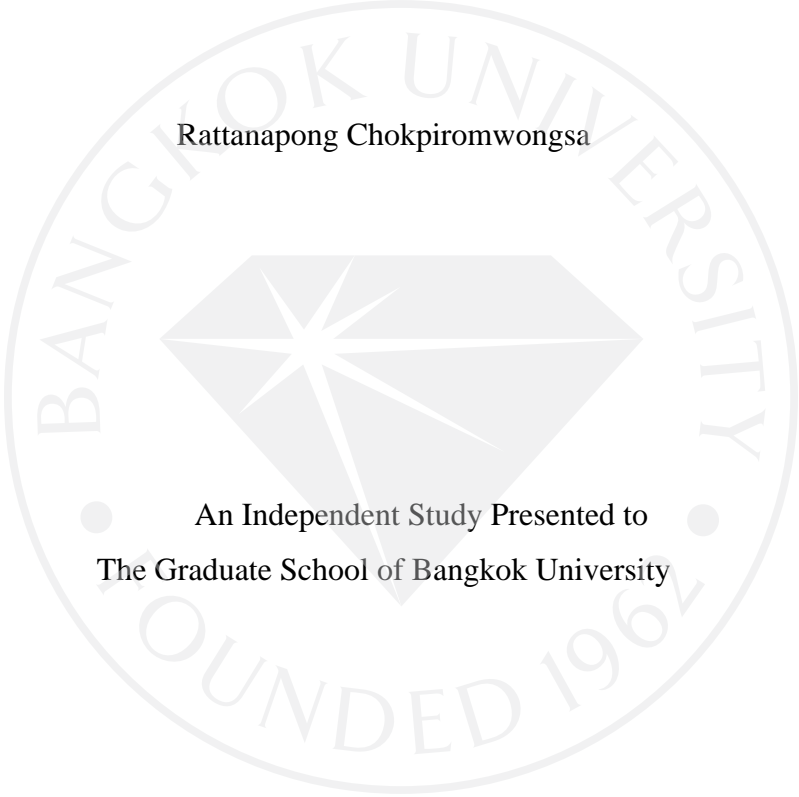


**EFFECT OF BRAND IMAGE AND PRODUCT FEATURES
TOWARD PURCHASING LAPTOPS**



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TOWARD PURCHASING LAPTOPS**

Rattanapong Chokpiromwongsa



An Independent Study 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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the Graduate School
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PURCHASING LAPTOPS

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Effect of Brand Image and Product Features on Purchasing Laptops (PP.79)

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ABSTRACT

This independent study, Effect of Brand Image and Product Features on Purchasing Laptops, aimed to investigate two factors, brand image and product features that affect to purchasing laptops. This study focused on attitude toward brand image, how brand image affect on consumers' mind that generate purchasing decision, and what factors of product features that affect on purchasing laptops.

The subjects of the study consisted of 172 people who worked or use services at D-Computer Company. Selected by accidental sampling and were asked to complete a questionnaire.

The main finding of the surveys was that the majority of respondents recognize brand HP (Hewlett-Packard). Regarding of brand image, they almost trust the product that renowned brand and they agree with the product that renowned brand image can enhance their image. For laptops, brand image was the factor that affect on purchasing the most, next they gave priority to product quality, after-sale services, and services. For product features, they gave priority to product design, weight, and small size of laptops, also affected to almost respondents that were female.

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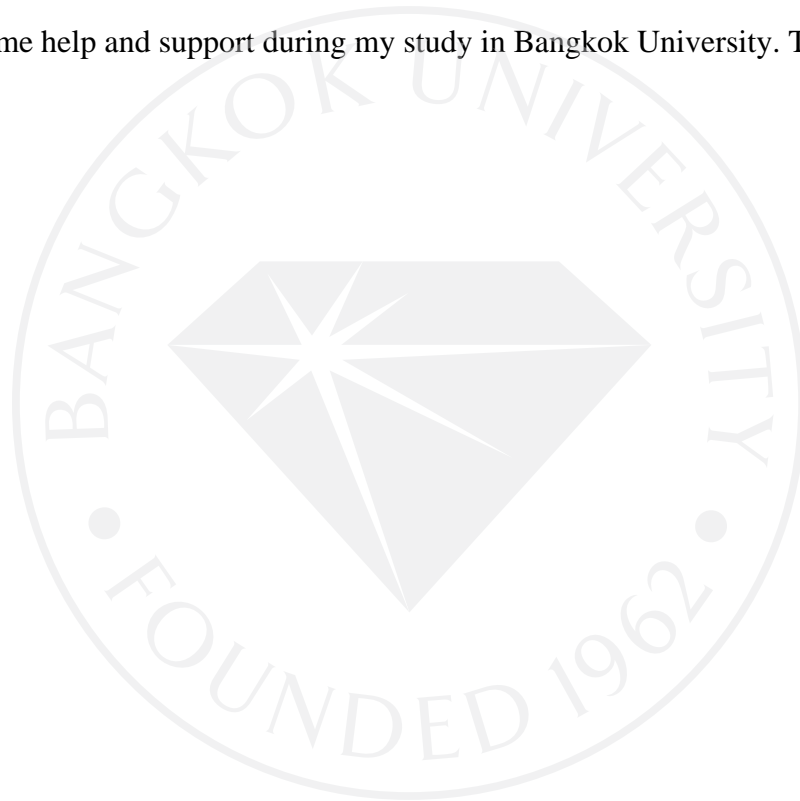


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CHAPTER ONE

INTRODUCTION

This chapter provided information of this research that the researcher would like to describe for understand the reason and objective of this study.

1. Introduction
 - 1.1 Background
 - 1.2 Statement of Problem
 - 1.3 Intension and Reason for Study
 - 1.4 Research Objectives
 - 1.5 Major Research Questions
 - 1.6 Assumption
 - 1.7 Scope of Research
 - 1.8 Benefit of Research
 - 1.9 Limitation of Research

1.1 BACKGROUND

There are many factors which make Thai people's lifestyle change such as changes of social structure, and so on. Nowadays, people change from use PCs (Personal Computer) to use laptops (notebook computer). They use laptops for their

working or searching information from internet for many purposes. Not only businesspeople but also students who use this technology for their study.

Longman Dictionary defined a laptop as a small computer that you can carry with you. Some defined as a portable computer with an LCD screen that weighs from 2 to 12 pounds. It uses batteries for mobile use and AC power for charging and desktop use. High-end laptops provide nearly all the speed and capabilities of desktop computers (www.answer.com).

Today's for many brands of laptops, almost of them provide the same functions or spec of hardware. If we ask the question about brand, how brand can play with consumers' mind? Nilson (1998) mentioned brand can make consumers to recognize a product or service and also recognize from the past experience of his or her about that brand, a brand is the key that can lead your business winning or losing in the market and strong brand can make your business success.

When industries are compete in the same price and also kind of functions. The one thing that also make product different are about features, designs, and quality of the product (Fransis, 2000). Baxter, (1995) stated that stylish is an important way for adding value to a product without changing its technical performance. So design of features, the one thing that can add value and make your products different for consumers' mind.

The researcher is interested in conducting a survey effect of brand image and product features on purchasing laptops at D-Computer Company. DCOM GROUP has been in the distributor business for computer component, as the local distributor company which performance in IT business (www.dcomputer.com). As employees at D-Computer, working in the IT business, so they will have knowledge of IT products and brands of laptops.

Table 1.1: Asia/Pacific PC Shipments in 4Q08

Rank	Vendor	4Q07 Market Share	3Q08 Market Share	4Q08 Market Share
1	Lenovo	19.4%	18.9%	19.5%
2	HP	13.2%	14.6%	13.5%
3	Dell	8.0%	9.1%	9.7%
4	Acer	6.4%	8.1%	7.3%
5	ASUS	3.1%	4.1%	4.2%
	Others	49.9%	45.2%	45.9%
	Total	100.0%	100.0%	100.0%

Source: IDC, January 2009

Source: IDC Asia and Pacific

Thailand is one country in Asia and Pacific, in term of brand of laptops, Lenovo was the brand that shipment the most. Next are HP, Dell, Acer, and ASUS.

1.2 STATEMENT OF PROBLEM

Researcher conduct this research because would like to know ‘the effect of brand image and product features on purchasing laptops’ And want to know, what is factors of product features toward consumer purchasing?

1.3 INTERSION AND REASON FOR STUDY

Today there are many brands of laptops, each brand are also different in product features. The researcher would like to know, how brand affect on consumers' mind that can push the sold of the products and also would like to know factors of product feature that affect the consumer for purchasing laptops.

1.4 RESEARCH OBJECTIVES

The objectives for this study are point out as followings.

- 1.4.1 To find out the effect of brand image and product features on purchasing laptops at D-Computer Company.
- 1.4.2 To understand the consumers' attitude toward renowned brand.
- 1.4.3 To investigate factors of product features that affect to consumers for purchasing laptops.

1.5 MAJOR RESEARCH QUESTIONS

This study aimed to answer the following questions:

Main problem

What is the effect of brand image and product features on purchasing laptops at D-Computer Company?

Sub problems

- 1.5.1 What is the most reason for purchasing laptop?
- 1.5.2 What is the brand of laptop that recognized firstly the most?

1.5.3 What is the product feature that affected on purchasing laptop the most?

1.6 ASSUMPTION

1.6.1 There is no difference in the average of the attitude toward renowned brand between male and female.

1.6.2 There is no difference in the average factors of product features toward purchasing laptops.

1.7 SCOPE OF RESEARCH

This study aimed to find out the attitude toward brand image, attitude of people toward the renowned brands, and product features that affect for purchasing laptops at D-Computer Company. The subjects are chosen from people who use laptops, people who do not use laptops.

1.8 BENEFIT OF RESEARCH

The result will be useful for those who want to start laptops or notebooks shop, to understand consumer expectation of product features and which brand that people almost come in their mind firstly because this research provides information about brands of laptops that consumer choose for purchasing.

1.9 LIMITATION OF RESEARCH

Due to time, money, and limit people for filed sampling. This research will collect the data only from D-Computer Company by questionnaires and some from online-questionnaires.



CHAPTER TWO

LITERATURE REVIEW

This chapter reviews concept about brand image, product features, and purchase intension. There are concept from product development and consumer behavior theory for major construct of the study; consist of 3 sections as followings.

2.1 Brand Image

2.2 Product Features

2.2.1 Product Quality

2.2.2 Total Product Concept

2.3 Purchase Intension

2.3.1 Buying Decision Process

2.1 BRAND IMAGE

How brand can push your sell? How does a brand can help your business? And how brands are important? There are many definition from many authors,

Kotler (2000) defined brand is a name, symbol, and it used to distinguish one's products and others from competitors.

Ellwood (2000) defined brand acts as a kind of flag; it can send a message to consumers and creating awareness of the product and make consumers feel different from other competitors.

Nowadays, brand is very important for every business, Nilson (1998) contends that a brand is the key that can lead your business winning or losing in the market and strong brand can make your business success.

So, brand and brand image are important because they act as the communication tool and it can add values to your product or service, Ellwood (2000, p.17) stated that 'there is the aura surrounds a product or service that communicates its benefits and differentiates it from competition for the consumers'.

Brand can make consumers to recognize a product or service and consumers can evaluate the expectation from product or service such as quality of the product or service and it lead to brand image of our business that consumers expected also (Thakor and Katsanis, 1997).

Nilson (1998), showed that brand not only a symbol, flag or only name, brand is also represents trust. Trust is the one part in successful branding and from the perspective of the customers and suppliers. Nilson also stated 'Trust adds value to the

relationship and trust brought potentially important benefits to both sides'. High level of trust can bring benefits for your company and also for your customers.

Brands can play in peoples' mind. If someone thinks one kind product then your brand being first in their mind, it shown that your brand becomes success. Such as, say 'traditional luxury cars' and must say Rolls-Royce, say 'high quality coffee' and must say Starbuck. The brand that come first in customers' mind which mean it got the height recognition and always come fist on shopping-list (Nilson, 1998, p.21).

If we loss in customers mind. It meant that we loss of leadership, profitability and also market shares for competitors. Nilson (1998, p.21) shown that 'IBM was once the choice for a computer, today's Microsoft for PC software, Intel for PC processors, AppleMac for graphics and IBM for large computers'. IBM loss in leadership also in market shares to competitors.

2.2 PRODUCT FEATURES

Johnson and Winchell (1989) defined the product features as in the part of product quality which is characteristics, design, or a set of features of a good or service that can determine its ability to satisfy the needs of consumer.

Cravens (1994, p.429) suggested, improving products are often by changing their styling, quality, and features. The product features can add value to product and the way

to make your brand or product to different from competition is with unique features. As the product features which in the one part of product quality, improvement a product quality or addition features that be met or exceed the consumer expected is the important strategy for increasing competitive advantage.

Proctor (2000) shown the product features also in the part of product quality.

(Figure 1)

2.2.1 Product Quality

Figure 2.1: Product Quality

Product Quality

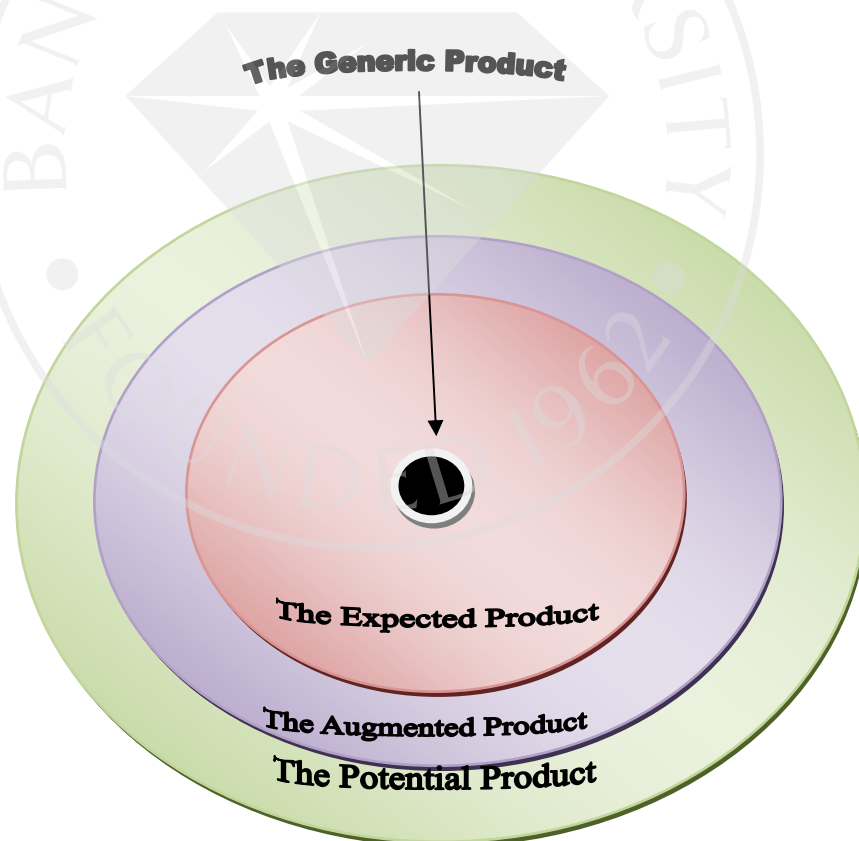
1. Performance – how well a product performs the task it was designed to do?
2. Durability – how long the product will last?
3. Conformance with specification – what is the incidence of defects found in the product on delivery; what is the incidence of effects which cannot be remedied?
4. Features – what special features does the product have which makes it superior to competitive offering?
5. The name – can one associate the image of the firm and the brand name with concept quality?
6. Reliability - can one expect the same kind of quality every time that the product is used?
7. Serviceability – is the service system efficient, competent and convenient?
8. Fit and finish – dose the product look and feel like a quality product?

Source: Strategic Marketing (Proctor, 2000)

Lehmann and Winer (1997, p.224) mentioned, product features is in the strategy of making product differential advantage. This strategy can create added value in the mind of customers that company or producer has opportunity obtain a higher price than normal price. For more clearly about what is making differential advantage or what is product features, Lehmann and Winer (1997) also shown the theory called 'Total Product Concept'.

2.2.2 Total Product Concept

Figure 2.2: Total Product Concept



Source: Product Management (Lehmann and Winer, 1997, p.225)

The Generic Product is the bundle of characteristic the functional aspects of a product or the basic product or the core benefit for buying the product.

The Expected Product is described by others benefits of the product that the customer's expectation for the product offering. In this part it includes the design of the product, packaging, quality levels, and features.

The Augmented and Potential Product described by the value added to the offering above and the customer's expectations. This two parts are support the generic and expected product in term of customer service, guarantee, after-sales service.

But there is no clearly of definition on product quality, it depended on personal tasted. Besides the personal tasted are deeply involved; such as the thing that you like, another person may dislike. But the individual expectations can affect the decision or judgment of product quality by consumer use the certain expectation to a purchase situation. The assessment of a product's quality depends on the present experience with good or service meets, exceed, or falls of your expectations (Etzetl, Stanton, and Walker, 1997, p.261).

2.3 PURCHASE INTENSION

Before making decision for buying, consumers start by collecting information based on personal experience and external environment. When consumers collect the

information reach the point or the information enough, consumers start evaluation process, and make a purchase decision by compare products and choose which product they will buy (Fishbein and Ajzen, 1975).

2.3.1 Buying Decision Process

The process begins with the need recognition and continues to next step of information search then evaluation of alternatives, purchase decision, and the last step is post-purchase evaluation (Ferrell and Hartline, p.150).

Figure 2.2: Buying Decision Process



Source: Product Management (Lehmann and Winer, 1997, p.225)

Step 1: Problem Recognition

The buying process begins when consumers unmet their need or they desired something more than their existing situation. There are two stimuli, internal stimuli and external stimuli. Internal stimuli such as hungry, thirsty, and fatigue. Others needs are from external stimuli such as advertising, shop place, and talk with friends or family (Solomon, p.296).

Step 2: Information Search

Blythe (2001) classified in two types of information search

The internal search involves remembering previous experiences, thinking about what that he or she has heard about and also attitudes toward the product.

The external search involves advertisement, reading magazine, and about talking with friends about experienced with product that propose purchases. Ferrell and Hartline, (2008, p.153) classified different from Blythe (2001) in two types of information search, from internal and external as passive and active.

Schiffman and Kanuk (2004, p.556), concluded that the consumer usually searches from his or her memory (internal information) before searches from the external information. It depends on consumer's experience, if greater past experience, the less external information for reach a decision of consumer.

Step 3: Evaluation of Alternatives

In the stage of evaluating alternatives or choosing the products, consumers start to use two types of information. First, they will set a list of brands (evoked set) that they plan to select for purchasing. Second, they will think the criteria that they use to evaluate each brand (Schiffman and Kanuk, p.559).

Step 4: Purchase decision

After the consumer has evaluated each alternative in his or her evoked set, they will intention to purchase a product or brand that they already chosen. In this stage, there are several factors that can postpone the purchase due to unfortunate situation (Ferrell and Hartline, p.155).

Step 5: Postpurchase Evaluation

Schiffman and Kanuk (2004, p.570), there are three possible outcome in this stage, (1) actual performance matches expectation, make consumer natural feeling; (2) performance exceeds expectations, this make positive feeling to consumer which lead to satisfaction; and (3) performance is below expectation, lead to dissatisfaction to customer.

Ferrell and Heartline (2008, p.155), add one more outcome, there are four outcomes, (1) delight, exceeds the customer's expectations; (2) satisfaction: the performance match the expectation; (3) dissatisfaction, the product not match or fall

short of expectation; and (4) cognitive dissonance (postpurchase doubt), the customer is unsure that the performance is match with their expectation or not.



CHAPTER THREE

RESEARCH METHODOLOGY

This chapter consist of three main parts, the first part review the research methodology, the second part describe the research methodology used in this study, and the third part is the conclusion that summarize the idea of this chapter.

3.1 Literature Review:

- 3.1.1 Marketing Research
- 3.1.2 Research Methodology
- 3.1.3 Research Question
- 3.1.4 Methods of Inquiry
- 3.1.5 Sampling Design
- 3.1.6 Survey Design and Development
- 3.1.7 Coding Structures
- 3.1.8 Reporting

3.2 Statement of Research Method Used

3.3 Conclusion

3.1 LITERATURE REVIEW

3.1.1 MARKETING RESEARCH

McDaniel and Gates (1998, p.5) defined 'marketing research is the functions which link the consumer, customer, and public to the marketer through information-information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issues; designs the method for collecting information; manages and implements the data collection process; analyzes the results; and communicates the findings and their implication'.

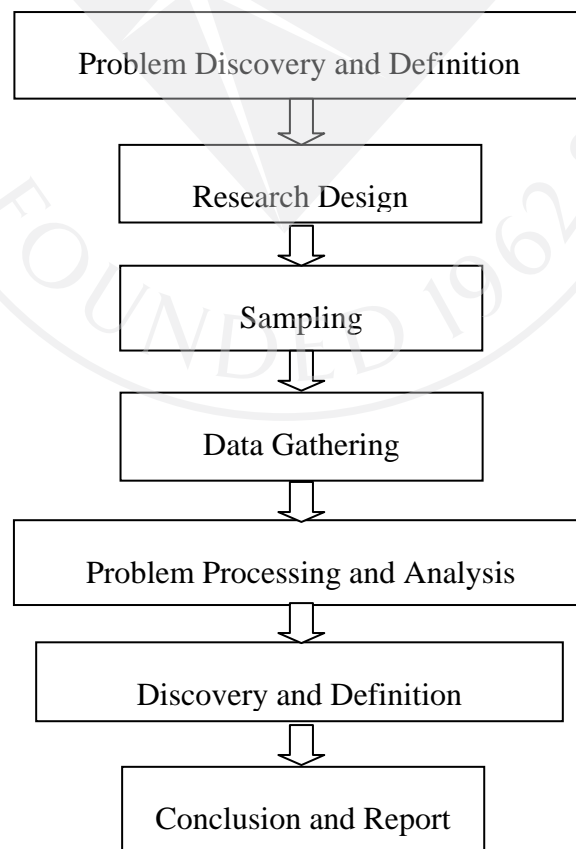
For shorter definition: Marketing research is the technique for planning for collecting and analyzing the data of relevant marketing decision making and using the results to management the marketing (McDaniel and Gates, 1998, p.5)

Kress (1988, p.14) summarized that there are four methods that always used for analyses are (1) estimating the potential loss associated with a wrong decision, (2) determining the return on investment of the research, (3) using formal analysis where probabilities of various outcomes are assigned, (4) Bayesian model. The advantage of all four methods is that they force management to pay closer attention to the possible benefits of research prior to the actual approval of a project.

3.1.2 RESEACH METHODOLOGY

From definition of marketing research, we use the data that are collected from market links to generate the information that useful to manage the marketing of company. Marketing research generates information to reduce the marketing problem or uncertainty situation. There are 6 stages in the research process in Figure 3.1, and they are often follow a generalized as (1) defining the problem, (2) planning a research design, (3) planning the sample, (4)collecting the data, (5) analyzing the data, and (6) formulating the conclusions and preparing the report (Zikmund, 1994, p. 49).

Figure 3.1: Stages of the Research Process



Source: Exploring Marketing Research (Zikmund, 1994, p. 54)

Step1: Problem Discovery and Definition

Problem discovery and definition is the most critical part of the research process and also specifying the types of the information that are needed by management. In research problem definition, there are four steps: (1) management problem/opportunity clarification, (2) situation analysis, (3) model development, and (4) specification of information requirement (Tull and Hawkins, 1987, p.28)

In this stage if the research will set the research objectives. If the researcher set up purpose of the research is clear, it more chance of the collecting the relevant information and surplus information will be much greater (Zikmund, 1994, p. 54)

Step2: Research Design

The research design is the plan to find the answer and followed the research objectives and researcher attempt to provide management with the best information (Mcdaniel and Gates, 1998, p.30)

In this stage which the researcher selects the framework for the research plan of action by the researcher selects a basic research method by determine from the source of information, there are techniques of survey or experiment, the sampling methodology, and the schedule and cost of the research (Zikmund, 1994, p. 58)

Surveys: It is the most common method of collecting primary data. A survey is a research technique in which collecting information from a sample of people by using questionnaire (Zikmund, 1994, p. 58). It also an interviewer interacting with respondents by person to person or by mail, to collect the data from respondents, the data in term of facts, opinions, and attitudes (Mcdaniel and Gates, 1998, p.32).

Observation: Observation research is ‘research that monitors respondents’ actions without direct interaction’ (Mcdaniel and Gates, 1998, p.32).

The researcher records what that can be observed, for example, the number of people that pass this building. The observation methods are nonreactive because the data are collected without direct acting with respondents and this technique is advantage because we can collect the data or record behavior without relying on reports from respondents (Zikmund, 1994, p. 61).

Experiments: Mcdaniel and Gates, (1998, p.32) defined as ‘the method that use to investigator changes one or more variables. The objective of the experiments is to measure causality. The best experiments are those in which all factors are held constant expect the ones being manipulated’. Zikmund, (1994, p.59) added that ‘marketing experiments hold the change for establishing cause-and-effect relationship. Experimentation allows investigation of changes in one variable such as sales, while

manipulating one or two other variables, perhaps price or advertising under controlled conditions’.

Step3: Sampling

Sampling is the stage that researcher thinks and determines who is to be sampled for the research, how many sample is needed, and how sampling units will be selected. Sampling involves any procedure that uses a small number part of the population to make a conclusion regarding to the whole population (Zikmund, 1994, p. 62)

Step 4: Data Gathering

In this stage, there are many research techniques that use to data gathering. There are two phase to the process of gathering data: pretesting and the main study. A pretesting phase using a small subsample may determine whether the data gathering plan for the main study is an appropriate procedure. The survey method requires form to respondent by filling out a questionnaire or by interview. While collect the data the important is to minimize errors in the process (Zikmund, 1994, p. 64).

Step 5: Problem Processing and Analysis

Zikmund (1994, p.64) defined data processing and analysis stage as ‘the stage in which the researcher performs several interrelated procedures to convert the data into a format that will answer management’s questions’.

After collecting the data or fieldwork has been completed, the data will be converted into a format that can show or answer the marketing questions. The editing and coding be used in this process by, editing is checking the data from questionnaire by correct the problems (interviewer error) before the data transferred to the computer, coding is process that enter the data into computer and verified (Zikmund, 1994, p. 64).

Step 6: Conclusion and Report

This step researcher required to present both of written and presents. Researcher must prepare the conclusion of the data analysis and communicate the recommendations to management and also try to convince that the results are clear and justified (Mcdaniel and Gates, 1998, p.34).

3.1.3 RESEARCH QUESTION

Research questions should make it easier to understand, statement should be clear and indicate with issues that want to be resolved. A research question is the marketing problem that the researcher translation into a specific questions (Zikmund, 1994, p. 112).

Hypotheses is an unproven possible solution to the problem and the question state about relationships between variables that can be tested (Zikmund, 1994, p. 119).

3.1.4 METHODS OF INQUIRY

Kent (1993, p. 23) classified type of data, there are two broad categories of data as qualitative data and quantitative data.

Qualitative Data: As words, statement, commentary or narrative and spoken or written in words. The spoken words may have been recorded in electronically. Capturing pictures of various kinds are also qualitative data.

Most of qualitative data for research in marketing arise from interviews or group discussion (Kent, 1998, p. 23).

Quantitative Data: Quantitative data arise as numbers, and relate to result of process from measurement. Measure is a systematic record as value of something in case of objects, person, organization or situation (Kent, 1998, p. 24).

Weiers (1984, p.171) defined 'measurement is the assignment of numbers to objects or phenomena according to predetermined rules' and also classified the scales of measurement as (1) nominal scale, (2) ordinal scale, (3) interval scale, and (4) ratio scale (Table 3.1).

Table 3.1: Summary of scales of measurement

<u>Scale</u>	<u>Marketing examples</u>	<u>Typical methods for</u>	
		<u>Describing</u>	<u>Analyzing</u>
<i>Nominal (identification or categorization)</i>	Owner or does not own a Chevrolet	Frequency	
	Male or female	Percentage	Chi-square test
	Season ticket holder or non-season ticket holder for Pittsburgh	Mode	
	Steelers	Cross-tabulation	
<i>Ordinal (greater than or less than)</i>	Prefer Michelob over Budweiser	Median	Rank-order correlation
	“Compared to Brand X, Peter Pan tastes more like real peanuts”	Mode	Sign test
	Has more positive attitude toward political candidate A than toward B	Percentile	Non-metric multidimensional scaling
<i>Interval (greater than or less than, constant unit of measurement, but arbitrary zero point)</i>	Selects “disagree slightly” alternative in equal-appearing interval instrument question for attitude measurement	Mean	Correlation analysis Discriminate analysis
	Attitude toward socialized medicine is +1.5 on a given Likert scale instrument	Standard deviation	Analysis of variance Metric multidimensional scaling
<i>Ratio (all of the above plus an absolute zero point)</i>	Age	Same as interval	Same as interval
	Income		
	Pounds of detergent purchase each year		

Source: Marketing Research (Weiers, 1984, p.159)

○ Nominal Scale

The nominal scale is the most primitive of the group of scale, and some people think that it is not a scale measurement because nominal scale is mathematically weak.

Examples of nominal scale number are social security numbers, license plate numbers.

‘Application of the nominal scale to marketing measurement is generally for the

purpose of coding questionnaire responses in which the data collected place the respondent into a particular category' (Weiers, 1984, p.152).

- **Ordinal Scale**

The ordinal scale goes beyond the simple of nominal scale, ordinal scale allows the possibility of “greater than” and “less than” as additional descriptors of marketing phenomena. For questionnaire, a consumer may asked to rank a number in order to which prefer to participate in them (Weiers, 1984, p.154).

- **Interval Scale**

The interval scale is more powerful and one more step from the ordinal scale, this scale not only consisted of “greater than” and “less than”, but the interval scale has ability to determine “how much” more or less. Thus, the interval scale allows to describe the distances between the various measurements like “strongly disagree”, “neutral” and “strongly agree” (Weiers, 1984, p.155-156).

- **Ratio Scale**

The ratio scale as the top of all scale measurement, the scale has both an absolute zero point and equal intervals of measurement. Data in marketing research as the ratio scale as measurement as age, income, price, and also market share. See that each of these items has a very definite zero point or absolutely none of the characteristic is present (Weiers, 1984, p.157).

Type of Marketing Information

Primary Data: Weiers (1984, p.80) defined as information that is collected or by researcher for the objective or purpose of the project. For example, local restaurant conduct a survey in area of the restaurant to determine customers' perception of quality of food or satisfaction of service that customer received. The primary data has also advantage and disadvantage. The primary data generate more expensive and time-consuming to collect but the data is more accurate to answer the problem of research.

Secondary Data: secondary data consists of information that has been collected by some people other than the researcher, and also for other purpose but the secondary data has the advantage in term of time but it may not particularly relevant to answer to the marketing problem. The difficulty with secondary data is lack of time between of an event that founded of it published related to your marketing problem at now in hand. Secondary information was primary information for the firm that generated it, and the research objective of the firm may be far different from your own and Table 3.2 summarizes comparative advantages between primary data and secondary data (Weiers, 1984, p.80-81).

There is a large amount of secondary data that available for marketing research. The researcher should know where to find the relevant data and should be familiar with

procedures to reduce time for searching the data. The secondary data, there are two types, (1) internal data and (2) external data (Proctor, 2000, p.58).

Table 3.2: Comparative advantage of primary versus secondary data sources

	Information type	
	<u>Primary</u>	<u>Secondary</u>
<i>Relevance to marketing problem</i>	+	
<i>Recency of the information</i>	+	
<i>Objectivity of information</i>	+	
<i>Economy of information acquirement</i>		+
<i>Speed of information acquirement</i>		+

Source: Marketing Research (Weiers, 1984, p.81)

○ **Internal Data**

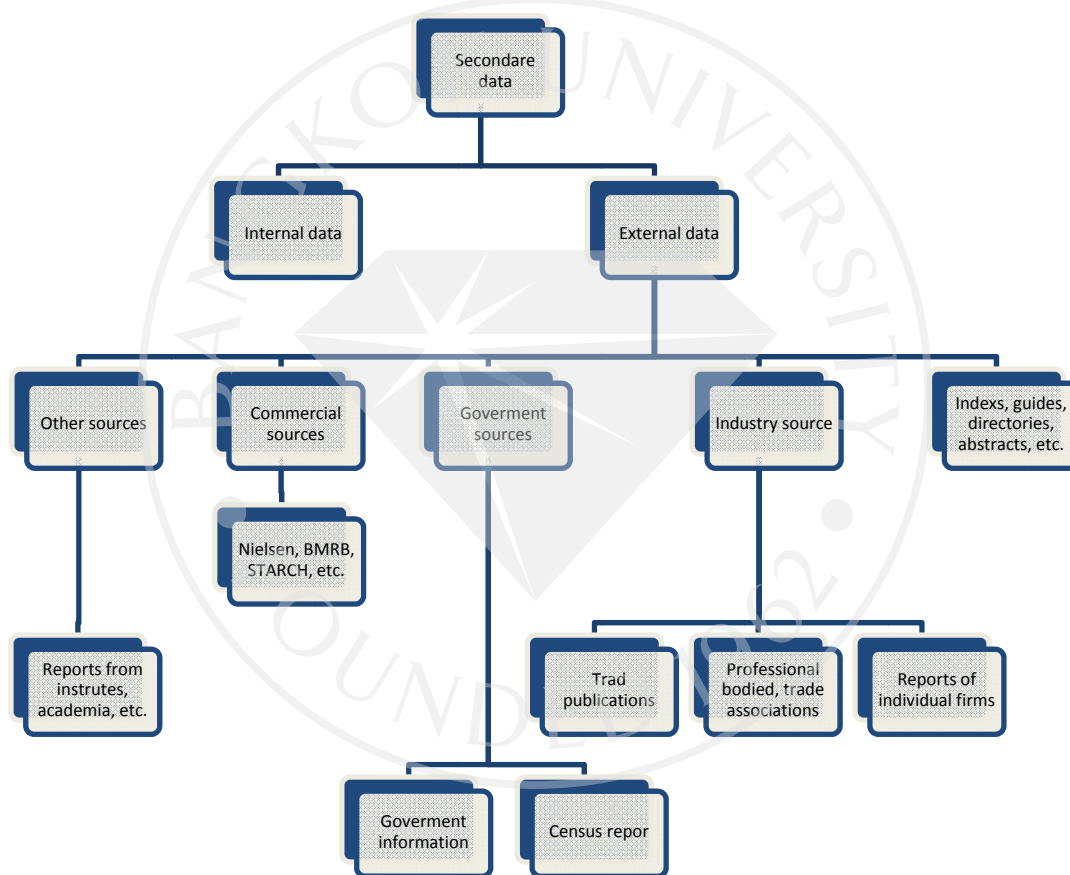
Internal secondary data may exist with the firm or organization, the reason that they collected the data not for marketing research or it may not answer relevant to marketing problem. The accounting department is some example of internal source, in term of sales and cost data (Weiers, 1984, p.81).

○ **External Data**

The sources of external data are quite numerous, they can be separated under major classifications as (1) government agencies, (2) published source, (3) trade associations, and (4) commercial services (Weiers, 1984, p.82).

External data refer to the data that come from outside an organization. In Figure 3.2 are the various forms of external data that the researcher order o use them to suit with the research needs (Proctor, 2000, p.58).

Figure 3.2: Secondary sources of information



Source: Essentials of Marketing Research (Proctor, 2000, p.59)

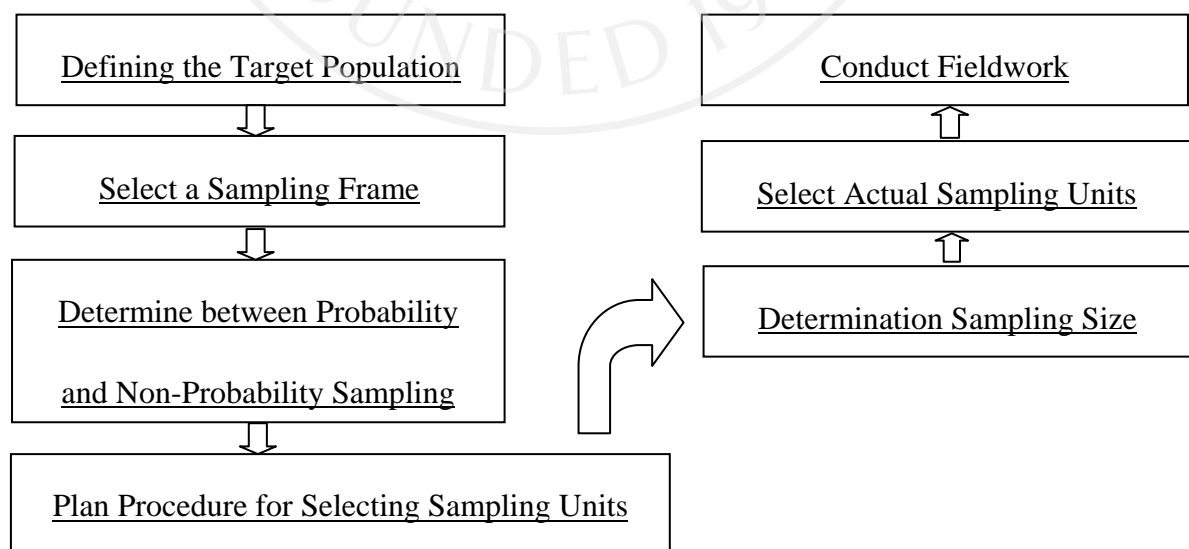
3.1.5 SAMPLING DESIGN

Zikmund (1994, p.414) defined sampling terminology as ‘the process of sampling involves using a small number of items or parts of all population to make conclusions about the whole population’ and also defined meaning of sample, population, population element, and census. ‘A sample is a subset or some part of a large population, and use sample as to estimate some characteristic of the population. A population or universe is any complete group, for example, people, college students, employees in sales department, or group of people that share some characteristics between population and universe, the group is finite (population) or infinite (universe). The term of population element refer to an individual member of the population. A census is an investigation of all individual elements that make up the population’.

Stages in selection of a Sample

There are seven stages in selection of a sample (Figure 3.3).

Figure 3.3: Stages in the selection of a sample



Source: Exploring Marketing Research (Zikmund, 1994, p. 447)

Step1: Defining the Target Population

The first step in any sampling process is the selection of target population and also identification the parameters of population which appropriate to marketing research. The determination of target population depends on sample results and also depends on the particular objectives of the research (Weiers, 1984, p.105).

Step 2 : Select a Sampling Frame

Zikmund (1994, p.418) defined 'the sampling frame is a list of elements from which sample size may be drawn; also called working population'. The working population provides the list for operational work. If a complete list of population is not accessible, other materials such as maps or photograph maybe use as a sampling frame.

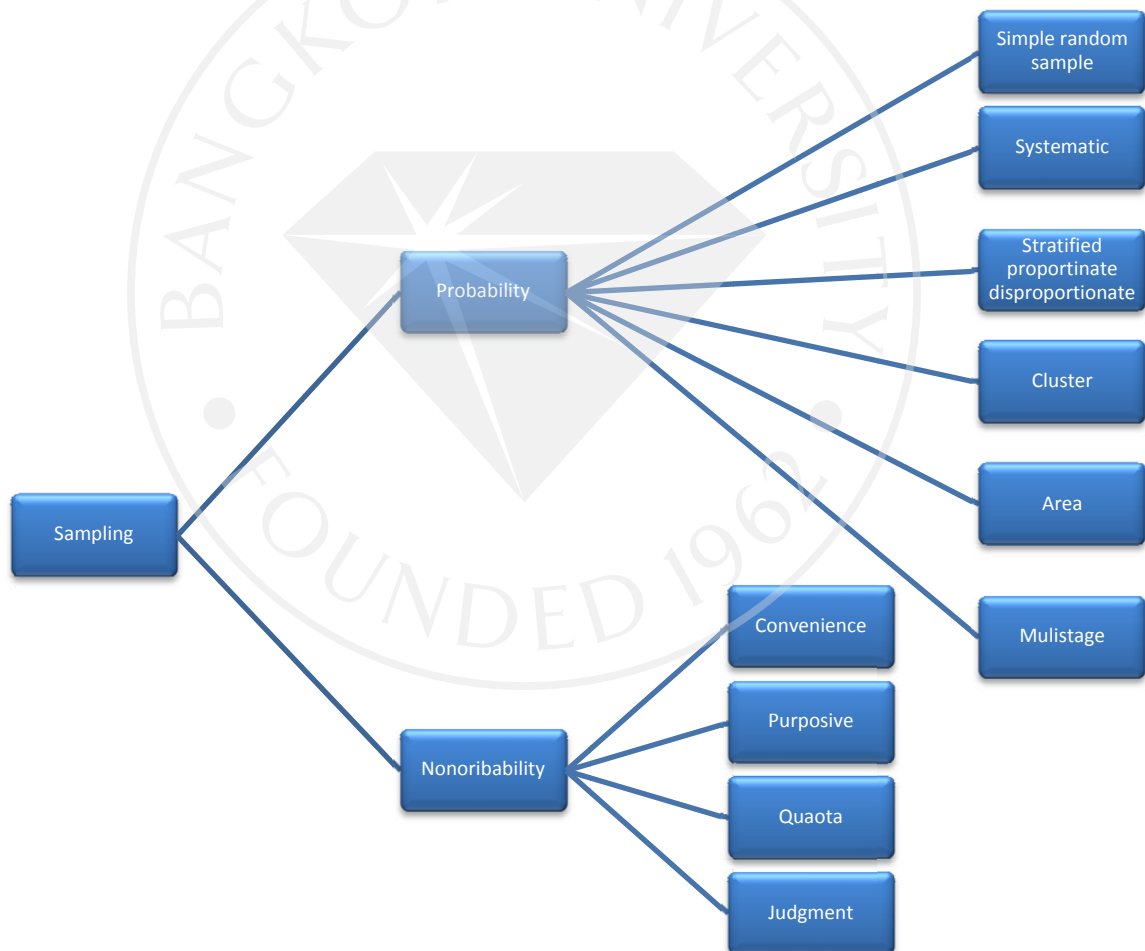
Step 3: Determine between Probability and Non-Probability Sampling

There are differences between probability and non-probability sampling. In this stage should monitor that probability sampling has advantage of it can be able to calculate the sampling error of the measurement, while non-probability sampling does not offer this (Weiers, 1984, p.107).

Step 4: Plan Procedure for Selecting Sampling Units

The fourth step in the process is the selection of a sampling method. The sampling methods can be grouped in to two heading, (1) probability sampling methods and (2) non-probability methods (Mcdaniel and Gates, 1998, p.304). All methods are summarized in Figure 3.4.

Figure 3.4: Summary of probability and non-probability sampling methods



Source: Essentials of Marketing Research (Proctor, 2000, p.108)

Step 5: Determination Sampling Size

After chosen the sampling method, in this step is determining the appropriate sample size. Mcdaniel and Gates (1998, p.304) stated there are issue in role that available budget, various rules of thumb, the number of subgroups to be analyzed, and traditional statistical methods play in this process’.

Step6: Select Actual Sampling Units

Weiers (1984, p.108) stated the process in this stage as the sample that selected if it cross section of the population, we mat compare the characteristic of the sample with those exist in the population, we can based on census or other benchmark.

Step7: Conduct Fieldwork

The final stage of the sampling process, the researcher should overlaps with the sample and also reviews the questions in questionnaire (Weiers, 1984, p.109). In this stage there are many mistakes made in collection of the data. While data collection error occurs, the researcher can minimize the impact by use the appropriate measurement (Kress, 1988, p.217).

3.1.6 SURVEY DESIGN AND DEVELOPMENT

Survey research is a tool for collecting data from asking respondents questions. Survey can provide in short-time, inexpensive, and information quite accurate. Typical

survey is a descriptive research by measuring awareness, product knowledge, brand usage behavior, opinions, and others (Zikmund, 1994, p. 229).

3.1.7 CODING STRUCTERS

The coding defined as ‘the process of identifying and classifying each answer with a numerical score or other symbol’ (Zikmund, 1994, p. 542).

Researcher transfers of data from questionnaires into computer by organizing coded data into fields, records, and files. Each record has a various types of information about the respondent and each question there coded in each answer

Production coding is the one in coding process. Production coding is the process that transferring the data from questionnaire to the storage, data can be onto disk or computer system for entering data. After the raw data are in the computer, programs may check for errors (Zikmund, 1994, p. 542-555).

3.1.8 REPORTING

Mcdaniel and Gates (1998, p.34) suggested the step of report as ‘the reports should begin with a clear, concise statement of the research objectives, followed by a complete, but brief and simple, explanation of the research design or methodology. A summary of major finding should come next. The report should end with a presentation of conclusions and recommendation for management’.

3.2 STATEMENT OF RESEARCH METHOD USED

The study of the effect of brand image and product features on purchasing at D-Computer Company had applied the research method as follow;

RESEARCH METHODOLOGY

In this study, the researcher used quantitative approach by using surveys technique to collect data from a sample of people by using questionnaire in order to understand the attitude of people at D-Computer Company toward brand image and product features those affect purchasing.

RESEARCH QUESTION

What is the effect of brand image and product features on purchasing laptops?

What is the most reason for purchasing laptop?

What is the brand of laptop that recognized firstly the most?

What is the product feature that affected on purchasing laptop the most?

METHODS OF INQUIRY

The primary data will be collected from people at D-Computer Company by using descriptive research design, and data collection method is self-administered survey by distributing the questionnaires to the respondents.

SAMPLING DESIGN

The sample group was drawn from the population of people who shopping at D-Computer Company, by employing an accidental sampling technique. The sample size was 172 people both male and female.

The sample size of this study is calculation from the research population that derive from the number of total officers at D-Computer Company around 300 people.

According to Yamane's determination sample size table with the population at 300 the sample size for precision of $\pm 5\%$ is 172. Table 3.3 present the sample size.

Table 3.3 Yamane Taro's Sample Size Table

Sample size for $\pm 5\%$, $\pm 7\%$ and $\pm 10\%$ Precision Levels Where Confidence Level is 95% and P=.5.			
Size of Population	Sample Size (n) for Precision (e) of:		
	$\pm 5\%$	$\pm 7\%$	$\pm 10\%$
100	81	67	51
125	96	78	56
150	110	86	61
175	122	94	64
200	134	101	67
225	144	107	70
250	154	112	72
275	163	117	74
300	172	121	76
325	180	125	77
350	187	129	78
375	194	132	80
400	201	135	81
425	207	138	82
450	212	140	82

Source: Determining Sample Size (Israel, Glenn D, 2009)

Survey Design and Development

The researcher conducts a questionnaires consisting of closed-ended questions and opened ended questions. The questionnaire in the survey was divided into three main parts as follows:

Part 1: Demographic information of the respondents

The first part consisted of 5 questions to cover the general information of the respondents included: gender, age, education, occupation, and income per month. The respondents were asked to make correct mark in the box provided in front of the statements that corresponded to themselves.

Part 2: Respondents' source of information and Brand Recognition

This part consisted of 4 questions for surveying the way to find information of laptops for purchasing and ranking the brands of laptops from respondents.

Part 3: Attitude of Respondents toward Renowned Brand Image

This section consisted of 6 questions, attempts to investigate the attitude of respondents toward brand image. This part used the summated rating scale with five-point was used to examine the degree.

Part 4: Attitude of Brand Image toward Purchasing Laptops

This section attempts to investigate the attitude of respondents toward brand image that affect to purchasing decision. This part used the summated rating scale with five-point was used to examine the degree toward purchasing laptops.

Part 5: Attitude of Product Features toward Purchasing Laptops

This section attempts to investigate the effect of product features on purchasing decision. This part used the summated rating and Likert's scale with five-point was used to examine the degree of expectation the customer toward purchasing laptops.

Strongly agree	equaled 5 points
Agree	equaled 4 points
Uncertain	equaled 3 points
Disagree	equaled 2 points
Strongly disagree	equaled 1 point

From this scale, the results can be explained in the level of influences as follows:

<u>Average Value</u>	<u>Result</u>
4.51 – 5.00	Strongly agree
3.51 – 4.50	Agree
2.51 – 3.50	Uncertain
1.51 – 2.50	Disagree
1.00 – 1.50	Strongly disagree

CODING STRUCTERS

The coding structures of each part are as follow;

Part 1: Demographic information of the respondents

Variables	Coding
1. Gender	1 = Male 2 = Female
2. Age	1 = Below 20 years 2 = 20 – 25 years 3 = 26 – 30 years 4 = 31 – 35 years 5 = Over 35 years
3. Education Level	1 = Under Bachelor's degree 2 = Bachelor's degree 3 = Master's degree or higher
4. Occupation	1 = Students 2 = Government / State Enterprises 3 = Private Company 4 = Business Owner 5 = Unemployed
5. Income per month	1 = 10,000 Baht or below 2 = 10,001 – 20,000 Baht 3 = 20,001 – 30,000 Baht 4 = 30,001 – 40,000 Baht 5 = 40,001 Bath or above

Part 3: Attitude of Respondents toward Renowned Brand Image

Part 4: Attitude of Brand Image toward Purchasing Laptops

Part 5: Attitude of Product Features toward Purchasing Laptops

The scale ratings for this part are as follow;

Strongly agree	equaled 5 points
Agree	equaled 4 points
Uncertain	equaled 3 points
Disagree	equaled 2 points
Strongly disagree	equaled 1 point

3.3 CONCLUSION

This chapter reviews the process for conducting marketing research and summarizes the research methodology that be used for this study of ‘the effect of brand image and product features toward purchasing laptops’.

After that research topics had been selected, the literature review part was conducted. Then the questionnaires were designed according to the objective of the study. Some questionnaires were adopted from documents related to the research topic. The answers of the respondents were put into the program by using the Statistical Package for the Social Sciences program (SPSS) version 13.0 for data analysis.

CHAPTER FOUR

DATA PRESENTATION

The results in this chapter were based on 172 respondents. The data is divided into six parts as follow:

- 4.1 Demographic Information of the Respondents Gender
 - 4.1.1 Table 4.1: Gender
 - 4.1.2 Table 4.2: Age of the Respondents
 - 4.1.3 Table 4.3: Education of the Respondents
 - 4.1.4 Table 4.4: Occupation of the Respondents
 - 4.1.5 Table 4.5: Income per month of the Respondents
- 4.2 Source of Information and Brand Recognition
 - 4.2.1 Table 4.6: Source of Information of the Respondents
 - 4.2.2 Table 4.7: Reason for Purchasing Laptops of Respondents
 - 4.2.3 Table 4.8: First Brand of Laptops that Recognize
 - 4.2.4 Table 4.9: Respondents' Brand of Laptop
- 4.3 Attitude of Respondents toward Renowned Brand Image
 - 4.3.1 Table 4.10: Attitude of Respondents toward Renowned Brand Image
- 4.4 Attitude of Brand Image toward Purchasing Laptops
 - 4.4.1 Table 4.11: Attitude of Brand Image toward Purchasing Laptops
- 4.5 Attitude of Product Features toward Purchasing Laptops
 - 4.5.1 Table 4.12: Attitude of Product Features toward Purchasing Laptops
- 4.6 Data to Answer Research Questions

4.1 DEMOGRAPHIC AND INFORMATION OF THE RESPONDENTS

Table 4.1: Gender

		Frequency	Percent
Valid	Male	113	65.7
	Female	59	34.3
	Total	172	100.0

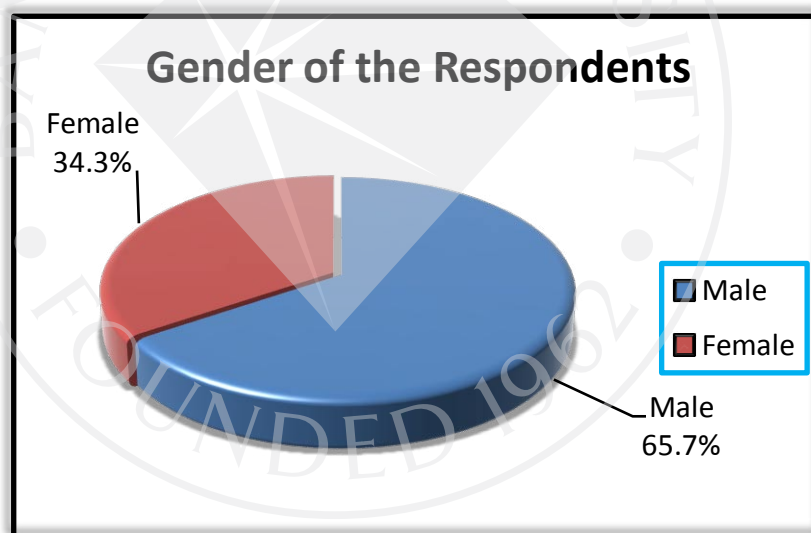


Figure 4.1: Gender

Table 4.2: Age of the Respondents

		Frequency	Percent
Valid	20-25 years	91	52.9
	26-30 years	77	44.8
	31-35 years	4	2.3
	Total	172	100.0

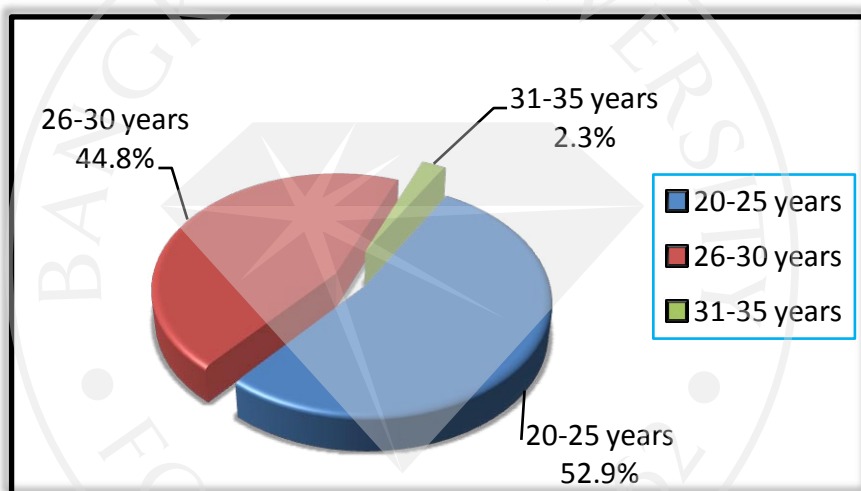
**Figure 4.2: Age of the Respondents**

Table 4.3: Education of the Respondents

Education	Frequency	Percent
Bachelor's degree	141	82.0
Master's degree or higher	31	18.0
Total	172	100.0

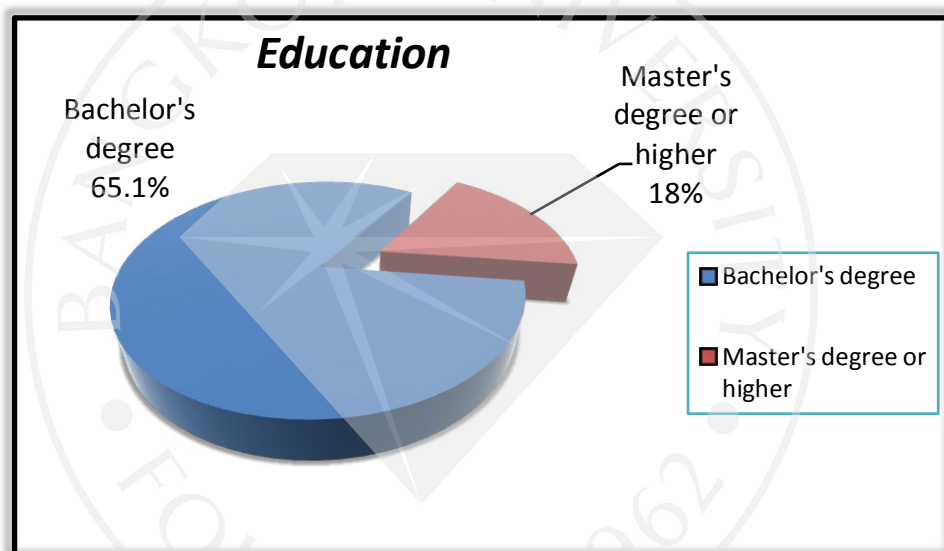
**Figure 4.3: Education of the Respondents**

Table 4.4: Occupation of the Respondents

Occupation	Frequency	Percent
Private Company	159	92.4
Government / State Enterprises	11	6.4
Business Owner	2	1.2
Total	172	100.0

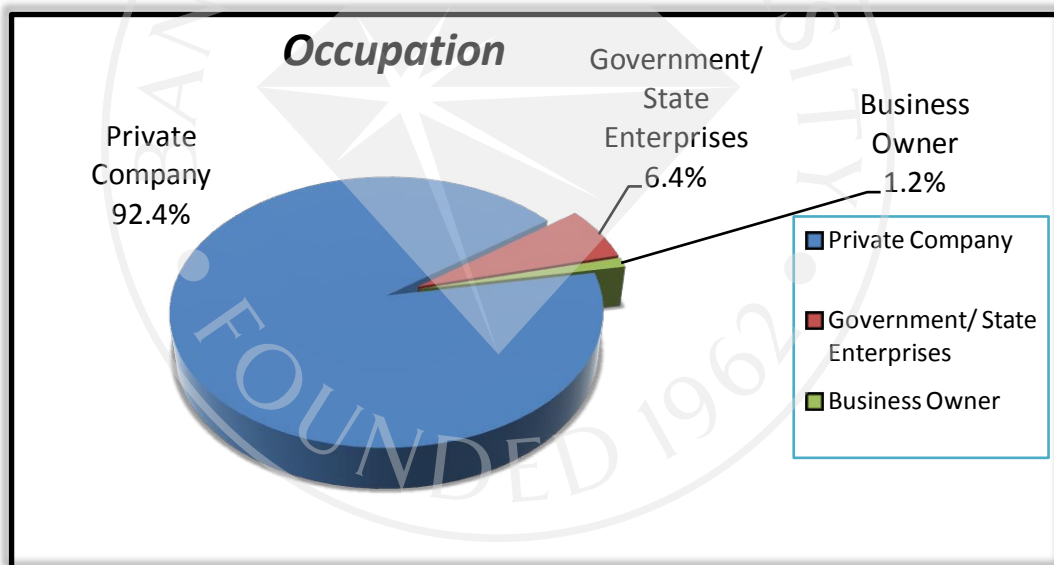
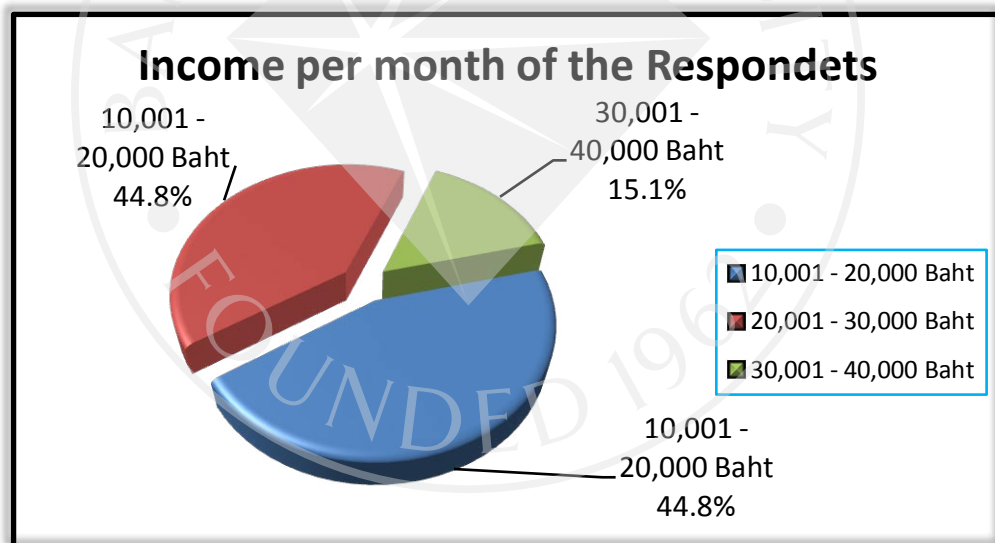
**Figure 4.4: Occupation of the Respondents**

Table 4.5: Income per month of the Respondents

Income	Frequency	Percent
10,001 - 20,000 Baht	77	44.8
20,001 - 30,000 Baht	69	40.1
30,001 - 40,000 Baht	26	15.1
Total	172	100.0

Figure 4.5: Income per month of the Respondents

4.2 SOURCE OF INFORMATION AND BRAND RECOGNITION

Table 4.6: Source of Information of the Respondents

Source of Information	Frequency	Percent
Internet	112	65.1
PC Magazines	19	11.0
Dealer shops	24	14.0
Friends	17	9.9
Total	172	100.0

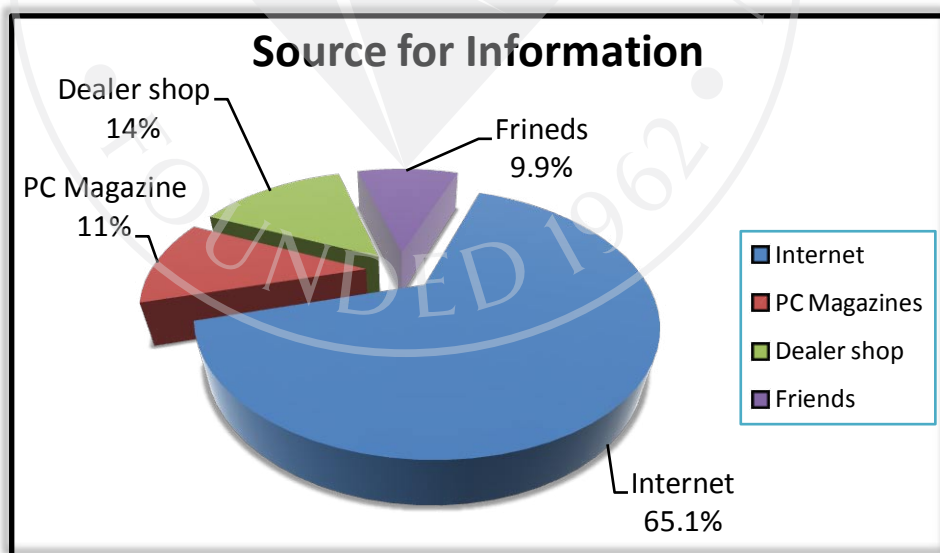


Figure 4.6: Source of Information of the Respondents

Table 4.7: Reasons for Purchasing Laptops of Respondents

Reason for Purchasing	Frequency	Percent
Working	96	55.8
Education	18	10.5
Surfing internet	58	33.7
Total	172	100.0

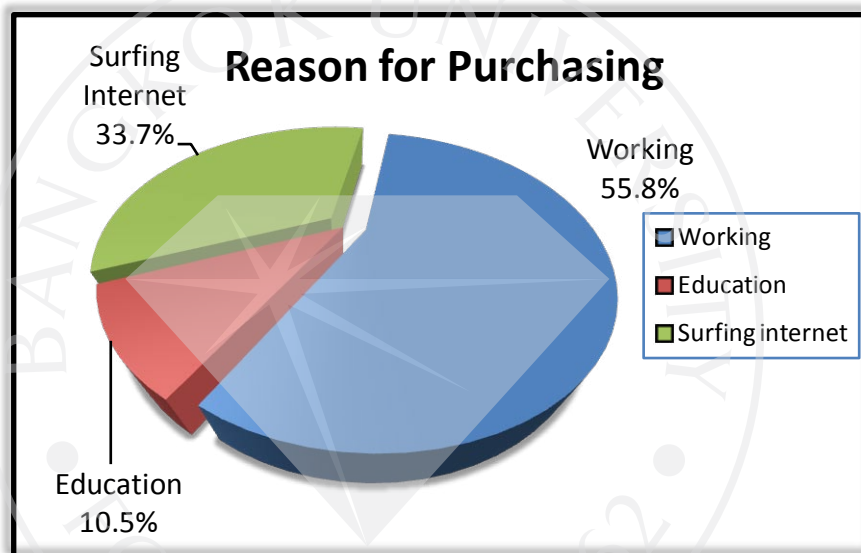
**Figure 4.7: Reason for Purchasing Laptops of Respondents**

Table 4.8: First Brand of Laptops that Recognize

Brands of Laptops	Frequency	Percent
ACER	28	16.3
Apple (Mac Book)	32	18.6
ASUS	23	13.4
Compaq	8	4.7
DELL	8	4.7
HP (Hewlett-Packard)	37	21.5
IBM	3	1.7
Sony (Vaio)	24	14.0
Toshiba	9	5.2
Total	172	100.0

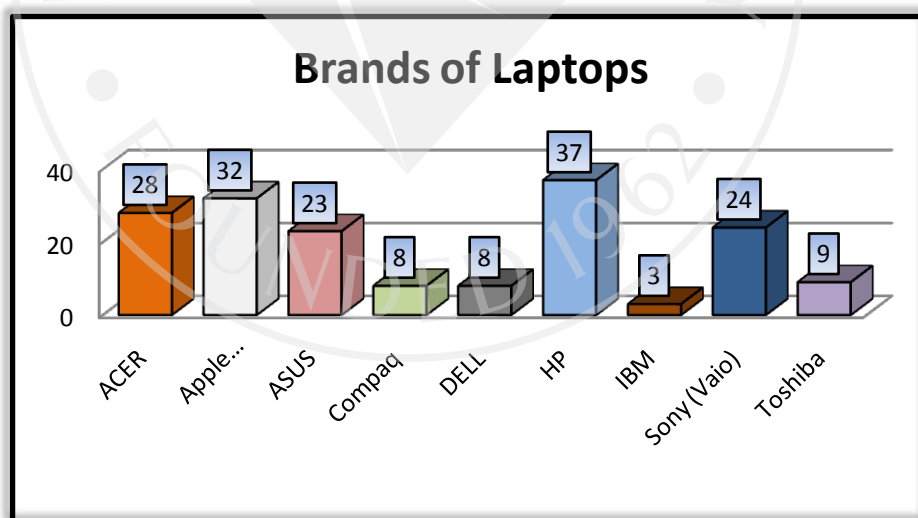
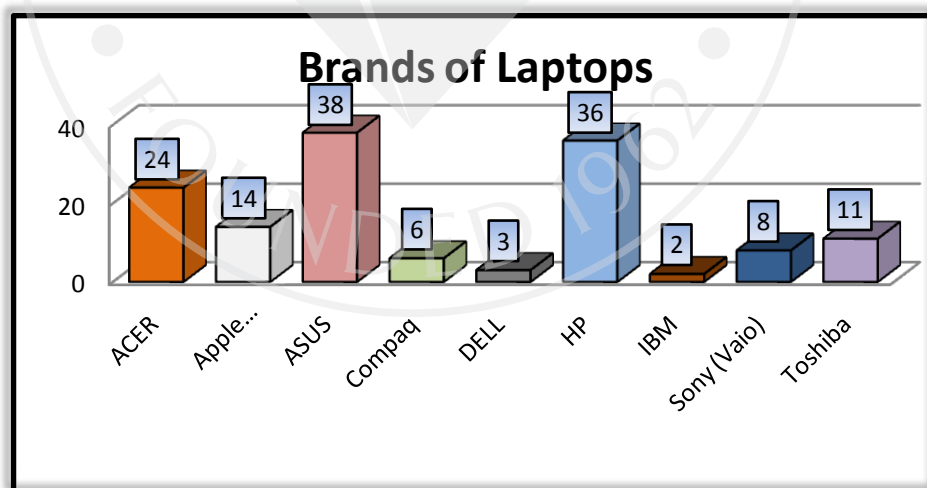
**Figure 4.8: First Brand of Laptops that Recognize**

Table 4.9: Respondents' Brand of Laptop

Brands of Laptops	Frequency	Percent
ACER	24	14.0
Apple (Mac Book)	14	8.1
ASUS	38	22.1
Compaq	6	3.5
DELL	3	1.7
HP	36	20.9
IBM	2	1.2
Sony (Vaio)	8	4.7
Toshiba	11	6.4
Total	142	82.6
Not have	30	17.4
Total	172	100.0

**Figure 4.9: Respondents' Brand of Laptop**

4.3 ATTITUDE OF RESPONDENTS TOWARD RENOWNED BRAND IMAGE

Table 4.10: Attitude of Respondents toward Renowned Brand Image

Attitude toward Renowned Brand Image	Mean	Std. Deviation	Rate	Rank
Renowned brand refer to good product design	4.02	0.62	Agree	5
Renowned brand refer to good quality of products	4.24	0.63	Agree	3
Renowned brand refer to good in services	4.01	0.71	Agree	6
Renowned brand refer to good in after-sale services	4.16	0.59	Agree	4
You trust product that renowned brand	4.42	0.54	Agree	1
Renowned brand image product, helps to enhance your image	4.41	0.50	Agree	2
Average of Attitude toward Renowned Brand Image	4.2103	.33314		

4.4 ATTITUDE OF BRAND IMAGE TOWARD PURCHASING

Table 4.11: Attitude of Brand Image toward Purchasing Laptops

Attitude of Brand Image toward Purchasing	Mean	Std. Deviation	Rate	Rank
You focus on the brand of laptops that has a reputation in term of brand image	4.46	0.53	Agree	1
You focus on the brand of laptops that has a reputation for product quality	4.06	0.56	Agree	2
You focus on the brand of laptops that has a reputation for service quality	3.65	0.62	Agree	4
You focus on the brand of laptops that has a reputation for after-sale service	4.05	0.51	Agree	3
Average Attitude of Brand Image toward Purchasing	4.0538	.30411		

4.5 ATTITUDE OF PRODUCT FEATURES TOWARD PURCHASING LAPTOPS

Table 4.12: Attitude of Product Features toward Purchasing Laptops

Factors of Product Features toward Purchasing Laptops	Mean	Std. Deviation	Rate	Rank
Good <u>product design</u> (Shape, Color)	4.37	0.62	Agree	1
Features of <u>keyboard and touchpad</u>	3.83	0.59	Agree	5
Features of <u>LCD monitor</u>	3.90	0.65	Agree	4
Features of <u>speakers</u>	3.65	0.82	Agree	7
Longer time for battery	3.66	0.74	Agree	6
Weight of products	4.20	0.69	Agree	2
Size of laptops (prefer small size)	4.09	0.83	Agree	3
Operation System (OS) that already installed (Mac OS , Windows XP, Vista, 7)	3.23	1.03	Uncertain	8
Average Factors of Product Features toward Purchasing Laptops	3.8656	.44877		

4.6 DATA TO ANSWER RESEARCH QUESTIONS

Table 4.13: Factors of Product Features toward
Purchasing Laptops Classify by Gender

Factors of Product Features toward Purchasing Laptops	Sex					
	Male			Female		
	Mean	Std. Deviation		Mean	Std. Deviation	
Good product design (Shape, Color)	4.32	0.60	<u>1</u>	4.47	0.65	<u>3</u>
Features of keyboard and touchpad	3.73	0.63	<u>5</u>	4.02	0.44	<u>6</u>
Features of <u>LCD monitor</u>	3.83	0.55	<u>4</u>	4.03	0.79	<u>5</u>
Features of <u>speakers</u>	3.57	0.77	<u>6</u>	3.81	0.90	<u>7</u>
Longer time for battery	3.32	0.47	<u>7</u>	4.32	0.73	<u>4</u>
Weight of products	3.94	0.64	<u>2</u>	4.69	0.46	<u>1</u>
Size of laptops (prefer small size)	3.85	0.82	<u>3</u>	4.54	0.65	<u>2</u>
Operation System (OS) that already installed(Mac OS , Windows XP, Vista, 7)	3.01	1.11	<u>8</u>	3.64	0.69	<u>8</u>

**Table 4.14: Independent-Sample T Test between
Gender and Average of Attitude toward Renowned Brand Image**

Independent-Sample T Test	Sex				Levene's Test for Equality of Variances			
	Male		Female					
	Mean	S.D.	Mean	S.D.	Mean Difference	Sig. (2-tailed)	F	Sig.
	4.1136	.30396	4.3955	.30933	-.28191	.000	.256	.614

**Table 4.15: Independent-Sample T Test between
Average Factors of Product Features toward Purchasing Laptops**

Independent-Sample T Test	Sex				Levene's Test for Equality of Variances			
	Male		Female					
	Mean	S.D.	Mean	S.D.	Mean Difference	Sig. (2-tailed)	F	Sig.
	3.6947	.36947	4.1928	.40024	-.49811	.000	.256	.604

CHAPTER FIVE

DATA ANALYSIS

In this chapter, the data showed in chapter four will be analysis in each table as follow:

- 5.1 Refer to Table 4.1; **Gender**
- 5.2 Refer to Table 4.2; **Age of the Respondents**
- 5.3 Refer to Table 4.3; **Education of the Respondents**
- 5.4 Refer to Table 4.4; **Occupation of the Respondents**
- 5.5 Refer to Table 4.5; **Income per month of the Respondents**
- 5.6 Refer to Table 4.6; **Source of Information of the Respondents**
- 5.7 Refer to Table 4.7; **Reason for Purchasing Laptops of Respondents**
- 5.8 Refer to Table 4.8; **First Brand of Laptops that Recognize**
- 5.9 Refer to Table 4.9; **Respondents' Brand of Laptop**
- 5.10 Refer to Table 4.10; **Attitude of Respondents toward Renowned Brand**
- 5.11 Refer to Table 4.11; **Attitude of Brand Image toward Purchasing Laptops**
- 5.12 Refer to Table 4.12; **Factors of Product Features toward Purchasing Laptops**

5.1) Refer to Table 4.1; **Gender**

The majority of respondents were male (65.7%) whereas (34.3%) were female.

5.2) Refer to Table 4.2; **Age of the Respondents**

Most of the respondents' aged between 20 - 25 years 55.9% from all respondents, 44.8% were aged between 26 - 30 years, and only 4 of respondents were 34 - 35 years (2.3%).

5.3) Refer to Table 4.3; **Education of the Respondents**

Bachelor's degree was the most of the respondents (82.0%), whereas (18.0%) were Master's degree or higher.

5.4) Refer to Table 4.4; **Occupation of the Respondents**

Most respondents were private company officers (92.4%). Government or state enterprises were (6.4%), and 1.2% were business owner.

5.5) Refer to Table 4.5; **Income per month of the Respondents**

The majority of respondents' income per month was between 10,001 - 20,000 Baht (44.8%), income between 20,001 - 30,000 Baht (40.1%), and income between 30,001 - 40,000 Baht (15.1%).

5.6) Refer to Table 4.6; **Source of Information of the Respondents**

Most respondents used information from internet help for making purchasing decision (65.1%). Second was information from TV (14.0%), PC Magazine was the third (11.0%), and the last was asking from their friends (9.9%).

5.7) Refer to Table 4.7; **Reason for Purchasing Laptops of Respondents**

Working was the most reason for purchasing laptops (55.8%), use for surfing internet was the second (33.7%), and the third was for education (10.5%).

5.8) Refer to Table 4.8; **First Brand of Laptops that Recognize**

Result from table 8, from total of 172 respondents, 37 respondents (21.5%) recognized the HP as the first brand, 32 respondents recognized the Apple (Mac Book) as the first brand were 18.6%, ACER 16.3%, Sony (Vaio) 14.0%, ASUS 13.4%, Toshiba 5.2%, DELL and Compaq were 4.7%, and IBM only 1.7%.

5.9) Refer to Table 4.9; **Respondents' Brand of Laptop**

From total 172 respondents, 142 respondents already had a laptop, remaining 30 respondents had not.

Result from table 9, 38 respondents used ASUS (22.1%), 36 respondents used HP (20.9%), 24 respondents used ACER (22.1%), 14 respondents used Apple (Man Book) (8.1%), 11 respondents used Toshiba (6.4%), 8 respondents

used Sony (Vaio) (4.7%), 6 respondents used Compaq (3.5%), 3 respondents used DELL (1.7%), and 2 respondents used IBM (1.2%).

5.10) Refer to Table 4.10; **Attitude of Respondents toward Renowned Brand Image**

Trust product that renowned brand ($\bar{x} = 4.42$) was the first. Second, the respondents agreed with the renowned brand image product can helps to enhance their image ($\bar{x} = 4.41$). Third was renowned brand image refers to good quality of products ($\bar{x} = 4.24$).

5.11) Refer to Table 4.11; **Attitude of Brand Image toward Purchasing Laptops**

Result of Table 11, it showed the respondents' attitude of brand image toward purchasing laptops, the respondents agreed with that they focus on famous brands of notebook first ($\bar{x} = 4.46$). The respondents focus on after-sales services, were the second order ($\bar{x} = 4.05$). The brand that famous in quality products is the third ($\bar{x} = 4.06$). The last was the brand of notebook that has a reputation for service quality ($\bar{x} = 3.65$).

5.12) Refer to Table 4.12; **Factors of Product Features toward Purchasing Laptops**

First, product design was the factor that respondents use to make decision for purchasing ($\bar{x} = 4.37$). Second, was about size and weight of laptops ($\bar{x} = 4.20$). Third, for more specific size, the respondents would purchase smaller size of

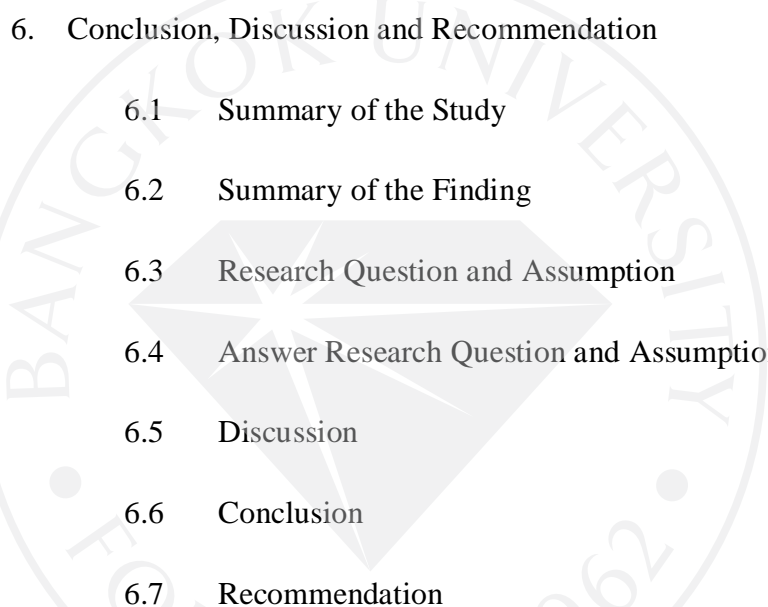
laptops ($\bar{x} = 4.09$). Rank from fourth to seventh were, features of LCD ($\bar{x} = 3.90$), features of keyboard and touchpad ($\bar{x} = 3.83$), Longer time for battery ($\bar{x} = 3.66$), features of speakers ($\bar{x} = 3.65$), and the eighth that affected to respondents purchasing was Operation System (OS) ($\bar{x} = 3.23$).



CHAPTER SIX

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

This chapter provided to present the summary of the study, the summary of finding, discussion of the result, the conclusion, and research recommendations.

- 
6. Conclusion, Discussion and Recommendation
 - 6.1 Summary of the Study
 - 6.2 Summary of the Finding
 - 6.3 Research Question and Assumption
 - 6.4 Answer Research Question and Assumption
 - 6.5 Discussion
 - 6.6 Conclusion
 - 6.7 Recommendation

6.1 SUMMARY OF THE STUDY

This study aimed to study the effect of brand image and product features on purchasing laptop at D-Computer Company, to find out consumers' attitude toward renowned brand, to investigate factors of product features that affect to consumers for purchasing laptops. The samples were 172 people who work and some people who use services at D-Computer Company. The accidental sampling method was used for selecting sample and a questionnaire was used for collecting data.

6.2 SUMMARY OF THE FINDING

6.2.1 Demographic Information of the Respondents

The respondents were both male and female, whose ages ranged between 20 – 35 years old. Most respondents were male (65.7%) and majority of the respondents were aged between 20 – 25 years old (55.9%). Almost of respondents had a Bachelor's degree (82.0%), they mostly worked as private company officers (92.4%) who earned income between 10,000 – 40,000 Baht per month. Most of respondents earned a monthly income rate between 10,001 – 20,000 Baht (44.8%).

6.2.2 Source of Information and Brand Recognition of the Respondents

The second part of questionnaire explored the respondents' source of information. Most of respondents used information from internet (65.1%) to help for purchasing decision. Only 9.9% (13 respondents) use information from their friends. The researcher found that all of respondents who used information from friends were female. Reason for purchasing, mostly for working (55.8%), for education (10.5%), the researcher also found that all of respondents who chosen for education were had Bachelor's degree.

HP (Hewlett-Packard) was the first brand that most of respondents recognized when asked about brand of laptops, Apple (Mac Book) as the second, the third was ACER.

Brand of laptops that most of respondents used was ASUS (22.1%), the second brand that respondents used was HP (Hewlett-Packard) which 20.9%, and the third was ACER (14.0%).

6.2.3 Attitude of Respondents toward Renowned Brand Image

Most of respondents' believed that they trust product that renowned brand and they also thought that product that renowned brand can enhance their image. Respondents' attitude toward renowned brand image in term of meaning, respondents thought that renowned brand refer to good quality of products ($\bar{x} = 4.24$), warranty ($\bar{x} = 4.16$), design ($\bar{x} = 4.02$), and the last was services ($\bar{x} = 4.01$).

6.2.3 Attitude of Brand Image toward Purchasing Laptops

Most of respondents focus on the brand of notebook that has a reputation in term of brand image firstly. Next respondents will focus on product quality ($\bar{x} = 4.06$), after-sale service ($\bar{x} = 4.05$), and service quality ($\bar{x} = 3.65$).

6.2.3 Attitude of Product Features toward Purchasing Laptops

Good product design in term of shape and color was the factor that affected to respondents for purchasing the most.

Second was weight the product. Third was size of laptops. Refer to table 4.13, the research found that factors about weight and size that affected to female more than male. Male focus on product design firstly, then about weight and size.

Refer to table 4.13, factor of operation System (OS) not rather affected for purchasing, by both male and female, rank by mean (\bar{x}) it was the lower mean compare with other factors that affected for purchasing.

6.3 RESEARCH QUESTION AND ASSUMPTION

According from Chapter One, this study aimed to answer the questions;

6.3.1 Research Question

- 6.3.1.1 What is the reason most for purchasing laptop?
- 6.3.1.2 What is the brand of laptop that recognized firstly the most?
- 6.3.1.3 What is the product feature that affected on purchasing laptop the most?

6.3.2 Assumption

- 6.3.2.1 There is no difference in the average of the attitude toward renowned brand between male and female.
- 6.3.2.2 There is no difference in the average factors of product features toward purchasing laptops.

6.4 ANSWER RESEARCH QUESTION AND ASSUMPTION

Research Question

6.4.1 Refer to question 6.3.1.1;

What is the most reason for purchasing laptops?

- ❖ Refer to Table 4.7; Most reason was for working (96 chosen from 172 respondents) or about 55.8%.

6.4.2 Refer to question 6.3.1.2;

What is the brand of laptop that recognized firstly the most?

- ❖ Refer to Table 4.8; HP (Hewlett-Packard) was the brand that respondents recognized firstly the most (37 of 172 respondents, or about 21.5%).

6.4.3 Refer to question 6.3.1.3;

What is the product feature that affected on purchasing laptop the most?

- ❖ Refer to Table 4.13; Good product design was the factor that affected to respondents the most, compare by mean (\bar{x}), good product design was $\bar{x} = 4.37$, which the highest mean (\bar{x}) compared with others factors.

Assumption

6.4.4 Refer to question 6.3.2.1;

There is no difference in the average of the attitude toward renowned brand between male and female.

H_0 = Both male and female have no significant difference in the attitude toward renowned brand.

H_1 = Both male and female have significant difference in the attitude toward renowned brand.

❖ Refer to Table 4.14;

Table 4.14 illustrated that the significance level was .614. It was higher than 0.05, therefore, H_0 was accepted. The conclusion was that both male and female there was no difference in the attitude toward renowned brand.

6.4.5 Refer to question 6.3.2.2;

There is no difference in the average factors of product features toward purchasing laptops.

H_0 = Both male and female have no significant difference in the factors of product features toward purchasing laptops.

H_1 = Both male and female have significant difference in the factors of product features toward purchasing laptops.

- ❖ Refer to Table 4.15;

Table 4.15 illustrated that the significance level was .604. It was higher than 0.05, therefore, H_0 was accepted. The conclusion was that both male and female there was no difference in the factors of product features toward purchasing laptops.

6.5 DISCUSSION

Brand Recognition of the Respondents

Brand awareness is the strength of brand that trace to consumers' memory (Keller, 2008, p.51). Refer to Table 4.8, HP (Hewlett-Packard) was the first brand that most of respondents recognized when asked about brand of laptops, Apple (Mac Book) as the second, the third was ACER. Which mean this three brands are the top-three of respondents' brand awareness. Building brand awareness or brand equity, image of the brand, often the factor that be used to play (Keller, 2008, p.51).

Brand of laptops that most of respondents used was ASUS (22.1%), the researcher found that the reason that ASUS was the most that be used because D-Computer Company was a dealer for ASUS Computer (www.dcomputer.com) so almost of respondents who working at D-Computer Company used ASUS brand, as easy for claim and after-sale services.

Attitude of Respondents toward Renowned Brand Image

According to 'Customer-Based Brand Equity Pyramid', trust is in the resonance, or the height stage (Keller, 2008, p.61). Refer to Table 4.10, most of respondents' believed that they trust product that renowned brand, so brand is the factors that mostly affected to consumers. Mariotti (2000, p.65) added that retaining the Trust Factor is the challenge of leveraging a brand. Respondents also thought that renowned brand refer to good quality of products, warranty, design, and services.

Attitude of Product Features toward Purchasing Laptops

Consumer based overall quality of a product or service compared to choices and with consumers' purpose by category as Performance, Features, Conformance, Reliability, Durability, Serviceability, and Style and design (Keller, 2008, p.195). From Table 4.12, style and design in term of shape and color was the factor that affected to respondents for purchasing the most. Furthermore, style and design also mean of appearance or feel of quality of the product (Keller, 2008, p.195), in term of marketer, should pay attention to product design also.

6.6 CONCLUSION

According to the results of this study, brand is one of the factors that affect to buyers. Design products are also important factors for purchasing laptops. Design products that fit to the consumers are another one that can increase the

brand recognition and brand image. The majority of respondents agree that the renowned brands can enhance their image, so brand is importance in business today.

Benefits from conduct this research, the researcher gain more patience and more persistence by following steps by steps of marketing research process. The researcher would extremely grateful to Dr. Paul TJ James, who guides the process for conducting this research. This study would not completes if not have suggestion from the advisor.

6.7 RECOMMENDATION

Based on the finding and conclusion of the study, the following recommendation for further research

This research mainly focused on the attitude toward brand image. To completely understand in depth, should focus on factor that generate consumers' perception toward brand image, as what factors that people thought that brand is good product quality, what main source of information that people perceived and affect to their mind the most. Another in depth research can be done on effect of product design toward brand image, as what factors of product design that generates consumers' attitude that product is the good one.

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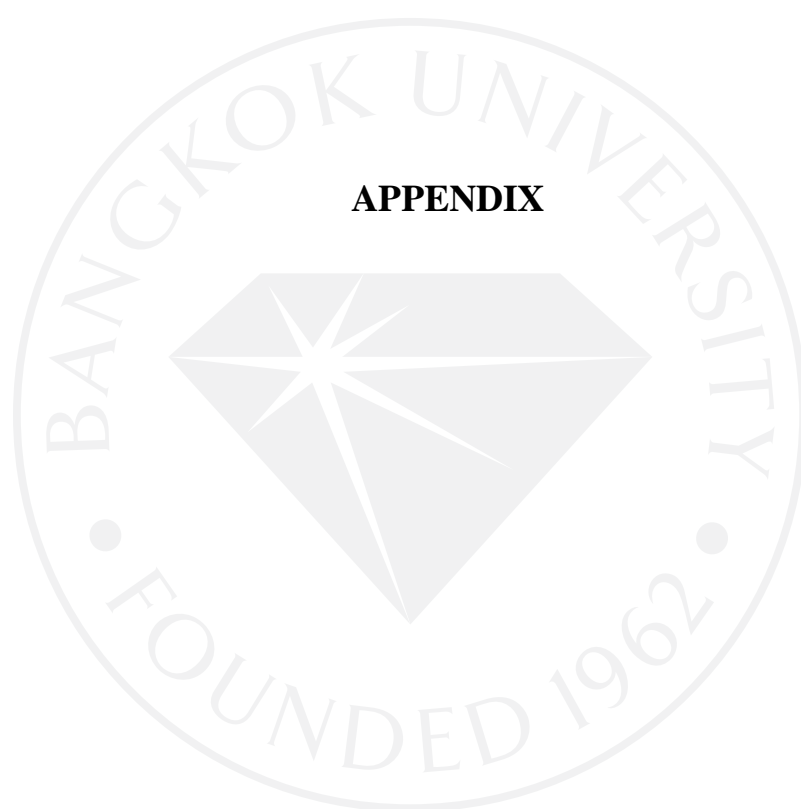
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APPENDIX

The Effect of Brand Image and Product Features on Purchasing Laptops

This questionnaire is aimed at studying the effect of brand image and product features on purchasing laptops. This study is a part of Independent Study, Master's Degree, Bangkok University.

This questionnaire is divided into five parts as follows;

- Part 1 Demographic information of the respondents
- Part 2 Respondents' source of information and Brand Recognition
- Part 3 Attitude of Respondents toward Renowned Brand Image
- Part 4 Attitude of Brand Image toward Purchasing Laptops
- Part 5 Attitude of Product Features toward Purchasing Laptops

Part 1: Demographic information of the respondents

Please check ✓ the appropriate category at the

1. Gender:
 - 1. Male 2. Female

2. Age:
 - 1. Below 20 years 2. 20 – 25 years
 - 3. 26 – 30 years 4. 31 – 35 years
 - 5. Over 35 years

3. Education:
 - 1. Under Bachelor's degree 2. Bachelor's degree 3. Master's degree or higher

4. Occupation:
 - 1. Student 2. Private's officer

3. Government/ State Enterprises 4. Business Owner
5. Unemployed

5. Salary:

1. Lower than 10,000 Baht 2. 10,001 – 20,000 Baht
3. 20,001 – 30,000 Baht 4. 30,001 – 40,000 Baht
5. Over 40,000 Baht

Part 2: Respondents' source of information and attitudes toward brand image

6. Which source of information that you use for making decision for purchasing

1. Internet 2. PC Magazines
3. Newspaper 4. Shopping Mall
5. Dealer shop 6. Friends

7. Reason for purchasing laptops

1. Working 2. Education
3. Surfing internet 4. Games
5. Others (Please fill).....

8. Do you have laptop or not

1. Yes 2. No (pass question no.9)

9. Which Brand that you used

1. ACER 2. Apple (Mac Book)

3. ASUS 4. Ben-Q
 5. Compaq 6. DELL
 7. HP 8. IBM
 9. Lenovo 10. Sony (Vaio)
 11. Toshiba 12. Others _____ (Please fill)

10. When ask you about Brand of Laptops, which Brand that you recognize the first

1. ACER 2. Apple (Mac Book)
 3. ASUS 4. Ben-Q
 5. Compaq 6. DELL
 7. HP 8. IBM
 9. Lenovo 10. Sony (Vaio)
 11. Toshiba 12. Others _____ (Please fill)

Part 3 Attitude of Respondents toward Renowned Brand Image

<i>Attitude toward Brand Image</i>	Strongly disagree 1	2	Uncertain 3	4	Strongly Agree 5
1. Renowned brand image refer to good product design					
2. Renowned brand image refer to good quality of products					
3. Renowned brand image refer to good in services					
4. Renowned brand image refer to good in warrantee					
5. You trust product that renowned brand					
6. Renowned brand image product, helps to enhance your image					

Part 4: Attitude of Brand Image toward Purchasing Laptops

<i>Attitude of Brand Image toward Purchasing</i>	Strongly disagree 1	2	Uncertain 3	4	Strongly Agree 5
7. You focus on the brand of laptops that has a reputation in term of brand image					
8. You focus on the brand of laptops that has a reputation for product quality					
9. You focus on the brand of laptops that has a reputation for service quality					
10. You focus on the brand of laptops that has a reputation for after-sale service					

Part 5: Attitude of Product Features toward Purchasing Laptops

<i>Factors of Product Features toward Purchasing</i>	Strongly disagree 1	2	Uncertain 3	4	Strongly Agree 5
1. Good product design (Shape, Color)					
2. Features of <u>keyboard and touchpad</u>					
3. Features of <u>LCD monitor</u>					
4. Features of <u>speakers</u>					
5. Longer time for battery					
6. Size and Weight of products					
7. Small size of laptops					
8. Operation System (OS) that already installed (Mac OS , Windows XP, Vista, 7)					

***** Thank You *****