautions to avoid consuming dairy products (Lu et al., 2010) and broiler chicken meat and products (Huang, Goh and Mohaidin, 2014).

2.3 Theory

2.3.1 Theory of Planned Behavior (TPB)

This study has employed Ajzen's (1991) Theory of Planned Behavior (TPB) as the underlying theory. TPB is a broadly accepted model to explore an individual's behavior. TPB specifies that an individual's behavior is predicted by intention, and the intention is determined by attitude, subjective norm and perceived behavioral control concerning the behavior. Intention means the probability of a person behaving in a certain way (Fishbein & Ajzen, 1975). Attitude means positive or negative individual perspectives and comments regarding objects, people and events (Fishbein & Ajzen, 1975). Subjective norm represents the agreement of a reference group with a