# INTI INTERNATIONAL UNIVERSITY

## MASTER OF BUSINESS ADMINISTRATION

The effect of green marketing tools and strategies on consumers'

purchase intention in food and beverage industry:

A case in Klang Valley, Malaysia

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## Abstract

The interaction between businesses and the environment has been an issue since the early of 1970s. Nowadays, consumers are becoming more environmentally responsible and some of them prefer a green product over a conventional one. In response to this, many businesses have produced green products to satisfy the consumers' needs. Besides, they also have started to incorporate green marketing into their marketing strategies. They have developed variety tools and strategies to market their green products and some of them are like eco-brands, eco-ingredients, eco-labels, eco-packaging and green integrated marketing communication tools. However, their significant impacts on consumers' green purchase intention are still uncertain and these have become the subject of some researches in recent years. On top of that, in Malaysia, like many other developing countries, not much attention was paid to environmental issue and this topic has been under-researched. Hence, this research aims to examine how the green marketing is used by food and beverage industry to influence the green purchase intention of consumers in Klang Valley, Malaysia. Based on the literature review that was available, a framework was developed and this research was conducted through quantitative approach. The data was collected through questionnaires and analyzed by using Smart PLS and SPSS 20.0 softwares with multiple kinds of tests such as structural equation modeling and Mann-Whitney. The empirical findings of the study suggest that eco-packaging, eco-brands, eco-ingredients and eco-labels are the green marketing tools and strategies that will influence the consumers' green purchase intention of food and beverage. The results also suggest that female consumers are more environmentally friendly compared to male as it is proven they tend to respond more positively towards eco-brands' products.                                                   (276 words)

**Keywords:** Green marketing, Eco-brands, Eco-ingredients, Eco-labels, Eco-packaging, Green integrated marketing communication tools, Consumers' green purchase intention

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Khor Wen Loon

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# Declaration

I hereby declare that this thesis is my own work and effort and that it has not been submitted anywhere for any award. Where other sources of information have been used, they have been duly acknowledged.

28<sup>th</sup> June 2013                                               Khor Wen Loon

**Table of contents**

## List of tables

## List of figures

**List of appendices**

## 1.1 Introduction

This chapter presents an introduction to the research issues. The chapter begins with a background of research in section 1.2 and leading to the problem statement in section 1.3. This is then followed by the research objectives and research questions in section 1.4. Subsequently, the significance and limitations of this research are covered in section 1.5 and 1.6. The scope of study and operational definitions are explained in section 1.7 and 1.8. Finally, this chapter finishes with the outline of present study in section 1.9.

## 1.2 Background

Nowadays, businesses and consumers are more aware with the natural environment and they realize their production and consumption methods will have serious impacts on the environment (Deloitte Consumer Survey, 2008). This can be seen due to the increased level of environmental awareness since 1970s (Harris Interactive, 2008). Besides, this can be proven by a lot of surveys such as the one that conducted by Cohn & Wolfe which found that a majority of consumers in all countries are willing to spend more on green products and think that all companies should protect the environment (Manget, Roche and Munnich, 2009). Additionally, a number of studies also shown there is an increasing number of consumers from different countries who consider environmental compatibility of products as one of the key determinants in making purchase decisions (Burst Media, 2010; WPP, 2010).This can be further proven by Greendex's research in 2012 which shown the majority of consumers from different countries are more concerned with the environmental impact of their consumption patterns as shown in figure 1.1 in appendix 1.0. In short, these studies have indicated there is a growing trend in consumers' awareness and preferences over environmental friendly products. Consequently, these changes have led to the beginning of green revolution which used to save the environment and the similar issue is also happening in Malaysia (Chen, 2013).

Throughout the years, Malaysia's government has put a lot of efforts in green marketing initiatives to encourage consumers to adopt the green consumption patterns in their purchasing decisions. For instance, the Standards and Industrial Research Institute of Malaysia (SIRIM) has introduced the national eco-labeling program in 1996 to verify products based on the environmental criteria and the government also has launched the Green Technology Policy in 2009 in order to adopt sustainable green living concept in Malaysia (SIRIM, 2007; Green Tech Malaysia, 2010). Furthermore, it has introduced various labels like Malaysia Best logo and Malaysian Energy Commission to certify the environmental products within the country (FAMA, 2012). These different policies and programs have contributed a lot in changing the consumers' consumption patterns (Chen, 2013). However, the ultimate goal of going green will not be achieved without the businesses' cooperation as they are the one who supply goods and services in the economy (Kropp, 2010).

Under this, businesses have been integrating green strategies into their product development and marketing activities whereby consumers are encouraged to buy environmental friendly products which are projected to reduce the negative impacts of synthetic products on the environment (Rex and Baumann, 2007). For instance, eco-ingredients and eco-packaging are used in their products as well as eco-brands, eco-labels and green integrated marketing communication (IMC) tools are launched to communicate with the consumers. Businesses have used these various tools and strategies to develop, differentiate and promote the green products or services that could satisfy the consumers' environmental needs (Sharma, 2011). Basically, the implementation of these tools and strategies will deliver significant benefits to the businesses including utilize green opportunities, improve corporate image, enhance competitive advantages and raise product value (Chen and Chang, 2012). On the other hand, they are believed to have a different impact on the consumers' green purchase intention because of the different functions and features (Rahbar and Wahid, 2011). Therefore, their impact on the consumers' green purchase intention will be examined in this research.

Even though there are quite a number of studies have been conducted regarding this but there is still a presence of significant gaps in the context of industry, geographical, variables and time. Hence, this current research will overcome these gaps and its result will be useful to multiple stakeholders.

## 1.3 Problem statement

The environmental issues such as global warming, ecological imbalances, water pollution and air pollution are getting worse as a result of the human based activities (Sharma, 2011; Clark, 2013). As an example, the greenhouse gases have caused the average global temperature to rise steadily by about 0.8°Celcius annually since the early 1990s and led to different kinds of negative consequences such as drought, hurricane and heat-related illnesses (Goddard Institute for Space Studies, 2010). This can be proven by the National Oceanic and Atmospheric Administration's research in 2012 that more people found dead from extreme heats compared to previous years (NRDC, 2012). Besides, attributable to the irresponsible behavior of different parties like businesses and consumers, the amount of waste around the world also has increased dramatically and it is projected to reach 2.2 billion tonnes per year by 2025 and it will require a global cost of more than $375 billion to manage them (The World Bank, 2013). In long term, this may not only cost more but it also will deteriorate the human beings' health as well as animals and aquatic life. In order to overcome these issues, various stakeholders like government, businesses and consumers should play a different role (Sharma, 2011). At the same time, this research is very important as it serves as the guidelines on how government and businesses can lead the consumers into a greener lifestyle and thereby contribute to the environmental protection.

Although a lot of studies have been conducted regarding this topic, there remain some significant gaps. One of the main gaps is that many related studies were conducted in industrialized countries like Australia, Germany and United

States of America where the findings are often contradict to each other by the reasons of varied cultures, beliefs and understandings (Hartmann, Ibanez and Sainz, 2005; D'Souza, Taghian and Lamb, 2006; Bleda and Valente, 2009; Birgelen, Semeijn and Keicher, 2009). In addition, according to Rahbar and Wahid (2011), consumers from different market segments and cultures tend to have different attitudes towards environmental friendly products. In other words, it means the previous findings in industrialized countries might not represent Asian countries such as Malaysia. Hence, this research will be carried out to fill the **geographical's gap** at above-mentioned. Looking at Malaysia is important because the marketers in Malaysia still have a lot of avenues to improve as compared to other players in developed countries (OECD, 2012). Consequently, the result of this research might become a platform for other developing countries.

Furthermore, many of these related studies are outdated and considered as the past evaluation in green marketing (Hartmann, Ibáñez and Sainz, 2005; Peattie and Crane, 2005; Leire and Thidell, 2005). The changes in consumers' taste and preferences, culture and other external factors may affect current scenario to be different. For example, the baby boomers which are one of the most educated groups of consumers might previously influenced by the green IMC tools but not anymore because of the situation above (LeCren and Ozanne, 2011). Therefore, current research will be conducted to overcome this **time frame's gap** and provide the latest information regarding which kind of green marketing tools and strategies will significantly influence the green purchase intention of consumers in Malaysia.

Aside from that, most of the previous studies did not focus on a specific industry (D'souza, Taghian and Lamb, 2006; Ahmad, Shah and Ahmad, 2010; Rahbar and Wahid, 2011). For instance, Rahbar and Wahid have conducted a research in 2011 about how green marketing tools will affect the purchase behavior of consumers without focus on any specific industry. Thus, its result was very general and it might not be applicable for certain industries. The current research will overcome this **industry's gap** by focusing on Malaysia's food and beverage

industry so that its result can be completely applied to achieve sustainable growth. This industry is selected because Malaysia is a middle-income country that concerned with manufacturing as shown in figure 1.2 in appendix 2.0 where food and beverage is one of the key sectors within the country (Kamaruddin, 2009; Department of Statistics, Malaysia, 2013). Besides, the green market has continued to grow in this sector while others discontinued (Peattie and Crane, 2005). For instance, the organic food industry in the world has been growing by an average of at least 20 percent per year since 1990 which is greater compared to other green markets (Jerphagnon, 2012). Furthermore, the food and beverage is also essential to every consumer and they will demand for it at all the time (Peattie and Crane, 2005). Thus, it is very important for us to focus on this particular industry.

Last but not least, a large number of related studies have not covered some other appropriate tools and strategies, but only one or two of them (D'Souza, Taghian and Lam, 2006; Birgelen, Semeijn and Keicher, 2009; Rex and Baumann, 2007; Ahmad, Shah and Ahmad, 2010; Rahim, Zukni and Ahmad, 2012). For instance, D'Souza, Taghian and Lamb (2006) have studied on eco-labels while Birgelen, Semeijn and Keicher (2009) have concerned with eco-packaging. It is very important to include other appropriate tools and strategies in the research as each of them may have a different impact on the consumers' green purchase intention. **Variables' gap** is filled in this research by including a few appropriate green marketing tools and strategies namely eco-brands, eco-ingredients, eco-labels, eco-packaging and green IMC tools. In short, it will analyze the process from the products' materials until its communication process and try to find out which process will significantly influence the consumers' green purchase intention. As a result, this will enable us to have a clearer view about their effects on the purchase intention of consumers in Klang Valley, Malaysia. The key concept that will be used in this research is the holistic marketing as green marketing is a part of the marketing mix (Kotler and Keller, 2012).

## 1.4 Research objectives and questions

This research aims to investigate the effect of green marketing tools and strategies on consumers' green purchase intention of food and beverage. As the paper looks into the consumers' perceptions or views in relation to green marketing, the research objectives and questions of this study will be focusing on the relationship between different kinds of green marketing tools and strategies and the consumers' green purchase intention of food and beverage as shown at below.

### 1.4.1 Research objectives

- To gain an understanding on how green marketing tools and strategies influence consumers' green purchase intention of food and beverage.

- To identify the green marketing tools and strategies that could lead consumers into a greener lifestyle in Malaysia.

- To develop a framework on how green marketing tools and strategies influence consumers' green purchase intention of food and beverage.

### 1.4.2 Research questions

- What is the relationship between eco-brands and consumers' green purchase intention?

- What is the relationship between eco-ingredients and consumers' green purchase intention?

- What is the relationship between eco-labels and consumers' green purchase intention?

- What is the relationship between eco-packaging and consumers' green purchase intention?

-What is the relationship between green integrated marketing communication (IMC) tools and consumers' green purchase intention?

## 1.5 Significance of the study

The current research will clearly explain how Malaysian consumers' green purchase intention of food and beverage will be influenced by the different types of green marketing tools and strategies. This research is intended to be published and contribute to several stakeholders. First of all, this will be beneficial to the government of Malaysia as it will provide them with some guidelines regarding which kind of tools or strategies they should use or encourage businesses to implement in order to change the consumers' actual purchase behavior into a green purchase behavior. For example, if the result of this study shows that eco-labels can positively influence the consumers' green purchase intention and thus government can try to implement certain rules or standards such as "Sirim eco-label" to ensure the products that produced by businesses are environmental friendly and the environmentally-conscious consumers will buy them continuously.

Secondly, this will provide some insights to the marketers especially for those in food and beverage industry regarding how they can expand their operations in Asian countries such as Malaysia. For instance, if the findings of this research show that eco-packaging that used by businesses will have significant positive impacts on the consumers' green purchase intention, businesses can immediately adopt this tool in their marketing strategies to satisfy the needs and preferences of consumers. As a result, this will help their green products to attain higher market share in the industry and switch the consumers' buying patterns in favor of using green products which in turn will reduce the harmful impact of synthetic products to the environment.

Lastly, this study also will contribute to the academia by developing their knowledge regarding how the various kinds of green marketing tools and strategies will influence the green purchase intention of consumers in Malaysia. Some tools or strategies may not work effectively and this research will try to identify the most effective tools or strategies so that readers can apply this knowledge into their

studies. Future researchers may able to modify or investigate further for this research in order to maximize the benefits of stakeholders.

## 1.6 Limitations of the study

The first limitation is that this study is confined to consumers in Klang Valley and does not cover other states or cities within Malaysia. This may affect the accuracy of this research. For instance, a positive relationship may exist between eco-brands and consumers' green purchase intention in Klang Valley but might not represent the consumers in other states such as Perak, Sabah and Sarawak because of different preferences and understandings.

Secondly, this research just focuses on the food and beverage industry. Thus, its result may only applicable to the businesses in this specific industry but not other industries like automobile industry, apparel industry and electrical industry.

Thirdly, the sample size that was used in this survey covered about 0.005 percent of the total population in Klang Valley. This may affect the data collected to be not credible as the viewpoints of this small group of consumers (0.005 percent) may not represent the whole population.

Moreover, the respondents of this research were formed by individuals who above 18 years old without any specific limit. Various generations may have different perceptions regarding the green marketing tools and strategies. For example, generation X may prefer eco-labels while generation Y may believe eco-brands are much more important. Therefore, the proportion of these generations within the sample might influence the result of this research.

Other than that, selected tests such as frequency analysis, reliability test and structural equation modeling were applied to analyze data because of time limitation. This is also partly caused by the lack of knowledge on other kinds of

robust test. The failure to include other tests may affect the precision or usefulness of the research result.

## 1.7 Scope of the study

This study will be focused on Klang Valley. Basically, it covers different areas including Kuala Lumpur, Shah Alam, Petaling Jaya, Subang Jaya, Klang, Selayang, Ampang and Kajang (Jain, Sandhu and Sidhu, 2007). The main reason for selecting this location is that it is considered as the heartland of Malaysia's industry and commerce (Alatas, 2011). Additionally, it also compromises the population that comes from different states within the country and as of 2012, it has a population of more than 7.5 million (MALAYSIA Factbook, 2012). Hence, by focusing on Klang Valley, it may enable this research to get an accurate view on how the green purchase intention of Malaysian consumers will be influenced by the green marketing tools and strategies that used by businesses.

Since there is a limited number of researchers have conducted this kind of research in Klang Valley so primary data needs to be collected to find out the relationship between green marketing tools and strategies and the consumers' green purchase intention. The primary data was collected through structured questionnaires and the questionnaires were distributed to the respondents at certain public places such as train stations and bus stations within Klang Valley's 4 main areas (Kuala Lumpur, Shah Alam, Petaling Jaya and Subang Jaya). The respondents in these four main areas are believed to represent the consumers in Klang Valley (Jain, Sandhu and Sidhu, 2007).

Individual consumers who over the age of 18 years old were surveyed in this research because they are proven to have a better knowledge on making purchase decisions and they are also empowered in decision making for choosing the right items among variety choices by taking the environmental aspect into consideration (Rahbar and Wahid, 2011). Under this, 384 of respondents will be surveyed as this sample size was calculated through a software namely Creative

Research System as shown in figure 1.3 in appendix 3.0 (Creative Research System, 2012). Consequently, this will improve the accuracy of this research.

## 1.8 Operational definitions

Eco-brands: Name or symbol of a product that is harmless to the environment (Hartmann, Ibanez and Sainz, 2005).

Eco-ingredients: Ingredients that produced in the ways which do not deplete the ecosystem (Tomasin, et al., 2013).

Eco-labels: Labels that used to mark consumer products which met certain standards to limit its harmful effects to the environment (Chen, 2013).

Eco-packaging: Packaging that designed to reduce environmental impact.

Green integrated marketing communication (IMC) tools: Marketing efforts that encourage consumers to buy products or services which do not harm the environment (Hult, Pride and Ferrell, 2012).

Green purchase intention: A plan to buy a particular eco-friendly product or service in the future (Rashid, 2009).

## 1.9 Outline of the research

In overall, the present research project consists of five chapters. Chapter one covers the background of research together with other important information such as problem statement, research objectives, research questions, significance and limitations of this study. Subsequently, it concludes with the scope of the study and operational definitions that will be used in this research.

Next, the literature review of this research is conducted in second chapter. A number of applicable literatures have been reviewed and organized into a few parts. The chapter starts with a brief discussion on the Malaysia's food and beverage industry as well as green marketing. The independent variables of this

research (eco-brands, eco-ingredients, eco-labels, eco-packaging and green IMC tools) are covered within the first five sections whereas the dependent variable (consumers' green purchase intention) is covered in the last section. On top of that, the research model of this study is shown at the end of this chapter to illustrate its direction.

Methodology of this research is discussed in chapter three. Some of the key parts such as research design, research approach, study population, unit of analysis, sample selection, sampling techniques, data collection and analysis methods are discussed. Eventually, it ended with the discussion about reliability test, validity test, questionnaire design and ethical considerations that concerned in this study.

Chapter four covers the analysis of the data collected through questionnaires. The first half of the chapter includes the discussions on the pre-test that has been conducted and the analysis of response rate and demographic information of respondents whereas the second half covers the major elements like the analysis of PLS outer model and structural (inner) model to test the hypotheses.

Finally, chapter five discusses the results and also the theoretical implications as well as practical implications of this research. The chapter ends with some recommendations for future research, conclusion and personal reflection of the researcher.

## 1.10    Chapter summary

Various kinds of information have been included in this chapter. The problem statement and significance of research that discussed in earlier parts have shown the importance of this research as it fills some significant gaps and contribute to a number of stakeholders. Apart from that, the direction of current study has been explained in parts like research objectives, research questions and scope of the study. Lastly, it ended with the limitations and explanations of some terms that are used in present research as well as the outline of this report.

## 2.1 Introduction

In this chapter, the important findings and theories from previous related research papers are discussed. It begins with a brief discussion about the food and beverage industry in Malaysia as well as green marketing in section 2.2 and 2.3. The independent variables of this research like eco-brands, eco-ingredients, eco-labels, eco-packaging and green IMC tools are covered from section 2.4 until section 2.8 while the consumers' green purchase intention that serves as dependent variable is discussed in section 2.9. Besides, the research model is shown in section 2.10.

## 2.2 Food and beverage industry in Malaysia

Malaysia's food and beverage industry is as diverse as the multi-cultures of Malaysia, with variety kinds of processed food with Asian tastes (MIFB, 2012). For the past ten years, this industry has been achieving incessant growth and it is estimated to grow by more than 7 percent in coming years (MIFB, 2010) (Department of Statistics, Malaysia, 2013). Besides, based on a research by Business Monitor International, it has forecasted the food sales in Malaysia will grow by more than 22 percent while the beverage sales will grow by approximately 33 percent in 2013 (Market Watch, 2012). These discussions have implied that the Malaysia's food and beverage industry will continue to expand progressively in the future.

The food and beverage industry in Malaysia is dominated by more than eighty percent of small and medium scale companies (Mazlan, 2011). Additionally, this industry consists of several sub-sectors where some major sub-sectors are like seafood products, livestock products, fruits and vegetables. For instance, as of 2012, Malaysia was ranked as the largest cocoa processor and third largest producer of poultry meat in Asia Pacific region (MIDA, 2012). On top of that, it was also ranked as the sixth largest supplier of spices such as pepper and lemongrass in the world (Market Watch, 2012). Until today, the Malaysia's food and beverage processing industry is contributing about 10 percent of the country's manufacturing

output and is predicted to increase steadily in long term (Department of Statistics, Malaysia, 2011).

In addition to factors mentioned above, the recent changes of consumers' lifestyle have created the demand for healthy foods and beverages such as minimally processed fresh food, organic food and beverage as well as the products that are made of natural flavors from plants and seafood (Goodbaum, 2012). In relation to this trend, businesses have been responding by offering new kinds of green products to meet the market's needs. For example, there are an increasing number of organic farms which produce eco-friendly products such as organic fruits and vegetables to meet the growing demand (MIDA, 2012). At the same time, in order to assist the businesses to meet the consumers' demands, the Malaysia's Ministry of Agriculture and Agro-based Industry has launched numerous kinds of certification process such as "Organic Malaysia" to certify the green products that produced by businesses (Market Watch, 2012). Hence, these have proven the potential of green market to grow in the Malaysia's food and beverage industry and this is one of the main reasons for present research to focus on this particular industry.

## 2.3 Green marketing

Green marketing has emerged since 1975 and it is a part of the marketing mix in holistic marketing (Ahmad, Shah & Ahmad, 2010; Kotler and Keller, 2012). Holistic marketing is depending on development, design and implementation of marketing programs, processes, and activities that recognize their breadth and interdependencies (Kotler and Keller, 2012). Therefore, green marketing is considered as a part of it. Green marketing has been defined in various ways by different researchers. For instance, Peattie (1995) has defined it as a holistic management process which used to identify, anticipate and satisfy the needs of consumers in a profitable and sustainable way but Hartmann, Ibanez and Sainz (2005) have described green marketing as a course of actions that focus on the cognitive persuasion strategies. Furthermore, Cherian and Jacob (2012) have

termed it as a set of marketing activities that trigger and sustain the environmental attitudes of consumers. Chen and Chang (2012) have defined it as the process of developing, differentiating, pricing and promoting the green products to the consumers.

A lot of organizations have incorporated green marketing in their business practices in different manners. Some organizations might reposition their existing products without modifying their product composition (Mendleson and Polonsky, 1995) but others may modify the existing products to be less environmentally harmful. In addition, some of the businesses may change their entire corporate culture to make sure the environmental issues are integrated within their operations (Peattie and Crane, 2005). Other than that, a minority of them might choose to form new businesses to produce the green products and only target on green consumers (Phau and Ong, 2007). However, all of them are pursuing the similar objective for satisfying the consumers' environmental needs or desires and generate higher sales revenue as well as profit (Phau and Ong, 2007). Ginsberg and Bloom (2004) highlighted that there is no single green marketing tool or strategy that fits every company and there are a lot of tools and strategies that can be used by businesses such as eco-brands, eco-ingredients, eco-labels, eco-packaging, green IMC tools and others and businesses will need to use them based on different markets and degrees of consumers' concern for the environment.

## 2.4 Eco-brands

Eco-brands have been defined as an active communication and differentiation of a particular brand from others through its green attributes (Hartmann, Ibáñez and Sainz, 2005). It can also be considered as a set of brand attributes and benefits which are environmentally sound (Hult, Pride and Ferrell, 2012).

Previous studies have proved that eco-brands positioning strategies will influence the green purchase intention of consumers through its functional attributes and emotional benefits (Havranek, 2007). Functional attributes are referring to the product's environmentally sound attributes; for example, a cloth brand is considered as environmentally sound if its products are made of recyclable materials such as recycled denim and reduce the waste quantity compared to other brands. However, this alone may be insufficient to motivate the eco-brands purchase. It needs to be complemented with the emotional brand benefits of consumers, which is a feeling of well-being that is resulted from behaving in an altruistic way. Some of the previous studies have indicated the combined effect of both will lead the consumers to green purchase decisions. For instance, there is a number of studies which discuss that eco-brands will enable businesses to build an effective relationship with consumers and enhance their loyalty, which in turn, will help consumers to adopt a greener pattern of consumption (Ginsberg and Bloom, 2004). Chatterjee (2009) also found that some Malaysian consumers were aspiring to buy eco-friendly alternatives for non-green product categories such as aerosols, pesticides and plastics in order to satisfy their emotional needs.

Oppositely, some researchers indicated eco-brands do not positively influence the consumers' green purchase intention. Hartmann, Ibáñez and Sainz (2005) suggested the eco-brands could have negative impacts on consumers' green purchase intention as some of these consumers believed there is a trade-off between environmental impact of a brand and its functional performance. These consumers assumed that environmental friendly products are poor in quality and therefore, they tried to avoid buying them. Goldsmith, Lafferty and Newell (2000) also stated that consumers' attitudes on eco-brands will depend on their perceived trustworthiness and expertise of that particular brand. As an example, an eco-brand with low level of credibility did not have any positive impact on the consumers' green purchase intention but may incur brand switching. In spite of these negative viewpoints, many of the related researches still claimed that eco-

brands will lead the consumers to purchase green products (Rahbar and Wahid, 2011). Therefore, the above arguments lead us to the following hypothesis:

H1. Eco-brands will positively influence the consumers' green purchase intention of food and beverage.

## 2.5 Eco-ingredients

Green products mean of the ecological products that are typically non-toxic or made of eco-ingredients (Ooi, Kwek and Tan, 2012). In relation to this, eco-ingredients are defined as the products' ingredients or materials that are able to prevent, limit, reduce or correct the harmful environmental impacts on natural resources (Tomasin, et al., 2013). Under this, firms may choose to use the green product design techniques which often involve the usage of environmental friendly materials and the modifications of manufacturing or production processes (Leonidou, Katsikeas and Morgan, 2013). For instance, in 2008, Nike has introduced the Air Jordan XX3 shoes which are largely made by using eco-ingredients like recycled plastics and lesser glue (Leonidou, Katsikease and Morgan, 2013). Apart from that, the eco-ingredients for food and beverage could be referring to the organic ingredients (Toops, 2008). Generally, the organic ingredients such as fruits, vegetables or others are being produced or planted by using organic management practices with natural sources of nutrients and they have lesser adverse effects of conventional practices (Argyropoulos, et al., 2013).

As opposed to the factors mentioned above, a group of researchers who viewed the impacts on the consumers' green purchase intention differently; for instance, Griskevecius, Bergh and Tybur (2010) and Driessen, et al. (2013) contended eco-ingredients or materials are negatively influence the consumers' green purchase intention. This is mainly because they claimed the products that made from such ingredients or materials often cost more and lower quality as compared to the conventional products. In contrast, there is another group of researchers who opposed this by claiming that there are a growing number of consumers who willing to pay a premium for the products that made from eco-

ingredients or materials (Ginsberg and Bloom, 2004). For example, a research carried out by Leonidou, Katsikeas and Morgan (2013) in Arizona has proven that consumers were willing to pay a premium of 118% for the products made of eco-ingredients like organic ingredients as they believe they are healthier, tastier and safer. This discussion leads us to the following hypothesis:

H2. Eco-ingredients will positively influence the consumers' green purchase intention of food and beverage.

## 2.6 Eco-labels

The concept of eco-label is one of the earliest concepts which have been used as firms' green marketing tools. This concept refers to environmental standard of products that is offered by an independent third party (Rubik and Frankl, 2005). Eco-label plays an important role in providing information about the environmental characteristics and environmental impact of products to the consumers. Stakeholders have used eco-labels in multiple ways. It helps consumers to choose environment-friendly products while businesses are utilizing it to differentiate their green products from others (Hicks and Schnier, 2008). In other words, it is used to reduce the information gap between the producers and consumers. Currently, there is a presence of more than 200 different eco-labels in the global food and beverage industry (Wimmer, 2013). Some of the eco-label schemes that launched by Malaysia's government for the food and beverage products are MyHijau label, Malaysia's Best and SIRIM eco-label (Chen, 2013).

Regarding how eco-labels will influence the consumers' green purchase intention, researchers have a lot of views on that. Some researchers suggest that eco-label positively influence the consumers' green purchase intention. For instance, Follows and Jobber (2002) found that 85 percent of consumers believe that environmental claims such as eco-labels are truthful and can improve their trust on companies, which in turn will raise their demand on the environmental friendly products. Subsequently, Cason and Gangadharan (2002) have proven

eco-labels will contribute in solving asymmetric information and improve the sales volume of green products. Moreover, Rex and Baumann (2007) also have indicated that eco-labels facilitate consumers' decision making process in selecting environmental friendly products as consumers improve their knowledge regarding environment-related issues. Few of the studies further proved the eco-label plays a significant role in majority of the consumers' purchasing decisions in buying different types of goods which include automobile and food (Teisl, Roe and Hicks, 2002; Noblet, Teisl and Rubin, 2006; Schumacher, 2010). Hence, these studies indicated that eco-label is very important in influencing the consumers to purchase environmental friendly products.

Meanwhile, some other researchers have argued that even though the functions of eco-labels are accepted by some consumers but this will not automatically lead them to buy green products (Leire and Thidell, 2005). For example, Thøgersen (2002) indicated an eco-label will only influence the green purchasing intention of environmentally conscious consumers. Additionally, a report by the Parliamentary Office of Science and Technology in 2004 found that the low credibility among consumers over the eco-label schemes have caused the functions of eco-labels to be ineffective. Apart from that, eco-labeling scheme has shown to have adverse effects in some situations as it may not provide the stringent criteria that consumers hope for (Van Amstel, Driessen and Glasbergen, 2008; Bleda and Valente, 2009). Therefore, this discussion shows that the significant effect of eco-labels on consumers' green purchase intention is not clear and the following hypothesis is proposed:

H3. Eco-labels will positively influence the consumers' green purchase intention of food and beverage.

## 2.7 Eco-packaging

Eco-packaging refers to products' packaging which are made of recyclable, biodegradable or reusable materials (Pullen, 2006). According to research, eco-

packaging plays a crucial role in marketing communications and it is an important factor that influences the purchase decisions of consumers. More than 70 percent of consumers are proven to make purchase decisions at selling places such as hypermarkets and supermarkets (Rentie and Brewer, 2000). Consumers are estimated to spend about 20 minutes in assessing different brand alternatives before making purchase decisions. Therefore, these evidences have indicated that communication at selling places such as products' packaging are becoming more popular as a brand communication or a tool which used to differentiate from others (Zakersalehi and Zakersalehi, 2012).

There are a lot of researchers who claimed eco-packaging has positive impacts on the consumers' green purchase intention. For instance, Young (2009) found that eco-packaging is considered as a tiebreaker for most shoppers when they decide which product to buy. Birgelen, Semeijn and Keicher (2009) also realized consumers are willing to trade off almost all products' attributes except quality in favor of environmental friendly packaging. Subsequently, Zakersalehi's research in 2012 has further strengthened his research to prove eco-packaging attracts consumers' attention, position the product in consumers' minds and differentiate the products. Additionally, about 45% of respondents in the similar study also hoped to buy the products with eco-packaging in future. Thus, all these studies indicated that eco-packaging is one of the crucial issues in consumers' purchase decisions at point of sale and it may lead the consumers to purchase green products. Aside from that, another small group of researchers demonstrated that eco-packaging influences the consumers' green purchase intention negatively. Based on a research that was conducted by Allen (2007), it was found that a group of consumers in Africa viewed eco-packaging negatively as they believed businesses will take this advantage to generate more profit by reducing the materials to produce their packaging. By going through the discussions above, the following hypothesis is proposed: