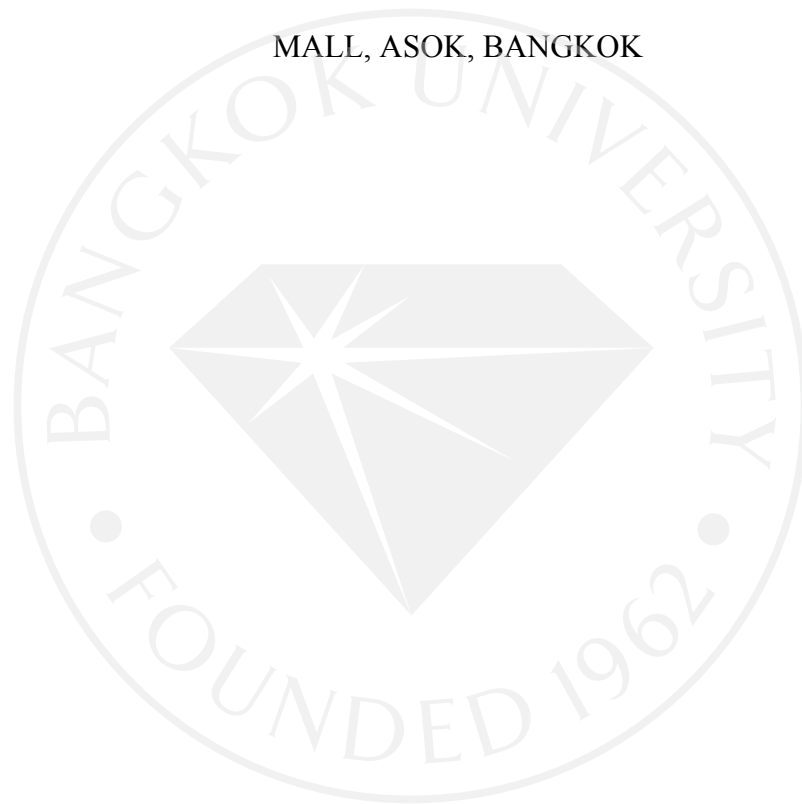
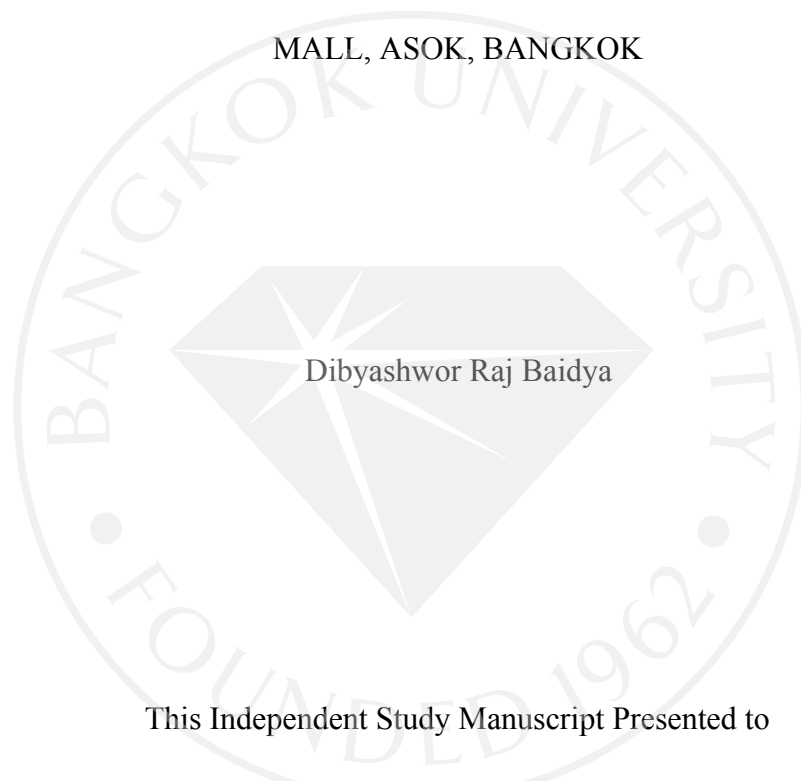


AN ASSESSMENT OF CONSUMER PURCHASING INTENTION TOWARDS  
ENVIRONMENTALLY FRIENDLY PACKAGING FOR READY-TO-DRINK TEA  
AND COFFEE FROM THE STUDY OF CONSUMERS VISITING TERMINAL 21  
MALL, ASOK, BANGKOK



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MALL, ASOK, BANGKOK



This Independent Study Manuscript Presented to

The Graduate School of Bangkok University

In Partial Fulfillment

of the Requirements for the Degree

Master of Business Administration



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**This Independent Study has been approved by  
the Graduate School  
Bangkok University**

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An Assessment of Consumer Purchasing Intention Towards Environmentally Friendly Packaging For Ready-to-drink Tea and Coffee From The Study of Consumers

Visiting Terminal 21 Mall, Asok, Bangkok (141 pp.)

Advisor: Paul TJ James, Ph.D.

### **ABSTRACT**

Data from 275 respondents sampled by simple random sampling, collected using a self-administered questionnaire survey with 8 components and 58 items online was processed in SPSS 20. Data were analyzed, and descriptive statistics were interpreted for each item. Data were further analyzed to test the relationship between internal qualities of the ready-to-drink tea and coffee beverage, perceived values, environmentally conscious consumer behavior with the purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage using multiple regression analysis, and interpreted. Finally, the factors influencing consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage; and green marketing implications to improve consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage were concluded based on these findings of this study.

*Keywords: Consumer Behavior, Green Marketing, Environmentally Friendly*

*Packaging, Purchasing intention, Ready-to-drink, RTD, tea, coffee.*

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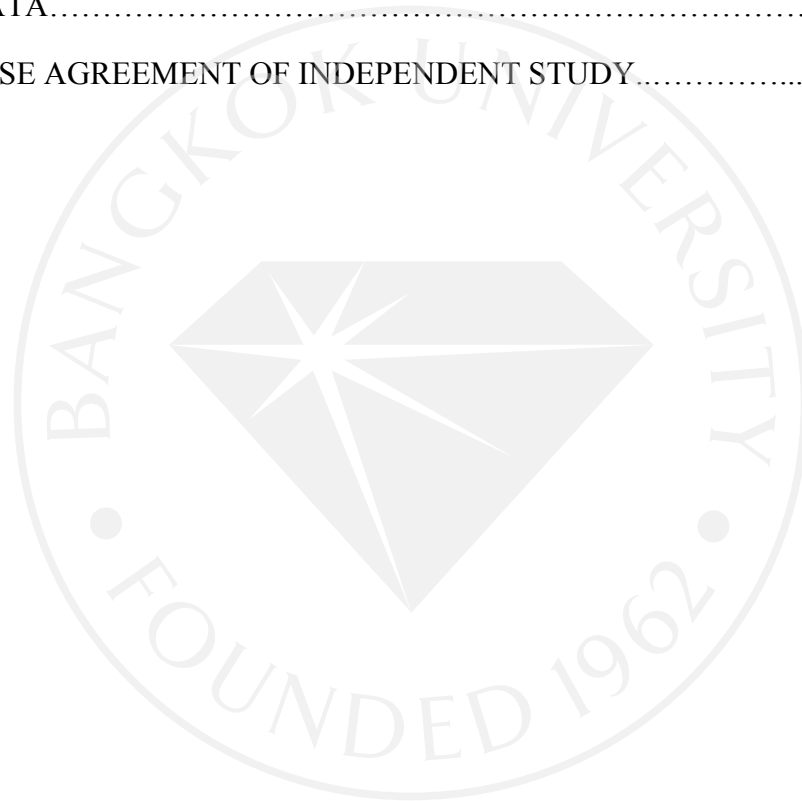
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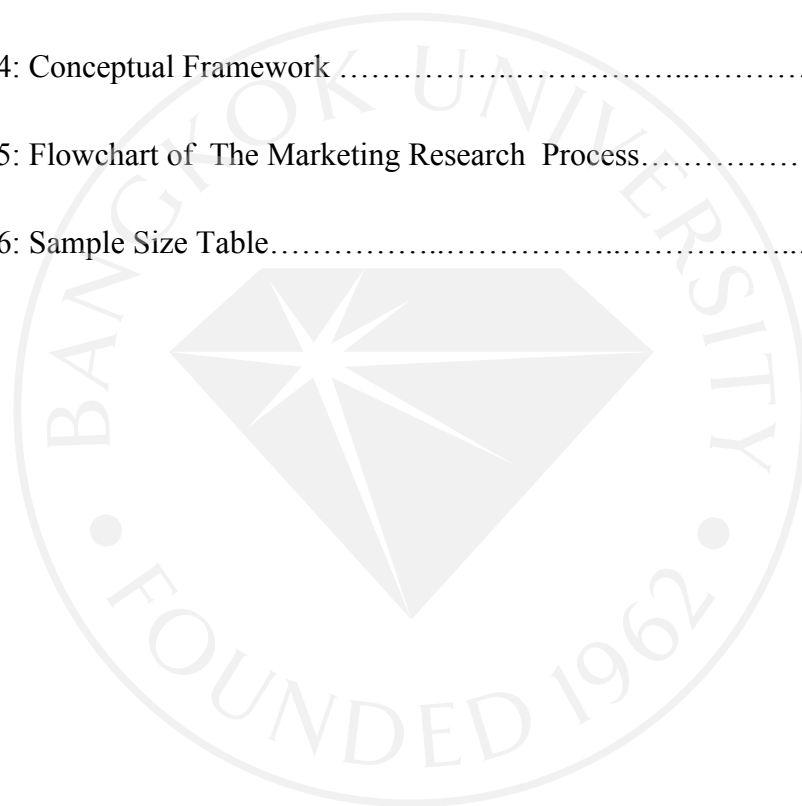
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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This chapter provides relevant information on this research. The introduction includes the background, statement of the problem, reason for study, research question development, assumptions and the benefits. Limitation of the study is at the end of this chapter. The contents of this chapter includes:

- 1.1 Introduction
- 1.2 Background
- 1.3 Problem Statement
- 1.4 Intention and Reason for the Study
- 1.5 Objectives of the Study
- 1.6 Assumptions
- 1.7 Scope of the Study
- 1.8 Research Questions
- 1.9 Benefits of the Study
- 1.10 Limitations of the Study
- 1.11 Conclusion

## 1.2 Background

The market for ready-to-drink beverages, a subcategory of non-alcoholic industry has significantly grown over the past decade and is forecasted to continue growing over the next decade in developing countries, especially in the Southeast Asian market (The Global Food, 2017), like Thailand, largely due to the growth in consumer acceptance of such products in day-to-day life, and growth in the value of consumers' time and disposable income. As displayed in Figure 1., the ready-to-drink tea is growing in Thailand due to growing health consciousness and there are many options for the consumers offering products with less or no sugar and other innovations in the product. Similarly, there is also an increase in the sales of ready-to-drink coffee due to lifestyle which is more busy and urban, the growth in contemporary retail stores, and new goods and services innovated for urban dwellers (SCB Economic Intelligence Center, 2016).

In Thailand, the Gross Domestic Product (GDP) has almost doubled between 2006 and 2016 in Thailand (World Bank, 2016). The daily minimum wage has grown (Yuvejwattana, & Chuwiruch, 2018), meaning an increase in disposable income and so has the expenditure in non-alcoholic beverages (Gross Domestic Product, 2018).

The rapid economic growth, urbanization, and unsustainable consumption resulted due to higher consumer disposable income and shift in eating-drinking habits as consumers eat outside more frequently have led to environmental degradation around the world (Taufique, Khan Md., & Vaithianathan, 2018). The problems stem



from deforestation for the disposal of solid waste from the cities among many others, mostly single use plastic packaging from the food and beverage industry (Efforts under way, 2018) . In 2015, the worldwide measure of materials produced from plastic added up to over 300 million tons, which was less than 250 tons back in 2005, of which below 10 percent was reused, and the rest are dumped illegally into nearby land and water systems. (Shah, 2017; AFP, 2014). The specialists tell that much of it is ingested by oceanic birds and fishes, and the disintegrated pieces and particles have been identified in various life forms at the bottom of the ocean (Editorial, 23 July 2017). If this continues, the amount of plastic discharged into the marine ecosystem will increase drastically (Saving the ocean, 2015).

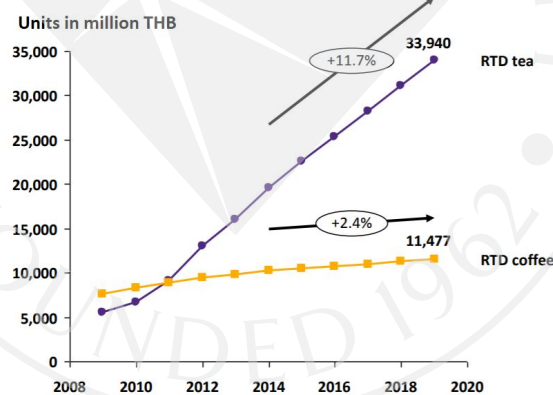


Figure 1: Off-trade sales of ready-to-drink tea and coffee in Thailand

Source: Industry Outlook 2016, 2015

As landfills are becoming used up, businesses are forced to design and use more environmentally friendly products packaging (Schwepker, & Cornwell, 1991). There is a solid rise in worldwide wellbeing and health trends compelling beverage

producers to develop products with reduced sugar contents, lower calories or flavors, and overhaul the packaging of their products (SCB Economic Intelligence Center, 2017). There is also an increase in ecological consciousness on a global scale and many studies show that the consumers looking for green products is growing (Laroche, Bergeron, & Barbaro-Forleo, 2001).

The ecologically conscious consumers reported that the environmental issues are serious but the businesses did not respond to those issues with serious responsibility. Not only do these consumers consider the ecological issues when making a purchase (Laroche, Bergeron, & Barbaro-Forleo, 2001) but also, challenge the organizations to be accountable to the moral claims about the goods and services they offer to the consumers (Strong, 1996). So, business and individual efforts are needed on the grassroot levels including awareness and action to contribute for the environmental protection and a sustainable consumer culture, such as, designing products by developing alternative packaging. One of the convincing factor is that many studies show that consumers are willing to pay more for products which are more friendly to the environment (Laroche et al, 2001). The new 21st century green marketing concept is an advent of such growing concerns towards the environment (Peattie & Crane, 2005). According to (Chen & Chang, 2012), all the factors of the marketing mix of production, prices, promotion, positioning are the activities concerned to it.

This study is based on the observation of ready-to-drink beverage consumers visiting Terminal 21 Mall located at BTS Asok which is visited by many consumers

as it houses many restaurants, food and beverage takeaway corners, and kiosks. It also included a convenience store within the premises. There are Gourmet Market, take-away food outlets, market-style food vendors in the basement level, and more than fifty cafes and restaurants located on the fourth, and the fifth floor.

### **1.3 Statement of Research Problem**

“Statements of the disparity between what is known and what needs to be known” (Houser, 2008, p. 113).

What is known: Existing studies frequently center around buyer's ecological aspects of attitude in general. This might be a reason for the poor understanding of link between particular behaviors and the green aspects of consumer attitude (Moisander and Uusitalo, 1995). In context of consumer purchasing intention, most earlier studies are based on environmentally friendly packaging in general (Prakash, & Pathak, 2017) but not product specific.

What needs to be known: There has been a remarkable development in the consumption of ready-to-drink tea and coffee beverages on accounts of low per-capita consumption, and an increase in the sales of ready-to-drink coffee in Thailand due to lifestyle, growth in contemporary retail stores, new goods and services innovated for urban dwellers (SCB Economic Intelligence Center, 2016), and the expansion of kiosks, convenience shops, supermarkets, shopping malls throughout Thailand through which the ready-to-drink tea and coffee beverage enterprises have managed to thrive. These marketplaces also provide the RTD tea and coffee brands to offer

consumers with many options to choose from based on their varying preferences. Hence, It is important for RTD tea and coffee companies and marketers to study the factors influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee in specific, for improving the consumer purchasing behavior towards environmentally friendly packaging for RTD tea and coffee beverage.

While the choices that consumers make depends upon many factors for competing brands selling the ready-to-drink tea and coffee beverage to achieve greater market share, it is important for these brands to identify which of the factors that influences the purchasing decision of consumers in buying ready-to-drink tea and coffee beverages are more important than others. Hence, it is important to investigate the link between the consumer perception towards environmentally friendly packaging for ready-to-drink tea and coffee beverage consumers in order to identify the opportunities for the producers and marketers to do more and gain an edge in marketing the ready-to-drink tea and coffee beverages by knowing the viability of using environmentally friendly packaging for ready-to-drink tea and coffee beverage in the market, and also reducing their ecological footprint on the environment in the evolving sphere of ecological consciousness among consumers.

#### **1.4 Intention and Reason for the Study**

This study intends to evaluate the profile of cognitive, affective and behavioral dimensions of the consumers, the perceived value, and the consumers intention

towards the use of environmentally friendly packaging for ready-to-drink tea and coffee beverages. This study will analyze its implications in green marketing and provide an insight to the stakeholders for possibly developing attractive new products, and/or improving their existing products in the market.

### **1.5 Objectives of the Study**

The organization that conceives its customers well is able to create better products and services while reaching and satisfying them more efficiently (Kardes, 2002). The objectives of this study are:

1. To assess the consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage consumers visiting Terminal 21, Asok, Bangkok.
2. To determine factors influencing the purchasing intention of ready-to-drink tea and coffee beverage consumers visiting Asok Area, Bangkok.
3. To study the implications of environmentally friendly packaging on green marketing of RTD tea and coffee beverage.

### **1.6 Assumptions**

The assumptions of this independent study are:

1. The data and information analyzed in this study are reliable and complete
2. The sample of the study represents the population

3. The data and information collected for this research are relevant and unique.

### **1.7 Scope of the Study**

The scope of this study is limited to Terminal 21 Mall, Asok, Bangkok, (scope of location) and the assessment of consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage (scope of objective) by analyzing samples from the representative population visiting Terminal 21 Mall from the registrations for new year sales coupon at the mall between December 15 and 30, 2017 (scope of population).

### **1.8 Benefits of the Study**

This study contributes to the advancement of knowledge in ready-to-drink beverages for the marketers to help in identifying and targeting ready-to-drink consumers who look for green product. This study aims to contribute in the field of green marketing because the research findings would help to find a valuable consumer segment in the growing sphere of ecologically conscious for the ready-to-drink tea and coffee beverage producers and marketers to develop green products, and this would also be helpful for the policy makers to act towards protection of the environment.

### **1.9 Limitations of the Study**

The outcomes of this study are based on the questionnaire survey only for finite accessible population visiting Terminal 21 Mall who drink tea and coffee

beverage, so further research in other parts of Bangkok would help to generalize the outcome. This research is only limited to ready-to-drink tea and coffee beverage. So, future studies might be needed for other FMCG products. Constraints of time and budget restricts the researcher to conduct research in other malls for a defensible generalization of outcomes in other parts of Bangkok, Thailand.

### **1.10 Conclusion**

In summary, the environmental issues are serious but the businesses did not respond to those issues with serious responsibility. Business and individual efforts are needed on the grassroot levels including awareness and action to contribute for the environmental protection and a sustainable consumer culture, such as, designing products by developing and using alternative packaging. The existing studies frequently center around buyer's ecological aspects of cognition in general. This study focuses on ready-to-drink tea and coffee beverage for a product specific investigation to determine purchase intention for environmentally friendly packaging.

So, this study intends to evaluate the profile of cognitive, affective and behavioral dimensions of the consumers, the perceived value, and finally assess the consumer purchasing intention, factors influencing the purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage for consumers visiting Asok area, Bangkok, and then to study the implications of environmentally friendly packaging on green marketing of RTD tea and coffee beverage based on research findings and previous studies.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter introduces the related literature after an exhaustive reviewing. This chapter will likewise show the combination of the related theories and the framework of concepts to completely comprehend the exploration to be done to support this study topic “An Assessment of Consumer Purchasing Intention Towards Environmentally Friendly Packaging For Ready-to-drink Tea and Coffee From The Study Of Consumers Visiting Terminal 21 Mall, Asok, Bangkok” and finally the meaning of terms for better knowledge of this study. The contents of this chapter includes:

- 2.1 Introduction
- 2.2 Previous Studies
- 2.3 Related Concepts and Theories
- 2.4 Conceptual Framework
- 2.5 Conclusion

#### **2.2 Previous Studies**

Earlier research records certain examples while observing green purchases, often displaying different variables which are either decidedly or adversely connected to customers' desire to purchase environmentally friendly products. Every one of these



positive and negative factors is viewed as critical while assessing consumer behavior towards environmentally friendly products (Why Consumers Buy, 2002).

An earlier study by Tseng and Hung (Tseng, and Hung, 2013) used service-quality framework which is based on fundamental characteristics of the product quality, factors explaining ecological performance, and environmentally friendly certification of such products to explain the discrepancies between expectations and perceptions of the consumers by surveying 253 respondents using descriptive statistics. It showed that there is a gap between expectations and perceptions towards various aspects of environmentally friendly products. The questionnaire survey used three aspects: reliability, tangibles, and assurance. The research state that the market insufficiency to satisfy the expectations of consumers had resulted in lower share of the market for environmentally friendly products despite the growing awareness. The earlier investigations showed that the consumers expect a great deal of ecological performance of environmentally friendly products and environmentally friendly product characteristics. It suggests that producers of such products must work more towards ecological factors when designing environmentally friendly products.

The research by Lausin and Ching (Lasuin, and Ching, 2014) indicated that the concerns towards the environment along with the intention to buy environmentally friendly products were positively correlated. Similarly, the study found a positive relationship between the impression of oneself and the intention to buy environmentally friendly products were positively correlated. However, the

composition of the structure of population such as gender and ethnological factors did not affect the link between concerns towards the environment, civil impacts, impression of oneself. The study was based on nearly 200 people who responded to the questionnaires, administering themselves. The study used multiple regression evaluation to measure the link between concerns towards the environment, civil impacts, impression of oneself along with the composition of the structure of the population such as gender and ethnological factors. The research intended to discourse the relationship linking concerns towards the environment, civil impacts, impression of oneself along with the composition of the structure of population such as gender and ethnological factors of the university scholars in the state metropolis of Sabah, Malaysia on intention to purchase environmentally friendly products. The researchers recommended the brands marketing environmentally friendly products to link a relevant impression for greater effectiveness, and be consistent in the packaging, information tag, and the excellence of the product itself. Setting premium price, emphasis on consumers' pride and contentment for marketing activities (Murtagh et al., 2012), have also been suggested for marketers of environmentally friendly products.

In a study conducted by Sentot (Sentot et al., 2015), the buyers' intention to purchase environmentally friendly products was found to be positively influenced by the perception of the buyers' of environmentally friendly products. The green marketing had noticeable positive influence on the perception of the environmentally friendly product buyers. This research was conducted on two hundred forty students

who were requested for survey using non-probability sampling. The data were analyzed using path analysis. The research suggests the marketers that the tools used for promotion should not only broadcast the presence of environmentally friendly products, but also bear messages stating the positive insistence to influence the customer perception toward environmentally friendly products.

A study (Turkyilmaz, et al., 2015) investigates the precursors and outcomes of environmental attitudes of the consumers in Turkey. The study was based on the framework put forth by (Leonidou et al., 2010). First, the precursor factors consisted of legislative, and ethical components. Secondly, the attitude factors consisted of pro-environmental attitudes that consumers bear. These components were separated as intrinsic and extrinsic attitudes conceived of the environment. The exploitation of the environment by an individual was defined as intrinsic environmental attitudes, and the comprehension of social, legal and political improvements to safeguard the environment were defined as the extrinsic environmental attitudes. Third, behavioral components consisted of the consumers' environmentally friendly behaviors.

Finally, the outcomes covered the consumers' delight with the product and satisfaction with life. The study administered questionnaire survey with over 400 consumers sampled randomly with drop-off method. It was revealed that collectivism, government actions, liberalism, patriotic feelings, moral duty, and abiding of laws had favorable influence on intrinsic and extrinsic environmental attitude which further influences the customer satisfaction with the products. It also showed that there will be greater satisfaction with life of those consumers who believe that greater actions

need to be pursued towards the environment would most probably involve in charity, or environmental institutions. The study insisted the businesses need to be more concerned about environmental aspects in manufacturing and marketing, while being conscious regarding such environmentally friendly consumer behaviour, leading consumers to a greater satisfaction with product and life.

A previous study (Osman, et al, 2015) on whether there is a link between the consciousness towards environmentally friendly products and concepts of marketers and producers on their daily activities was conducted in Malaysia. It revealed that there is a strong link in the environmentally friendly consciousness of the marketers and manufacturers, and environmentally friendly activities and decisions in the organization, along with the application of concepts of green marketing on its marketing mix. The study was conducted in consumer good producers in Malaysia with questionnaire survey using personal interview technique among one hundred such producers. The study highlights the need to improve the environmental awareness within the organization to make sure that environmentally friendly operations are implemented.

According to another study conducted by (Moser, 2016), the consumers reflect their attitudes towards the environment from their purchase behavior as a result of their concerns towards the environment. The study states that there is consistency in the results of ecologically conscious purchase behavior which make it unclear to the components which really measures the purchasing behavior based on previous studies. So, the study built the self-reporting purchase behavior (SRB) framework, by

utilizing the theory of planned behavior (TPB), in which it was found that the SRB is significantly indicated by the values and readiness to pay. The determinants to estimate the actual buying behavior of the consumers were combined and validated by the utilization of structural equation modeling. However, in this study, it was revealed that the real buying behavior was not resulted from the self-reporting purchase behavior. There were nearly 1800 people from whom the data was collected, along with the data coming from the survey, and from the retail records.

In a study by Maniatis (Maniatis, 2016), the authors studied the link between knowledge, awareness and commitment of the consumer towards purchasing behavior of environmentally friendly products. It was studied in four marketplaces in the capital of Greece using a survey in which data gathered from over 250 participants were analyzed using Principal Component Analysis, confirmatory factor analysis, and structural equation framework. The research resulted in a framework of factors indicating the knowledge, obligations, and general realization of consumers regarding environmentally friendly products based on the four areas of ecological consciousness which included the ecological advantage, economic advantage, green trustworthiness, and green visual aspects.

An earlier study by (Prakash, and Pathak, 2017) used the theory of reasoned action (TRA) to investigate the factors influencing the behavior towards environmentally friendly packaging, and to further investigate the relative significance of each of those factors to each other. The data of over 200 consumers who were Indian youths was analyzed using structural equation modeling to check the

validation of the conceptual framework. It was evident that the intention to buy environmentally friendly packaging was influenced by personal norms, attitude, concern towards the environment, and readiness to pay higher price for environmentally friendly product. The results implied that the younger generation displayed significant moral values. Also, personal norms of internalizing environmental impacts with purchase of environmentally friendly packaging. Furthermore, the research elucidates that the consumers purchasing decision for environmentally friendly packaging was influenced by the consumers search for individual contentment and virtue. The study represent similarities with earlier study that was reviewed (Moser, 2016). Also, the buying behavior of environmentally friendly packaging was remarkably influenced by the willingness-to-pay for such products. In this research, the study found that younger generation consumers were willing to pay a premium for products in environmentally friendly packaging which refutes the earlier studies which points out prices as a barrier to purchasing products in environmentally friendly packaging (Bezawada, and Pauwels, 2013). The research found that there was remarkable positive link between environmentally friendly packaging and attitude. The consumer's purchasing decision was also found to be significantly linked to their concerns towards the environment in the research.

Results from previous study (Mishra, Jain, & Motiani, 2017) conducted in major metropolis of eastern and western parts of India in midyear of 2012 on concerns towards the environment, consumer's understanding about environmentally friendly packaging, and the confidence on good outcomes from the use of environmentally

friendly packaging with the use of Theory-of-Reasoned-Action (TRA) to find the link with consumer's attitude about paying more for environmentally friendly packaging showed that the belief in good outcomes from the use of environmentally friendly packaging showed positive link with consumer's willingness-to-pay more among the potential customers. It was recommended in the study that consumers understanding about environmentally friendly packaging played vital role in generating positive beliefs about environmentally friendly packaging. The study also showed that conditioning consumers to believe on good outcomes from the use of environmentally friendly packaging were willing to pay more. However, consumers willingness to pay more due to understanding about environmentally friendly packaging and concerns towards the environment did not appear to have enough support in the study.

Based on Cue Utilization Theory, the authors of a previous research (Steenis, et al., 2017) studied if the consumer behavior is affected by sustainability of the product packaging, and how the consumer behavior is affected by sustainability of the product packaging. With nearly 250 scholars, the authors examined a model in the context of different materials used in the packaging and the visual for soup produce. The study found modest importance of sustainability in the product packaging and attitudes of the consumers despite strong importance of sustainability of the product packaging sustainability for attitude of the consumer. It also found that the consumers make useless decision because they mostly evaluate sustainability of product packaging based on deceptive, and incorrect beliefs which are not professional. Further, the authors showed that consumer perception for flavors and quality of the

product are influenced by changing material for packaging which are environmentally friendly. The visual appearance of the product package was also found to have a strong influence on the consumer's evaluation on sustainability.

Between the year ends of 2014 and 2015 (Herbes, et al., 2018) conducted a consumer survey comprising of over twelve sections which resembled the attributes of consumer behavior, attitudes, and purchasing intent towards environmentally friendly packaging and ecological concerns from two nations in Europe, and the North America because of the large size of markets for packaging. The study collected demographic data, and to capture the socio-cultural mix, the demographic factors of earning, and formal education were modified according to the nation where the survey was conducted (Kumar, 2000). Those participating in the survey had to be over 18 years of age, and purchased foodstuffs frequently. The research found that the consumers intention to purchase environmentally friendly packaging was based on ability of those packaging to be biodegradable, reusable, or recyclable in the end of the packaging life. Meaning, if a consumer had to decide between a product based on packaging which can be decomposed, and made of fossil fuel; and a product based on packaging which can't be decomposed, and made of renewable resources, the consumer will decide the first one. The study also showed that the consumers were increasingly knowledgeable about the different phases of the value chain of the packaging. The study highlights that consumers neglect the manufacturing, transportation, and the market usage in the life of a product packaging. According to the study, marketers, in alignment with consumer perceptions, with reservations to



using environmentally friendly packaging in their products would profit the most. However, the study encourages that raising awareness and influencing the consumers perception by bridging the gap of the absolute consequences with the selection of different kinds of packaging materials will be advantageou for all in the long run. Finally, to effectively position the eco-friendly packaging to increase value to the customers and potential customers, marketers and producers will have to consider the claims on packaging, design aspects, and the perception towards the product itself to reinforce the environmentally friendly packaging for product (Magnier, and Schoormans, 2015; Cho, and Baskin, 2018). Another important finding of the research was that bio-based environmentally friendly packaging which could not be decomposed got less rating on the measure of harmony with the environment which means that the manufacturers and marketers must also make sure that such environmentally friendly packaging should not only be made of bio-based or resources which are renewable, but also should be able to decompose or recycled.

Hao, Liu, Chen, Sha, Ji, and Dan (Hao, et al., 2018) conducted a research by surveying nearly 800 participants in China to study the factors which influence consumers' desire to pay for environmentally friendly packaging. The study used the method of principal factor analysis. The study recognized environment, quality of environmentally friendly products, commodity, and the price of the packaging as the four major influencing factors. The study supports that even without much factual information regarding environmentally friendly packaging, the consumers were desiring to pay for such products. Also, another important finding of the study when

investigating the link with price and the attraction of the environmentally friendly packaging, it was revealed in the study that the consumer placed greater importance on whether the products were convenience, reusable, and had capabilities of protection. Other factors included price of packaging, the price of the product in the package, type of packaged product, existing state of pollution in the environment, influence from other, subsidies from the government, discount on sales, social encouragement about such environmentally friendly packaging.

## 2.3 Related Concepts and Theories

### 2.3.1 Related Theory

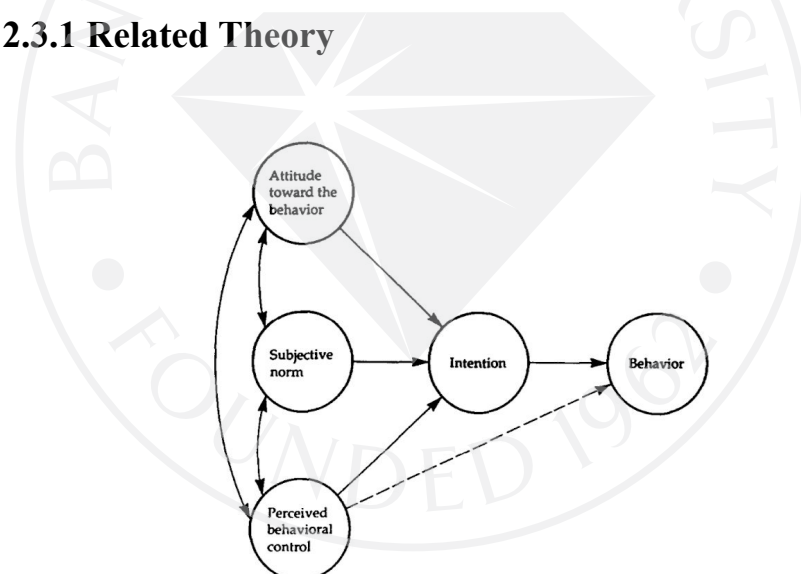


Figure 2: Theory of Planned Behavior

Source: Ajzen, 1991

The Planned Behavior Theory (TPB) was introduced by Ajzen (Ajzen, 1991), which has been widely accepted in analyzing and predicting the behavior of the consumers. The Figure 2. presented above shows the

composition of the planned behavior theory. The attitudes towards the behavior, normative beliefs excluding motivation to adhere, consumers' perceptions of their ability to behave a given behavior can be used to predict the consumers' intention for showing variety of behaviors; and the perceptions towards behavioral control, as well as the intention for showing variety of such behaviors result in the variance for the behavior in reality (Ajzen, 1991). The author also suggests that the utilization of previous behavior in the conceptual framework helps to validate the sufficiency of the TPB.

### **2.3.2 Concept of Purchase Intention**

The urgent logically preceding concept to a behavior is the intention (Ajzen, and Madden, 1986). Many previous research confirms this statement empirically when studying the behavior of the consumer towards green products (Bamberg, and Möser, 2007; Akehurst, et al., 2012 ; Soyez, 2012). The previous study conducted by Chan and Lau (Chan, and Lau, 2000) showed that the intention of making a purchase had significant relation in environmentally friendly buying behavior.

### **2.3.3 Concept of Green Marketing**

According to (Peattie, 1995), Green Marketing is the all-encompassing administration process in charge of recognizing, envisioning and fulfilling the demands of consumers and society, in gainful and sustainable way (Peattie,

1995). Green marketing as defined by Henion and Kinnear (Hennion, & Kinnear, 1976), is related to the study of marketing actions which have caused ecological issues, and those related to the marketing actions which would serve as solutions to those ecological issues, and also understanding the implication of marketing actions on the degradation of energy and non-energy materials (Peattie, 2001). In other words, Green Marketing refers to techniques to sell goods and services by utilizing ecological claims either in regard to their properties or their characteristics, policies, and value chain of the organizations that produce or vend those goods and services (Prakash, 2002). It is observed in two ways according to Jain and Kaur (Jain, & Kaur, 2004) - first, as a kind of marketing related to environmentally friendly products; and the second, as a philosophy of businesses need to uptake greater responsibility by incorporating environmental concerns of the society and not only customer satisfaction. According to the American Marketing Association, Eco-marketing is a paradigm shift in the way marketing is done in which the philosophies and the applications of marketing are adjusted, revised, and updated, providing a significantly different viewpoint and serves as a bridge between current marketing practices and environmental and social truths (Gheorghiu, Vidrascu, & Niculescu, 2013).

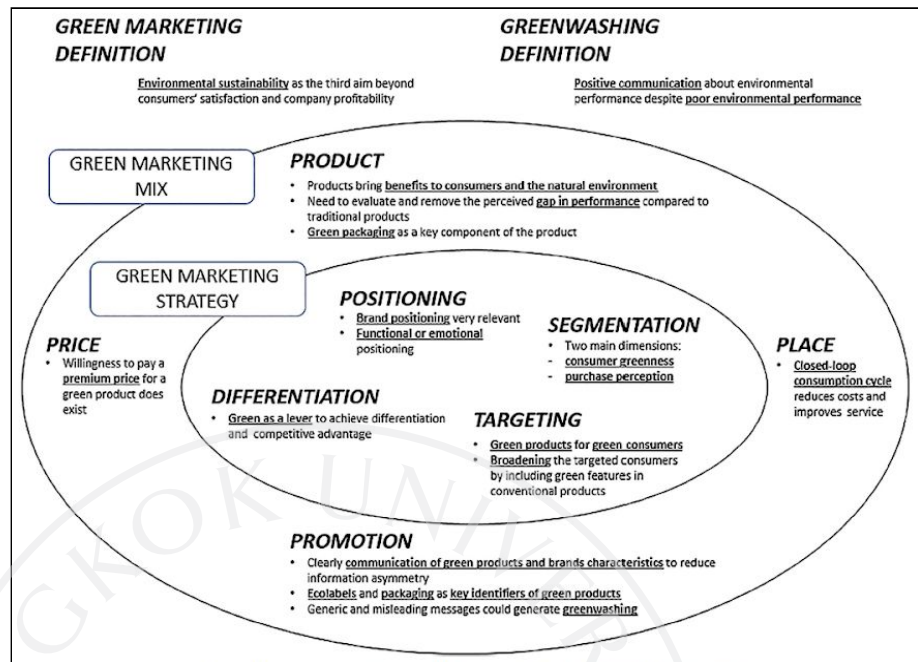


Figure 3: Green Marketing Strategy and the Green Marketing Mix

Source: Dangelico, & Vocalell, 2017

Often termed as Green, Eco-friendly, and environmentally- friendly-products (Kawitkar, 2013, Chen, and Chai, 2010), are those products having the least ecological footprint, and are made of more sustainable or reusable materials, reduction in packaging (Chen, and Chai, 2010). These products are improvised and considered to be better in the context of production, utility, and end-life such as biodegradable or recyclable (Peattie, 1995). The consumers primary perception regarding the brands and goods only come from the packaging for the product (Orth, and Malkewitz, 2008).

The process that the consumers follow to choose, arrange, and understand the knowledge in order to construct a significant image of a trademark or goods and services is the consumer perception. In the fields of

marketing, it could be investigated with the use of the 4 P's, the product, price, place and promotion (Deepa, 2016).

### **Internal and External Features**

Studies have shown that internal and external features of the product influences the consumer perception of particular characteristics (Olieira, et al., 2016; Asioli et al., 2017). The choice of eating and drinking is an intricate process which is affected by the internal and external qualities of the food and beverage (Koster, 2009). The internal qualities include smell, taste, texture, freshness, product composition, and the nourishment the product provides, whereas the external qualities include the selling rate of the product, branding, product packaging, labeling, and design (Olson & Jacoby, 1972). The consumers' decision to buy a product is significantly affected by the packaging of the product with characteristics such as volume, colour, design, and brand name (Wang, et al., 2012). The anticipation of the product's value and it's perception to the consumer when the product is being consumed is based on those internal and external qualities (Grunert, et al., 1996 ). Also, these qualities affects perceived risk, consumer delight, trust, consumer retention, and brand equity (Espejel, et al., 2009).

Internal qualities are concerned with physical constituents of the product along with its dependability, and the internal qualities also help to determine the nutritional value, usefulness, and product performance (Field, et al., 2012). The previous studies show that the internal qualities of the product

can be distinguished into two types: flavor, sweetness, and consistency are defined as content sensory qualities, and composition, satisfaction, and calorie composition are defined as composition functional qualities. On the other hand, product's external qualities on packaging and branding aspects include the name of the brand, color of the packaging, packaging material, the serving portion, visual design, recognizability and memorability of the brand (Bernués, et al., 2003, Kelley, et al., 2015). Packaging is significant when determining the consumer choice of product (Mueller, et al., 2010). The branding and packaging aspects for the products show the usefulness, representation, and usage benefits, which is a significant component of marketing and communication for offering consumer delight (Chen, and Sun, 2014).

#### **2.3.4 Concept of Perceived Value**

The perceived value of the product is determined by the perceived value of money (Munnukka, and Järvi, 2012). Utilitarian and hedonic values are the composition of the perceived value of a product (Hung, et al., 2010). Utilitarian qualities include the quality, usefulness (improve user performance), ease of use (the process in using a product), and most importantly value-for-money aspects of the product (Chang, 2015). Alternatively, utilitarian value describes the acceptability of the product price in relation to the monetary value (Dodds, et al., 1991). On the other hand, when the consumer uses the product, hedonic values are the results of positive

sentimental reaction to the perceptions such as enjoyment, jolliness, delight, and expectation (Scarpi, 2006).

### **2.3.5 Concept of Environmental Consciousness**

Consumers generally bearing strong opinion, sensitive buyer with keenness in price, tendency to find information, discusses with others, avoid buying out of temptation, hesitant on believing in product commercials, and not faithful to the same brand are some of the representation of environmentally conscious consumers (Shrum, et al., 1995). Roberts initially used the term environmentally conscious consumer behavior (Roberts, 1996), and later 30 components were used to measure the behavior with Bacon (Roberts, and Bacon, 1997).

In a previous research, the environmental consciousness was explained by three different aspects: cognitive, affective, and behavioral aspects. Cognitive aspects was explained by knowledge about the environment; the affective aspect was explained by the pro-environmental attitudes, as well as attitudes towards recycling; and the behavioral aspect was explained by Pro-environmental Buying Behavior; Pro-environmental Activities, and Pro-environmental Recycling Behavior (Tilikidou, 2001). Later, a 50 component Environmental Consciousness framework was developed by Tilikidou and authors to determine four aspects of Environmentally Conscious Consumer Behaviour which included: Pro-environmental Buying Behavior;



Pro-environmental Activities, and Attitudes; as well as Attitudes Towards Recycling, explaining the environmentally conscious consumer behavior (Tilikidou, et al., 2002).

## 2.4 Conceptual Framework

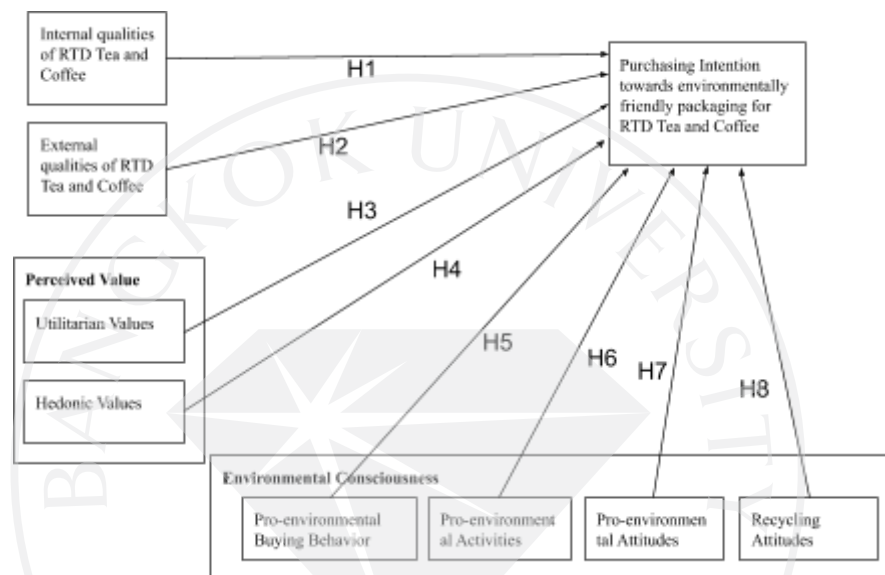


Figure 4: Conceptual Framework

As shown in Figure 4., the study contains four independent variables including internal and external qualities of RTD Tea and Coffee, perceived values, and environmentally conscious consumer behaviors. The dependent variable is the purchasing behavior towards environmentally friendly packaging for RTD Tea and Coffee.

## 2.5 Conclusion

In this chapter, understanding of different theories related to purchasing intention, the underlying factors from the previous studies, and underlying concepts of various factors from previous literature were formed to develop a conceptual framework of factors influencing purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage. The other important factors to be investigated under this study are some of the compositions of green marketing mix. In specific, the internal and external qualities of RTD tea and coffee beverages. One of the factors shortlisted as perceived value which included the utilitarian values (quality, ease of use, and most importantly value-for-money aspects of the product) and hedonic values (enjoyment, jolliness, delight, and expectation). The other factor identified was environmental consciousness which included the Pro-environmental Buying Behavior; Pro-environmental Activities, and Attitudes; as well as Attitudes Towards Recycling. The conceptual framework developed in this chapter will support the research in the following chapters.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

In this chapter, the method used in collection of data and approaches used are explained which included the model of the study, the structure of the questionnaire, collection of data, and the prerequisites of the respondents for the survey, and development of hypotheses. This chapter includes:

- 3.1 Introduction
- 3.2 Research Model
- 3.3 Research Questions
- 3.4 Hypothesis Development
- 3.5 Population and Sample Selection
- 3.6 Statement of Research Method Used
- 3.7 Reliability and Validity Assessment
- 3.8 Conclusion

#### **3.2 Research Model**

The initial stage of research is to discover and explanation of the existing problem. Collecting and reaching conclusion to the research is greatly influenced by the research question (Kotler, 1997). The probability for gathering important and relevant information, and eliminating excess information will be higher, given that

there is clarity in discovery and explanation of the existing problem (Zikmund, 1997, p.57). It is vital to reconceptualize the research problems into research questions as they way they are conceptualized influences the following stages of research significantly (Hair, et al, 2006).

As shown in Figure 5, research model is the selection of a fundamental method for the research which serves as the framework to answer the research questions. The exploratory research is a casual form of research which does not require a framework of objectives, survey or design to gather information, or to elaborate concepts and the research problems. Next, the form of research used to explain the research questions interrogating in order to explain a marketing case. In the end, when a case is intended to be understood from cause-effect relationship, it is called causal research (Mc Daniel, & Gates, 2004).

Next, the researcher is required to select the design method. “The objectives of the study, the available data sources, the urgency of the decision, and the cost of obtaining the data will determine which design techniques should be chosen” (Zikmund, 1997, p.60.). Also, according to Zikmund (1997), “A survey is a research technique in which information is gathered from a sample of people through questionnaire” (Zikmund, 1997, p.61). Similarly, “studies in which conditions are controlled so that one or more independent variable(s) can be manipulated to test a hypothesis about a dependant variable” are called experiments (Aaker, et al., 2001, p.331). Observation on the other hand, “may be the least expensive and most accurate

method of collecting purely behavioral data such as in-store traffic patterns or traffic passing a certain point on a highway system” (Aaker, et al., 2001, p.203)

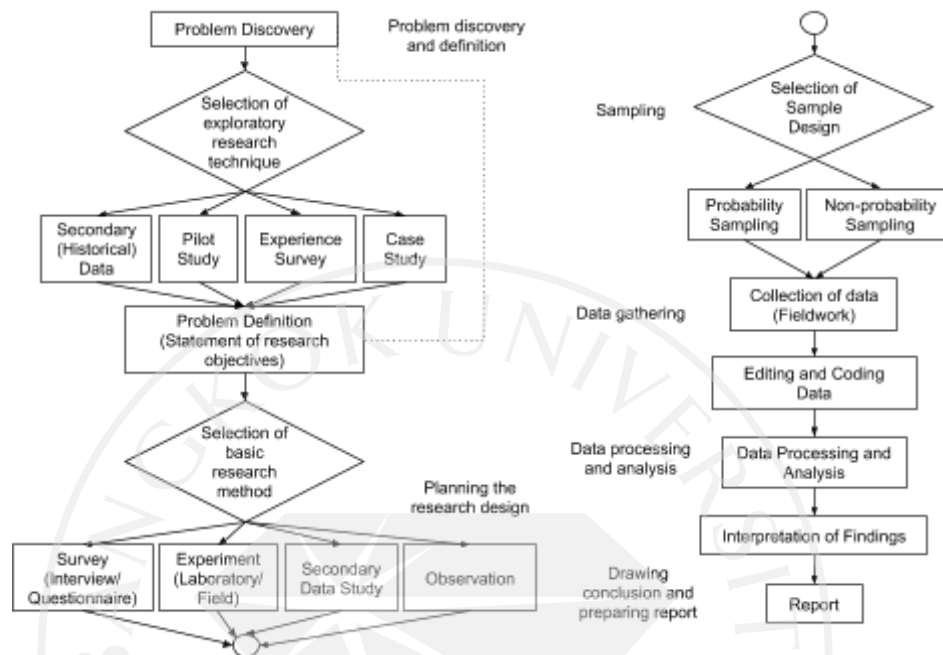


Figure 5: Flowchart of The Marketing Research Process

Source: Zikmund, et al., 2010

### 3.3 Research Questions

#### 1. Main Question:

MQ. What is the consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage for consumers visiting Terminal 21 Mall, Asok, Bangkok?

#### 2. Sub-questions:

Sub-RQ1. What are the factors influencing the purchasing intention of ready-to-drink tea and coffee beverage for consumers visiting Asok area, Bangkok?

Sub-RQ2. What are the green marketing implications to improve purchase intention of environmentally friendly packaging for ready-to-drink tea and coffee beverage?

### 3.4. Hypothesis Development

- Internal Qualities
  - Null Hypothesis: H1o: There is no relationship between attitude towards internal qualities and purchase intention.  
H1o :  $\beta = 0$
  - Alternate Hypothesis: H1a: There is a relationship between attitude towards internal qualities and purchase intention.  
H1a : at least one of  $\beta \neq 0$
  
- External Qualities
  - Null Hypothesis: H2o: There is no relationship between attitude towards external qualities and purchase intention.  
H2o :  $\beta = 0$

- Alternate Hypothesis: H2a: There is a relationship between attitude towards external qualities and purchase intention.

H2a : at least one of  $\beta \neq 0$

- Utilitarian Values

- Null Hypothesis: H3o: There is no relationship between utilitarian value and purchase intention.

H3o :  $\beta = 0$

- Alternate Hypothesis: H3a: There is a relationship between utilitarian value and purchase intention.

H3a : at least one of  $\beta \neq 0$

- Hedonic Values

- Null Hypothesis: H4o: There is no relationship between hedonic value and purchase intention.

H4o :  $\beta = 0$

- Alternate Hypothesis: H4a: There is a relationship between hedonic value and purchase intention.

H4a : at least one of  $\beta \neq 0$

- Pro-environmental Buying Behavior

- Null Hypothesis: H5o: There is no relationship between Pro-environmental buying behavior and purchase intention.  
H5o :  $\beta = 0$
- Alternate Hypothesis: H5a: There is a relationship between Pro-environmental buying behavior and purchase intention.  
H5a : at least one of  $\beta \neq 0$
- Pro-environmental Activities
  - Null Hypothesis: H6o: There is no relationship between Pro-environmental activities and purchase intention.  
H6o :  $\beta = 0$
  - Alternate Hypothesis: H6a: There is a relationship between Pro-environmental activities and purchase intention.  
H6a : at least one of  $\beta \neq 0$
- Pro-environmental Attitudes
  - Null Hypothesis: H7o: There is no relationship between Pro-environmental attitudes and purchase intention.  
H7o :  $\beta = 0$
  - Alternate Hypothesis: H7a: There is a relationship between Pro-environmental attitudes and purchase intention.  
H7a : at least one of  $\beta \neq 0$



- Recycling Attitudes
  - Null Hypothesis: H8o: There is no relationship between recycling attitudes and purchase intention.  
H8o :  $\beta = 0$
  - Alternate Hypothesis: H8a: There is a relationship between recycling attitudes and purchase intention.  
H8a : at least one of  $\beta \neq 0$

### **3.5 Population and Sample Selection**

#### **3.5.1 Target Population**

As stated by Aaker, “If the population is defined improperly, the research will probably answer the wrong question” (Aaker, et al. 2001, p.365.). As Hair put it, “the complete group of elements (people or objects) that are identified for investigation based on the objectives of the research project” (Hair, et al. 2006, p. 310.)

#### **3.5.2 Sampling Process**

Probability and non-probability are the two classifications for selection of sampling process (Zikmund, 1997, p. 425.). The different types of techniques under each of the classifications are listed in Figure 5. The probability is certain, and non-zero for the selection of each individual from

the population in probability method of sampling. Whereas, the probability is uncertain for the selection of an individual from the population in non-probability method of sampling (Zikmund, 1997, p. 423 - 424.).

### 3.5.3 Sample Size

According to Aaker, size of the sample “can be determined either by using statistical techniques or through some ad hoc methods. Ad hoc methods are used when a person knows from experience what sample size to adopt or when there are some constraints, such as budgetary constraints, that dictate the sample size” (Aaker, et al., 2001, p. 392.). Besides, Aaker pointed out that it is incorrect that greater percentage of sampling settings results a superior sample (Aaker, et al., 2001, p. 392.). However, it is important to avoid the problems of subset, superset while setting the size of the sample. Referring to Figure 6, one can simply determine the size of the sample needed for the research. The size of the sample in the figure are set on the basis of size of the population and the degree of accuracy. Alternately, after identifying the target population, sample size can be calculated using the following formula

$$n = \frac{N}{1+N(e)^2} \text{ (Israel, 1992)}$$

Where, ‘N’ is the target population; ‘n’ is the sample size; and ‘ $(e)^2$ ’ is the level of precision / standard error.

Sample size for $\pm 3\%$ , $\pm 5\%$ , $\pm 7\%$ , and $\pm 10\%$ Precision Levels Where Confidence Level is 95% and $P=0.5$				
Size of Population	Sample size (n) for Precision (e) of:			
	$\pm 3\%$	$\pm 5\%$	$\pm 7\%$	$\pm 10\%$
500	a	222	145	83
600	a	240	152	86
700	a	255	158	88
800	a	267	163	89
900	a	277	166	90
1,000	a	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
10,000	1,000	385	200	99
20,000	1,053	392	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
$\geq 100000$	1,111	400	204	100

a = Assumption of the normal population is not good (Yasmane, 1967). The whole population should be sampled

Figure 6: Sample Size Table

Source: Yamane, T. (1967). *Statistics, An Introductory Analysis* (2<sup>nd</sup> ed.). New York: Harper and Row.

### 3.5.4 Data Collection And Survey Errors

The following step is the collection of relevant data with the respondents and manage the issues of non-response biases. Most survey errors are resulted by non-response biases caused by rejections, imprecision during the response, and examiner error (Aaker, et al., 2001, p. 217 - 223). In case the survey is to be conducted online, the data collection must be performed with

caution to avoid selection bias which means that the respondent must have the technological know-how in order to respond (Aaker, et al., 2001, p. 255).

### **3.6. Statement of Research Method Used**

#### **3.6.1 Research Methodology Used**

The main objective of this study is to assess the purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage consumers in Asok area, Bangkok by exploring the internal and external qualities of the RTD tea and coffee beverages, perceived hedonic and utilitarian values of the RTD tea and coffee beverages, and the environmental consciousness based on pro-environmental attitudes, buying behaviors, activities and recycling activities as shown in Figure 4. Quantitative research is based on deductive approach to examine the relationship between the research and theories (Bryman, and Bell, 2007).

#### **3.6.2. Research Question**

Main Question :

MQ: What is the consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage for consumers visiting Asok area of Bangkok?

Sub-questions:

RQ1: What are the factors influencing the purchasing intention of ready-to-drink tea and coffee beverage for consumers visiting Asok area, Bangkok?

RQ2: What are the green marketing implications to improve purchase intention of environmentally friendly packaging for ready-to-drink tea and coffee beverage?

### **3.6.3 Method Of Inquiry**

This is a quantitative research using the questionnaire survey as a tool for data collection and analysis. The questionnaire contains eight components, including internal and external qualities of RTD Tea and Coffee, perceived values including utilitarian and hedonic values, and environmentally conscious consumer behavior components including pro-environmental buying behavior, attitudes, activities and recycling attitudes. Multiple choice questions are used for the 10 items relating to descriptive statistics, and 5 point likert scale was used for the 48 items relating to inferential statistics, and the items are all unidirectional (no reverse coding). The dependent variable is the purchasing intention towards environmentally friendly packaging for RTD Tea and Coffee.

### 3.6.4 Sampling Design

Representative population or the known population based on population criteria is 11,700, the registrations for new year sales coupon between December 15 and 30, 2017 at the Terminal 21 Mall.

Using the formula as prescribed by Israel, 1992, appropriate sample size is calculated at  $\pm 5\%$  margin of error / precision level for this marketing study (the range within which the true value of the accessible population is expected).

$$n = \frac{N}{1 + N(e)^2} \text{ (Israel, 1992)} = \frac{11,700}{1 + 11,700(0.05)^2} = 386.77 \approx 387 \text{ samples}$$

Hence, the sample size for the survey needs to be 387. So, 387 respondents are chosen from the list of registrations in the mall from the list using simple randomized sampling, a non-probability sampling method by =RANDBETWEEN(Low,High) function in the spreadsheet list of registrations (=RANDBETWEEN(1,11700)), so that every individual sample of size 387 has an equal probability of selection (Albright, et al,2002, p. 379).

### 3.6.5 Survey Design and Development

The items in the research method are prepared by reviewing the previous studies from Tilikidou, et al., 2002 for assessing consumers' pro-environmental buying behavior, which include consumers'

pro-environmental buying behavior, pro-environmental activities, consumers' pro-environmental attitudes, and consumers' recycling attitudes; the questions for internal and external qualities, utilitarian values, and hedonic values were extracted and modified for this study from (Hung, et al, 2010; Scarpi, 2006; Field, et al., 2012; Bernués, et al., 2003, Kelley, et al., 2015; Mueller, et al., 2010; Chen, and Sun, 2014). These questions will be used for inferential statistics. The questions relating to demographic profile will be used as descriptive statistics.

The respondents answer an online self-administered questionnaire survey which was made available in English and Thai is based on closed end questions, 1 to 5 scale in the Likert instrument, as well as frequency scales. Survey was conducted with the Google Forms questionnaire link among the 387 samples to gather data by distributing the link by sending out links online. The data has been gathered between January 8th, 2019 and January 15th, 2019.

The questionnaire is designed into seven parts.

Demographic data included gender, marital status, age, education, employment status, monthly income, whether or not they drink tea or coffee, whether or not they have visited Terminal 21 Mall, whether they remember or would choose in buying ready-to-drink tea or coffee beverage from any shop

in Terminal 21 Mall and the general frequency scale of their ready-to-drink tea or coffee beverage consumption.

Next part included the consumers' perception towards Internal and External Qualities of ready-to-drink tea and coffee beverage. This section is constructed with 5 point Likert scale being a commonly used instrument to determine consumer attitudes.

$$\text{Interval Ratio} = \frac{\text{Range (Maximum Value - Minimum Value)}}{\text{Number of Interval}} = \frac{(5-1)}{5} = 0.8$$

Hence, the interpretation of the results are as follows:

Table 1: Internal and External Factors Interpretations

Average score	Interpretation
4.21 - 5.00	Very high impact
3.41 - 4.20	High impact
2.61 - 3.40	Moderate impact
1.81 - 2.60	Low impact
1.00 - 1.80	Very low impact

Next part included the consumers' perceived value on ready-to-drink tea or coffee beverage packaging. This section is constructed with 5 point



Likert scale being a commonly used instrument to determine consumer attitudes. Interval Ratio =  $\frac{\text{Range (Maximum Value - Minimum Value)}}{\text{Number of Interval}} = \frac{(5-1)}{5} = 0.8$

Hence, the interpretation of the results are as shown in Table 2.

Next part included the consumers' pro-environmental buying behavior.

This section is constructed with 5 point Likert scale of frequency being a commonly used instrument to determine consumer attitudes.

$$\text{Interval Ratio} = \frac{\text{Range (Maximum Value - Minimum Value)}}{\text{Number of Interval}} = \frac{(5-1)}{5} = 0.8$$

Hence, the interpretation of the results are as shown in Table 3.

Table 2: Consumer's Perceived Values Factors Interpretations

Average score	Interpretation
4.21 - 5.00	Very high impact
3.41 - 4.20	High impact
2.61 - 3.40	Moderate impact
1.81 - 2.60	Low impact
1.00 - 1.80	Very low impact

Table 3: Consumer's Pro-environmental Buying Behavior Factors

## Interpretations

Average score	Interpretation
4.21 - 5.00	Very high impact
3.41 - 4.20	High impact
2.61 - 3.40	Moderate impact
1.81 - 2.60	Low impact
1.00 - 1.80	Very low impact

Next part included the consumers' pro-environmental activities. This section is constructed with 5 point Likert scale being a commonly used instrument to determine consumer attitudes, interpreted in Table 4.

$$\text{Interval Ratio} = \frac{\text{Range (Maximum Value - Minimum Value)}}{\text{Number of Interval}} = \frac{(5 - 1)}{5} = 0.8$$

Next part included the consumers' pro-environmental attitudes. This section is constructed with 5 point Likert scale of frequency being a commonly used instrument to determine consumer attitudes, interpreted in Table 5.

$$\text{Interval Ratio} = \frac{\text{Range (Maximum Value - Minimum Value)}}{\text{Number of Interval}} = \frac{(5 - 1)}{5} = 0.8$$

Table 4: Consumer's Pro-environmental Buying Behavior Factors

## Interpretations

Average score	Interpretation
4.21 - 5.00	Very high impact
3.41 - 4.20	High impact
2.61 - 3.40	Moderate impact
1.81 - 2.60	Low impact
1.00 - 1.80	Very low impact

Table 5: Consumer's Pro-environmental Attitudes Factors Interpretations

Average score	Interpretation
4.21 - 5.00	Very high impact
3.41 - 4.20	High impact
2.61 - 3.40	Moderate impact
1.81 - 2.60	Low impact
1.00 - 1.80	Very low impact

Next part included the consumers' recycling attitudes. This section is constructed with 5 point Likert scale being a commonly used instrument to determine consumer attitudes interpreted in Table 6..

$$\text{Interval Ratio} = \frac{\text{Range (Maximum Value - Minimum Value)}}{\text{Number of Interval}} = \frac{(5-1)}{5} = 0.8$$

Table 6: Consumer's Recycling Attitudes Factors Interpretations

Average score	Interpretation
4.21 - 5.00	Very high impact
3.41 - 4.20	High impact
2.61 - 3.40	Moderate impact
1.81 - 2.60	Low impact
1.00 - 1.80	Very low impact

### 3.6.6 Coding Structure

The coding structure for the items in the questionnaire used in the survey is in Appendix B. All the items in the questionnaire are modified and coded for further use in data analysis and presentation.

### 3.6.7 Reporting

Data is collected from questionnaire survey and processed with SPSS 20. Frequencies, percentile, mean, standard deviation, and cross tabulation are

the most commonly used measurements in descriptive statistical analysis. The research will also use Cronbach's Alpha to measure internal consistency within each group of items of each part two, three, four, five, six, and seven to develop highly reliable scale; and also overall reliability of the scale which is one of the most commonly used metrics. Most researchers would recommend more than, or equal to 0.7 Cronbach's Alpha. According to Nunnally & Bernstein (Nunnally, & Bernstein, 1994), the newly formed measurement instrument may be accepted with a reliability of Cronbach's alpha value greater than .069. A reliability scale measuring internal consistency of corrected item to total correlations measuring between 0.3 and 0.7 has been recommended for a superior measurement instrument according to Ferketich (Ferketich, 1991).

### **3.7 Validity and Reliability Assessment**

The questionnaire survey instrument developed for the study needs to first be validated and further simulated through a pilot survey before the full scale survey in order to make sure that there is internal consistency and validity of the instrument used. The items will be modified if necessary to optimize the reliability of the measurement instrument.

### **3.7.1 Components Validity**

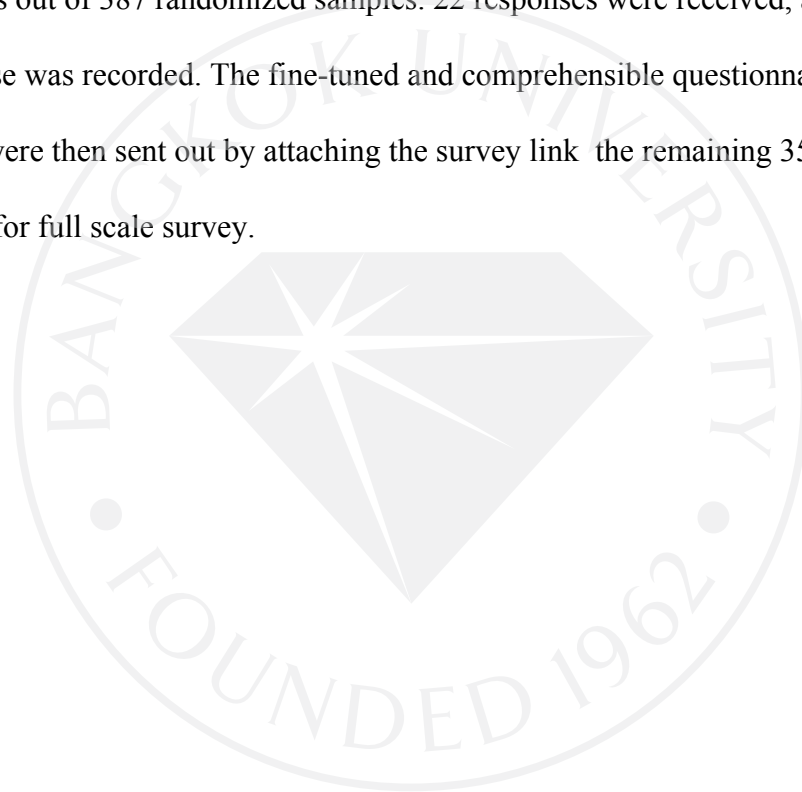
All of the components have been adapted and modified for this study from various previous literatures, hence valid.

### **3.7.2 Pilot Survey**

A pilot survey is conducted as a trial study to rectify a range of issues such as whether a measurement scale is appropriate, or questionnaire developed, the difficulty for participants in comprehending an item in the questionnaire, and to help refine the procedures in a research (Johanson, and Brooks, 2009). Lesser number of sample size is justified for exploratory research or a pilot study in which a size of samples between 10 to 30 is considered sufficient (Hill, 1998, p. 7). Hence, the designed 58 item questionnaire were distributed to 30 samples online through online link out of 387 (Chapter 3, Section 3.6.4., p. 38) chosen from the registration of the new year sales coupons in the mall to understand the comprehensibility of the questionnaire. A total of 22 responses were received and there were no invalid response. The wordings and questions were fine-tuned and a better comprehensible questionnaire was then sent out by attaching the survey link to the remaining 357 samples online for full scale survey.

### 3.8 Conclusion

In this chapter, the research methodology for marketing research are reviewed from previous studies. Further, research questions, the research of the methodology used, sampling design , questionnaire developed based on a literature review, and survey design were discussed in this chapter. A pilot study was conducted in 30 samples out of 387 randomized samples. 22 responses were received, and no invalid response was recorded. The fine-tuned and comprehensible questionnaire with 58 items were then sent out by attaching the survey link the remaining 357 samples online for full scale survey.



## **CHAPTER 4**

### **DATA PRESENTATION**

#### **4.1 Introduction**

This chapter included the presentation of the major findings based on data collection from the statements of research method used in Chapter three after the data is collected, processed and analyzed in SPSS 20. In this chapter, descriptive statistics, analysis of outcomes, items and components for inferential statistics are conducted and hypotheses are analyzed using regression analysis. This chapter includes:

- 4.1 Introduction
- 4.2 Data Presentation
- 4.3 Hypothesis Testing and Analysis
- 4.4 Conclusion

#### **4.2 Data Presentation**

Of the questionnaire with 58 items sent out by attaching the survey link to 357 samples online, 253 completed submissions were received in the full scale survey. A total of 274 valid submissions were received (22 from pilot survey, and 253 from full scale survey) out of 387 samples. Hence, the response rate was 71.06% (= 100% \* questionnaires responded / questionnaires handed out). The responses were coded, and analyzed which are presented in the following sections, descriptive statistics;



analysis of outcomes, reliability of items and components for inferential statistics are conducted and hypotheses are analyzed using regression analysis.

### Demographic and Consumer Behavior Analysis

Table 7: Gender

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	119	43.3	43.3	43.3
	Female	155	56.7	56.7	100
	Total	274	100	100	

119 respondents of the survey were male covering 43.3% and 155 respondents were female covering 56.7%.

Table 8: Marital Status

Marital Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	218	79.3	79.3	79.3
	Married	44	16	16	95.3
	Divorced	12	4.7	4.7	100
	Total	274	100	100	

218 of the total respondents reported to be single with 79.3%, and 4.3% reported to be married with 44 responses, and 4.7% reported as divorced numbering 12.

Table 9: Age

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 21 Years	7	2.5	2.5	2.5
	21 - 34 Years	218	79.3	79.3	81.8
	35 - 44 Years	34	12.7	12.7	94.5
	45 - 54 Years	10	3.6	3.6	98.2
	Above 54 Years	5	1.8	1.8	100
	Total	274	100	100	

Among the 274 respondents, 7 respondents were less than 21 years of age covering 2.5% of the response; 218 respondents were between 21 - 34 years of age, covering 79.3% of the response; 34 respondents were between 35 - 44 years of age, covering 12.7% of the response; 10 respondents were between 45 - 54 years of age, covering 3.6% of the response; and 5 respondents were above 54 years of age, covering 1.8% of the response.

Table 10: Education

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	5	1.8	1.8	1.8
	Bachelor's Degree or equivalent	107	39.3	39.3	41.1
	Masters Degree or equivalent	156	56.7	56.7	97.8
	Doctorate Degree or higher	6	2.2	2.2	100
	Total	274	100	100	

According to the survey, 5 respondents had a high school degree covering 1.8%, 107 respondents had a bachelor's degree or equivalent covering 39.3% , 156 respondents had a master's degree or equivalent covering 56.7%, and 6 respondents had a doctorate degree or higher covering 2.2% of the total 274 respondents.

Table 11: Employment

Employment Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	97	35.3	35.3	35.3
	Housewife/husband	1	0.4	0.4	35.6
	Company Employee	101	36.7	36.7	72.4
	Government Employee	2	0.7	0.7	73.1
	Business Owner	61	22.5	22.5	95.6
	Unemployed	12	4.4	4.4	100
	Total	274	100	100	

The survey data showed that 97 respondents were students by profession covering 35.3%, only 1 respondent was housewife/househusband covering 0.4%, 101 respondents were company employee covering 36.7%, 2 were government employees covering 0.7%, 61 respondents were business owners covering 22.5%, and 12 respondents were unemployed covering 4.4% of the total 274 respondents.

Table 12: Monthly Income

Monthly Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than or equal to 10,000 Baht	42	15.3	15.3	15.3
	10,001 to 20,000 Baht	27	9.8	9.8	25.1
	20,001 to 30,000 Baht	49	17.8	17.8	42.9
	30,001 to 40,000 Baht	35	12.7	12.7	55.6
	40,001 to 50,000 Baht	15	5.8	5.8	61.5
	More than 50,001 Baht	106	38.5	38.5	100
	Total	274	100	100	

In the survey it was found that 42 respondents earned less than or equal to 10,000 Baht which covered 15.3%, 27 respondents earned between 10,001 to 20,000 Baht covering 9.8%, 49 earned between 20,001 to 30,000 Baht covering 17.8%, 35 respondents earned between 30,001 to 40,000 Baht covering 12.7%, 15 respondents earned between 40,001 to 50,000 Baht covering 5.8%, and 106 respondents earned more than 50,001 Baht covering 38.5% of the total 274 respondents.

Table 13: Tea or Coffee drinking habits

Do you drink tea or coffee?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	269	97.8	97.8	97.8
	No	5	2.2	2.2	100
	Total	274	100	100	

In the survey 269 respondents reported that they drink tea or coffee covering 97.8%, and 5 respondents reported that they do not drink tea or coffee covering 2.2% of the total 274 respondents.

Table 14: Visit to Terminal 21 Mall

Have you ever visited Terminal 21 Mall in Asok?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	274	100	100	100
	No	0	0	0	100
	Total	274	100	100	

According to the survey data, all 274 respondents reported that they have experienced visiting Terminal 21 Mall which covered 100% of the total survey.

Table 15: Preference of drinking tea or coffee from any shop in Terminal 21 Mall

Have you, or would you ever purchase ready-to-drink tea or coffee from any shop in Terminal 21 Mall in Asok?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	160	58.2	58.2	58.2
	Maybe	87	32	32	90.2
	No	27	9.8	9.8	100
	Total	274	100	100	

The survey showed that 160 respondents has or would purchase ready-to-drink tea or coffee from any shop in Terminal 21 which covered 58.2% of the response, 27 respondents showed disinterest covering 9.8% of the response, and 87 respondents reported that they may consider purchasing ready-to-drink tea or coffee in Terminal 21 covering 32% of the response.

Table 16: Tea or Coffee drinking frequency

In general, how often do you buy ready-to-drink tea and coffee beverage?	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Never	6	2.2	2.2	2.2
	A few times in a month	95	34.5	34.5	63.3
	Once per week	11	4	4	67.3
	A few times in a week	38	13.8	13.8	81.1
	Once a day	26	9.5	9.5	90.5
	A few times in a day	25	9.5	9.5	100
	Total	274	100	100	

The survey showed that 6 respondents never drank tea or coffee which accounted for 2.2% of the response, 73 respondents reported to drink tea or coffee once per month or less accounting to 26.5% of the response, 95 respondents reported that they drink tea or coffee a few times a month accounting for 34.5% of the response, 11 reported to drink tea or coffee once per week accounting to 4% of the response, 38 respondents reported to drink



tea or coffee a few times a week accounting to 13.8% of the response, 26 respondents reported to drink tea or coffee one day accounting 9.5% of the response, and finally 25 respondents reported to drink tea or coffee a few times in a day accounting to 9.5% of the response

Table 17: Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Interpretation
The taste of ready-to-drink tea or coffee is important	274	4.43	0.809	Very high impact
The smell of tea or coffee is important	274	4.27	0.734	Very high impact
The freshness of tea or coffee is important	274	4.44	0.787	Very high impact
The tea or coffee used in making the ready-to-drink beverage is important	274	4.3	0.814	Very high impact
The design of the packaging for ready-to-drink tea or coffee beverage	274	3.56	0.947	High impact
The brand of ready-to-drink tea or coffee is important	274	3.48	0.933	High impact
The information labeling on the ready-to-drink tea or coffee package is important	274	3.79	1.042	High impact
The price of the ready-to-drink tea or coffee is important	274	4.01	0.854	High impact
The packaging material used on ready-to-drink tea or coffee is important	274	3.89	1.075	High impact
In the market, price for ready-to-drink tea or coffee is fair according to the available quality and quantity.	274	3.68	0.947	High impact
Environmentally friendly packaging would be easy to use	274	4.27	0.876	Very high impact

(Continued)

Table 17 (Continued): Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Interpretation
Environmentally friendly packaging for ready-to-drink tea or coffee would not compromise the quality of ready-to-drink tea or coffee beverage	274	4.04	0.907	High impact
Environmentally friendly packaging for ready-to-drink tea or coffee would be comfortable to use	274	4.03	0.821	High impact
Environmentally friendly packaging would not require a lot of mental effort to choose	274	3.84	0.993	High impact
I would be proud to drink ready-to-drink tea or coffee in environmentally friendly packaging	274	4.47	0.847	Very high impact
Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be enjoyable	274	4.19	0.852	High impact
Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be interesting	274	4.32	0.832	Very high impact
I believe that drinking ready-to-drink tea or coffee in environmentally friendly packaging would be better for the environment	274	4.41	0.751	Very high impact
I would buy environmentally friendly packaging when buying tea or coffee if it were available	274	4.3	0.866	Very high impact
I would choose the environmentally friendly packaging for my ready-to-drink tea or coffee beverage, if it were available regardless of price	274	3.51	0.983	High impact
I would choose the environmentally friendly packaging for my ready-to-drink tea or coffee beverage if there were not so much significant price difference	274	3.99	0.92	High impact
I am interested in asking about the environmental consequences of the packaging for my ready-to-drink tea or coffee beverage before buying it.	274	2.96	0.939	Moderate Impact

(Continued)

Table 17 (Continued): Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Interpretation
I prefer recycled paper for the packaging of my ready-to-drink tea or coffee beverage	274	3.69	1.072	High impact
I prefer biodegradable material for the packaging of my ready-to-drink tea or coffee beverage	274	3.65	1.018	High impact
I try to find the packaging of my ready-to-drink tea or coffee beverage with ecological badge (eco-label)	274	2.97	0.955	Moderate Impact
I prefer environmentally friendly packaging for my ready-to-drink tea or coffee beverage, even if they are more expensive	274	3.08	1.002	Moderate Impact
I prefer to buy environmentally friendly packaging for my ready-to-drink tea or coffee beverage, even if they are not equally effective as conventional packaging	274	3.22	0.856	Moderate Impact
I would change my usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment	274	3.48	1.044	High impact
I prefer products made of recycled or biodegradable material, even if such products are more costly	274	3.35	0.941	Moderate Impact
I choose the products made of recycled or biodegradable materials, although they don't look as attractive	274	3.44	0.915	High impact
I prefer to buy environmentally friendly packaging for my ready-to-drink tea or coffee beverage, even if they are not equally effective as conventional packaging	274	3.22	0.856	Moderate Impact
I would change my usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment	274	3.48	1.044	High impact

(Continued)

Table 17 (Continued): Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Interpretation
I prefer products made of recycled or biodegradable material, even if such products are more costly	274	3.35	0.941	Moderate Impact
I choose the products made of recycled or biodegradable materials, although they don't look as attractive	274	3.44	0.915	High impact
I do not throw waste on the ground	274	3.66	1.559	High impact
I try to use less plastic	274	3.6	1.074	High impact
I try to use less energy	274	3.61	1.049	High impact
I try to create less noise	274	4	0.884	High impact
I buy ecological magazines and/or other printed material	274	2.45	1.205	Low impact
I voluntarily work for ecological groups and organisations	274	2.45	1.117	Low impact
I have discussions with my family and/or friends about environmental issues	274	3.47	0.917	High impact
I listen to the radio or watch television or watch social media programmes on ecology	274	3.17	0.897	Moderate Impact
I often get angry when I think how much plastic is wasted	274	3.51	1.005	High impact
I don't think that I have anything to do with the destruction of animals or plants	274	2.69	1.215	Moderate Impact
I have never been concerned with the extinction of rare species	274	2.57	1.225	Low impact
Environmental protection is the most important problem of our times	274	4.32	0.744	Very high impact

(Continued)

Table 17 (Continued): Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Interpretation
I can not tolerate governments and international organisations that do not take the necessary measures to protect the environment	274	3.97	0.89	High impact
Recycling is important	274	4.67	0.555	Very high impact
Each consumer can contribute to the solution of the litter problem in his / her district	274	4.44	0.769	Very high impact
Recycling helps to protect the natural resources	274	4.57	0.693	Very high impact
Consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages	274	4.28	0.832	Very high impact
Recycling reduces waste going into the landfill sites	274	4.36	0.926	Very high impact
Valid N (listwise)	274			

In Table 17., the questions were measured using likert scale which have been interpreted as previously structured in Survey Design and Development in chapter three (Chapter 3., Section 3.6.5., p. 40 - 46). As shown in Table 17, the taste, smell, freshness, the tea-or-coffee used in preparation of the beverage were scored as very high impact. The perceived ease-of-use of environmentally friendly packaging, scored very high impact on the utilitarian values scales; the hedonic values of pride, and interesting aspects along with the belief of better impact of environmentally friendly packaging on environment, and preference to buy such products if available aspects scored very high impact. Most respondents also believed that

environmental protection is the most important problem of our times receiving very high impact score. Besides, in response to recycling attitude, most respondents also strongly agreed that recycling is important, individuals could contribute to solve the litter problem in their individual level, recycling helps protect the natural resources, and strongly agreed that consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages, and recycling reduces waste going into the landfill, all of which received very high impact scores.

The items relating to design, brand, information label, the price, packaging material used for the beverage, and the fairness of existing prices in the market aspects of the product were scored as high impact. The perceived hedonic value of enjoyability scored high impact. In response to environmentally friendly buying behavior, respondents considerably agree to choose the environmentally friendly packaging for their ready-to-drink tea or coffee beverage, if it were available regardless of price or if there were not much significant price difference. Also, the respondents scored considerably high on the preference for biodegradable or recycled paper for the packaging of their ready-to-drink tea or coffee beverage. The respondents also scored considerably high on the preference to change their usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment. The respondents also scored considerably high on preference to choose the products made of recycled or biodegradable material, although they don't look

as attractive. However, it is to be noted that the preference to choose such products even if available if they were more costly, if they were not equally effective as conventional packaging, and if they were more expensive received moderate score. Most respondents reported that they often use less energy, water, and make less noise. Considerably high score was received on the respondents interests in discussions with my family and/or friends about environmental issues. Most respondents reported that they sometimes listen to the radio or watch television or watch social media programmes on ecology. Most respondents reported that they often get angry when they think how much plastic is wasted. Most respondents reported very high impact scores and strongly agree that they can not tolerate governments and international organisations that do not take the necessary measures to protect the environment.

Table 18: KMO and Bartlett's Test

KMO and Bartlett's Test a		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.63
Bartlett's Test of Sphericity	Approx. Chi-Square	10544.44
	df	1128.00
	Sig.	0.00
a Based on correlations		

As shown in Table 18., Kaiser-Meyer-Olkin (KMO) test is performed on the 48 items relating to inferential statistics as a measure to know the sampling adequacy for individual variable in the framework, and for the entire framework which showed 0.63. According to the values provided by Kaiser,

values lower than 0.5 is considered useless, but those which lie between the range of 0.60, and 0.69 are interpreted as mediocre but acceptable (Cerny, & Kaiser, 1977). Also, level of significance  $0.00 < 0.001$  shows that intercorrelation matrix is not an identity matrix. Hence, the KMO and Bartlett's Test suggests the use of factor analysis for the study, and the data may be categorized into a smaller set of various underlying factors.

Table 19: Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
K1	10.545	21.969	21.969	10.545	21.969	21.969	4.422	9.212	9.212
K2	4.405	9.177	31.146	4.405	9.177	31.146	3.927	8.182	17.394
K3	3.885	8.094	39.24	3.885	8.094	39.24	3.037	6.327	23.721
K4	2.676	5.574	44.814	2.676	5.574	44.814	2.979	6.206	29.927
K5	2.622	5.463	50.277	2.622	5.463	50.277	2.932	6.108	36.035
K6	2.15	4.48	54.757	2.15	4.48	54.757	2.923	6.089	42.125
K7	1.648	3.433	58.191	1.648	3.433	58.191	2.76	5.75	47.874
K8	1.598	3.329	61.519	1.598	3.329	61.519	2.36	4.916	52.791
K9	1.494	3.112	64.631	1.494	3.112	64.631	2.261	4.71	57.501

(Continued)



Table 19 (Continued): Total Variance Explained

K10	1.274	2.654	67.286	1.274	2.654	67.286	2.219	4.624	62.125
L1	1.213	2.526	69.812	1.213	2.526	69.812	2.065	4.302	66.426
L2	1.198	2.496	72.308	1.198	2.496	72.308	1.763	3.673	70.099
L3	1.061	2.21	74.518	1.061	2.21	74.518	1.603	3.34	73.44
L4	1.003	2.089	76.607	1.003	2.089	76.607	1.521	3.168	76.607
L5	0.965	2.009	78.617						
L6	0.863	1.798	80.415						
L7	0.825	1.719	82.134						
L8	0.768	1.6	83.733						
L9	0.691	1.439	85.173						
M1	0.671	1.397	86.57						
M2	0.609	1.269	87.839						
M3	0.561	1.169	89.008						
M4	0.516	1.075	90.082						
M5	0.426	0.887	90.97						
M6	0.414	0.863	91.833						
M7	0.364	0.757	92.59						
M8	0.361	0.752	93.342						
M9	0.34	0.707	94.049						

(Continued)

Table 19 (Continued): Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
M10	0.305	0.635	94.684						
M11	0.276	0.575	95.259						
N1	0.25	0.521	95.78						
N2	0.233	0.485	96.265						
N3	0.223	0.464	96.73						
N4	0.195	0.407	97.137						
N5	0.176	0.366	97.503						
N6	0.168	0.35	97.853						
N7	0.155	0.324	98.177						
N8	0.131	0.273	98.45						
O1	0.119	0.249	98.699						
O2	0.113	0.236	98.935						
O3	0.108	0.226	99.161						
O4	0.094	0.195	99.356						
O5	0.082	0.172	99.528						

(Continued)

Table 19 (Continued): Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
P1	0.064	0.133	99.661						
P2	0.054	0.112	99.773						
P3	0.047	0.098	99.871						
P4	0.036	0.076	99.947						
P5	0.026	0.053	100						
Extraction Method: Principal Component Analysis.									

Then, Principal Components is used for preliminary solution with eigenvalue set at greater than 1 to determine useful factors. The total variance explained depicts that 48 components had cumulative variance of explaining the purchasing intention accounting 76.607% as shown in Table 19. Infact, K1 (The taste of ready-to-drink tea or coffee is important) explained 21.969% of the total variance, K2 (The smell of tea or coffee is important) explained 9.177% of the total variance, K3 (The freshness of tea or coffee is important) explained 8.094% of the total variance, K4 (The tea or coffee used in making the ready-to-drink beverage is important) explained 5.574% of the total variance, K5 (The design of the packaging for ready-to-drink tea or coffee beverage) explained 5.463% of the total variance, K6 (The brand of ready-to-drink tea or coffee is important) explained 4.48% of the total variance, K7 (The information

labeling on the ready-to-drink tea or coffee package is important) explained 3.433% of the total variance, K8 (The price of the ready-to-drink tea or coffee is important) explained 3.329% of the total variance, K9 (The packaging material used on ready-to-drink tea or coffee is important) explained 3.112% of the total variance, K10 (In the market, the existing prices for ready-to-drink tea or coffee are fair according to the available quality and quantity) explained 2.654% of the total variance, L1 (Environmentally friendly packaging would be easy to use) explained 2.526% of the total variance, L2 (Environmentally friendly packaging for ready-to-drink tea or coffee would not compromise the quality of ready-to-drink tea or coffee beverage) explained 2.496% of the total variance, L3 (Environmentally friendly packaging for ready-to-drink tea or coffee would not compromise the quality of ready-to-drink tea or coffee beverage) explained 2.21% of the total variance; and finally, the L4 (Environmentally friendly packaging for ready-to-drink tea or coffee would be comfortable to use) explained 2.089% of the total variance.

Table 20: Rotated Component Matrix

Component Matrix a														
	Component													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
L6	<b>0.719</b>	0.184	-0.053	-0.168	0.013	-0.211	0.28	-0.207	-0.22	0.01	-0.011	-0.016	-0.099	-0.001
L5	<b>0.701</b>	0.176	-0.064	-0.112	0.054	-0.235	0.212	-0.191	-0.116	0.134	-0.033	-0.156	-0.132	0.077
P1	<b>0.668</b>	-0.006	-0.206	0.345	0.17	0.109	0.085	-0.124	0.105	-0.021	-0.254	-0.198	-0.109	0.111
P2	<b>0.651</b>	0.038	-0.403	0.267	0.043	-0.029	-0.034	-0.031	0.341	-0.084	-0.201	-0.075	0.094	0.004
L7	<b>0.647</b>	0.263	-0.014	-0.162	0.125	-0.047	0.135	-0.153	-0.443	-0.137	0.036	-0.133	-0.118	0.074

(Continued)

Table 20 (Continued): Rotated Component Matrix

O4	<b>0.646</b>	0.168	-0.02	0.17	0.032	0.225	-0.174	-0.117	-0.142	-0.201	-0.088	-0.132	-0.182	-0.112
L3	<b>0.639</b>	0.082	-0.046	-0.21	-0.128	-0.312	-0.358	0.013	0.218	-0.171	0.075	0.063	-0.095	0.002
O5	<b>0.632</b>	0.129	-0.155	-0.114	0.171	-0.099	-0.303	0.005	-0.115	0.108	-0.237	-0.257	0.074	-0.16
M9	<b>0.621</b>	-0.281	0.134	-0.15	-0.271	0.081	0.09	0.096	-0.005	0.197	-0.005	0.018	-0.025	-0.381
L9	<b>0.615</b>	0.183	0.084	-0.189	0.25	0.236	0.043	-0.282	-0.099	0.171	0.075	0.047	0.115	-0.048
P4	<b>0.611</b>	0.062	-0.179	0.202	0.093	-0.172	-0.192	-0.035	0.302	-0.07	0.066	0.003	0.272	-0.143
P3	<b>0.61</b>	0.077	-0.417	0.181	0.139	0.026	-0.075	-0.132	0.357	0.021	-0.062	0.124	0.062	-0.179
K9	<b>0.602</b>	0.366	0.151	-0.19	-0.243	-0.216	-0.185	0.017	0.071	0.199	-0.236	0.069	-0.069	0.045
M5	<b>0.558</b>	-0.239	-0.051	0.078	-0.457	-0.344	0.162	-0.015	-0.111	-0.082	-0.012	0.034	0.19	0.037
L1	<b>0.55</b>	0.324	0.156	-0.137	-0.121	-0.197	-0.229	0.009	0.154	-0.108	0.085	0.323	-0.216	0.03
N7	<b>0.548</b>	-0.422	0.243	0.134	0.047	-0.075	-0.049	-0.097	0.039	-0.227	0.232	-0.009	-0.186	-0.257
M2	<b>0.535</b>	-0.237	-0.189	0.032	0.077	0.496	-0.114	0.073	-0.019	0.069	-0.096	-0.048	0.137	0.148
L8	<b>0.529</b>	0.052	-0.091	-0.217	0.294	0.268	0.042	-0.338	-0.241	0.092	0.129	0.257	-0.003	-0.021
O1	<b>0.51</b>	-0.091	0.443	-0.049	0.266	-0.01	-0.106	0.201	-0.101	0.116	-0.205	-0.071	0.113	0.208
M10	<b>0.503</b>	-0.436	0.328	-0.163	-0.154	0.085	0.11	-0.106	0.267	0.019	-0.002	-0.073	-0.025	-0.025
M7	0.488	-0.3	0.36	-0.325	-0.189	0.219	0.113	0.051	-0.004	-0.201	-0.174	-0.115	0.169	0.169
L4	0.484	0.074	-0.12	-0.446	0.215	0.044	-0.343	0.021	-0.108	-0.053	0.278	-0.116	0.049	0.304
M6	0.448	-0.075	0.381	0.049	-0.383	0.19	-0.021	0.128	-0.124	-0.144	0.065	-0.33	0.271	-0.131
M8	0.354	-0.333	-0.084	-0.319	-0.101	-0.259	0.155	0.121	0.224	0.041	0.168	-0.096	-0.004	0.224
N2	0.43	<b>-0.551</b>	-0.073	0.264	0.219	0.007	-0.065	0.348	-0.147	0.074	-0.084	0.148	0.062	0.008
K6	0.126	<b>0.528</b>	0.271	0.442	-0.159	0.164	-0.046	0.08	0.039	0.062	0.276	-0.174	0.021	-0.015
K3	0.433	<b>0.526</b>	-0.172	-0.108	0.134	0.179	0.267	0.154	-0.026	-0.081	-0.16	0.182	-0.1	-0.104
N3	0.464	<b>-0.522</b>	0.024	0.258	0.231	-0.061	0.014	0.292	-0.208	0.142	-0.173	0.047	0.005	-0.052
K5	0.235	<b>0.509</b>	0.277	0.364	-0.196	0.009	-0.069	0.449	-0.184	0.021	0.126	-0.067	0.01	0.075
K8	0.178	0.498	0.2	0.209	0.05	-0.461	0.155	0.079	-0.193	0.124	-0.035	0.014	0.214	-0.068
K7	0.245	0.469	0.196	0.018	-0.349	0.076	-0.274	0.015	-0.217	0.03	0.129	0.21	-0.125	-0.092
N8	0.338	-0.449	0.36	-0.011	0.367	-0.115	0.164	0.015	-0.013	-0.19	0.296	0.011	0.061	-0.053

(Continued)

Table 20 (Continued): Rotated Component Matrix

Component Matrix a														
	Component													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
K4	0.362	0.431	-0.145	-0.145	-0.125	0.21	0.069	0.31	0.125	-0.385	-0.01	0.191	0.178	-0.086
N6	0.321	-0.238	<b>0.645</b>	0.033	0.105	0.075	-0.006	0.008	0.124	0.115	0.179	0.045	-0.074	-0.121
O3	-0.183	0.298	<b>0.582</b>	-0.264	0.215	0.007	0.05	0.066	0.105	-0.023	-0.244	0.327	0.183	0.06
N5	0.15	-0.117	<b>0.565</b>	0.536	0.131	-0.136	0.028	-0.121	0.023	0.134	0.185	0.026	-0.094	0.094
O2	-0.102	0.166	<b>0.551</b>	0.015	0.33	-0.045	-0.007	-0.319	0.052	-0.23	0.013	0.184	0.418	-0.033
K10	0.165	0.37	0.483	0.099	0.207	0.185	0.301	0.101	0.246	0.271	-0.194	0.066	-0.092	0.087
K1	0.334	0.097	-0.417	0.044	0.252	0.164	0.39	0.05	0.092	-0.138	0.293	0.006	0.105	0.147
P5	0.271	0.268	-0.367	<b>0.531</b>	-0.011	-0.058	-0.017	-0.246	-0.002	0.288	0.201	0.033	0.27	0.059
N4	0.327	-0.37	0.094	0.454	0.278	-0.009	-0.117	0.016	-0.081	-0.265	-0.151	0.268	-0.311	0.075
M4	0.464	-0.234	-0.018	0.166	-0.518	-0.293	0.153	-0.094	-0.189	-0.187	-0.149	0.182	0.128	0.148
M3	0.334	-0.086	0.246	0.036	-0.423	-0.02	0.06	-0.267	0.321	0.217	-0.001	0.03	-0.101	0.313
L3	0.345	0.187	0.021	-0.135	0.405	-0.132	-0.267	0.366	0.16	0.059	0.191	-0.125	-0.041	0.204
M1	0.298	-0.023	0.182	0.043	-0.377	<b>0.708</b>	-0.142	-0.15	0.032	0.066	0.019	0.003	-0.015	0.021
K2	0.352	0.342	-0.026	-0.036	-0.01	0.051	<b>0.539</b>	0.296	0.213	-0.088	0.111	-0.128	-0.203	-0.113
M11	0.357	-0.314	-0.217	-0.406	-0.005	-0.073	0.021	0.2	-0.014	0.445	0.135	0.162	0.087	-0.277
N1	0.305	-0.229	-0.421	0.144	-0.271	0.234	0.068	0.204	-0.144	0.098	0.186	0.431	0.033	0.238
Extraction Method: Principal Component Analysis.														
a 14 components extracted.														
Extraction Method: Principal Component Analysis.														
Rotation Method: Varimax with Kaiser Normalization.														
(a) Rotation converged in 17 iterations.														

After the factor analysis, it is observed that 14 items explain 76.607% of variance from Table 19. Then, Table 20 of rotated component matrix developed in SPSS using Principal Component Analysis as the extraction method and Varimax

with Kaiser Normalization method for rotation, shows the items which are identified as most relevant for each of the components to explain the purchasing intention.

New components are formed with retained factors as recommended to have at least three items with a factor loading greater than 0.4 (Field, 2013). Hence, 3 components were recognized with at least three items and factors are loaded with values greater than 0.5.

The first component includes 20 items L6 (Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be enjoyable), L5 (I would be proud to drink ready-to-drink tea or coffee in environmentally friendly packaging), P1 (Recycling is important), P2 (Each consumer can contribute to the solution of the litter problem in his / her district), L7 (Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be interesting), O4 (Environment protection is the most important problem of our times), L3 (Environmentally friendly packaging for ready-to-drink tea or coffee would be comfortable to use), O5 (I can not tolerate governments and international organizations that do not take the necessary measures to protect the environment), M9 (I would change my usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment), L9 (I would buy environmentally friendly packaging when buying tea or coffee if it were available), P4 (Consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages), P3 (Recycling helps to protect the natural resources), K9 (The packaging material used on ready-to-drink tea or coffee is important), M5 (I prefer biodegradable material for the

packaging of my ready-to-drink tea or coffee beverage), L1 (Environmentally friendly packaging would be easy to use), N7 (I have discussions with my family and/or friends about environmental issues), M2 (I would choose the environmentally friendly packaging for my ready-to-drink tea or coffee beverage if there were not so much significant price difference), L8 (I believe that drinking ready-to-drink tea or coffee in environmentally friendly packaging would be better for the environment), O1 (I often get angry when I think how much plastic is wasted), and M10 (I prefer products made of recycled or biodegradable material, even if such products are more costly). This component is then labeled as “Pro-environmental ready-to-drink tea and coffee consumer attitude”.

The second component includes 5 items: N2 (I try to use less plastic), K6 (The brand of ready-to-drink tea or coffee is important), K3 (The freshness of tea or coffee is important), N3 (I try to use less energy), and K5 (The design of the packaging for ready-to-drink tea or coffee beverage is important). This component is labeled as “Pro-environmental attitudes towards product attributes of ready-to-drink tea or coffee”.

The third component includes 4 items: N6 (I voluntarily work for ecological groups and organisations), O3 (I have never been concerned with the extinction of rare species), N5 (I buy ecological magazines and/or other printed material), and O2 (I don't think that I have anything to do with the destruction of animals or plants). This component is labeled as “pro-environmental attitudes and activities”.



### 4.3 Reliability Analysis of Research Instrument Used

Table 21: Cronbach's Alpha interpretations

<i>Coefficient of Cronbach's Alpha</i>	<i>Level of reliability</i>	<i>Level of desirability</i>
0.8 - 1.0	Very High	Excellent
0.7 - 0.79	High	Good
0.5 - 0.69	Medium	Fair
0.3 - 0.49	Low	Poor
Less than 0.3	Very Low	Unacceptable

Source: (Tavakol, M., and Dennick, R., 2011, Making Sense of Cronbach's Alpha, International Journal of Medical Education, Editorial 2, 53 - 55)

Table 22: Cronbach's Alpha Analysis

<b>Independent Variables</b>	<b>No. of items</b>	<b>Alpha (<math>\alpha</math>-test)</b>
Internal Qualities	4	0.72
External Qualities	6	0.743
Utilitarian Values	4	0.739
Hedonic Values	5	0.864
Pro-environmental Buying Behavior	11	0.828
Pro-environmental Attitudes	8	0.756

(Continued)

Table 22 (Continued): Cronbach's Alpha Analysis

Independent Variables	No. of items	Alpha ( $\alpha$ -test)
Pro-environmental Activities	5	0.685
Recycling Attitudes	5	0.777

From Table 22, it showed that the values of Cronbach's alpha for all the independent variables are greater than 0.6, which means the questionnaire is valid and reliable.

#### 4.4. Hypothesis Testing and Analysis

##### Internal qualities hypothesis

$$H_0: \beta_{K1, K2, K3, K4} = 0$$

$$H_1a : \text{at least one of } \beta_{K1, K2, K3, K4} \neq 0$$

Table 23: Internal qualities hypothesis testing

ANOVA(a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.883	4	3.221	4.021	<b>.003(b)</b>
	Residual	216.266	270	0.801		
	Total	229.149	274			
a Dependent Variable: I						
b Predictors: (Constant), K1, K2, K3, K4						

(Continued)

Table 23 (Continued): Internal qualities hypothesis testing

Coefficients(a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.194	0.334		9.562	<b>0</b>	2.537	3.85
	K1	0.025	0.059	0.022	0.429	0.668	-0.091	0.142
	<b>K2</b>	<b>-0.153</b>	<b>0.073</b>	<b>-0.123</b>	<b>-2.09</b>	<b>0.037</b>	-0.297	-0.009
	K3	-0.057	0.075	-0.048	-0.763	0.446	-0.205	0.091
	<b>K4</b>	<b>-0.155</b>	<b>0.065</b>	<b>-0.134</b>	<b>-2.385</b>	<b>0.018</b>	-0.282	-0.027

(a) Dependent Variable: I

In the ANOVA table, it is observed that the  $p=0.003$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that two items K2 (0.037), and K4 (0.018) of all the (K1, K2, K3, K4) items have a p-value less than 0.05. Also, Hence, there are enough evidence to reject the null hypothesis. Two of the four items within the internal qualities provide enough evidence as a factor influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 4 items collectively explain 5.6% of the variance for internal qualities. Also, K2 and K4 have significant negative relationship with the purchasing intention.

### External qualities hypothesis

$$H2o: \beta_{K5, K7, K8, K9, K10} = 0$$

$$H2a : \text{at least one of } \beta_{K5, K7, K8, K9, K10} \neq 0$$

Table 24: External qualities hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.52	6	4.087	5.352	<b>.000</b> (b)
	Residual	204.629	268	0.764		
	Total	229.149	274			
a Dependent Variable: I						
b Predictors: (Constant), K5, K6, K7, K8, K9, K10						

Coefficients (a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.284	0.324		10.13	0	2.646	3.922
	<b>K5</b>	<b>-0.184</b>	<b>0.08</b>	<b>-0.191</b>	<b>-2.295</b>	<b>0.022</b>	-0.342	-0.026
	K6	-0.035	0.079	-0.036	-0.447	0.655	-0.19	0.12
	K7	-0.019	0.063	-0.022	-0.308	0.759	-0.143	0.105
	K8	-0.088	0.072	-0.082	-1.225	0.222	-0.229	0.053
	K9	0.029	0.06	0.035	0.494	0.622	-0.088	0.147
	<b>K10</b>	<b>-0.124</b>	<b>0.063</b>	<b>-0.129</b>	<b>-1.977</b>	<b>0.049</b>	-0.248	-0.001
a Dependent Variable: I								

In the ANOVA table, it is observed that the  $p=0.000$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that two items K5 (0.022), and K10 (0.049) of all the (K5, K6, K7, K8, K9, K10) items have a p-value less than 0.05. Hence, there are enough evidence to reject the null hypothesis. Two of the 6 items within the external qualities provide enough evidence as a factor influencing purchasing intention towards environmentally friendly packaging for

ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 6 items collectively explain 10.7% of the variance for external qualities. Also, K5, and K10 has significant negative relationship with the purchasing intention. Also,

### Utilitarian values hypothesis

$$H3o: \beta_{L1, L2, L3, L4} = 0$$

$$H3a : \text{at least one of } \beta_{L1, L2, L3, L4} \neq 0$$

Table 25: Utilitarian values hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.018	4	1.254	1.511	0.199 (b)
	Residual	224.131	270	0.83		
	Total	229.149	274			
a Dependent Variable: I						
b Predictors: (Constant), L1, L2, L3, L4						

Coefficients (a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.44	0.339		7.191	0	1.772	3.108
	L1	-0.137	0.084	-0.131	-1.626	0.105	-0.303	0.029
	L2	-0.091	0.069	-0.09	-1.327	0.186	-0.226	0.044

(Continued)

Table 25 (Continued): Utilitarian values hypothesis testing

Model		Unstandardized	Std.	Standardized	t	Sig.	95.0% Confidence	
		Coefficients		Error			Coefficients	Interval for B
		B		Beta			Bound	Bound
1	(Constant)	2.44	0.339		7.191	0	1.772	3.108
	L3	0.058	0.096	0.052	0.602	0.547	-0.131	0.247
	L4	0.004	0.065	0.005	0.068	0.945	-0.124	0.133

a Dependent Variable: I

Among the utilitarian values hypothesis items, none of the items have a P value less than the level of significance, alpha of 0.05; not enough evidence to reject the null hypothesis, so the null hypothesis is retained. Hence, utilitarian values cannot be interpreted as a factor that influences purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05.

### Hedonic values hypothesis

$$H4_0: \beta_{L5, L6, L7, L8, L9} = 0$$

$$H4_a : \text{at least one of } \beta_{L5, L6, L7, L8, L9} \neq 0$$

Table 26: Hedonic values hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.063	5	0.213	2.64	<b>.024 (b)</b>

(Continued)

Table 26 (Continued): Hedonic values hypothesis testing

	Residual	21.664	269	0.081		
	Total	22.727	274			
a Dependent Variable: I						
b Predictors: (Constant), L5, L6, L7, L8, L9						

Coefficients (a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.94	0.117		8.011	<b>0</b>	0.709	1.171
	<b>L5</b>	<b>-0.072</b>	<b>0.032</b>	<b>-0.211</b>	<b>-2.252</b>	<b>0.025</b>	-0.134	-0.009
	L6	0.05	0.035	0.149	1.437	0.152	-0.019	0.12
	<b>L7</b>	<b>0.069</b>	<b>0.031</b>	<b>0.198</b>	<b>2.214</b>	<b>0.028</b>	0.008	0.13
	L8	0.02	0.03	0.052	0.663	0.508	-0.039	0.079
	L9	-0.029	0.028	-0.087	-1.045	0.297	-0.083	0.026
a Dependent Variable: I								

In the ANOVA table, it is observed that the  $p=0.024$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that two items L5 (0.025), and L7 (0.028) of all the (L5, L6, L7, L8, L9) items have a p-value less than 0.05. Hence, there are enough evidence to reject the null hypothesis. Two of the six items within the hedonic values provide enough evidence as a factor influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 5 items collectively explain 3.2% of the variance

for hedonic values. Also, L5 has significant negative, and L7 has significant positive relationship with purchasing intention

### Pro-environmental buying behavior hypothesis

$$H5_0: \beta_{M1, M2, M3, M4, M5, M6, \dots, M11} = 0$$

$$H5_a : \text{at least one of } \beta_{M1, M2, M3, M4, M5, M6, \dots, M11} \neq 0$$

Table 27: Pro-environmental buying behavior hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.065	11	3.097	4.175	<b>.000</b> (b)
	Residual	195.084	263	0.742		
	Total	229.149	274			
a Dependent Variable: I						
b Predictors: (Constant), M1, M2, M3, M4, M5, M6, M7, M8, M9, M10, M11						

Coefficients (a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.373	0.356		6.662	0	1.671	3.074
	M1	0.005	0.069	0.006	0.076	0.94	-0.131	0.142
	M2	-0.018	0.068	-0.018	-0.256	0.798	-0.152	0.117
	M3	0.118	0.065	0.121	1.798	0.073	-0.011	0.246
	<b>M4</b>	<b>-0.251</b>	<b>0.083</b>	<b>-0.295</b>	<b>-3.022</b>	<b>0.003</b>	-0.415	-0.087
	M5	0.065	0.095	0.072	0.682	0.496	-0.122	0.252
	M6	0.019	0.069	0.02	0.279	0.781	-0.117	0.156

(Continued)



Table 27 (Continued): Pro-environmental buying behavior hypothesis testing

	M7	-0.033	0.076	-0.036	-0.435	0.664	-0.182	0.116
	<b>M8</b>	<b>-0.309</b>	<b>0.072</b>	<b>-0.289</b>	<b>-4.292</b>	<b>0</b>	-0.45	-0.167
	M9	-0.04	0.074	-0.046	-0.54	0.59	-0.187	0.106
	<b>M10</b>	<b>0.169</b>	<b>0.081</b>	<b>0.174</b>	<b>2.096</b>	<b>0.037</b>	0.01	0.328
	M11	0.107	0.072	0.107	1.494	0.136	-0.034	0.249
a Dependent Variable: I								

In the ANOVA table, it is observed that the  $p=0.000$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that three items M4 (0.003), M8 (0) and M10 (0.037) of all the (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10, M11) items have a p-value less than 0.05. Hence, there are enough evidence to reject the null hypothesis. Three of the eleven items within the pro-environmental buying behavior values provide enough evidence as a factor influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 11 items collectively explain 14.9% of the variance for pro-environmental buying behavior. Also, M4, M8 have significant negative and M10 has significant positive relationship with purchasing intention.

### Pro-environmental activities hypothesis

$$H6_0: \beta_{N2, N3, N4, N6, N7, N8} = 0$$

$$H6_a : \text{at least one of } \beta_{N2, N3, N4, N6, N7, N8} \neq 0$$

Table 28: Pro-environmental activities hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.885	8	3.736	4.987	<b>.000</b> (b)
	Residual	199.264	266	0.749		
	Total	229.149	274			
a Dependent Variable: I						
b Predictors: (Constant), N1, N2, N3, N4, N5, N6, N7, N8						

Table 28 (Continued): Pro-environmental activities hypothesis testing

Coefficients (a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.602	0.285		9.127	0	2.04	3.163
	<b>N1</b>	<b>-0.137</b>	<b>0.038</b>	<b>-0.233</b>	<b>-3.635</b>	<b>0</b>	-0.211	-0.063
	N2	0.048	0.087	0.056	0.554	0.58	-0.122	0.218
	<b>N3</b>	<b>0.177</b>	<b>0.087</b>	<b>0.203</b>	<b>2.044</b>	<b>0.042</b>	0.006	0.347
	<b>N4</b>	<b>-0.25</b>	<b>0.074</b>	<b>-0.241</b>	<b>-3.376</b>	<b>0.001</b>	-0.395	-0.104
	N5	0.01	0.053	0.013	0.188	0.851	-0.094	0.113
	N6	0.047	0.059	0.057	0.792	0.429	-0.07	0.163
	N7	0.118	0.077	0.118	1.54	0.125	-0.033	0.269
	<b>N8</b>	<b>-0.228</b>	<b>0.076</b>	<b>-0.223</b>	<b>-3.009</b>	<b>0.003</b>	-0.377	-0.079
a Dependent Variable: I								

In the ANOVA table, it is observed that the  $p=0.000$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that four items N1 (0.00), N3 (0.042) N3 (0.001) and N8 (0.003) of all the (N1, N2, N3, N4, N5, N6,

N7, N8) items have a p-value less than 0.05. Hence, there are enough evidence to reject the null hypothesis. Four of the eight items within the pro-environmental activities values provide enough evidence as a factor influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 8 items collectively explain 13% of the variance for pro-environmental activities. Also, N1, N4, N8 have significant negative and N3 has significant positive relationship with purchasing intention.

#### Pro-environmental attitudes hypothesis

H7o:  $\beta_{O1, O4, O5} = 0$

H7a : at least one of  $\beta_{O1, O4, O5} \neq 0$

Table 29: Pro-environmental attitudes hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.63	5	2.526	3.138	<b>.009 (b)</b>
	Residual	216.519	269	0.805		
	Total	229.149	274			
a Dependent Variable: I						
b Predictors: (Constant), O1, O2, O3, O4, O5						

(Continued)

Table 29 (Continued): Pro-environmental attitudes hypothesis testing

Coefficients (a)								
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
							B	Beta
1	(Constant)	1.24	0.387		3.205	<b>0.002</b>	0.478	2.001
	<b>O1</b>	<b>-0.174</b>	<b>0.062</b>	<b>-0.191</b>	<b>-2.813</b>	<b>0.005</b>	-0.296	-0.052
	O2	0.093	0.054	0.124	1.737	0.084	-0.012	0.199
	O3	0.028	0.056	0.037	0.497	0.62	-0.083	0.138
	O4	-0.009	0.086	-0.007	-0.106	0.916	-0.178	0.16
	<b>O5</b>	<b>0.208</b>	<b>0.072</b>	<b>0.202</b>	<b>2.868</b>	<b>0.004</b>	0.065	0.351

a Dependent Variable: Have you, or would you ever purchase ready-to-drink tea or coffee from any shop in Terminal 21 Mall in Asok?

In the ANOVA table, it is observed that the  $p=0.009$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that two items O1 (0.005), and O5 (0.004) of all the (O1, O2, O3, O4, O5) items have a p-value less than 0.05. Hence, there are enough evidence to reject the null hypothesis. Two of the five items within the pro-environmental attitudes provide enough evidence as a factor influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 5 items collectively explain 5.5% of the variance of pro-environmental attitudes. Also, O1 has significant negative and O5 has significant positive relationship with purchasing intention.

### Recycling attitudes hypothesis

$$H8_0: \beta_{P1, P2, P3, P4} = 0$$

$$H8_a : \text{at least one of } \beta_{P1, P2, P3, P4} \neq 0$$

Table 30: Recycling attitudes hypothesis testing

ANOVA (a)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.25	5	0.65	8.977	<b>.000 (b)</b>
	Residual	19.477	269	0.072		
	Total	22.727	274			
a Dependent Variable: I						
b Predictors: (Constant), P1, P2, P3, P4, P5						

Coefficients (a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.507	0.492		5.099	0	1.539	3.475
	P1	-0.143	0.143	-0.087	-1.004	0.316	-0.425	0.138
	<b>P2</b>	<b>0.262</b>	<b>0.126</b>	<b>0.22</b>	<b>2.083</b>	<b>0.038</b>	0.014	0.509
	<b>P3</b>	<b>-0.256</b>	<b>0.124</b>	<b>-0.194</b>	<b>-2.07</b>	<b>0.039</b>	-0.499	-0.012
	P4	0.007	0.086	0.006	0.079	0.937	-0.163	0.176
	P5	-0.028	0.068	-0.028	-0.412	0.681	-0.162	0.106
a Dependent Variable: I								

In the ANOVA table, it is observed that the  $p=0.000$ , which is less than the level of significance, alpha of 0.05. Further, coefficient table showed that two items P2 (0.038), and P3 (0.039) of all the (P1, P2, P3, P4, P5) items have a p-value less than 0.05. Hence, there are enough evidence to reject the null hypothesis. Two of the five items within the recycling attitudes provide enough evidence as a factor

influencing purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee at a level of significance of 0.05. In the multiple regression analysis, the R square value showed that the 5 items collectively explain 2.8% of the variance of recycling attitudes. Also, P3 has significant negative and P2 has significant positive relationship with purchasing intention.

### Summary of Hypothesis test

Table 31: Hypothesis testing result summary

Hypotheses	Factors	Results
H1	Internal qualities	Supported
H2	External qualities	Supported
H3	Utilitarian values	Not Supported
H4	Hedonic values	Supported
H5	Pro-environmental buying behavior	Supported
H6	Pro-environmental activities	Supported
H7	Pro-environmental attitudes	Supported
H8	Recycling attitudes	Supported

The hypothesis testing results summary for purchasing intention of ready-to-drink tea or coffee consumers with environmentally friendly packaging is shown in Table 31.

### 4.5. Conclusion

In summary, descriptive statistics for various demographic characteristics and consumer behavior data were synthesized and presented along with interpretation of the means, and standard deviation in this chapter using descriptive statistics. Further,

KMO and Bartlett's Test was performed on 48 items from the collected data in likert scale measure to confirm sampling adequacy which suggests the use of factor analysis for the study, and the data was categorized into 3 smaller components of various underlying factors. Then, Principal Component Analysis (PCA) was performed to figure out a preliminary solution with eigenvalue set at greater than 1 to determine useful factors where the total variance explained depicts that 3 components composed of 29 items. The rotated components matrix from PCA using Varimax with Kaiser Normalization method was used to refine the newly found components with rotated items, and were labeled. Finally, hypothesis testing was performed on the 8 hypothesis concerning purchasing intention which showed that internal and external qualities of ready-to-drink tea or coffee, hedonic values, pro-environmental buying behaviors, pro-environmental activities, pro-environmental attitudes, and attitudes towards recycling hypotheses were accepted, meaning that they significant relationship with purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee. However, the null hypothesis for utilitarian values was retained as there were not enough evidence to support the significant relationship with purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee.

## **CHAPTER 5**

### **DISCUSSION**

#### **5.1 Introduction**

In this chapter, the summary of data analysis is presented for the research based on the presentation of data in chapter four with all the vital aspects from the findings of this research. Subsequently, the sub-research-questions: RQ1, and RQ2 are discussed. Then, both the sub-research-questions provide insight into the main research question MQ based on the outcomes presented in the preceding chapter and from literature reviews in chapter two. This chapter includes:

5.1 Introduction

5.2 Discussion

5.3 Conclusion

#### **5.2 Discussion**

In this research, the effects of independent variables including the internal and external qualities of ready-to-drink tea and coffee beverages; perceived value which included the utilitarian values (quality, ease of use, and most importantly value-for-money aspects of the product) and hedonic values (enjoyment, jolliness, delight, and expectations); environmental consciousness which included the Pro-environmental Buying Behavior; Pro-environmental Activities, and Attitudes; as well as Attitudes Towards Recycling were explored for determining the relationship



with the dependent variable which is consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee from the study of consumers visiting Tenminal 21 Mall, Asok, Bangkok.

As this research is quantitative, an online self-administered questionnaire survey which was made available in English and Thai is based on closed end questions, 1 to 5 scale in the Likert instrument, as well as frequency scales to collect data. Survey was conducted with the Google Forms questionnaire among the randomized sampled, non-probability respondents to gather data by distributing the link online from those visiting Tenminal 21 Mall, Asok, Bangkok.

A pilot study was conducted on 30 respondents out of 387 randomized samples (Chapter 3, Section 3.6.4., p. 40). 22 response were received, and no invalid response was recorded. Next, the fine-tuned and comprehensible questionnaire with 58 items were then sent out by attaching the survey link to the remaining 357 respondents online for the full scale survey.

Later, the presentation of the major findings based on data collection in Chapter four, then processed and analyzed in SPSS 20. Descriptive statistics for various demographic characteristics and consumer behavior data were synthesized and presented along with interpretation of the means, and standard deviations. The items ‘The taste of ready-to-drink tea or coffee is important’, ‘The smell of tea or coffee is important’, ‘The freshness of tea or coffee is important’, ‘The tea or coffee used in making the ready-to-drink beverage is important’, ‘Environmentally friendly packaging would be easy to use’, ‘I would be proud to drink ready-to-drink tea or

coffee in environmentally friendly packaging’, ‘Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be interesting’, ‘I believe that drinking ready-to-drink tea or coffee in environmentally friendly packaging would be better for the environment’, ‘I would buy environmentally friendly packaging when buying tea or coffee if it were available’, ‘Environment protection is the most important problem of our times’, ‘Recycling is important’, ‘Each consumer can contribute to the solution of the litter problem in his / her district’, ‘Recycling helps to protect the natural resources’, ‘Consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages’, and ‘Recycling reduces waste going into the landfill sites’ scored very high impact with mean scores higher than 4.21 on 5 point likert scales.

Further, KMO and Bartlett’s Test was performed on 48 items related to inferential statistics from the collected data in likert scale measure to confirm sampling adequacy which suggests the use of factor analysis for the study, and the data was categorized into 3 smaller components of various underlying factors. Then, Principal Component Analysis (PCA) was performed to figure out a preliminary solution with eigenvalue set at greater than 1 to determine useful factors where the total variance explained depicts that 3 components of the 29 components. The rotated component matrix from PCA using Varimax with Kaiser Normalization method was used to refine the newly found components with rotated items, and were labeled.

The first component includes 20 items L6 (Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be enjoyable), L5 (I would be

proud to drink ready-to-drink tea or coffee in environmentally friendly packaging), P1 (Recycling is important), P2 (Each consumer can contribute to the solution of the litter problem in his / her district), L7 (Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be interesting), O4 (Environment protection is the most important problem of our times), L3 (Environmentally friendly packaging for ready-to-drink tea or coffee would be comfortable to use), O5 (I can not tolerate governments and international organizations that do not take the necessary measures to protect the environment), M9 (I would change my usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment), L9 (I would buy environmentally friendly packaging when buying tea or coffee if it were available), P4 (Consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages), P3 (Recycling helps to protect the natural resources), K9 (The packaging material used on ready-to-drink tea or coffee is important), M5 (I prefer biodegradable material for the packaging of my ready-to-drink tea or coffee beverage), L1 (Environmentally friendly packaging would be easy to use), N7 (I have discussions with my family and/or friends about environmental issues), M2 (I would choose the environmentally friendly packaging for my ready-to-drink tea or coffee beverage if there were not so much significant price difference), L8 (I believe that drinking ready-to-drink tea or coffee in environmentally friendly packaging would be better for the environment), O1 (I often get angry when I think how much plastic is wasted), and M10 (I prefer products made of recycled or biodegradable material, even if such products are more costly). This

component is then labeled as “Pro-environmental ready-to-drink tea and coffee consumer attitude”.

The second component includes 5 items: N2 (I try to use less plastic), K6 (The brand of ready-to-drink tea or coffee is important), K3 (The freshness of tea or coffee is important), N3 (I try to use less energy), and K5 (The design of the packaging for ready-to-drink tea or coffee beverage is important). This component is labeled as “Pro-environmental attitudes towards product attributes of ready-to-drink tea or coffee”.

The third component includes 4 items: N6 (I voluntarily work for ecological groups and organisations), O3 (I have never been concerned with the extinction of rare species), N5 (I buy ecological magazines and/or other printed material), and O2 (I don't think that I have anything to do with the destruction of animals or plants). This component is labeled as “pro-environmental attitudes and activities”.

Further, discussion on the research questions are presented as following:

**RQ1. What are the factors influencing the purchasing intention of ready-to-drink tea and coffee beverage for consumers visiting Terminal 21 Mall, Asok, Bangkok?**

Most respondents strongly agreed on the internal qualities of environmentally friendly packaging for RTD tea and coffee beverage as taste (mean = 4.43), smell (mean = 4.27), freshness (mean = 4.44), the tea or coffee used in preparation of the beverage (mean = 4.3) were important; and design (mean = 3.56), brand (mean = 3.48), information labeling (mean = 3.79), price (mean = 4.01), packaging material

used (mean = 3.89) scored high; and these findings support earlier study by Tseng and Hung (Tseng, and Hung, 2013) which showed that the consumers expect a great deal of ecological performance of environmentally friendly products and environmentally friendly product characteristics (Chapter 4, section 4.2.1., p. 51). Further, hypothesis testing confirmed that internal ( $p = 0.003$ ) and external ( $p = 0.000$ ) factors have significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage (Chapter 4, section 4.4, p. 762). Also, smell ( $B = -0.0153$ ) and tea or coffee used in making the ready-to-drink beverage ( $B = -0.155$ ) have significant negative relationship with the purchasing intention. It supports the earlier studies which claimed that the choice of eating and drinking is an intricate process which is affected by the internal and external qualities of the food and beverage (Koster, 2009). This also supports an earlier study which revealed that packaging is significant when determining the consumer choice of product (Mueller, S. et al., 2010)

Most respondents agreed on the utilitarian values of using environmentally friendly packaging for RTD tea and coffee beverage that they would be easy to use (mean = 4.27), would not compromise quality (mean = 4.04), comfortable to use (mean = 4.03), would not require lots of mental efforts to choose (mean = 3.84). However, hypothesis testing did not confirm that utilitarian values ( $p = 0.199$ ) have significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage (Chapter 4, section 4.4., p. 79), and the null hypothesis was retained. So, further research is required on the relationship

between utilitarian values and the purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage.

Most respondents strongly agreed on the hedonic value items of using environmentally friendly packaging for RTD tea and coffee beverage that they would be proud (mean = 4.47), feel enjoyable (mean = 4.19), would be interesting (mean = 4.32), would be better for the environment (mean = 4.41), and buy if it were available (mean = 4.3) (Chapter 4, section 4.4, p. 80). Further, hypothesis testing confirmed that hedonic values ( $p = 0.024$ ) have significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage (Chapter 4, section 4.4, p. 81). Also, 'I would be proud to drink ready-to-drink tea or coffee in environmentally friendly packaging' has significant negative ( $B = -0.072$ ), and 'Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be interesting' ( $B = 0.069$ ) has significant positive relationship with purchasing intention.

Most respondents on the pro-environmental buying behavior items of using environmentally friendly packaging for RTD tea and coffee beverage responded that they would always choose if it were available regardless of price (mean = 4.3), often choose if there were not so much significant price difference (mean = 3.99), sometimes asking about the environmental consequences of the packaging before buying it (mean = 2.96), often prefer recycled paper for the packaging (mean = 3.69), often prefer biodegradable material for the packaging (mean = 3.65), sometimes try to find the packaging with ecological badge (mean = 2.97), sometimes prefer

environmentally friendly packaging even if they are more expensive (mean = 3.08), sometimes prefer to buy environmentally friendly packaging even if they are not equally effective as conventional packaging (mean = 3.22), often change the usual brand for more friendly to the environment (mean = 3.48), often prefer products made of recycled or biodegradable material (mean = 3.35), sometimes choose even if such products are more costly (mean = 3.35), often choose such product although they don't look as attractive (mean = 3.44) (Chapter 4, section 4.2.1., p. 57). Further, hypothesis testing confirmed that pro-environmental buying behavior ( $p = 0.000$ ) has significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage (Chapter 4, section 4.4, p. 75). Also, 'I prefer recycled paper for the packaging of my ready-to-drink tea or coffee beverage' ( $B = -0.251$ ), 'I prefer to buy environmentally friendly packaging for my ready-to-drink tea or coffee beverage, even if they are not equally effective as conventional packaging' ( $B = 0.309$ ) have significant negative and 'I prefer products made of recycled or biodegradable material, even if such products are more costly' ( $B = 0.169$ ) has significant positive relationship with purchasing intention. These findings support a previous study conducted by Sentot (Sentot et al., 2015), which found that the buyers' intention to purchase environmentally friendly products was found to be positively influenced by the perception of the buyers' of environmentally friendly products. The findings also support an earlier study (Prakash, and Pathak, 2017) which revealed that intention to buy environmentally friendly packaging was influenced by personal norms, attitude, concern towards the environment for environmentally friendly product. It also supports an earlier research (Steenis, et al.,

2017) which claimed that visual appearance of the product package was found to have strong influence on the consumer's evaluation on sustainability. Regarding pro-environmental activities. The findings also supports an earlier study (Prakash, and Pathak, 2017) which revealed that intention to buy environmentally friendly packaging was influenced by readiness to pay higher price for environmentally friendly product

Most respondents on the pro-environmental activities items of using environmentally friendly packaging for RTD tea and coffee beverage responded that they often 'do not throw waste on the ground' (mean = 3.66), often 'try to use less plastic' (mean = 3.6), often 'try to use less energy' (mean = 3.61), often 'try to create less noise' (mean = 4), rarely 'buy ecological magazines and/or other printed material' (mean = 2.45), rarely 'voluntarily work for ecological groups and organisations' (mean = 2.45), often 'have discussions with my family and/or friends about environmental issues' (mean = 3.47), sometimes 'listen to the radio or watch television or watch social media programmes on ecology' (mean = 3.17) (Chapter 4, section 4.2.1., p. 57). Further, hypothesis testing confirmed that pro-environmental activities ( $p = 0.000$ ) has significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage (Chapter 4, section 4.4., p. 77). Also, N1 ( $B = -0.137$ ), N4 ( $B = -0.25$ ), N8 ( $B = 0.228$ ) have significant negative and N3 ( $B = 0.177$ ) has significant positive relationship with purchasing intention. This supports a previous research (Prakash, and Pathak, 2017) showing that consumer's purchasing decision was also found to be significantly linked



to their concerns towards the environment. The findings of this study supports a previous research (Mishra, Jain, and Motiani, 2017) which revealed that consumers understanding about environmentally friendly packaging played vital role in generating positive beliefs about environmentally friendly packaging.

Most respondents on the pro-environmental attitude items of using environmentally friendly packaging for RTD tea and coffee beverage responded that they agree 'often get angry when I think how much plastic is wasted' (mean = 3.51), neutral 'don't think that I have anything to do with the destruction of animals or plants' (mean = 2.69), disagree that they have 'never been concerned with the extinction of rare species' (mean = 2.57), strongly agree that 'Environment protection is the most important problem of our times' (mean = 4.32), agree that they 'can not tolerate governments and international organisations that do not take the necessary measures to protect the environment' (mean = 3.97) (Chapter 4, section 4.2.1., p. 51). Further, hypothesis testing confirmed that pro-environmental attitude ( $p = 0.009$ ) has significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage Chapter 4, section 4.4., p. 76). Also, 'I often get angry when I think how much plastic is wasted' ( $B = -0.174$ ) has significant negative and 'I can not tolerate governments and international organizations that do not take the necessary measures to protect the environment' ( $B = 0.208$ ) has significant positive relationship with purchasing intention. These findings support an earlier study by Turkeyilmaz (Turkeyilmaz, et al., 2015) which revealed that collectivism, government actions, liberalism, patriotic feelings, moral duty, and

abiding of laws had favorable influence on intrinsic and extrinsic environmental attitude which further influences the customer satisfaction with the products. These findings also support another research previously conducted by Osman (Osman, et al, 2015) which revealed that there is a strong link in the environmentally friendly consciousness of the marketers and manufacturers, and environmentally friendly activities and decisions in the organization, along with the application of concepts of green marketing on its marketing mix.

Most respondents on the recycling attitude items of using environmentally friendly packaging for RTD tea and coffee beverage responded that they strongly agree that 'Recycling is important' (mean = 4.67), strongly agree that 'Each consumer can contribute to the solution of the litter problem in his / her district' (mean = 4.44), strongly agree that 'Recycling helps to protect the natural resource' (mean = 4.57), strongly agree that 'Consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages' (mean = 4.28), strongly agree that 'Recycling reduces waste going into the landfill sites' (mean = 4.36) (p. 64). Further, hypothesis testing confirmed that recycling attitude ( $p = 0.000$ ) has significant relationship with purchasing intention towards environmentally friendly packaging for RTD tea and coffee beverage (Chapter 4, section 4.4., p. 86). Also, 'Recycling helps to protect the natural resources' ( $B = -0.256$ ) has significant negative and 'Each consumer can contribute to the solution of the litter problem in his / her district' ( $B = 0.262$ ) has significant positive relationship with purchasing intention. This supports an earlier research (Herbes, et al., 2018) which revealed that

consumers intention to purchase environmentally friendly packaging was based on ability of those packaging to be biodegradable, reusable, or recyclable in the end of the packaging life. It also support an earlier study by Lausin and Ching (Lasuin, and Ching, 2014) which indicated that the concerns towards the environment along with the intention to buy environmentally friendly products were positively correlated.

**RQ2. What are the green marketing implications to improve purchase intention of environmentally friendly packaging for ready-to-drink tea and coffee beverage?**

In green marketing, the products are improvised and considered to be better in the context of production, utility, and end-life such as biodegradable or recyclable (Peattie, 1995).

In this research findings show that most respondents strongly agree that they prefer to buy environmentally friendly packaging if they were available (mean = 4.3). On the product aspect, both the internal and external qualities of the ready-to-drink tea or coffee beverage has significant relationship with purchasing intention which supports an earlier study by Tseng and Hung (Tseng, and Hung, 2013) which showed that the consumers expect a great deal of ecological performance of environmentally friendly products and environmentally friendly product characteristics. Most of the consumers also strongly favored the preference of environmentally friendly packaging for ready-to-drink tea or coffee beverage, if available. An earlier research by Tseng and Hung (Tseng, and Hung, 2013) stated that the market insufficiency to satisfy the expectations of consumers had resulted in lower share of the market for environmentally friendly products despite the growing awareness. Supporting this

claim, most respondents strongly agreed that the consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages (mean = 4.28) in this research which supports an earlier study by Turkyilmaz (Turkyilmaz, et al., 2015) which revealed that greater satisfaction with life is found for those consumers who believe that greater actions need to be pursued towards the environment which would most probably involve in charity, or environmental institutions. This is further supported by the findings of this research where the external qualities of the ready-to-drink tea or coffee beverage were regarded as high impact factors with the respondents agreeing on design (mean = 3.56), brand (mean = 3.48) information labeling (mean = 3.79), price (mean = 4.01), packaging material used (mean = 3.89), and the perceived market price based on quality and quantity factors (mean = 3.68) influencing their purchasing intention. This study supports an earlier research that the consumers primary perception regarding the brands and goods only come from the packaging for the product (Orth, and Malkewitz, 2008).

Also, most respondents agreed not only that they would often choose environmentally friendly packaging for ready-to-drink tea or coffee beverage if it were available regardless of price (mean = 3.51), but also agreed that they would often choose environmentally friendly packaging for ready-to-drink tea or coffee beverage if there were not so much significant price difference (mean = 3.99).

**MQ. What is the consumer purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage for consumers visiting Terminal 21 Mall, Asok, Bangkok?**

Conclusively, based on literature research, data presentation, and from the discussions of sub-research questions RQ1, and RQ2 in the preceding sub-headings, it can be concluded that the purchasing intention towards environmentally friendly packaging for ready-to-drink tea and coffee beverage for consumers visiting Terminal 21 Mall, Asok, Bangkok is influenced by the internal and external qualities of the ready-to-drink tea or coffee beverages such as taste, smell, freshness, the tea or coffee used in preparing the tea or coffee beverage, packaging material used, information labeling, and so on; the hedonic values which includes sentimental values such as enjoyment, jolliness, delight, and expectations, and also by factors of environmental consciousness including the Pro-environmental Buying Behavior; Pro-environmental Activities, and Attitudes; as well as Attitudes Towards Recycling.

### **5.3 Conclusion**

In this chapter, various outcomes from the previous chapters were discussed. Also, the discussions were combined with literature review to respond to the sub-research questions, and the main research question of the present study.

## **CHAPTER 6**

### **CONCLUSION**

#### **6.1 Introduction**

The purpose of this chapter is to conclude the research which provides a discussion on the overall research, implications of this research from findings of data analysis and previous literatures, the discourse of research questions, and a personal statement. It is then concluded with recommendations for future research related to this topic. This chapter includes:

- 6.1 Introduction
- 6.2 Discussion
- 6.3 Managerial Implications
- 6.4 Recommendations For Future Research
- 6.5 Conclusion

#### **6.2 Discussion**

In summary, to assess the factors influencing purchasing decision towards environmentally friendly packaging for ready-to-drink tea and coffee beverage, background was established from various articles, and literature review in chapter one (Chapter 1, p. 1 - 9); and the statement of research problem (Chapter 1, section 1.3, p. 5), followed by the scope (Chapter 1, section 1.7, p. 8). Further, in chapter two, literature was reviewed based on earlier studies and related theories (Chapter 2, p. 10 -

28). Chapter three provides the review on research methodology for the quantitative study, along with the population, sampling, and the instrument used (Chapter 3, p. 28 - 49). In chapter four, data were processed and presented into descriptive and inferential statistics (Chapter 4, p. 49 - 89). In chapter five, outcomes of the study from chapter four in reference to literature reviewed in chapter two were discussed (Chapter 5, p. 89 - 103). Finally, chapter six concludes the study with managerial implications, and recommendations for further study (Chapter 6, p. 104 - 108).

### **6.3 Managerial Implications**

The rapid economic growth, urbanization, and unsustainable consumption resulted due to higher consumer disposable income and shift in eating-drinking habits as consumers eat outside more frequently have led to environmental degradation around the world (Taufique, Khan Md., and Vaithianathan, 2018). The problems stem from deforestation for the disposal of solid waste from the cities among many others, mostly single use plastic packaging from the food and beverage industry (Thai PBS, 11 Feb 2018). In 2015, the worldwide measure of materials produced from plastic added up to over 300 million tons, which was less than 250 tons back in 2005, of which below 10 percent was reused, and the rest are dumped illegally into nearby land and water systems. (Shah, 2017; AFP, 2014). According to an article in the Bangkok Post, specialists tell that much of it is ingested by oceanic birds and fishes, and the disintegrated pieces and particles have been identified in various life forms at the bottom of the ocean (Time to, 23 July 2017). There is a solid rise in worldwide wellbeing and health trends compelling beverage producers to develop products with

reduced sugar contents, lower calories or flavors, and overhaul the packaging of their products (SCB Economic Intelligence Center, 2017). So, business and individual efforts are needed to act on the grassroot levels including awareness and action to contribute for the environmental protection and a sustainable consumer culture, such as, designing products by developing alternative packaging. According to (Chen & Chang, 2012), all the factors of the marketing mix of production, prices, promotion, positioning are the activities concerned to it.

The findings of this research provide insight to managers and decision makers in RTD tea and coffee industry. The respondents in this study were mostly either single or married (Table 8, p. 51); were mostly between 21 - 34 years of age or above (Table 9, p.52); had mostly either undergraduate or graduate degrees (Chapter 4, Section 4.2.1, Table 10, p. 53), were mostly either student, company employee, or business owners (Chapter 4, Section 4.2.1., Table 11, p. 54); mostly earning less than or equal to 10,000 Baht or 20,001 - 30,000 Baht and above (Chapter 4, Section 4.2.1, Table 12, p.55); almost all of whom drink tea or coffee (Chapter 4, Section 4.2.1, Table 13, p.56); and most people drink at least a few times a month (Chapter 4, Section 4.2.1, Table 16, p.58).

There is growing demand for environmentally friendly products according to the findings of this study, as most respondents would always buy environmentally friendly packaging when buying tea or coffee if it were available (mean = 4.3), prefer recycled paper (mean = 3.69) or biodegradable material (mean = 3.65) for the packaging of their ready-to-drink tea or coffee beverage, agree that they often get



angry when they think how much plastic is wasted (mean = 3.51), they would often change their usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment (mean = 3.48), agree that they can not tolerate governments and international organisations that do not take the necessary measures to protect the environment (mean = 3.97) as illustrated in (Chapter 4, Section 4.2.1, Table 17, p. 59), and having positive correlation ( $B = 0.208$ ) with the purchasing intention as shown in Table 23 (Chapter 4, Section 4.4., p.76). and were concerned of governmental authorities to support businesses with necessary policies in favor of environmentally friendly business strategic decisions which motivate and ease ways for businesses to lead towards sustainable business solutions.

Also, marketers can improve purchasing intentions of the consumers by developing environmentally friendly packaging, and promotions for RTD tea and coffee based on the evidence from the response in this study as they would mostly always buy environmentally friendly packaging when buying tea or coffee if it were available (mean = 4.3), or often choose such product if there were not so much significant price difference (mean = 3.99), often try to use less plastic' (mean = 3.6), often get angry when I think how much plastic is wasted' (mean = 3.51), often have discussions with my family and/or friends about environmental issues' (mean = 3.47), and sometimes 'listen to the radio or watch television or watch social media programmes on ecology' (mean = 3.17) (Chapter 4, Section 4.2.1, Table 17, p. 61).

## **6.4 Recommendations For Future Research**

The findings of the study could be useful for management decisions in RTD tea and coffee companies in Asok area of Bangkok, and may be limited to the consumers of some areas of Bangkok and vicinity. Also, since this research could not provide enough evidence against the null hypothesis for utilitarian values, further study on the influence of utilitarian values on purchasing intention of RTD tea and coffee is recommended. The future research should further extend the collection of data from other parts of Thailand for testing the validity of the findings of this research for a more confident, generalizable, and reliable green marketing decisions. Future research may also test the validity of the later formed 3 components from by focusing on other categories of the ready-to-drink beverages. In this research, only simple randomized sampling is used which could restrict the generalizability of the research findings, and future research may be conducted using other sampling methods.

## **6.5 Conclusion**

In this chapter, the contents of all the preceding chapters were discussed. This chapter concluded the research by providing managerial implications and recommendations for future research to be conducted relating to the topic of this research.

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## **APPENDIX A:**

### **A Survey on Ready to Drink Tea and Coffee Beverage Consumption**

Sawasdee!

I am collecting data from customers like you for businesses to offer you better values.

I am doing a research on "An Assessment of Consumer Purchasing Intention Towards Environmentally Friendly Packaging For Ready-to-drink Tea and Coffee From The Study Of Consumers Visiting Terminal 21 Mall, Asok, Bangkok" as a part of my Independent Study for the completion of Master of Business Administration. Your response is highly appreciated.

Best Regards,

Dibyashwor Raj Baidya

#### **Part One: Demographic Data**

Please answer the following close ended multiple choice questions:

##### **A. Gender (เพศ)**

- Male (ผู้ชาย)
- Female (ผู้หญิง)

##### **B. Marital Status (สถานภาพการสมรส)**

- Single (โสด)
- Married (แต่งงาน)



- Divorced (การหย่าร้าง)
- Widowed (เป็นม่าย)

#### C. Age (อายุ)

- Less than 21 Years (น้อยกว่า 21 ปี)
- 21 - 34 Years (21 - 34 ปี)
- 35 - 44 Years (35 - 44 ปี)
- 45 - 54 Years (45 - 54 ปี)
- Above 54 Years (มากกว่า 54 ปี)

#### D. Education (การศึกษา)

- Primary School (โรงเรียนประถม)
- High School (มัธยม)
- Bachelor's Degree or equivalent (ปริญญาตรีหรือเทียบเท่า)
- Masters Degree or equivalent (ปริญญาโทหรือเทียบเท่า)
- Doctorate Degree or higher (ปริญญาเอกขึ้นไป)

#### E. Employment Status (สถานะการจ้างงาน)

- Student (นักเรียน)
- Housewife/househusband (แม่บ้าน / พ่อบ้าน )
- Company Employee (พนักงานบริษัท)
- Government Employee (ข้าราชการ)
- Business Owner (เจ้าของธุรกิจ)
- Unemployed (ว่างงาน)

F. Monthly Income (รายได้ต่อเดือน)

- Less than or equal to 10,000 Baht (น้อยกว่าหรือเท่ากับ 10,000 บาท)
- 10,001 to 20,000 Baht (10,001 ถึง 20,000 บาท)
- 20,001 to 30,000 Baht (20,001 ถึง 30,000 บาท)
- 30,001 to 40,000 Baht (30,001 ถึง 40,000 บาท)
- 40,001 to 50,000 Baht (40,001 ถึง 50,000 บาท)
- More than 50,001 Baht (มากกว่า 50,001 บาท)

G. Do you drink tea or coffee? (คุณดื่มชาหรือกาแฟหรือไม่?)

- Yes (ใช่)
- No (ไม่)

H. Have you ever visited Terminal 21 Mall in Asok? (คุณเคยไปTerminal 21 ที่ Asok หรือไม่)

- Yes (ใช่)
- No (ไม่)

I. Have you, or would you ever purchase ready-to-drink tea or coffee from any shop in Terminal 21 Mall in Asok? (คุณเคยซื้อชาหรือกาแฟพร้อมดื่มจากร้านค้าใด ๆ ใน Terminal21 Mall ใน Asok หรือไม่)

- Yes (ใช่)
- Maybe (อาจจะ)

- No (ไม่)

J. In general, how often do you buy ready-to-drink tea and coffee beverage? (โดยทั่วไปคุณซื้อเครื่องดื่มชาและกาแฟพร้อมดื่มบ่อยแค่ไหน?)

- Never (ไม่เคย)
- Once per month or less (เดือนละครั้งหรือน้อยกว่า)
- A few times in a month (สองสามครั้งต่อเดือน)
- Once per week (หนึ่งครั้งต่อสัปดาห์)
- A few times in a week (สองสามครั้งต่อสัปดาห์)
- Once a day (วันละครั้ง)
- A few times in a day (วันละสองสามครั้ง)

Part Two: Data

Please rate the statements on a scale of 1 to 5 on whether you disagree or agree with these statements. (กรุณาให้คะแนนข้อความในระดับ 1 ถึง 5 ว่าคุณไม่เห็นด้วยหรือไม่เห็นด้วยกับข้อความเหล่านี้)

K. About your perception towards Internal and External Qualities of ready-to-drink tea and coffee beverage (เกี่ยวกับการรับรู้ของคุณที่มีต่อคุณภาพภายในและภายนอกของเครื่องดื่มพร้อมดื่ม)

K1. The taste of ready-to-drink tea or coffee is important

(รสชาติของชาหรือกาแฟพร้อมดื่มเป็นสิ่งสำคัญ)

K2. The smell of tea or coffee is important

(กลิ่นของชาหรือกาแฟเป็นสิ่งสำคัญ)

K3. The freshness of tea or coffee is important

(ความสดของชาหรือกาแฟเป็นสิ่งสำคัญ)

K4. The tea or coffee used in making the ready-to-drink beverage is important

(ชาหรือกาแฟที่ใช้ในการทำเครื่องดื่มพร้อมดื่มเป็นสิ่งสำคัญ)

K5. The design of the packaging for ready-to-drink tea or coffee beverage is important

(การออกแบบบรรจุภัณฑ์สำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่ม)

K6. The brand of ready-to-drink tea or coffee is important

(แบรนด์ของชาหรือกาแฟพร้อมดื่มมีความสำคัญ)

K7. The information labeling on the ready-to-drink tea or coffee package is important

(การติดฉลากข้อมูลบนบรรจุภัณฑ์ชาหรือกาแฟพร้อมดื่มเป็นสิ่งสำคัญ)

K8. The price of the ready-to-drink tea or coffee is important

(ราคาของชาหรือกาแฟพร้อมดื่มเป็นสิ่งสำคัญ)

K9. The packaging material used on ready-to-drink tea or coffee is important

(วัสดุบรรจุภัณฑ์ที่ใช้กับชาหรือกาแฟพร้อมดื่มเป็นสิ่งสำคัญ)

K10. In the market, the existing prices for ready-to-drink tea or coffee are fair according to the available quality and quantity.

(ในตลาดราคาที่มีอยู่สำหรับชาหรือกาแฟพร้อมดื่มมีความยุติธรรมตามคุณภาพและปริมาณที่มี)

Note:

K1, K2, K3, K4 represent internal qualities

K5, K6, K7, K8, K9, K10 represent external qualities

Part Three: Data

Please rate the statements on a scale of 1 to 5 on whether you disagree or agree with these statements. (กรุณาให้คะแนนข้อความในระดับ 1 ถึง 5 ว่าคุณไม่เห็นด้วยหรือไม่เห็นด้วยกับข้อความเหล่านี้)

L. About your perceived value on ready-to-drink tea or coffee beverage packaging (เกี่ยวกับคุณค่าที่คุณรับรู้ในบรรจุภัณฑ์ชาหรือกาแฟพร้อมดื่ม)

L1. Environmentally friendly packaging would be easy to use

(บรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมจะใช้งานง่าย)

L2. Environmentally friendly packaging for ready-to-drink tea or coffee would not compromise the quality of ready-to-drink tea or coffee beverage

(บรรจุภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อมสำหรับชาหรือกาแฟพร้อมดื่มจะไม่ส่งผลต่อคุณภาพของเครื่องดื่มชาหรือกาแฟพร้อมดื่ม)

L3. Environmentally friendly packaging for ready-to-drink tea or coffee would be comfortable to use

(บรรจุภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อมสำหรับชาหรือกาแฟพร้อมดื่มจะสะดวกต่อการใช้งาน)

L4. Environmentally friendly packaging would not require a lot of mental effort to choose

(บรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมไม่ต้องใช้ความพยายามอย่างมากในการเลือก)

L5. I would be proud to drink ready-to-drink tea or coffee in environmentally friendly packaging

(ฉันภูมิใจที่จะดื่มชาหรือกาแฟพร้อมดื่มในบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อม)

L6. Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be enjoyable

(การดื่มชาหรือกาแฟพร้อมดื่มในบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมน่าจะสนุก)

L7. Drinking ready-to-drink tea or coffee in environmentally friendly packaging would be interesting

(การดื่มชาหรือกาแฟพร้อมดื่มในบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมน่าสนใจ)

L8. I believe that drinking ready-to-drink tea or coffee in environmentally friendly packaging would be better for the environment

(ฉันเชื่อว่าการดื่มชาหรือกาแฟพร้อมดื่มในบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมจะดีกว่าสำหรับสภาพแวดล้อม)

L9. I would buy environmentally friendly packaging when buying tea or coffee if it were available

(ฉันจะซื้อบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมเมื่อซื้อชาหรือกาแฟถ้ามี)

Note:

L1, L2, L3, L4 represent utilitarian values

L5, L6, L7, L8, L9 represent hedonic values

Part Four: Data

Please rate the frequency scale according to your preferences for the following statements Never, Rarely, Sometimes, Often, and Always

(โปรดประเมินระดับความถี่ตามการตั้งค่าของคุณสำหรับข้อความต่อไปนี้ ไม่เคย, นานๆครั้ง, เป็นบางครั้ง, บ่อยครั้งและ ทุกครั้ง)

M. About your pro-environmental buying behavior

(เกี่ยวกับพฤติกรรมการซื้อที่คำนึงถึงสิ่งแวดล้อม)

M1. I would choose the environmentally friendly packaging for my ready-to-drink tea or coffee beverage regardless of price, if it were available regardless of price

(ฉันจะเลือกบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมโดยไม่คำนึงถึงราคาสำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่มหากมี)

M2. I would choose the environmentally friendly packaging for my ready-to-drink tea or coffee beverage if there were not so much significant price difference

(ฉันจะเลือกบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมสำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่มหากราคาไม่แตกต่างกันมากนัก)

M3. I am interested in asking about the environmental consequences of the packaging for my ready-to-drink tea or coffee beverage before buying it.

(ฉันสนใจที่จะถามเกี่ยวกับผลกระทบต่อสิ่งแวดล้อมของบรรจุภัณฑ์สำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่มก่อนซื้อ)

M4. I prefer recycled paper for the packaging of my ready-to-drink tea or coffee beverage

(ฉันชอบกระดาษรีไซเคิลสำหรับบรรจุภัณฑ์ของเครื่องดื่มชาหรือกาแฟพร้อมดื่ม)

M5. I prefer biodegradable material for the packaging of my ready-to-drink tea or coffee beverage

(ฉันชอบวัสดุที่ย่อยสลายได้สำหรับบรรจุภัณฑ์ของเครื่องดื่มชาหรือกาแฟพร้อมดื่ม)

M6. I try to find the packaging of my ready-to-drink tea or coffee beverage with ecological badge (eco-label)

(ฉันพยายามค้นหาบรรจุภัณฑ์ที่มีตราสัญลักษณ์สิ่งแวดล้อม (ฉลากเชิงนิเวศ) สำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่ม)

M7. I prefer environmentally friendly packaging for my ready-to-drink tea or coffee beverage, even if they are more expensive

(ฉันชอบบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมสำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่มแม้ว่าจะมีราคาแพงกว่าก็ตาม)

M8. I prefer to buy environmentally friendly packaging for my ready-to-drink tea or coffee beverage, even if they are not equally effective as conventional packaging

(ฉันชอบที่จะซื้อบรรจุภัณฑ์ที่เป็นมิตรกับสิ่งแวดล้อมสำหรับเครื่องดื่มชาหรือกาแฟพร้อมดื่มแม้ว่าจะไม่ได้ผลเท่า ๆ กับบรรจุภัณฑ์ทั่วไป)

M9. I would change my usual ready-to-drink tea or coffee beverage brand for another which is more friendly to the environment

(ฉันจะเปลี่ยนแบรนด์เครื่องดื่มชาหรือกาแฟพร้อมดื่มตามปกติสำหรับแบรนด์อื่นซึ่งเป็นมิตรต่อสิ่งแวดล้อมมากขึ้น)



M10. I prefer products made of recycled or biodegradable material, even if such products are more costly

(ฉันชอบผลิตภัณฑ์ที่ทำจากวัสดุรีไซเคิลหรือย่อยสลายได้แม้ว่าผลิตภัณฑ์ดังกล่าวจะมีราคาแพงกว่า)

M11. I choose the products made of recycled or biodegradable material, although they don't look as attractive

(ฉันเลือกผลิตภัณฑ์ที่ทำจากวัสดุรีไซเคิลหรือย่อยสลายได้แม้ว่าพวกเขาจะดูไม่น่าสนใจ)

#### Part Five: Data

Please rate the frequency scale according to your preferences for the following statements Never, Rarely, Sometimes, Often, and Always

(โปรดประเมินระดับความถี่ตามการตั้งค่าของคุณสำหรับข้อความต่อไปนี้ไม่เคย, นานๆครั้ง,, เป็นบางครั้ง, บ่อยครั้งและ ทุกครั้ง)

N. About your pro-environmental activities

(เกี่ยวกับกิจกรรมเพื่อสิ่งแวดล้อม)

N1. I do not throw waste on the ground

(ฉันไม่ทิ้งขยะลงบนพื้น)

N2. I try to use less plastic

(ฉันพยายามใช้น้ำให้น้อยลง)

N3. I try to use less energy

(ฉันพยายามใช้พลังงานให้น้อยลง)

N4. I try to create less noise

(ฉันพยายามสร้างเสียงรบกวนน้อยลง)

N5. I buy ecological magazines and/or other printed material

(ฉันซื้อนิตยสารสิ่งแวดล้อมและ / หรือสื่อสิ่งพิมพ์อื่น ๆ)

N6. I voluntarily work for ecological groups and organisations

(ฉันสมัครใจทำงานกับกลุ่มและองค์กรด้านสิ่งแวดล้อม)

N7. I have discussions with my family and/or friends about environmental issues

(ฉันได้พูดคุยกับครอบครัวและ / หรือเพื่อนเกี่ยวกับปัญหาสิ่งแวดล้อม)

N8. I listen to the radio or watch television or watch social media programmes on ecology

(ฉันฟังวิทยุหรือดูโทรทัศน์หรือดูรายการสื่อโซเชียลเกี่ยวกับสภาพแวดล้อม)

Note:

N1, N2, N3, N4 represent participational activities

N5, N6, N7, N8 represent individual activities

Part Six: Data

Please rate the statements on a scale of 1 to 5 on whether you disagree or agree with these statements. (กรุณาให้คะแนนข้อความในระดับ 1 ถึง 5 ว่าคุณไม่เห็นด้วยหรือไม่เห็นด้วยกับข้อความเหล่านี้)

O. About your pro-environmental attitudes

(เกี่ยวกับทัศนคติด้านสิ่งแวดล้อมของคุณ)

O1. I often get angry when I think how much plastic is wasted

(ฉันมักจะโกรธเมื่อนึกคิดว่าพลาสติกเสียเท่าไร)

O2. I don't think that I have anything to do with the destruction of animals or plants

(ฉันไม่คิดว่าจะมีอะไรเกี่ยวข้องกับการทำลายสัตว์หรือพืช)

O3. I have never been concerned with the extinction of rare species

(ฉันไม่เคยเกี่ยวข้องกับการสูญพันธุ์ของสัตว์หายาก)

O4. Environment protection is the most important problem of our times

(การปกป้องสิ่งแวดล้อมเป็นปัญหาที่สำคัญที่สุดในยุคสมัยของเรา)

O5. I can not tolerate governments and international organizations that do not take the necessary measures to protect the environment

(ฉันไม่สามารถทนต่อรัฐบาลและองค์กรระหว่างประเทศที่ไม่ได้ใช้มาตรการที่จำเป็นเพื่อปกป้องสิ่งแวดล้อม)

Part Seven: Data

Please rate the statements on a scale of 1 to 5 on whether you disagree or agree with these statements.

(กรุณาให้คะแนนในระดับ 1 ถึง 5 ว่าคุณไม่เห็นด้วยหรือไม่เห็นด้วยกับข้อความเหล่านี้)

P. About your recycling attitudes

(เกี่ยวกับทัศนคติการรีไซเคิลของคุณ)

P1. Recycling is important

(การรีไซเคิลเป็นสิ่งสำคัญ)

P2. Each consumer can contribute to the solution of the litter problem in his / her district

(ผู้บริโภคแต่ละคนสามารถมีส่วนร่วมในการแก้ปัญหาขยะในเขตของตน)

P3. Recycling helps to protect the natural resources

(การรีไซเคิลช่วยปกป้องทรัพยากรธรรมชาติ)

P4. Consumers should force the producers to use materials which are biodegradable or those that can be recycled in their products packages

(ผู้ผลิตควรถูกบังคับโดยผู้บริโภคให้ใช้วัสดุในแพ็คเกจผลิตภัณฑ์ที่ย่อยสลายได้ทางชีวภาพหรือที่สามารถนำกลับมาใช้ใหม่ได้)

P5. Recycling reduces waste going into the landfill sites

(การรีไซเคิลช่วยลดของเสียที่เข้าไปในพื้นที่ฝังกลบ)

**APPENDIX B:****Coding Structure**

## Part One: Demographic Data

<b>VARIABLES</b>	<b>CODING</b>
A. Gender	<ol style="list-style-type: none"> <li>1. Male</li> <li>2. Female</li> </ol>
B. Marital Status	<ol style="list-style-type: none"> <li>1. Single</li> <li>2. Married</li> <li>3. Divorced</li> <li>4. Widowed</li> </ol>
C. Age	<ol style="list-style-type: none"> <li>1. Less than 21 Years</li> <li>2. 21 - 34 Years</li> <li>3. 35 - 44 Years</li> <li>4. 45 - 54 Years</li> <li>5. Above 54 Years</li> </ol>
D. Education	<ol style="list-style-type: none"> <li>1. Primary School</li> <li>2. High School</li> <li>3. Bachelor's Degree or equivalent</li> <li>4. Masters Degree or equivalent</li> <li>5. Doctorate Degree or higher</li> </ol>

E. Employment Status	<ol style="list-style-type: none"> <li>1. Student</li> <li>2. Housewife or househusband</li> <li>3. Company Employee</li> <li>4. Government Employee</li> <li>5. Business Owner</li> <li>6. Unemployed</li> </ol>
F. Monthly Income	<ol style="list-style-type: none"> <li>1. Less than or equal to 10,000 Baht</li> <li>2. 10,001 to 20,000 Baht</li> <li>3. 20,001 to 30,000 Baht</li> <li>4. 30,001 to 40,000 Baht</li> <li>5. 40,001 to 50,000 Baht</li> <li>6. More than 50,001 Baht</li> </ol>
G. Do you drink tea or coffee?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
H. Have you ever visited Terminal 21 Mall in Asok?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
I. Have you, or would you ever purchase ready-to-drink tea or coffee from any shop in Terminal 21 Mall in Asok?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. Maybe</li> <li>3. No</li> </ol>

<p>J. In general, how often do you buy ready-to-drink tea and coffee beverage?</p>	<ol style="list-style-type: none"> <li>1. Never</li> <li>2. Once per month or less</li> <li>3. A few times in a month</li> <li>4. Once per week</li> <li>5. A few times in a week</li> <li>6. Once a day</li> <li>7. A few times in a day</li> </ol>
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## Part Two: Data

<b>VARIABLES</b>	<b>CODING</b>
<p>K. About your perception towards Internal and External Qualities of ready-to-drink tea and coffee beverage</p>	<ol style="list-style-type: none"> <li>1. Strongly Disagree</li> <li>2. ....</li> <li>3. ....</li> <li>4. ....</li> <li>5. Strongly Agree</li> </ol>

## Part Three: Data

<b>VARIABLES</b>	<b>CODING</b>
<p>L. About your perceived value on ready-to-drink tea or coffee beverage</p>	<ol style="list-style-type: none"> <li>1. Strongly Disagree</li> <li>2. ....</li> </ol>

packaging	3. .... 4. .... 5. Strongly Agree
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## Part Four: Data

<b>VARIABLES</b>	<b>CODING</b>
M. About your pro-environmental buying behavior	1. Never 2. Rarely 3. Sometimes 4. Often 5. Always

## Part Five: Data

<b>VARIABLES</b>	<b>CODING</b>
N. About your pro-environmental activities	1. Never 2. Rarely 3. Sometimes 4. Often 5. Always



## Part Six: Data

<b>VARIABLES</b>	<b>CODING</b>
O. About your pro-environmental attitudes	1. Strongly Disagree 2. .... 3. .... 4. .... 5. Strongly Agree

## Part Seven: Data

<b>VARIABLES</b>	<b>CODING</b>
P. About your recycling attitudes	1. Strongly Disagree 2. .... 3. .... 4. .... 5. Strongly Agree

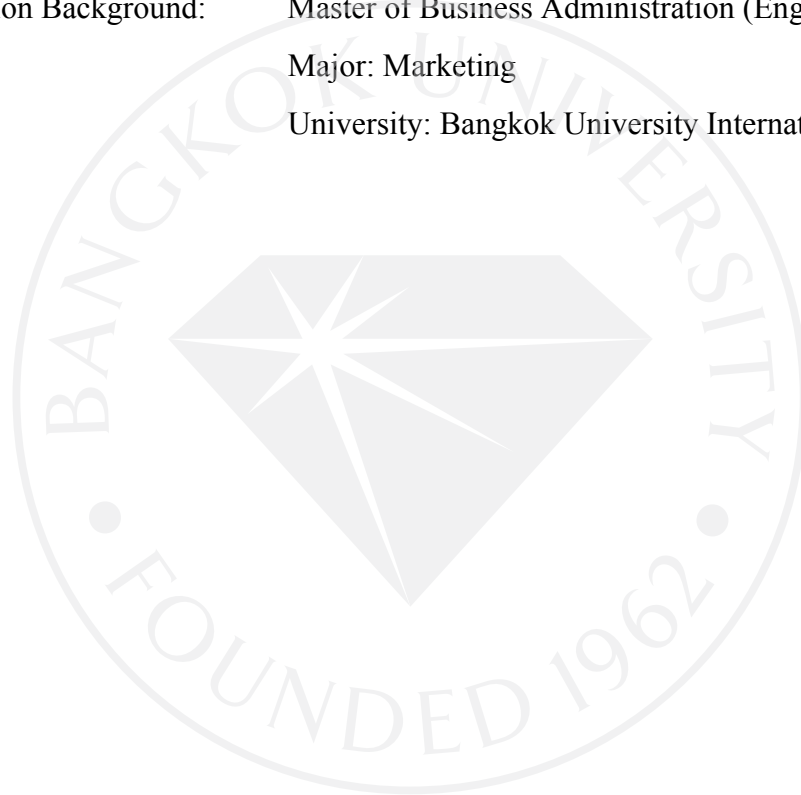
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