

FACTORS INFLUENCING COMPANIES' PURCHASING DECISIONS ON
PLASTICS RESINS IN THIALAND



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PLASTICS RESINS IN THIALAND

Li Xiong Dong

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

2018



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

Title: FACTORS INFLUENCING COMPANIES' PURCHASING DECISIONS ON
PLASTICS RESINS IN THAILAND

Author: Mr. Li Xiongdong

Independent Study Committee:

Advisor



(Dr. Sumas Wongsunopparat)

Field Specialist



(Asst. Prof. Dr. Lokweepun Suprawan)



(Dr. Suchada Chareanpunsirikul)

Dean of the Graduate School

July 18, 2018

XiongDong, L. M.B.A., August 2018, Graduate School, Bangkok University.

Factors Influencing Companies' Purchasing Decisions on Plastics Resins in Thailand

(78 pp.)

Advisor: Sumas Wongsunopparat, Ph.D.

ABSTRACT

This research is the quantitative research that studies the factors of perception of SCG Chemicals, PTT Company, IRPC Company in factor relation to plastic resin brands, the factors: marketing mix 7Ps, brand equity, buyers' constraints, relationship, culture effect. The researcher selects the top brands in Thailand, which are SCG Chemicals, PTT Company, IRPC Company. They are competitor brands in the current market, and are the good targets to study companies' purchasing decisions on plastics. The data collection for this research came from the results of the questionnaire distributed to the target people. Meanwhile, the concepts of this research can be applied to analyze the relevant market, and the result thereof can be used as feedback to their customers in the future. The questionnaire was given out to staffs working in companies who will purchase plastic resins in Thailand with definite of term on March 2018.

Keywords: Purchasing decisions, Plastics resins, Multinomial Logistic Regression

ACKNOWLEDGEMENT

Firstly, I would like to express my gratitude to my supervisor –Dr. Sumas Wongsunopparat who has been constantly giving me helpful advices and orientation during my thesis process. This work would not have been possible without his input. Finally, I am thankful to my families and friends for their sincere supports during this period. I also would like to thank my opponents and group mates for all the constructive criticism and recommendations that helped me to develop and improve my research.

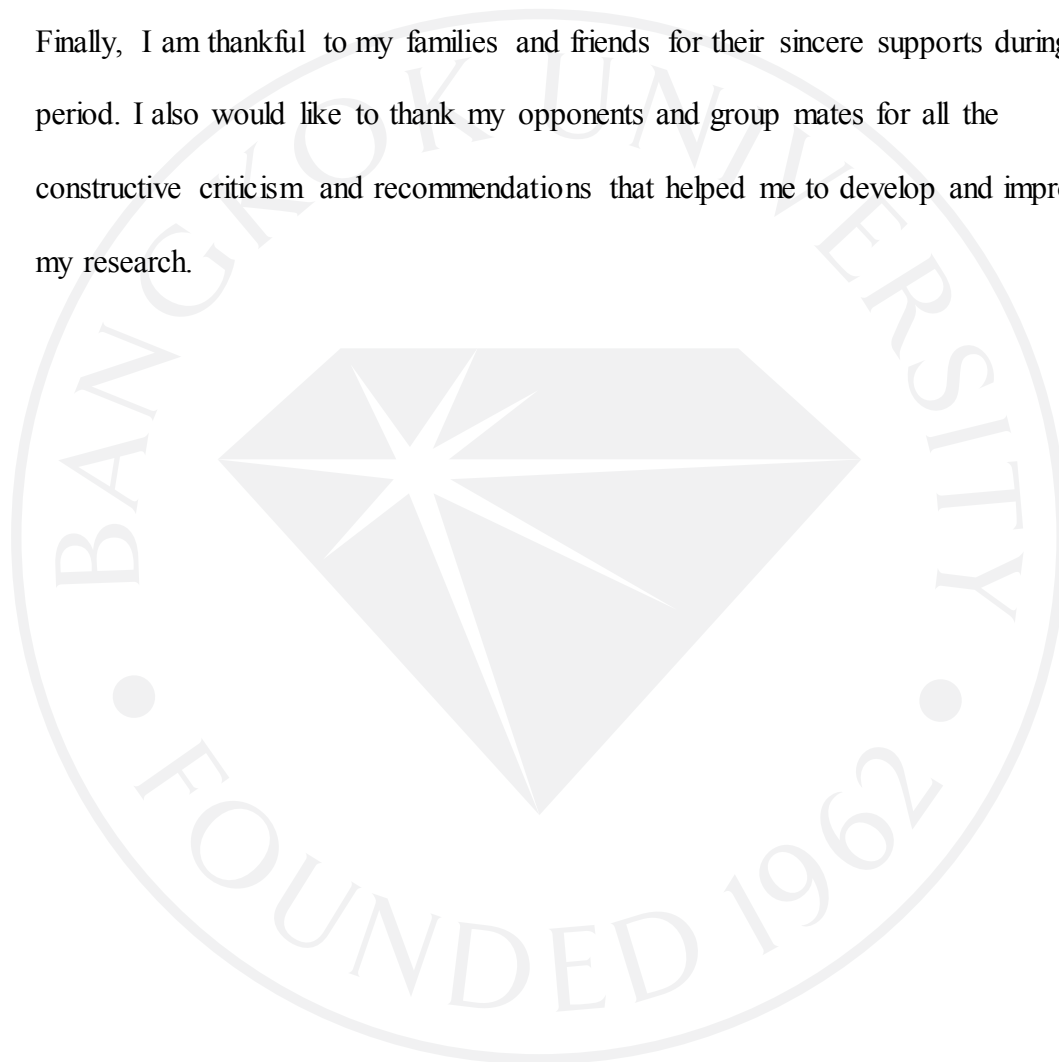


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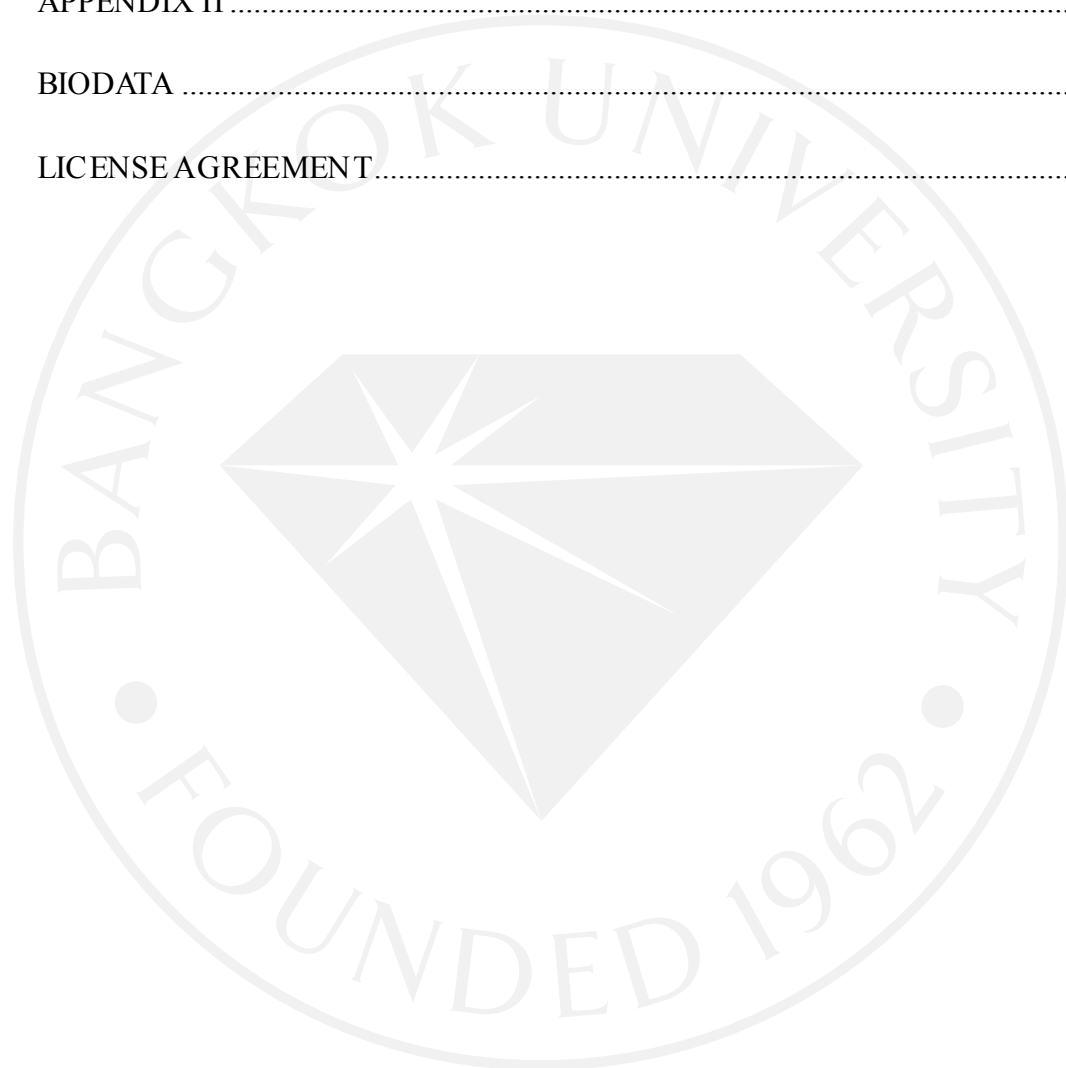
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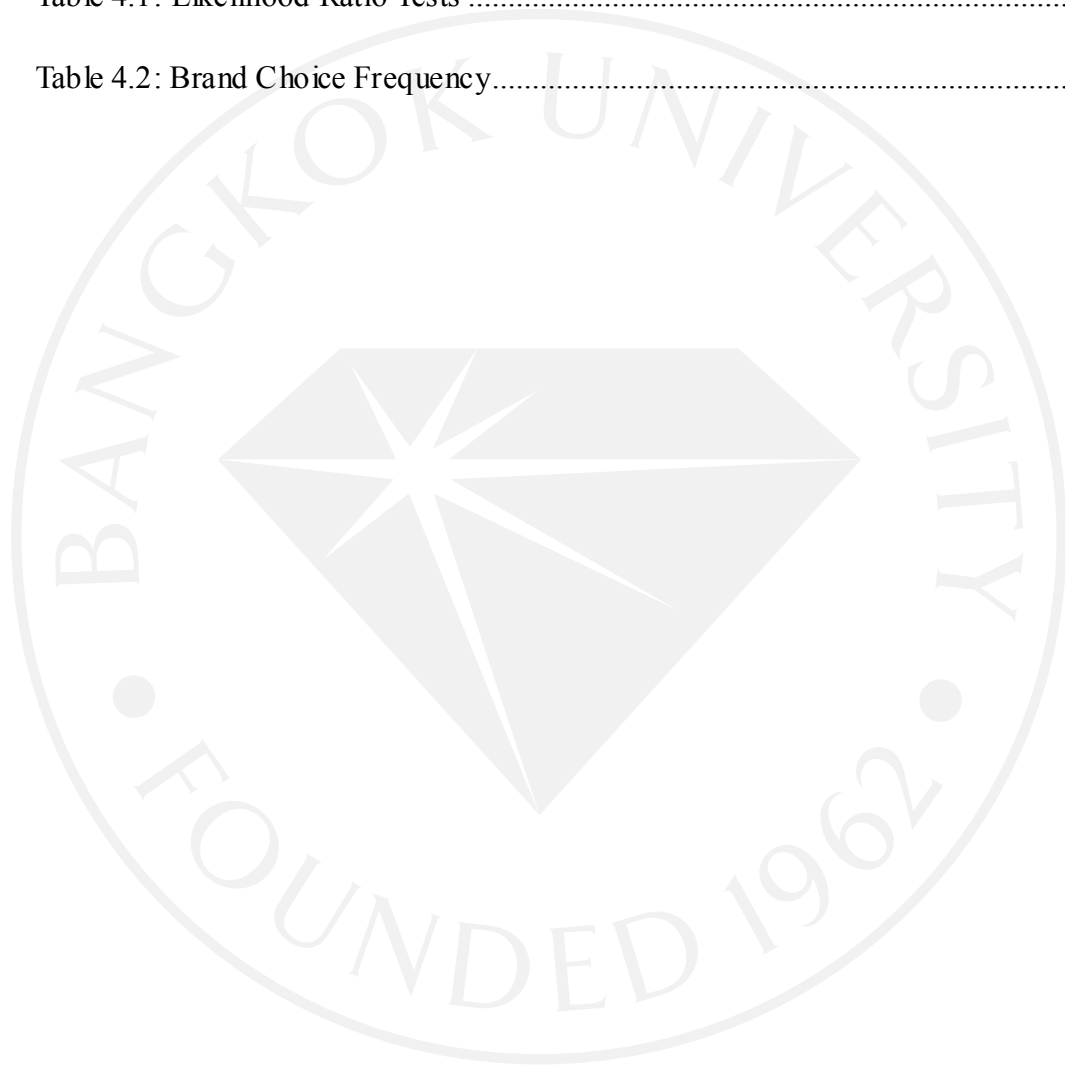
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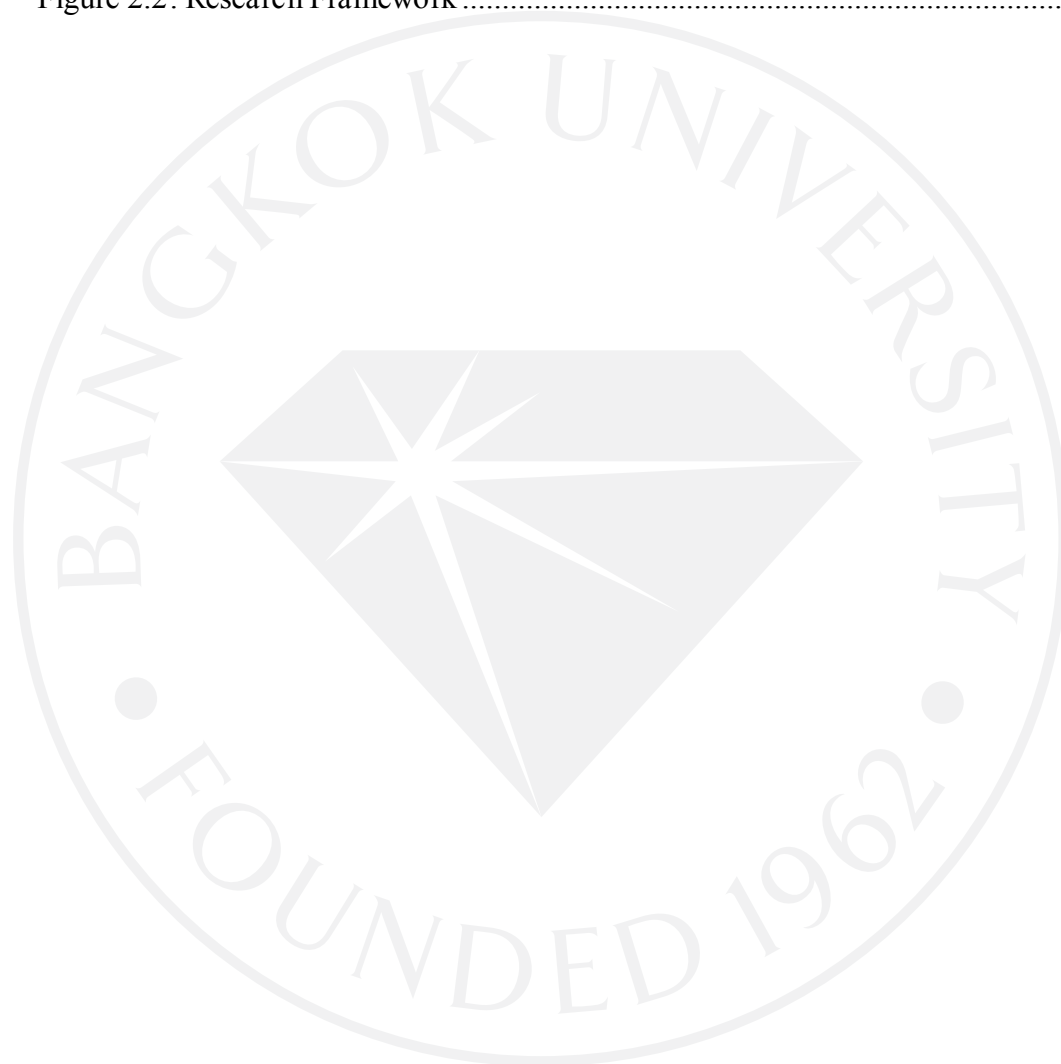
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CHAPTER 1

INTRODUCTION

This research focused on the factors influencing companies' purchasing decisions on plastics resins in Thailand. In this chapter the problem statement, scope of study and limitation will be discussed along with the information that the research will be built upon.

1.1 Background

Purchase decision is a widely studied field. Understanding it completely is impossible, because it is related so closely to human mind. However, forecasting how a human behaves in purchasing situations can be estimated through previous purchasing decisions (Cătoiu and Teodorescu, 2004). Consumers make buying decisions every day and many people do not even know the factors that drive them to this decision. Consumer usage and buying of any product largely depend upon their perception about the product. Perception develops through how effectively product has been marketed. These firms are putting their best efforts in marketing in order to get customer attention and positive impression on customer's mind.

The company behavior has always been a hot marketing topic in business-to-business market, due to the fact that knowing how and why customers act in a certain way making their buying decisions helps companies improve their marketing strategies and be more successful on the market. Thus, a challenge faced by all marketers today is how to

influence the purchase behavior of customers in favor of their products or services.

Therefore, the knowledge of buying behavior sheds the light on the psychology of how consumers think, feel, argument and select among existing alternatives (e.g., brands, products, and retailers), additionally, how consumer motivation and decision strategies distinct between products (Kotler and Keller, 2006). That's all lead to understanding - how marketers can improve their marketing campaigns to more effectively reach the consumer.

In just a few decades, plastic has become a staple of most human societies. It has transformed the home, shops and some of our environment. The creation of plastic and its wide sweeping applications, has allowed for people to acquire products much cheaper than they could in the past (things made from wood and metal tend to cost more to produce). It has also opened up a whole world of possibilities for products (both consumer and industrial). Most people do not recognize that plastic is a blanket term. There are many different types of plastic, and each plastic is made differently. Different chemicals and chemistry are needed in order to achieve this.

However, through different processes these resins can be transformed to fit specific needs. First, the resins are created with heat that cracks the hydrocarbons; this is called the cracking process. The larger molecules of the resin are broken down to different hydrocarbons such as, ethylene and propylene. The temperature used during cracking is largely responsible for the amount and types of hydrocarbons. After cracking has been finished, the different compounds created are formed into a chain. This chain is known as a polymer. Creating different chains and polymers, is what allows resin companies to

create plastics that have different characteristics. The differences allow for the use in different applications. For the food industry, which might package hot products, a special type of polymer is needed. For companies making bottles, soft drink bottles and waste containers, they will need polyethylene terephthalate. A higher density polyethylene is needed for thicker plastics used for medicine bottles, film containers and milk jugs. When wrapping up food like leftovers, you will normally reach for a thin clear plastic wrap, which is made from polyvinyl chloride. There are so many different ways to create plastics that are useful for the world. However, clear, white or black plastic is boring and doesn't allow our world to appear as a more beautiful place. The process of master batch or color compounding allows for dissimilar plastics to take on amazing and different colors. The process is not difficult, but color pigments are added to plastics as they are being created. Different colors and designs are easily created through this process. Contact a local color compounding company today to find out about all of your different plastic options.

The demand of plastic resins can be determined by the sales of automobile in Thailand. The significance for the market of plastic resins can be shown by the increase of car market in Thailand. The situation of automobile market is shown as followed:

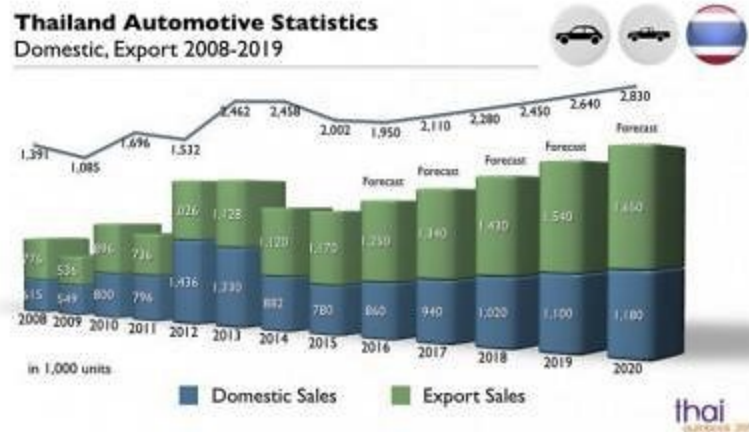


Figure 1.1: Thailand Automotive Statistics Domestic, Export 2008-2019

Figure 1.1 showed the trend of sales for automobile in Thailand from year 2008 to 2019, there is an increase for sales from year 2015 to 2020, the sales units from 2,002,000 to 2,830,000. The expansion and growth of Thailand's automotive industry certainly enabled the country to become the world's 15th largest exporter of auto parts and the largest ASEAN exporter for 10 years. It will stimulate the demand of plastic resins, so the importance of plastic resins can be determined.

There are three top famous plastic resin suppliers in B2B market of Thailand which are: SCG Chemicals, PTT Company, IRPC Company. The more detail will be introduced as follow:

1. SCG Chemicals

SCG, a leading business conglomerate in the ASEAN region, has committed itself to conducting business in line with good corporate governance and sustainable development

principles throughout 100 years. The Group's longstanding tradition of learning, adjustment and development in all areas has enabled SCG to survive the wave of crises and challenges and earn widespread recognition as a role model for other businesses, both locally and internationally. SCG was established in 1913 following a royal decree of His Majesty King Rama VI to produce cement, the main building material for infrastructure projects that greatly contributed to the progress of the country during that period. Since its founding, SCG has grown continually and diversified into three core businesses, namely SCG Cement-Building Materials, SCG Chemicals and SCG Packaging. SCG Chemicals is one of the largest integrated petrochemical companies in Thailand and a key industry leader in Asia offers a full range of petrochemical products ranging from upstream production of olefins to downstream production of 3 main plastics resins; polyethylene, polypropylene and polyvinyl chloride. To better serve customers' requirements, SCG Chemicals assigns prime importance to the development of new technology and innovation for the creation of high value-added products (HVA) and service solutions.

2. PTT Company

Petroleum Authority of Thailand (PTT) was established on December 29, 1978, concurrently in the period of the second world crisis of petroleum shortages. Thus, PTT commenced its primary mission in expediting to procure adequate oil for domestic consumption. That was such a drive for PTT to seek additional indigenous petroleum reservoirs for the benefit of the country. As a result, Thailand has been able to increase energy security while reducing.

PTT Public Company Limited engages in upstream and downstream petroleum, coal, power, and infrastructure businesses in Thailand and internationally. The company is involved in the natural gas supply, procurement, wholesale and retail gas sale, and gas-related value-added businesses; and provides liquid fuels, liquefied petroleum gas (LPG), lubricating oils and other lubricating products, and retail non-oil products to consumers through service stations, as well as to civil servant groups, state enterprise workers, industries, aircraft, ocean liners, and fishing vessels. It also engages in procurement, import, export, and trades in crude oil; condensate; LPG; petroleum and petrochemical products; chemical solvents; coal; and palm products, such as crude palm oil, refined palm oil, and palm kernel shells, as well as onshore and offshore gas distribution activities serving power generators, natural gas separation plants, NGV stations, and industrial plants. In addition, it explores for and produces petroleum; produces electricity, steam, and demineralized water for industrial users, as well as offers engineering, construction design, project construction, and maintenance services; and mines, produces, and sells coal products primarily in Asian countries. Further, the company is involved in petrochemical and refining activities; and gas transmission pipeline asset management, property development, and office building service operations.

3. IRPC Company

IRPC Public Company Limited or IRPC (Company) formerly Thai Petrochemical Industry Public Company Limited or "TPI" registered in 1978 by Leophairatana family. TPI had been transformed to a public company limited on October 10, 1994 and listed on the SET on March 17, 1995. IRPC started to produce applications of petroleum and

petrochemical products in 1982 and expanded its line of production of various petrochemical products. It expanded the plant and infrastructures for fully integrated petrochemical complex. IRPC was suffered from financial crisis in 1997 and had entered into rehabilitation process in 2000. The rehabilitation was successful in April 26, 2006.

IRPC Public Company Limited, together with its subsidiaries, provides petroleum and petrochemical products in Thailand and other Asian countries. The company operates through Petroleum Products, Petrochemical Products, and Other Business segments. Its petroleum products include refined oil comprising gasoline, high-speed diesel, and LPG; lube base oil; naphtha, a light petroleum product; long residue or ATB, a heavy oil for the production of lube base oil; and asphalt for road construction. The company's petrochemical products comprise olefins, such as ethylene, propylene, and butadiene; aromatics, including benzene, toluene, and xylene; polymers consisting of HDPE, PP, ABS/SAN, PS, and EPS that are sold as raw materials to plastic converters; and polyols, which include polyester and polyether polyols. It also generates and distributes power, industrial water, and air systems; provides wastewater treatment for industrial customers and Electricity Generating Authority of Thailand; and other business services. In addition, the company offers port and dock services, such as tug-boats, piloting services, lighters, fresh water and fuel, weigh scales, container yards, warehouses, and machines and equipment for transshipment of goods; and tank storage and truck load services, as well as operates liquid and chemical, and bulk and container terminals. Further, it offers asset management services in Rayong and other provinces; and various support services, as well as engages in the power plant, jetty, and other utilities operations. Additionally, the

company manufactures and sells plastic resins and chemical products for polyurethanes; operates a vocational school; distributes petrochemical products; and provision of oil vessel renting services. The company was formerly known as Thai Petrochemical Industry Public Company Limited and changed its name to IRPC Public Company Limited in October 2006. IRPC Public Company Limited is headquartered in Rayong, Thailand.

1.2 Statement of Problem

Company purchase decision is a great interest because it has substantial impacts on business-to-business market and is used on a variety of business aspects including raw material trading and business cooperation. Additionally, sales growth of plastics resins has obviously proved the importance of plastics market. It is very important for the owner of plastic companies to understand what kinds of factors will influence the companies' purchasing decisions.

The researcher selects the top brands of plastic resin in Thailand, which are SCG Chemicals, PTT Company, IRPC Company. They are competitor brands in the current market, and are the good targets to study companies' purchasing decision on plastics. SCG, PTT, IRPC got highest revenues in Thailand. PTT got revenue of 523.19 Billion Baht, IRPC got revenue \$8.1 billion USD in year 2017, SCG got 13.5 Billion USD from data of Stock Exchange of Thailand. The data procure for studies is distributed to target people. The data collection for this research came from the results of the questionnaire distributed to the target people. Meanwhile, the concepts of this research can be applied

to analyze the relevant market, and the result thereof can be used as feedback to their customers in the future.

1.3 Purposes of Study

This research will study the factors (marketing mix 7Ps, brand equity, buyers' constraints, relationship, culture effect) impact on purchasing decisions on plastics resins, concerning SCG Chemicals, PTT Company, IRPC Company.

There are five purposes for the study:

1. To understand marketing mix 7Ps influencing companies' purchasing decisions on plastics resins in Thailand
2. To understand brand equity influencing companies' purchasing decisions on plastics resins in Thailand
3. To understand buyers' constraints influencing companies' purchasing decisions on plastics resins in Thailand
4. To understand relationship influencing companies' purchasing decisions on plastics resins in Thailand
5. To understand culture effect influencing companies' purchasing decisions on plastics resins in Thailand

1.4 Scope of Study

This research is the quantitative research which studies the factors (marketing mix 7Ps, brand equity, buyers' constraints, relationship, culture effect) impact on purchasing

decisions on plastics resins concerning SCG Chemicals, PTT Company, IRPC Company.

1. The population who work in companies will purchase plastics resins in Thailand
2. Investigating the population by using sample size of 400 respondents.
3. The questionnaire was given out to the staffs that work in companies and would purchase plastics resins in Thailand with a definite term in March 2018. Therefore, the result cannot be used during other period as it has to be changed in the future.

1.5 Research Questions

To achieve these objectives in the study, the research question was posed as follows:

- (1) What factors can influence company purchasing decisions towards top three plastic resins brands including SCG Chemicals, PTT Company, IRPC Company in Thailand?
- (2) The degree of impact of the factors that influence companies' purchasing decisions concerning the top three plastic resin brands, including SCG Chemicals, PTT Company, IRPC Company in Thailand?
- (3) From the result, how to apply it to develop marketing strategies for a brand in the market.

1.6 Limitation of Research

The limitation of this research is its time limitation and limited budget. The sample population might fill in survey with a little rush that may lead to a not true answer to some of the questionnaire. Moreover, there are some people who bias to the top three

plastic resins brands. The respondents may intend to provide answers for the questionnaires in negative way which can make the distortion in analyzing result process.



CHAPTER 2

LITERATURE REVIEW

In this chapter the researcher provides theoretical foundation which is used within this Independent study. The theories originated from literature reviews and analysis of empirical studies related to the subject of companies' purchasing decisions on plastics resins in Thailand. The connection and correlation between each theory and frame work are also presented within this chapter.

2.1 Purchase Decision

Purchase decision is defined as the behavior that consumer displays in the searching for, purchasing, using, evaluating, and disposing of the products and services that they expect will satisfy their needs. Purchase decision focuses on how consumer make the decisions to spend their available resources (Time, Money, Efforts) on consumption related items (Kotler and Armstrong, 2008). That includes what they buy, why they buy it when they buy it, where the buy it how often they buy it ,how often they use it, how often they evaluate it after the purchase and the impact of such evaluations on future purchases. Purchase decision is the study of when, why, how, and where people do or do not buy a product (Baltas, 1997). It blends elements from psychology, sociology, social anthropology and economics (Bryman and Bell, 2010). It attempts to understand the buyer decision making process, both individually and in groups. It studies characteristics

of individual consumers such as demographics and behavioral variables in an attempt to understand people's wants (Bryman and Bell, 2010).

Hashim and Muhammad (2013) defines purchase decision as the dynamic interaction of affect and cognition, behavior, and environmental events by which human beings conduct the exchange aspects of their lives,” Imam (2013) emphasize product disposal in their definition of purchase decision as those activities people undertake when obtaining, consuming and disposing of products and services.” However, Kotler and Armstrong (2008) assert that purchase decision can be defined in the light of interactions and exchanges of experiences. They defined that purchase decision involves the thoughts and feelings people experience and the actions they perform in consumption processes. It also includes comments from other consumers, advertisements, price information, packaging, product appearance; is dynamic, involves interactions and exchanges.” Imam (2013) however takes a more holistic view of the concept encapsulating the marketing of a product offering (broadly defined) from inception to 8 obsolescence, purchase decision is“ the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires.

2.2 Marketing Mix (7Ps)

According to Kotler (2000) describe that marketing management is the concept of the marketing mix. The marketing mix is not a theory of management that has been derived from scientific analysis, but a conceptual framework which highlights the

principal decisions that marketing manager's make in configuring their offerings to suit customers' needs. The tools can be used to develop both long term strategies and short term tactical programs.

Product

A product is an item that is built or produced to satisfy the needs of a certain group of people (Kotler, 2012). The product can be intangible or tangible as it can be in the form of services or goods. A product has a certain life cycle that includes the growth phase, the maturity phase, and the sales decline phase. It is important for marketers to reinvent their products to stimulate more demand once it reaches the sales decline phase.

Place

Place determines where is the product going to be located. The best place to open up a petrol pump is on the highway or in the city. A place where there is minimum traffic is a wrong location to start a petrol pump (Kotler, 2012). Similarly a software company will be better placed in a business hub with a lot of companies nearby rather than being placed in a town or rural area. As mentioned, the product is produced and consumed in the same place. It cannot be owned and taken away from the location. This is why the place at which this transaction occurs is of vital importance. The location of the product

provision is carefully analyzed to allow ease of access and the desire to make the effort to reach it.

Promotion

Promotion is a very important component of marketing as it can boost brand recognition and sales (Needham, 1996). Promotion is comprised of various elements. Promotion includes all the efforts the company creates to stimulate the popularity of their product in the market, for instance by advertising, promotional programs, etc. It is a communication process to obtain the target markets. Marketing promotions are the way to let customers know about the products information. The objective of market promotion is to tell the customer that the product is released into the markets already and trying to persuade customers to buy and remind the customers about their brand. The promotion need to study to the communication process to understand the connection between the seller and buyer.

Price

The price of the product is basically the amount that a customer pays for to enjoy it. Price is a very important component of the marketing mix definition (Needham, 1996). It is also a very important component of a marketing plan as it determines your firm's profit and survival. Adjusting the price of the product has a big impact on the entire

marketing strategy as well as greatly affecting the sales and demand of the product.

Pricing always help shape the perception of your product in consumers eyes. Always remember that a low price usually means an inferior good in the consumers' eyes as they compare your good to a competitor. Consequently, prices too high will make the costs outweigh the benefits in customers' eyes, and they will therefore value their money over your product. Be sure to examine competitors pricing and price accordingly.

People

People can be considered as staffs who give good services for the organization.

Customer adjusted in practicing its business; setting the customer at the main point of business activities.

Of both target market and people directly related to the business. Thorough research is important to discover whether there are enough people in your target market that is in demand for certain types of products and services (Kotler, 2000). The company's employees are important in marketing because they are the ones who deliver the service. It is important to hire and train the right people to deliver superior service to the clients, whether they run a support desk, customer service, copywriters, and programmers.

When a business finds people who genuinely believe in the products or services that the particular business creates, it's highly likely that the employees will perform the best they can (Kotler, 2000). Additionally, they'll be more open to honest feedback

about the business and input their own thoughts and passions which can scale and grow the business.

Process

Process refers to the set of activities that results in delivery of the product benefits. A process could be a sequential order of tasks that an employee undertakes as a part of their job. It can represent sequential steps taken by a number of various employees while attempting to complete a task (Zeithaml, 2000). Some people are responsible for managing multiple processes at once. Processes include direct activities and indirect activities. Direct activities add value at the customer interface as the consumer experiences the service. Many processes are supported by indirect activities, often known as back office activities, which support the service before, during and after it has been consumed. For the purposes of the marketing mix, process is an element of service that sees the customer experiencing an organization's offering (Zeithaml 2000). It's best viewed as something that your customer participates in at different points in time. Here are some examples to help you build a picture of a marketing process, from the customer's point of view.

Physical evidence

Physical Evidence can be considered as service or appearances as the total to which a service organization interested in creating a customer friendly atmosphere in their running environment. The physical environment is the space by which you are surrounded when you consume the service. So for a meal this is the restaurant and for a journey it is the aircraft that you travel inside. The physical environment is made up from its ambient conditions; spatial layout and functionality; and signs, symbols, and artefacts (Zeithaml, 2000).

2.3 Brand Equity

Brand equity is a phrase used in the marketing industry which describes the value of having a well-known brand name, based on the idea that the owner of a well-known brand name can generate more revenue simply from brand recognition; that is from products with that brand name than from products with a less well known name, as consumers believe that a product with a well-known name is better than products with less well-known names (Aaker, 1996). Brand equity refers to the value of a brand. In the research literature, brand equity has been studied from two different perspectives: cognitive psychology and information economics. According to cognitive psychology, brand equity lies in consumer's awareness of brand features and associations, which drive attribute perceptions. According to information economics, a strong brand name works as a credible signal of product quality for imperfectly informed buyers and generates price

premiums as a form of return to branding investments (Aaker, 1996). It has been empirically demonstrated that brand equity plays an important role in the determination of price structure and, in particular, firms are able to charge price premiums that derive from brand equity after controlling for observed product differentiation.

Brand Awareness

Brand awareness refers to the extent to which customers are able to recall or recognize a brand. Brand awareness is a key consideration in consumer behavior, advertising management, brand management and strategy development. The consumer's ability to recognize or recall a brand is central to purchasing decision-making. Purchasing cannot proceed unless a consumer is first aware of a product category and a brand within that category (Chaudhuri, 2002). Awareness does not necessarily mean that the consumer must be able to recall a specific brand name, but he or she must be able to recall sufficient distinguishing features for purchasing to proceed. For instance, if a consumer asks her friend to buy her some gum in a "blue pack", the friend would be expected to know which gum to buy, even though neither friend can recall the precise brand name at the time.

Brand awareness is related to the functions of brand identities in consumers' memory and can be measured by how well the consumers can identify the brand under various conditions. Brand awareness is also central to understanding the consumer purchase decision process. Strong brand awareness can be a predictor of brand success. It

is an important measure of brand strength or brand equity and is also involved in customer satisfaction, brand loyalty and the customer's brand relationships. Brand awareness is a key indicator of a brand's market performance (Chaudhuri, 2002). Every year advertisers invest substantial sums of money attempting to improve a brand's overall awareness levels. Many marketers regularly monitor brand awareness levels, and if they fall below a predetermined threshold, the advertising and promotional effort is intensified until awareness returns to the desired level. Setting brand awareness goals/ objectives is a key decision in marketing planning and strategy development.

Brand Recognition

Brand recognition is the extent to which the general public (or an organization's target market) is able to identify a brand by its attributes. Brand recognition, also known as "aided brand recall," is most successful when people can state a brand without being explicitly exposed to the company's name, but rather through visual or auditory signifiers like logos, slogans, packaging, colors or jingles as seen in advertising (Richardson et al., 1996). It differs from brand awareness, which is merely the knowledge that a brand exists. To measure brand recognition and the effectiveness of promotional campaigns, many companies will perform experiments on study groups. Both aided and unaided recall tests may be used. With similar products, brand recognition will result in higher sales, even if both brands are of equal quality.

Brand Preference

Brand preference is strongly linked to brand choice that can influence the consumer decision making and activate brand purchase. Brand Preferences can be defined as the subjective, conscious and behavioral tendencies which influence consumer's predisposition toward a brand (Richardson et al., 1996). Understanding the brand preferences of consumers' will dictate the most suitable and successful Marketing Strategies. One of the indicators of the strength of a brand in the hearts and minds of customers, brand preference represents which brands are preferred under assumptions of equality in price and availability. Measures of brand preference attempt to quantify the impact of marketing activities in the hearts and minds of customers and potential customers. Higher brand preference usually indicates more revenues (sales) and profit, also making it an indicator of company financial performance.

Brand Loyalty

Brand loyalty is defined as positive feelings towards a brand and dedication to purchase the same product or service repeatedly now and in the future from the same brand, regardless of a competitor's actions or changes in the environment (Semejin et al., 2004). It can also be demonstrated with other behaviors such as positive word of mouth advocacy. Brand loyalty is where an individual buys products from the same manufacturer repeatedly rather than from other suppliers. Businesses whose value rests in a large part on their brand loyalty are said to use the loyalty business model.

Brand loyalty, in marketing, consists of a consumer's commitment to repurchase or continue to use the brand. It can be demonstrated by repeated buying of a product, service, or other positive behaviors such as word of mouth advocacy. This concept of a brand displays imagery and symbolism for a product or range of products (Semejin et al., 2004). Brands can have the power to engage consumers and make them feel emotionally attached. Consumer's beliefs and attitudes make up brand images, and these affect how they will view brands they come into contact with.

2.4 Buyers' Constraints

Purchasing Budget

A purchases budget report allows business owners to determine how much money and goods are needed to reach desired goals. This particular budget is used for companies that have products in stock or inventory, as the value of inventory plays a large role in a complete purchases budget. A purchases budget provides a representation of what the business plans to buy for the inventory and how much inventory it plans to grow or hold over a given period of time (Kotler and Armstrong, 2008). The budget is created using a simple formula: the desired ending inventory, plus the cost of goods sold, minus the value of the beginning inventory. This equation gives you the total purchases budget.

A purchases budget is created to keep track of the company's inventory value and the amount of goods sold. It also is used to help you keep track of your desired ending inventory value each month. The purchases budget is often just a partial budget for a

business and is often found in a business master budget. A purchases budget contains the amount of inventory that a company must purchase during each budget period. The amount stated in the budget is the amount needed to ensure that there is sufficient inventory on hand to meet customer orders for products (Hashim and Muhammad, 2013). At the simplest level, the purchases budget can simply match the exact number of units expected to be sold in the budget period. However, there are a number of additional considerations that can make the purchases budget considerably more complex.

Time (Delivery)

Time (Delivery) is a metric used to assess the ability of a business to fulfill shipping orders or other transactions within the period of time promised to a client or customer. Time delivery is generally expressed as the percentage of transactions that are achieved within the specified timeframe, and is often an area of focus for process improvement initiatives. Also called on-time delivery.

On-time delivery is one of contract manufacturing's most common measurements, but we rarely talk about how difficult it is to measure. Here's a guide to defining and measuring on-time delivery (Kotler, 2012). On-time delivery rarely refers to a specific date; it usually refers to range of dates. In most companies, on-time delivery refers to a range of dates defined as X days before (early) and Y days after (late) the due date.

Resources

A resource is a source or supply from which a benefit is produced. Resources can be broadly classified on the basis upon their availability they are renewable and non renewable resources. Resource is an economic or productive factor required to accomplish an activity, or as means to undertake an enterprise and achieve desired outcome. Three most basic resources are land, labor, and capital; other resources include energy, entrepreneurship, information, expertise, management, and time. In economics a resource is defined as a service or other asset used to produce goods and services that meet human needs and wants. Economics itself has been defined as the study of how society manages its scarce resources (Needham, 1996). Classical economics recognizes three categories of resources, also referred to as factors of production: land, labour, and capital. Land includes all natural resources and is viewed as both the site of production and the source of raw materials. Labour or human resources consists of human effort provided in the creation of products, paid in wage. Capital consists of human-made goods or means of production (machinery, buildings, and other infrastructure) used in the production of other goods and services, paid in interest (Needham, 1996).

2.5 Relationship

A relationship is a strong, deep, or close association or acquaintance between two or more people that may range in duration from brief to enduring. This association may be based on inference, love, solidarity, regular business interactions, or some other type of

social commitment. Interpersonal relationships are formed in the context of social, cultural and other influences. The context can and may and perhaps vary from family or kinship relations, friendship, and marriage, relations with associates, work, clubs, neighborhoods, and places of worship (Creswell, 2008). They may be regulated by law, custom, or mutual agreement, and are the basis of social groups and society as a whole. Business relations are the connections that exist between all entities that engage in commerce. That includes the relationships between various stakeholders in any business network, such as those between employers and employees, employers and business partners, and all the companies a company associates with (Creswell, 2008).

2.6 Culture Effect

Culture in business area is model or style of business operations within a company. The business culture determines how different levels of staff communicate with one another as well as how employees deal with clients and customers. Culture is a key component in business and has an impact on the strategic direction of business. Culture influences management, decisions and all business functions from accounting to production (Bryman and Bell, 2010). Business culture is its own unique dimension that includes getting off on the right foot, meetings, negotiation, formalities, social media use, internships and work placements and other elements. Business culture is related to behavior, ethics, etiquette and more. A business culture will encompass an organization's values, visions, working style, beliefs and habits (Bryman and Bell, 2010).

2.7 Choice Theory

Choice theory posits behaviours we choose are central to our existence. Our behaviour (choices) are driven by five genetically driven needs, survival, love and belonging, freedom, fun, and power. Choice theory suggests the existence of a "Quality World". Glasser's idea of a "Quality World" restates the Jungian idea of archetypes but Glasser never acknowledged this. Nonetheless, Glasser's "Quality World" and what Jung would call healthy archetypes are indistinguishable.

Definition of a Choice Model

Researcher define a choice model in the following manner. A consumer is presented with the task of selecting one of N alternatives, denoted $A(1), \dots, A(N)$. For each alternative, there exists a mapping from the characteristics of each alternative to a real-valued number $V(A(i)) = V(i)$. The consumer constructs $U(V(i)) = U(i)$, called preference (psychology) or utility (economics), which allows an ordering of the alternatives on a one-dimensional continuum. Using the $U(i)$ values, the consumer selects one alternative by employing some type of decision rule. The decision rule assigns a probability of choosing alternative i as $\text{Pr}(i) = F(U(1), \dots, U(N))$ where $0 < \text{Pr}(i) < 1$ and $F(\cdot)$ is some multivariate function with N arguments. That is, the choice process is assumed to be inherently stochastic: there is no alternative with $\text{Pr}(i) = 0$ or $\text{Pr}(i) = 1$.

Although this definition may seem needlessly formal, it provides the researcher important guidelines for developing a choice model. Clearly, three elements are needed: a

set of choice alternatives, a set of corresponding $U(i)$ preference scale values, and a decision rule. The history of brand choice can be viewed as an evolving understanding of how these components ought to be specified in marketing applications.

Thurstone Model

The starting point for brand choice is the work of Louis Thurstone, a psychologist interested in psychophysics (the human perception of physical stimuli such as the intensity of light). His experiments required subjects to determine which of two stimuli was more intense (e.g., which light was brighter). His key insight, reported in his Theory of Comparative Judgment is that humans do not perceive a stimulus in the same fashion on different occasions, even though the stimulus object has not changed. Using our earlier notation, Thurstone postulated a discriminial process of the form

$$U(i) = V(i) + e(i) \quad (1)$$

where $V(i)$ is the true intensity of $A(i)$, and $e(i)$ is a normally distributed random variable with mean zero. That is, $U(i)$ is the sensation of intensity that is perceived by the individual and is used to decide which stimulus has higher intensity. Thurstone argued that the choice rule is simple: the subject selects the stimulus with the higher $U(i)$ value. Because the $e(i)$ error varies across stimuli and over time, Thurstone's model implies that judgments of intensity made by one individual will be inconsistent, particularly when the true $V(i)$ values are similar. As such, a researcher can only predict the probability that a certain alternative will be judged to be most intense.

In a brand choice setting, $V(i)$ is interpreted as the long-run average preference value of the alternative and $e(i)$ is a situation-specific random effect that masks the relationship between the true $V(i)$ value and perceived $U(i)$. Following Thurstone (1927), researchers in marketing assume that the consumer always chooses the alternative with highest perceived $U(i)$. This combination of a randomly generated $U(i)$ value coupled with a (deterministic) maximum $U(i)$ choice rule is today known as a random utility theory (RUT) model. Choice probabilities for a RUT model are obtained by writing down the N-dimensional multivariate distribution defined by equation (1) and then computing the probability $\Pr(i) = \Pr\{U(i) = \max [U(1), \dots, U(N)]\}$. (See Train (2003) for details.) When the $e(i)$ are normally distributed (as assumed by Thurstone (1927)), the resulting choice process is known as a probit choice model.

Luce Model

Luce (1959) proposed an alternative theory of choice based upon certain assumptions about choice probabilities. Let $\Pr(i|S)$ denote the probability of selecting item i from S , a set of alternatives including both item i and another item j . Let S^* be another set of items, also including both i and j . Luce's Choice Axiom takes the form

$$\Pr(i|S)/\Pr(j|S) = \Pr(i|S^*)/\Pr(j|S^*) \quad (2)$$

In words, the Choice Axiom states that the ratio of choice probabilities is a fixed quantity that does not depend upon the choice set. Choice models with this property are

said to exhibit independence from irrelevant alternatives. Luce (1959) shows that equation (2) is sufficient to derive an explicit expression for the choice probabilities. If the Choice Axiom holds, then there exists a ratio-scaled preference value $Q(i)$ for each item. Moreover, relative to a set of alternatives $S = \{A(1), \dots, A(N)\}$,

$$\Pr(i|S) = Q(i)/\{Q(1) + \dots + Q(N)\} \quad (3)$$

Luce (1959) argues that $Q(i)$ represent psychologically-real preference values that are fixed over time. Accordingly, the stochasticity of choice (and the need for choice probabilities) is due to errors made in the decision process. The probability function in equation (3) is called a logit choice model in academic marketing.

Logit models dominated the choice theory literature in marketing science during the 1980's. One key reason is that the model is computationally tractable, even for large choice sets. However, an equally important reason is that logit models are also RUT models. Yellott (1977) showed that logit choice probabilities are consistent with a RUT model in which the $e(i)$ are independent draws from an extreme value distribution. Relative to equation (1), the Luce preference values depend upon RUT utilities according to the expression $Q(i) = \exp(V(i))$, where $\exp(\cdot)$ denotes the exponential function. Moreover, McFadden (1980) showed that the logit model can also be derived using a micro-economic argument based upon RUT. (In the economic interpretation of the logit model, the $e(i)$ errors represent variables that impact choice, but are not observed by the researcher.) The popularity of the logit model is due in large part to these connections to theories in both psychology and economics.

2.8 Hypothesis

H1o: Marketing mix 7ps (Product) does not influence companies' purchasing decisions on plastics resins in Thailand.

H1a: Marketing mix 7ps (Product) does influence companies' purchasing decisions on plastics resins in Thailand.

H2o: Marketing mix 7ps (Price) does not influence companies' purchasing decisions on plastics resins in Thailand.

H2a: Marketing mix 7ps (Price) does influence companies' purchasing decisions on plastics resins in Thailand.

H3o: Marketing mix 7ps (Place) does not influence companies' purchasing decisions on plastics resins in Thailand.

H3a: Marketing mix 7ps (Place) does influence companies' purchasing decisions on plastics resins in Thailand.

H4o: Marketing mix 7ps (Promotion) does not influence companies' purchasing decisions on plastics resins in Thailand.

H4a: Marketing mix 7ps (Promotion) does influence companies' purchasing decisions on plastics resins in Thailand.

H5o: Marketing mix 7ps (People) does not influence companies' purchasing decisions on plastics resins in Thailand.

H5a: Marketing mix 7ps (People) does influence companies' purchasing decisions on plastics resins in Thailand.

H6o: Marketing mix 7ps (Process) does not influence companies' purchasing decisions on plastics resins in Thailand.

H6a: Marketing mix 7ps (Process) does influence companies' purchasing decisions on plastics resins in Thailand.

H7o: Marketing mix 7ps (Physical Evidence) does not influence companies' purchasing decisions on plastics resins in Thailand.

H7a: Marketing mix 7ps (Physical Evidence) does influence companies' purchasing decisions on plastics resins in Thailand.

H8o: Brand Equity (Brand Awareness) does not influence companies' purchasing decisions on plastics resins in Thailand.

H8a: Brand Equity (Brand Awareness) does influence companies' purchasing decisions on plastics resins in Thailand.

H9o: Brand Equity (Brand Recognition) does not influence companies' purchasing decisions on plastics resins in Thailand.

H9a: Brand Equity (Brand Recognition) does influence companies' purchasing decisions on plastics resins in Thailand.

H10o: Brand Equity (Brand Preference) does not influence companies' purchasing decisions on plastics resins in Thailand.

H10a: Brand Equity (Brand Preference) does influence companies' purchasing decisions on plastics resins in Thailand.

H11o: Brand Equity (Brand Loyalty) does not influence companies' purchasing decisions on plastics resins in Thailand.

H11a: Brand Equity (Brand Loyalty) does influence companies' purchasing decisions on plastics resins in Thailand.

H12o: Buyers' Constraints (Purchasing Budget) does not influence companies' purchasing decisions on plastics resins in Thailand.

H12a: Buyers' Constraints (Purchasing Budget) does influence companies' purchasing decisions on plastics resins in Thailand.

H13o: Buyers' Constraints (Time (Delivery)) does not influence companies' purchasing decisions on plastics resins in Thailand.

H13a: Buyers' Constraints (Time (Delivery)) does influence companies' purchasing decisions on plastics resins in Thailand.

H14o: Buyers' Constraints (Resources) does not influence companies' purchasing decisions on plastics resins in Thailand.

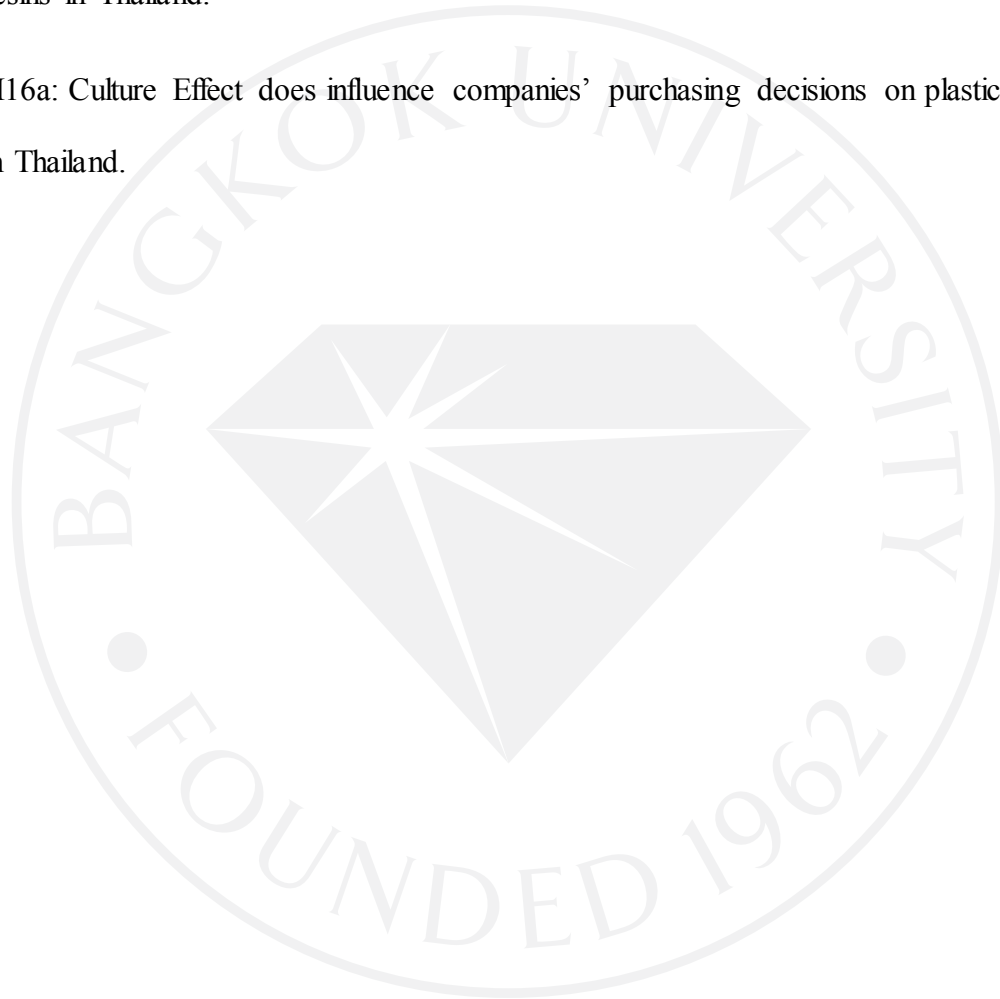
H14a: Buyers' Constraints (Resources) does influence companies' purchasing decisions on plastics resins in Thailand.

H15o: Relationship does not influence companies' purchasing decisions on plastics resins in Thailand.

H15a: Relationship does influence companies' purchasing decisions on plastics resins in Thailand.

H16o: Culture Effect does not influence companies' purchasing decisions on plastics resins in Thailand.

H16a: Culture Effect does influence companies' purchasing decisions on plastics resins in Thailand.



2.9 Research Framework

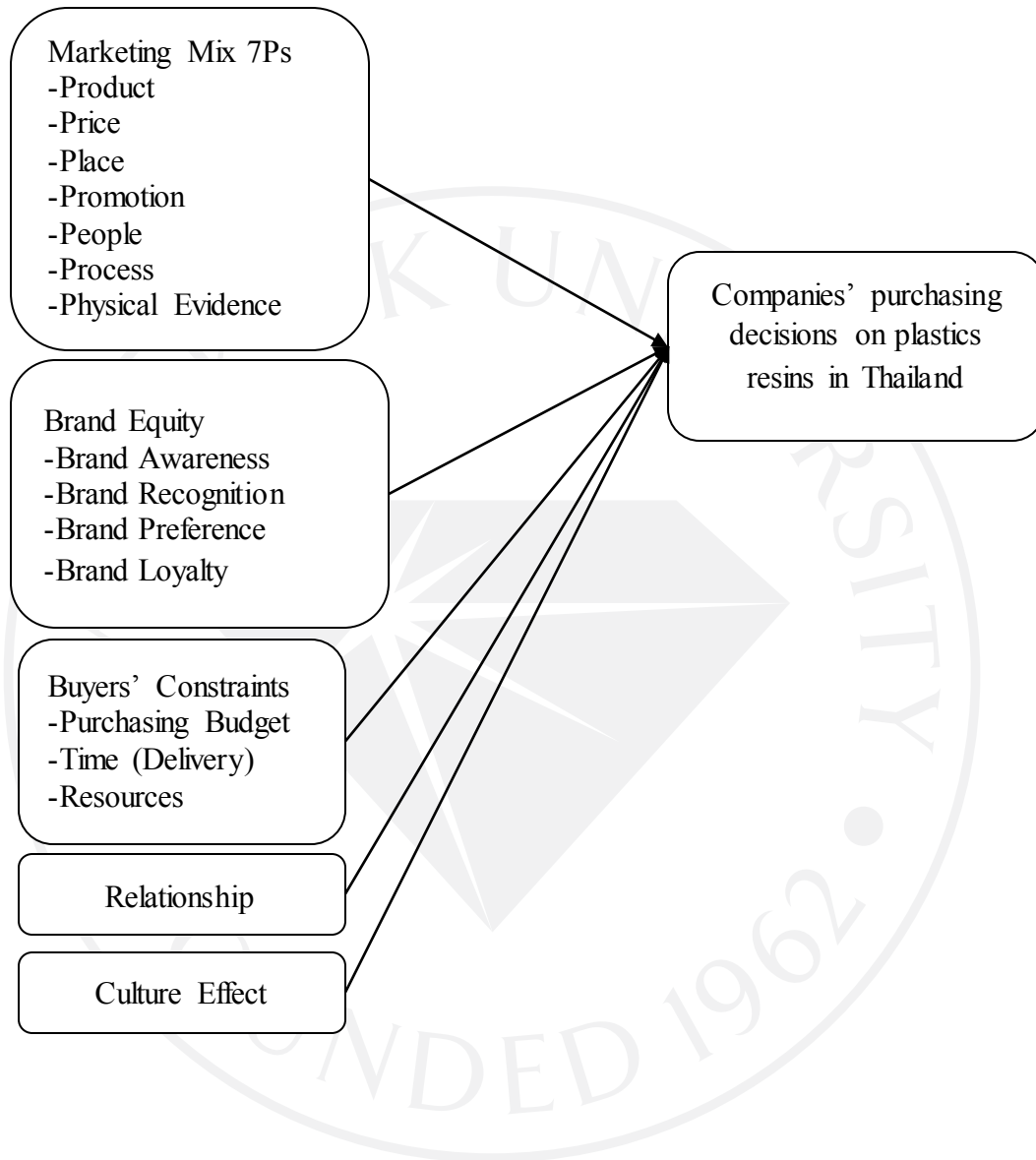


Figure 2.1: Research Framework

CHAPTER 3

RESEARCH METHODOLOGY

In this chapter, the researcher will be giving the brief description about the method used in research as well as variable explanation, sample size calculation and data analysis method (Multinomial Logistic Regression), Questionnaire design and Data collection procedure. This chapter therefore will provide the better understanding on how the research was conducted.

3.1 Research Design

This study pursues the quantitative method because its output is derived from a great deal of primary data that makes it more solid and measurable (Quantitative Research). The sampling method is convenience sampling, which is a measurement in non-probability sampling category. The quantitative research method is to provide or explain situation by gathering numerical data that are analyzed by mathematically method. (Creswell, 2008). In addition, this method is aimed to determine the relationship between one thing (an independent variable) and another (a dependent or outcome variable) in a population. In addition, the researcher conducts this research study by reviewing another previous research which related to this research study.

3.2 Population and Samples

Population

Population from this study is identified as staffs of purchasing department in company will purchase plastics resins in Thailand.

Sample and Sample Size

A sample from this study which is staffs from Company X, however the population in this study is infinite population. So, according to Weinberg, Abramowitz, (2002), the researcher will determine sample size by applying an equation at confidences level of 95% and precision levels = 0.05.

$$\text{Formula } n = \frac{N}{1+Ne^2}$$

Which:

n is the sample size

N is the population size

e is the acceptable sampling error

At 95% confidence level and $e = 1 - 0.95 = 0.05$

$$\text{So: } n = \frac{4,73,156}{1+4,73,156 (0.05)^2}$$

$$= 399.66$$

Within $N= 4,73,156$ and $e= 5\%$ (at 95% confidence level)

In the researcher decide to use 400 questionnaire as sample size.

3.3 Research Instrument

The author used the questionnaire as the instrument to collect data that will be used to analyze and observe the relationship between different variables. The questionnaire consists of seven major parts.

Part 1. Multiple Choices is the most commonly used methods to help respondents to confirm the most favorite brand.

Plastic Resins Brand (Nominal Scale)

Part 2. Factors influencing purchasing decisions on resins brand from part 1 Product, Price, Place, Promotion, People, Process, Physical Evidence, Brand Awareness, Brand Recognition, Brand Preference, Brand Loyalty, Purchasing budget, Time (Delivery), Resources, Relationship, Culture Effect by using Likert scale which is divided into 7 levels as below:

Level 0 mean No any effect

Level 1 mean Not at all important

Level 2 mean Low important

Level 3 mean Slightly important

Level 4 mean Neutral

Level 5 mean Moderately

Level 6 mean Very important

Level 7 mean Extremely important

Part 3 to 7. Factors influencing purchasing decisions on plastic resins brand from part 3 to 7 Product, Price, Place, Promotion, People, Process, Physical Evidence, Brand Awareness, Brand Recognition, Brand Preference, Brand Loyalty, Purchasing budget, Time (Delivery), Resources, Relationship, Culture Effect by using Likert scale which is divided into 5 levels as below:

Level 1 mean Strongly Disagree

Level 2 mean Somewhat Disagree

Level 3 mean Neutral

Level 4 mean Somewhat Agree

Level 5 mean Strongly Agree

3.5 Data Collection Procedure

The survey question was created using questionnaire which was created by researcher. After it was created, it was reviewed by the 5 experts. A few suggestion was made which

was corrected in the questionnaire. After reviewed by the experts the researcher interview 30 respondents whose opinions were analyzed in the SPSS Software for the Reliability Test. Reliability is the test of the data in order to check whether it is valid and reliable or not. If the reliability test is more than 0.5, it is considered valid and the survey could be taken at the larger extent. The questionnaire will be distributed through different channels to another 400 respondents whose opinions will be entered in SPSS software for the final analysis.

Content Validity

Names of experts to check the design and contents in this study (check learning objective) are listed as follows.

Experts:

1. Ms. Shuanshuen Thiramanit
 - a. Managing Director
 - b. B&B STRAW PACK CO.LTD

2. Mr. Manabu Ishimura
 - a. General Manger
 - b. MITSUBISHI COMPANY (THAILAND) LTD

3. Mr. Jaturong Worawitsurawatthana

a. Vice President

b. IRPC PUBLIC COMPANY LIMITED

4. Mr. Amnard Kittikrairit

a. Managing Director

b. THAI FILM INDUSTRIES PUBLIC CO., LTD

5. Mr. Kentaro Tsuji

a. General Manager

b. NAGASE (THAILAND) CO., LTD

For Index of Item Objective Congruence (IOC) is the formula to look for the content validity by measuring consistency between the objective and questions, which can be calculated by the formula as follows.

Where: IOC= Consistency between the objective and content or questions and objectives.

$$IOC = \Sigma R/N$$

ΣR = Total assessment points given from all qualified experts.

N = Number of qualified experts.

Therefore, $IOC = 61.8 / 62 = 0.996$

The assessment result of questions on this questionnaire has value index of item objective congruence (IOC) equal to 0.996 without any question that has IOC index less than 0.5. The detail of IOC has been showed in Appendix II.

Reliability test

After the data was verified using the IOC method, next approach of the author is to test the reliability with general respondents. The researcher asked 30 respondents to respond the survey using face to face method. After successfully receive respond from respondent, researcher enter the data into SPSS software in order to perform the reliability test. The result of reliability test has been showed as following:

Table 3.1: Result of Reliability Test

Variables	Alpha	No. of Item
Product	0.718	3
Price	0.709	3
Place	0.865	3
Promotion	0.829	3
People	0.775	3
Physical Evidence	0.843	3
Brand Awareness	0.810	3
Brand Recognition	0.725	3
Brand Preference	0.820	3
Brand Loyalty	0.873	3
Purchasing Budget	0.889	2
Time	0.848	3
Resources	0.723	2
Relationship	0.747	3
Culture Effect	0.721	2

3.6 Statistic for Data Analysis

According to the analysis of process for this research study, the data is analyzed on a computer program called as Statistical Package for the Social Sciences (SPSS). The data are presented in a table format with description on each table. In addition, the researcher uses statistical for data analysis as following.

Multinomial Logistic Regression

Multinomial logistic regression is used to explain or predict category placement or the probability of category membership on a dependent variable which is based on multiple or many independent variables. The independent variables can be binary or scale data. In addition, this type of regression is a normal extension of binary logistic regression which allows for using more than two categories of dependent variables.

Using Multinomial logistic regression in choice model, marketing the data was collected. The normal estimation of technique is the multinomial logit choices which represent the categories of dependent variable and each characteristic level is an explanatory variable. The logit of transformation is a link function of logistic regression which can explain below;

- The logit transformation is the log of the odds that $y=1$ relative to $y=0$
- The logit link allows to transform the binary variable y into a continuous variable z
- The final equation is a regression model with a continuous variable on the left hand side

- The only difference of standard regression model is that the distribution of the error is not normal but logistic.

- Estimation of a and b can be obtained by maximum likelihood which works with any known probability distribution of the errors and returns the maximum likelihood estimates (the most probable values for the parameters) (Mario, 2008).

The basic idea behind logits is to use a logarithmic function to restrict the probability values to (0,1). Technically this is the log odds (the logarithmic of the odds of $y = 1$). Sometimes a probit model is used instead of a logit model for multinomial regression. The following graph shows the difference for a logit and a probit model for different values (-4,4). Both models are commonly used as the link function in ordinal regression. However, most multinomial regression models are based on the logit function. The difference between both functions is typically only seen in small samples because probit assumes normal distribution of the probability of the event, when logit assumes the log distribution.

At the center of the multinomial regression analysis is the task estimating the k-1 log odds of each category. In our k=3 computer game example with the last category as reference multinomial regression estimates k-1 multiple linear regression function defined as

$$\text{logit}(y=1) = \log\left(\frac{p(y=1)}{1-(p=1)}\right) = \beta_0 + \beta_1 \cdot x_{i2} + \beta_2 \cdot x_{i2} + \dots + \beta_p \cdot x_{in} \text{ for } i = 1 \dots n.$$

$$\text{logit}(y=2) = \log\left(\frac{p(y=2)}{1-(p=2)}\right) = \beta_0 + \beta_1 \cdot x_{i2} + \beta_2 \cdot x_{i2} + \dots + \beta_p \cdot x_{in} \text{ for } i = 1 \dots n.$$

Multinomial regression is similar to the Multivariate Discriminant Analysis. Discriminant analysis uses the regression line to split a sample in two groups along the levels of the dependent variable. In the case of three or more categories of the dependent variable multiple discriminant equations are fitted through the scatter cloud. In contrast multinomial regression analysis uses the concept of probabilities and $k-1$ log odds equations that assume a cut-off probability 0.5 for a category to happen. The practical difference is in the assumptions of both tests. If the data is multivariate normal, homoscedasticity is present in variance and covariance and the independent variables are linearly related, then we should use discriminant analysis because it is more statistically powerful and efficient. Discriminant analysis is also more accurate in predictive classification of the dependent variable than multinomial regression.



CHAPTER 4

RESEARCH FINDINGS AND DATA ANALYSIS

The information acquired from 400 valid questionnaires survey collected, the results of data collection and the analysis were presented based on the research methodology discussed in chapter three. The data were showed in two parts; the first part was the data analysis of hypothesis test. Then second part was frequency analysis of brand choice question. The presented data also was explored to support research questions mentioned in chapter three. The reliability of research instrument will be test.

4.1 Summary of Hypothesis Testing

Table 4.1: Likelihood Ratio Tests

Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
PR18	271.829 ^a	10.518	6	.104
PR19	274.339 ^a	13.028	8	.111
PR20	268.301 ^a	6.991	6	.322
PRI21	292.183^a	30.873	10	.001
PRI22	278.142^a	16.831	8	.032

(Continued)

Table 4.1(Continued): Likelihood Ratio Tests

PRI23	277.125 ^a	15.814	8	.045
PL24	285.995 ^a	24.684	8	.002
PL25	277.938 ^a	16.627	8	.034
PL26	288.436 ^a	27.125	8	.001
PRO27	297.540 ^a	36.230	8	.000
PRO28	280.683 ^a	19.373	8	.013
PRO29	269.007 ^a	7.696	8	.464
PEO30	263.337 ^a	2.026	8	.980
PEO31	284.324 ^a	23.013	8	.003
PEO32	291.191 ^a	29.880	8	.000
PROC33	248.965 ^a	.	8	.
PROC34	294.860 ^a	33.549	8	.000
PROC35	276.318 ^a	15.007	6	.020
PHY36	278.548 ^a	17.238	8	.028
PHY37	292.978 ^a	31.667	8	.000
PHY38	302.221 ^a	40.911	8	.000
BA39	291.120 ^a	29.809	8	.000
BA40	271.730 ^a	10.419	8	.237
BA41	261.764 ^a	.454	8	1.000
BR42	282.025 ^a	20.715	8	.008
BR43	299.483 ^a	38.172	8	.000
BP44	284.240 ^a	22.930	8	.003

(Continued)

Table 4.1(Continued): Likelihood Ratio Tests

BP45	300.332 ^a	39.021	8	.000
BP46	253.552 ^a	.	8	.
BL47	249.495 ^a	.	8	.
BL48	272.239 ^a	10.928	8	.206
BL49	300.281 ^a	38.971	8	.000
PB51	295.891 ^a	34.581	8	.000
PB52	285.092 ^a	23.782	8	.002
TIME53	290.680 ^a	29.369	8	.000
TIME54	297.459 ^a	36.148	8	.000
TIME55	303.039 ^a	41.728	8	.000
RES56	270.259 ^a	8.948	8	.347
RES57	280.673 ^a	19.362	8	.013
RELA58	276.036 ^a	14.726	8	.065
RELA59	283.299 ^a	21.988	8	.005
RELA60	294.328 ^a	33.017	8	.000
CULEF61	298.153 ^a	36.842	8	.000
CULEF62	217.183 ^b	.	8	.

The multinomial logistic result shows that p-values of PR18, PR19, PR20 are all more than 0.05, therefore “Diversity of Product, Quality Stability, Application Experience” all do not significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we cannot reject Ho that product does not influence companies’ purchasing decisions on plastics resins in Thailand.

The multinomial logistic result shows that p-values of PRI21, PRI22, PRI23 are all less than 0.05, therefore “The value with quality and service, Term of Payment and Cost performance” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that price is not significant and accept H_a that price is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of PL24, PL25, PL26 are all less than 0.05, therefore “easy to contact, localization, and direct sales without traders” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that place is not significant and accept H_a that place is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of PRO27 & PRO28 are both less than 0.05, therefore “free samples for test and free technician support” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that promotion is not significant and accept H_a that promotion is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of PEO31 & PEO32 are both less than 0.05, therefore “friendliness and politeness” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that people is not significant and accept H_a that people is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of PROC31 & PROC32 are both less than 0.05, therefore “The step of contract is convenient, the lead time is short” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that process is not significant and accept H_a that process is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of PHY36, PHY37, PHY38 are all less than 0.05, therefore “Shipping by container with free pallets, Shipping by container with free wrapping film, Shipping by container with insurance” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that physical evidence is not significant and accept H_a that physical evidence is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of BA39 are all less than 0.05, therefore “Reputation of Japanese manufacturers is good” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that brand awareness is not significant and accept H_a that brand awareness is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of BR42 & BR43 are both less than 0.05, therefore “You know nothing about KINGFA from China, You can name of many Japanese and Thai Brands in Thailand” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that brand recognition is not significant and accept H_a that brand recognition is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of BP44 & BP45 are both less than 0.05, therefore “You will buy the brand your friend recommend, You will buy Thai and Japanese brands only” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that brand preference is not significant and accept H_a that brand preference is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of BL49 are all less than 0.05, therefore “You think the currently-used brand is the best” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that brand loyalty is not significant and accept H_a that brand loyalty is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of PB51 & PB52 are both less than 0.05, therefore “You will buy within the budget fixed only, You will buy when it can help your KPI” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that purchasing budget is not significant and accept H_a that purchasing budget is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of TIME53, TIME54, TIME55 are all less than 0.05, therefore “You will buy when the current supplier can not meet your requirement of lead time, You will buy when your manufacturing department requires, You will buy when your engineering team requires” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that time (delivery) is not significant and accept H_a that time (delivery) is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of RES57 are all less than 0.05, therefore “You will buy when you know the market condition will go up” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that resources is not significant and accept H_a that resources is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of RELA59 & RELA60 are both less than 0.05, therefore “You will buy from the sales representative that you like the best, You will buy from the company that is close and intimate to your manager or boss” both significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that relationship is not significant and accept H_a that relationship is in fact a significant variable when it comes to purchase plastics resins in Thailand.

The multinomial logistic result shows that p-values of CULEF61 are all less than 0.05, therefore “You will not buy from the sales representative who can’t speak Thai” all significantly influence companies’ purchasing decisions on plastics resins in Thailand. Thus we can reject H_0 that culture effect is not significant and accept H_a that culture effect is in fact a significant variable when it comes to purchase plastics resins in Thailand.

4.2 Brand Choice Frequency

Table 4.2: Brand Choice Frequency

When you're in Thailand, which digital payment platform is your most preferred choice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SCG	105	26.2	26.2	26.2
	PTT	126	31.5	31.5	57.7
	IRPC	169	42.3	42.3	100.0
	Total	400	100.0	100.0	

Table 4.2 showed that there are 169 respondents out of 400 choice IRPC which is 42.3%, and 126 respondents (31.5%) choice PTT, and 105 respondents (26.2%) choice SCG.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This research is the quantitative research that studies the factors (marketing mix 7Ps, brand equity, buyers' constraints, relationship, culture effect) impact on purchasing decisions on plastics resins concerning SCG Chemicals, PTT Company, IRPC Company. 400 questionnaires were distributed to research respondents working in companies and will purchase plastic resins in Thailand. The survey questionnaires were distributed during May 2018. And convenience sampling was applied in this study.

5.2 Conclusion

Hypothesis 1:

Accept H_0 and Reject H_a : Marketing mix 7ps (Product) does not influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 2:

Reject H_0 and Accept H_a : Marketing mix 7ps (Price) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 3:

Reject H_0 and Accept H_a : Marketing mix 7ps (Place) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 4:

Reject H_0 and Accept H_a : Marketing mix 7ps (Promotion) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 5:

Reject H_0 and Accept H_a : Marketing mix 7ps (People) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 6:

Reject H_0 and Accept H_a : Marketing mix 7ps (Process) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 7:

Reject H_0 and Accept H_a : Marketing mix 7ps (Physical Evidence) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 8:

Reject H_0 and Accept H_a : Brand Equity (Brand Awareness) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 9:

Reject H_0 and Accept H_a : Brand Equity (Brand Recognition) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 10:

Reject H_0 and Accept H_a : Brand Equity (Brand Preference) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 11:

Reject H_0 and Accept H_a : Brand Equity (Brand Loyalty) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 12:

Reject H_0 and Accept H_a : Buyers' Constraints (Purchasing Budget) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 13:

Reject H_0 and Accept H_a : Buyers' Constraints (Time (Delivery)) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 14:

Reject H_0 and Accept H_a : Buyers' Constraints (Resources) does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 15:

Reject H_0 and Accept H_a : Relationship does influence companies' purchasing decisions on plastics resins in Thailand.

Hypothesis 16:

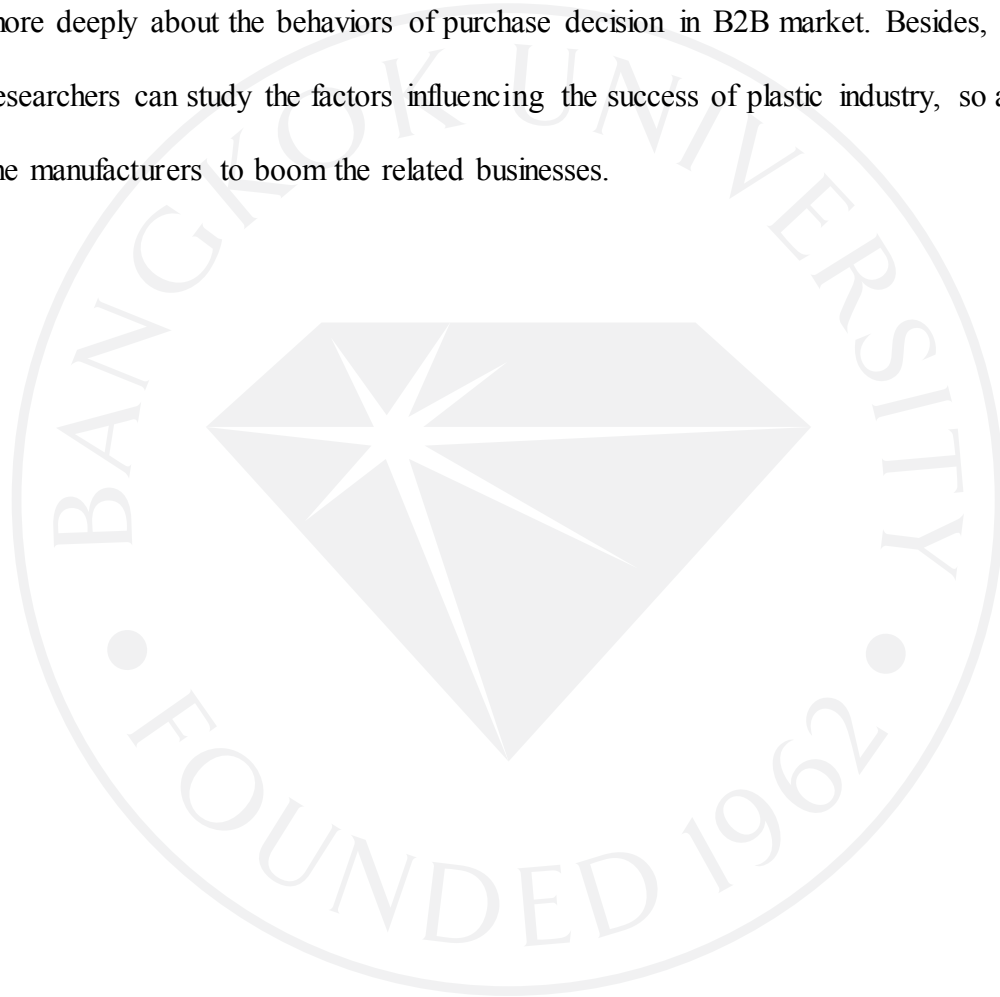
Reject H_0 and Accept H_a : Culture Effect does influence companies' purchasing decisions on plastics resins in Thailand.

5.3 Discussion

From the multinomial logit results, researcher then can conclude all hypotheses testing that other than product, the rest of the independent variable in the conceptual model all significantly influence companies' purchasing decisions of plastics resins in Thailand. In other words, researcher can reject the null hypotheses of all variables but product, and accept the alternative hypotheses of all those variables in the model except product.

5.4 Recommendation for Future Research

The results of this research study can be used as recommendation or guideline for strategy to develop the business-to-business market. The future researchers can study more deeply about the behaviors of purchase decision in B2B market. Besides, future researchers can study the factors influencing the success of plastic industry, so as to help the manufacturers to boom the related businesses.



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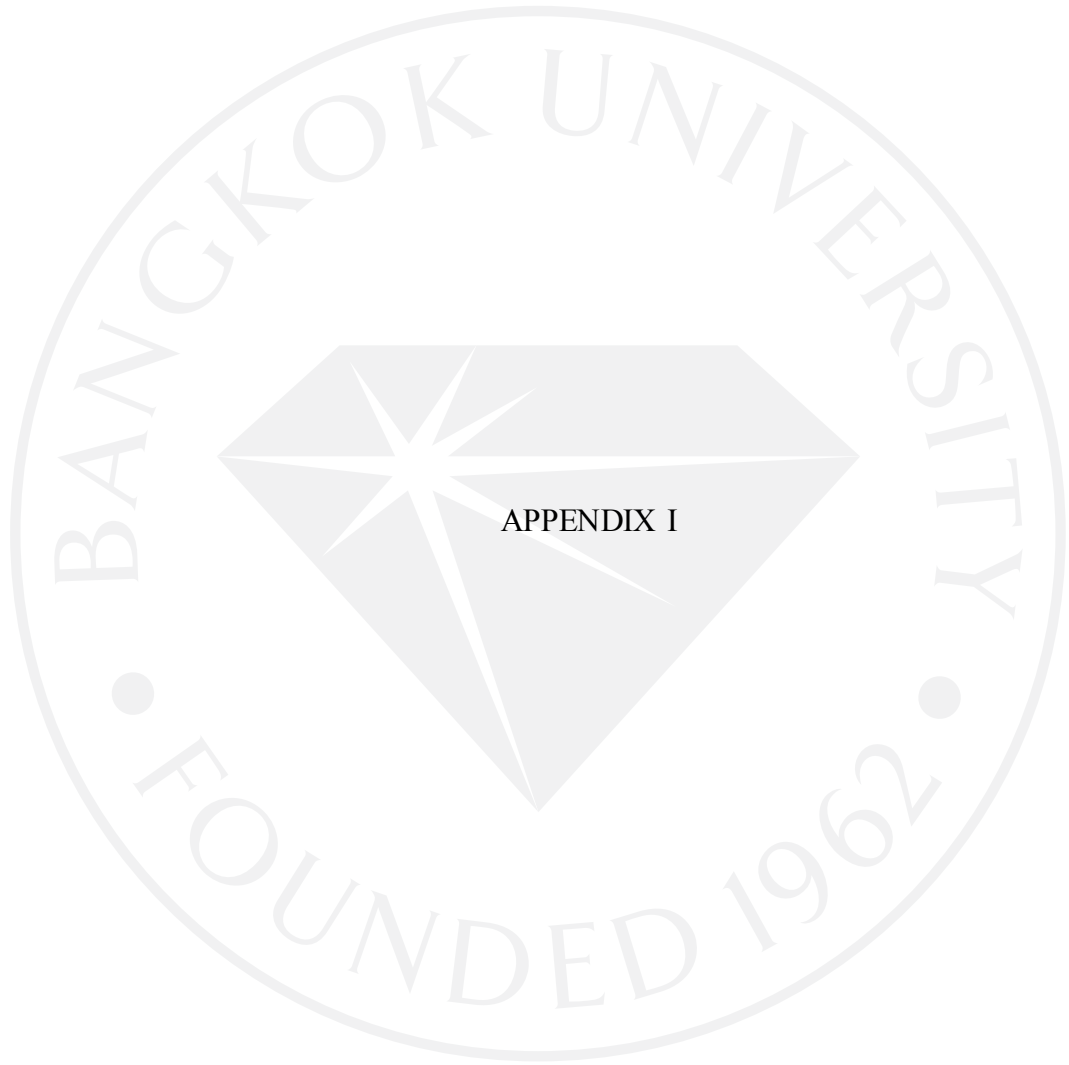
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APPENDIX I

Direction: This questionnaire was designed to collect and gather data on which factors influencing companies' purchasing decisions on plastics resins in Thailand. This questionnaire shall be applied to the independent study by an MBA student of English program at Bangkok University, which is a part of BA 715 "Independent Study For Academic".

Questionnaire:

Could you please make (√) in the following entire questionnaire?

Q1.What is your most preferable brand?

- 1. SCG
- 2. PTT
- 3. IRPC

Q2.How much do you think the following factors will affect your decision on buying plastics resins?

Please indicate your response of decisions on purchasing plastics resins by making (√) in the box, corresponding to your opinion.

17.Culture Effect								
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Q3. Factors of Marketing Mix (7Ps)

Which of the following factors (Marketing Mix 7Ps) relate to your decision on purchasing plastics resins?

Please indicate your response by marking (√) in the box, corresponding to your opinion.

1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neutral, 4 = Somewhat Agree, 5 = Strongly Agree

Marketing Mix (7Ps)	Opinion Level				
	1	2	3	4	5
Product					
18. Diversity of Product					
19. Quality Stability					
20. Application Experience					
Price					
21.The value with quality and service					
22.Term of Payment					
23.Cost performance					
Place					

24. Easy to contact					
25. Localization					
26. Direct sales without traders					
Promotion					
27. Free sample for tests					
28. Free technician support					
29. No down payment					
People					
30. Chemical or Polymer Background					
31. Friendliness					
32. Politeness					
Process					
33. The step of inquiry is responded quickly					
34. The step of contract is convenient					
35. The lead time is short					
Physical Evidence					
36. Shipping by container with free pallets					
37. Shipping by container with free wrapping film					
38. Shipping by container with insurance					

Q4. Factors of Brand Equity

Which of the following factors (Brand Equity) relate to your decision on purchasing plastics resins?

Please indicate your response by marking (√) in the box, corresponding to your opinion.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Brand Equity	Opinion Level				
	1	2	3	4	5
Brand Awareness					
39. Reputation of Japanese manufacturers is good					
40. You know well about Thai and Japanese brands					
41. You don't know well Chinese manufacturers					
Brand Recognition					
42. You know nothing about KINGFA from China					
43. You can name of many Japanese and Thai Brands in Thailand					
Brand Preference					
44. You will buy the brand your friend recommend					
45. You will buy Thai and Japanese brands only					
46. You will buy the brand with more competitive price					
Brand Loyalty					
47. You will buy the currently-used brand only					
48. You will recommend the current-used brand to your friends					
49. You think the currently-used brand is the best					

Q5. Factors of Buyers' Constraints

Which of the following factors (Buyers' Constraints) relate to your decision on purchasing plastics resins?

Please indicate your response by marking (√) in the box, corresponding to your opinion.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Buyers' Constraints	Opinion Level				
	1	2	3	4	5
Purchasing Budget					
51. You will buy within the budget fixed only					
52. You will buy when it can help your KPI					
Time					
53. You will buy when the current supplier can not meet your requirement of lead time					
54. You will buy when your manufacturing department requires					
55. You will buy when your engineering team requires					
Resources					
56. You will buy when you are nearly out of stock					
57. You will buy when you know the market condition will go up					

Q6. Factors of Relationship

Which of the following factors (Relationship) relate to your decision on purchasing plastics resins?

Please indicate your response by marking (√) in the box, corresponding to your opinion.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Relationship	Opinion Level				
	1	2	3	4	5
58. You will buy from the sales representative that you are familiar with					
59. You will buy from the sales representative that you like the best					
60. You will buy from the company that is close and intimate to your manager or boss					

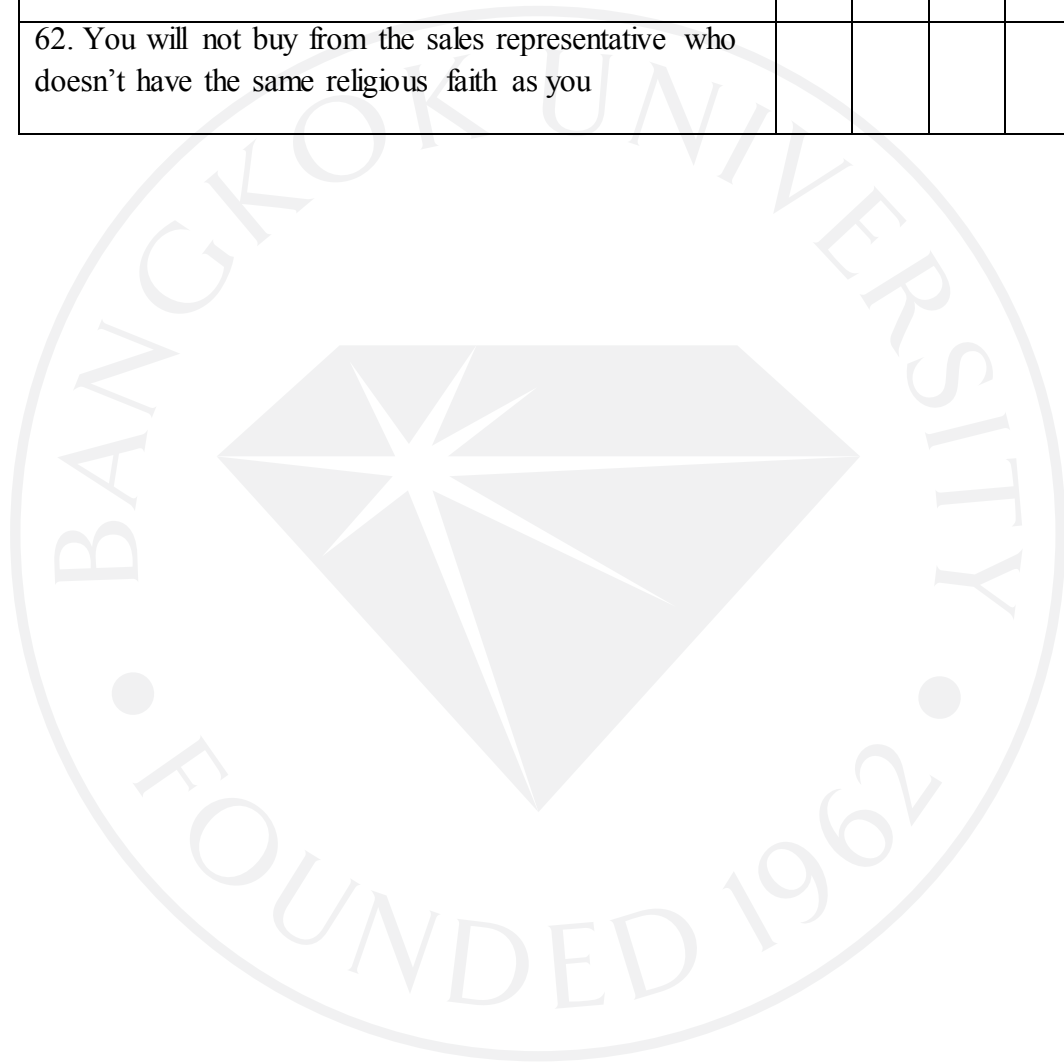
Q7. Factors of Culture Effect

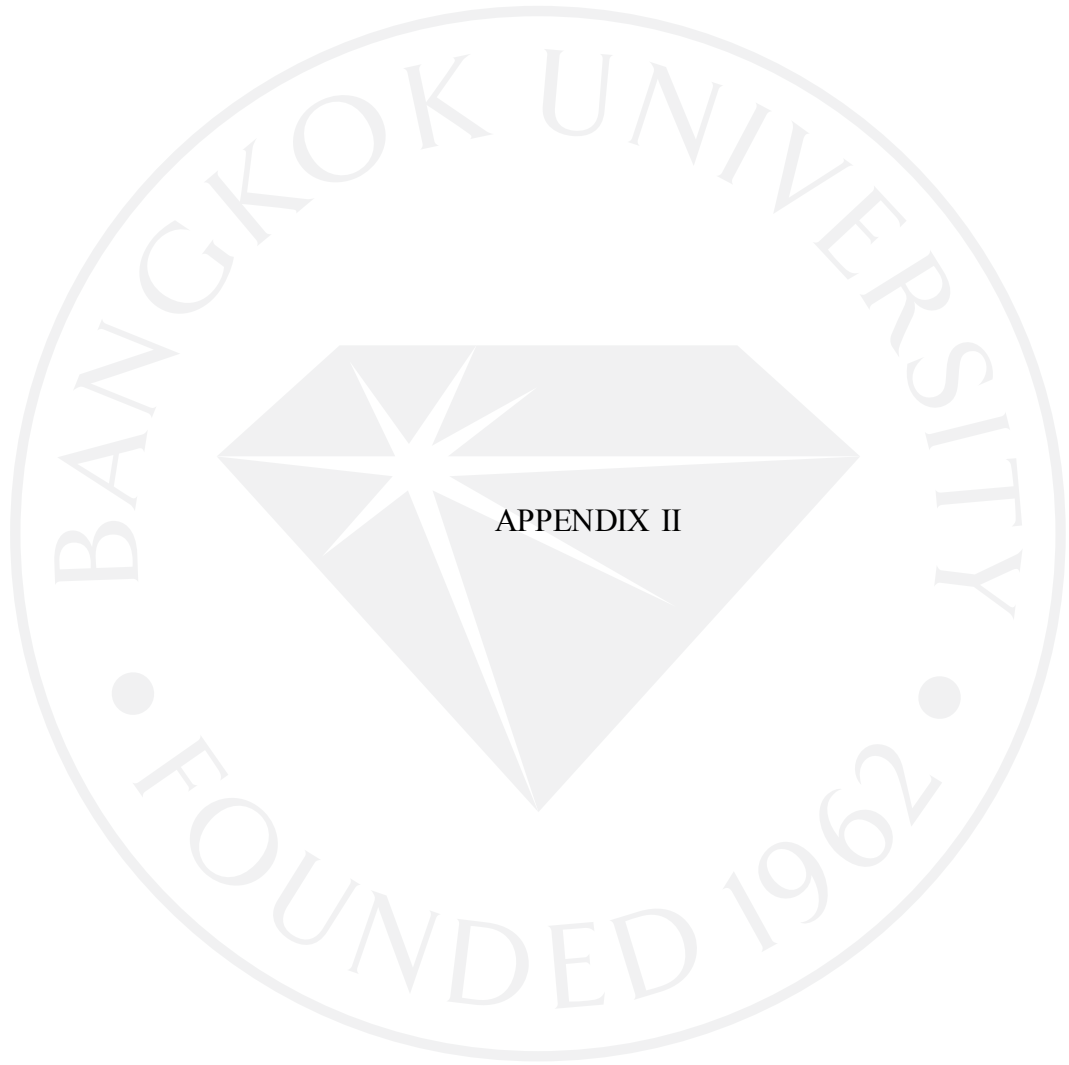
Which of the following factors (Culture Effect) relate to your decision on purchasing plastics resins?

Please indicate your response by marking (√) in the box, corresponding to your opinion.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Culture Effect	Opinion Level				
	1	2	3	4	5
61. You will not buy from the sales representative who can't speak Thai					
62. You will not buy from the sales representative who doesn't have the same religious faith as you					





APPENDIX II

IOC: Item-Objective Congruency Index five experienced experts

Questions	The Experts					ΣR	$\Sigma R/X$	Interpretation
	1	2	3	4	5			
Factors influencing companies' decision on purchasing plastic resins in Thailand								
Marketing Mix 7 (7Ps)								
1. Product	1	1	1	1	1	5	1	Good
2. Price	1	1	1	1	1	5	1	Good
3. Place	1	1	1	1	1	5	1	Good
4. Promotion	1	1	1	1	1	5	1	Good
5. People	1	1	1	1	1	5	1	Good
6. Process	1	1	1	1	1	5	1	Good
7. Physical Evidence	1	1	1	1	1	5	1	Good
Brand Equity								
8. Brand Awareness	1	1	1	1	1	5	1	Good
9. Brand Recognition	1	1	1	1	1	5	1	Good
10. Brand Preference	1	1	1	1	1	5	1	Good
11. Brand Loyalty	1	1	1	1	1	5	1	Good
12. Brand Experience	1	1	1	1	1	5	1	Good
Customers' Constraints								
13. Purchasing Budget	1	1	1	1	1	5	1	Good
14. Time	1	1	1	1	1	5	1	Good
15. Resources	1	1	1	1	1	5	1	Good
Relationship								

16. Relationship	1	1	1	1	1	5	1	Good
Culture Effect								
17. Culture Effect	1	1	1	1	1	5	1	Good

Questions	The Experts					ΣR	$\Sigma R/X$	Interpretation
	1	2	3	4	5			
Factors of Marketing Mix (7Ps)								
Product								
18. Diversity of Product	1	1	1	1	1	5	1	Good
19. Quality Stability	1	1	1	1	1	5	1	Good
20. Application Experience	1	1	1	1	1	5	1	Good
Price								
21. The value with quality and service	1	1	1	1	1	5	1	Good
22. Term of Payment	1	1	1	1	1	5	1	Good
23. Cost Performance	1	1	1	1	1	5	1	Good
Place								
24. Easy to contact	1	1	1	1	1	5	1	Good
25. Localization	1	1	1	1	1	5	1	Good
26. Direct sales without traders	1	1	1	1	1	5	1	Good
Promotion								
27. Free sample for tests	1	1	1	1	1	5	1	Good
28. Free technician support	1	1	1	0	1	4	0.8	Good

29. No down payment	1	1	1	1	1	5	1	Good
People								
30. Chemical or polymer background	1	1	1	1	1	5	1	Good
31. Friendliness	1	1	1	1	1	5	1	Good
32. Politeness	1	1	1	1	1	5	1	Good

Questions	The Experts					ΣR	$\Sigma R/X$	Interpretation
	1	2	3	4	5			
Process								
33. The step of inquiry is responded quickly	1	1	1	1	1	5	1	Good
34. The step of contract is convenient	1	1	1	1	1	5	1	Good
35. The lead time is short	1	1	1	1	1	5	1	Good
Physical Evidence								
36. Shipping by container with free pallets	1	1	1	1	1	5	1	Good
37. Shipping by container with free wrapping film	1	1	1	1	1	5	1	Good
38. Shipping by container with insurance	1	1	1	1	1	5	1	Good
Factors of Brand Equity								
Brand Awareness								

39. Reputation of Japanese manufacturers is good	1	1	1	1	1	5	1	Good
40. You know well about Thai and Japanese brand	1	1	1	1	1	5	1	Good

Questions	The Experts					ΣR	$\Sigma R/X$	Interpretation
	1	2	3	4	5			
41. You don't know well Chinese manufacturers	1	1	1	1	1	5	1	Good
Brand Recognition								
42. You know nothing about KINGFA from China	1	1	1	1	1	5	1	Good
43. You can name of many Japanese and Thai brands in Thailand	1	1	1	1	1	5	1	Good
Brand Preference								
44. You will buy the brand your friend recommend	1	1	1	1	1	5	1	Good
45. You will buy Thai and Japanese brands only	1	1	1	1	1	5	1	Good
46. You will buy the brand with more competitive price	1	1	1	1	1	5	1	Good
Brand Loyalty								
47. You will buy the currently-used brand	1	1	1	1	1	5	1	Good

only								
48. You will recommend the currently-used brand to your friends	1	1	1	1	1	5	1	Good

Questions	The Experts					ΣR	$\Sigma R/X$	Interpretation
	1	2	3	4	5			
49. You think the currently-used brand is the best	1	1	1	1	1	5	1	Good
Brand Experience								
50. You will not buy the brand you didn't buy before	1	1	1	1	1	5	1	Good
Factors of Buyers' Constraints								
Purchasing Budget								
51. You will buy within the budget fixed only	1	1	1	1	1	5	1	Good
52. You will buy when it can help your KPI	1	1	1	1	1	5	1	Good
Time								
53. You will buy when the current supplier can not meet your requirement of lead time	1	1	1	1	1	5	1	Good
54. You will buy when you manufacturing department requires	1	1	1	1	1	5	1	Good
55. You will buy when	1	1	1	1	1	5	1	Good

your engineering team requires								
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Questions	The Experts					ΣR	$\Sigma R/X$	Interpretation
	1	2	3	4	5			
Resources								
56. You will buy when you are nearly out of stock	1	1	1	1	1	5	1	Good
57. You will buy when you know the market condition will go up	1	1	1	1	1	5	1	Good
Factors of Relationship								
58. You will buy from the sales representative you are familiar with	1	1	1	1	1	5	1	Good
59. You will buy from the sales representative that you like the best	1	1	1	1	1	5	1	Good
60. You will buy from the company that is close and intimate to your manager or boss	1	1	1	1	1	5	1	Good
Culture Effect								
61. You will not buy from the sales representative who can't speak Thai	1	1	1	1	1	5	1	Good
62. You will not buy from the sales representative who doesn't have the same	1	1	1	1	1	5	1	Good

religious faith								
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BIODATA

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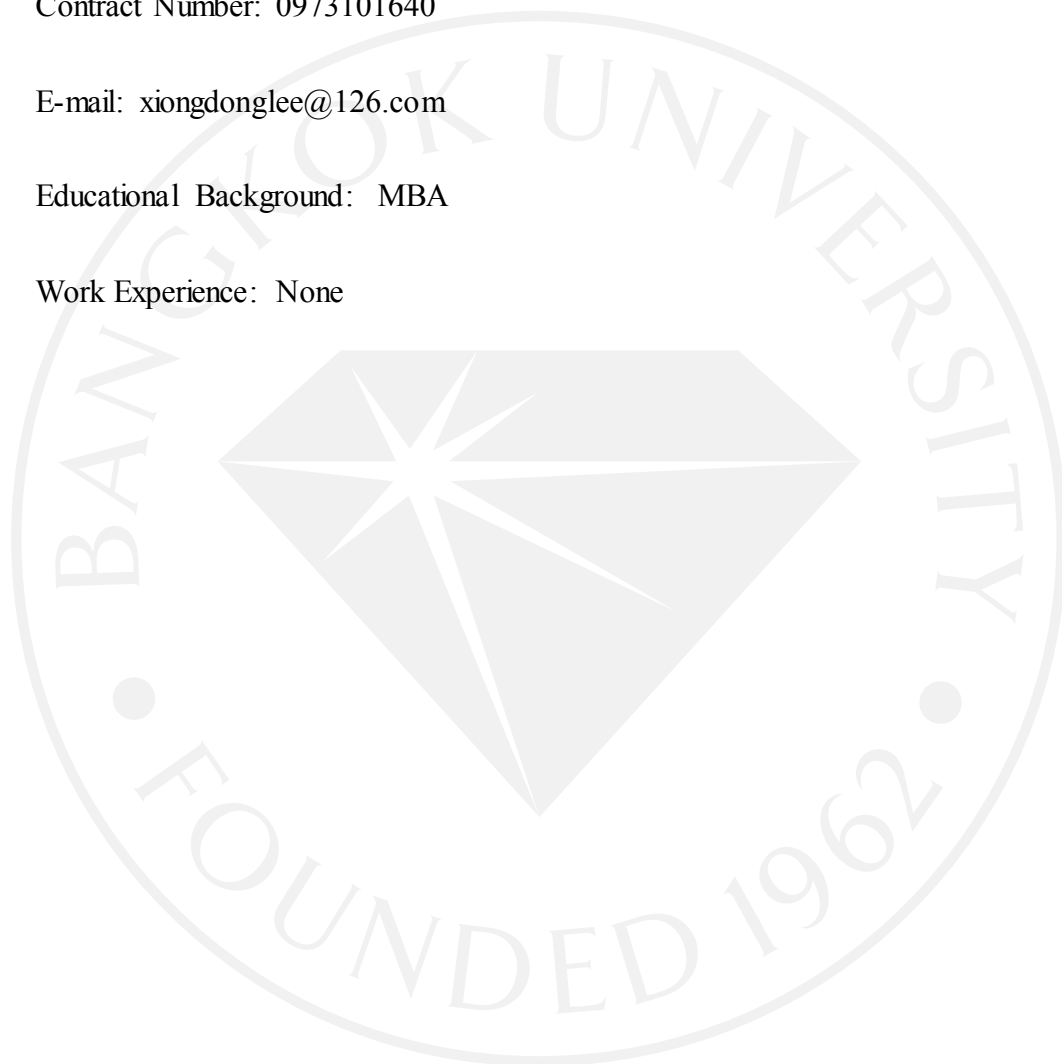
Address: Parkland Srinakarin Bangna BKK

Contract Number: 0973101640

E-mail: xiongdonglee@126.com

Educational Background: MBA

Work Experience: None



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University student, student ID 7590200635

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