Consumer Behaviors of Buying Mobile Phones in Bangiok
by
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A Final Report of the Three-Credit Course CE 6998 Project<br>Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Science in Computer and Engineering Management Assumption University

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#### Abstract

The number of mobile phone users has been increasing continuously; consequently, it makes mobile business to grow rapidly in order to serve the enhanced demand of consumers in the mobile market. It would be beneficial for marketers to understand buyers better by focusing on the study of consumer's behavior towards mobile phones.

The purpose of this project is to study the consumer's buying behavior towards mobile phones in Bangkok area. It also attempts to examine the critical factors that customers in Bangkok consider in purchasing mobile phones. Furthermore, the marketing mix is contained in order to verify the relationship.

Questionnaires have been developed and distributed to the target population, which are people in Bangkok Metropolis area in order to collect the primary data. The target population is people who live in Bangkok and have experience in purchasing or using mobile phones. After gathering data, the data is examined, analyzed and summarized by using the Statistical Package for Social Science (SPSS).

The hypotheses are demonstrated by using Chi-square technique to substantiate a different between consumer's behavior and demographic factors. The relationship between the marketing mix and consumer's behavior focused on factors influence purchasing are corroborated by using the test of Spearman's correlation coefficient.

Results of the study are analyzed in order to prove those hypotheses. According to the result, the demographic factors have effected to the consumer's behavior. The marketing mix factors also have a relationship among consumer's buying behavior towards mobile phone.


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## I. INTRODUCTION

### 1.1 Introduction of Study

The first cellular phone was introduced to the world in 1980s since that they have been developed continuously. Mobile phones have become the significant issue which can take the interest of people in public all over the world today. It can be seen that mobile phones have been constantly launched to the market, up until now, thousands of bands with uncountable number of models were commerce in the world's market.

The increasing numbers of mobile phone consumers have a large impact on this kind of business and make the mobile operators business to become one of the fastest growing operations. The demand of consumers for the mobile phone products is one factor that has directly affected to the change as well. The mobile phone product and its technology also have been developed to serve the rapidly changing demand.

The mobile business has delivered a huge impact to the society worldwide and it has become one of fastest changing businesses in the world these days. According to CNET.COM, Nokia, Motorola, Samsung and Ericsson are the leading mobile phone operators who have the significant market share in the world in terms of mobile phones.

Many new mobile phones from different mobile phone operators have been continuously developed and launched into mobile industries in this century and they are able to make big change to the trend of mobile phones in the existing market. Modern trend of mobile phone has become an all in one phone which can serve the demanding in communication and entertainment. The innovation mobile phone for today and future has identified as a functionality phone which can make communication, entertainment, organizing; however, it suppose to be come up with the fashion design as well.

This study will focus on the customer behavior of buying mobile phone in Bangkok area. The report can give the whole picture of the leading mobile phone's brand which customers in Bangkok consume the most. And it can also be analyzed the critical factors which customers in Bangkok consider to buy mobile phones.

### 1.2 Background of Mobile Phone

The first mobile technology is commonly referred to as the first generation (1G). 1G used the Advanced Mobile Phone System (AMPS) for communication. In the late 1980s, the second generation was launched and became widespread. Second generation is known as 2G mobile and the Global System for Mobile Communications (GSM). The third generation (3G) mobile is designed for multimedia communication. The communication can be enhanced with high quality images and video, and access to information and services on public and private networks is increased by higher data transfer rates and new flexible communication capabilities. 3G mobile popularity plays an ever increasing role in our society today.

Mobile phone is one result from the development of mobile communication over the past several years. Wireless Communication applications in particular create heavy public interest. Furthermore, it has the capacity to meet the communicative demands of people in the future.

### 1.3 Global Mobile Phone Market Shares

It cannot be denied that mobile phones have become a necessary daily part of our lives. People can contact each other across the world at will via mobile communication. Mobile communication is one kind of technology which has been changing rapidly in order to serve humanity's fundamental needs to communicate with each other. As result,
mobile phones have been developed continuously to be a tool which is one of the most important factors contributing to the technological changes of the world.

Mobile phone has become needed equipment which can serve people in many ways. The mobile phone market has expanded due to the increase in demand. Table 1.1 shows percent of growth rate between year 2004 and 2005 .

Table 1.1 Growth rate of Mobile Phones

|  | 2004 |  | 2005 |  | Growth |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Vendor <br> (mln.) | Share | Shipments <br> (mln.) | Share | \% |  |
| Nokia | 51.4 | $29.40 \%$ | 66.6 | $32.00 \%$ | $29.60 \%$ |
| Motorola | 23.3 | $13.30 \%$ | 38.7 | $18.60 \%$ | $66.10 \%$ |
| Samsung | 22.7 | $13.00 \%$ | 26.8 | $12.90 \%$ | $18.10 \%$ |
| LG Electronics | 11.8 | $6.70 \%$ | 15.5 | $7.40 \%$ | $31.40 \%$ |
| Sony Ericsson | 10.7 | $6.10 \%$ | 13.8 | $6.60 \%$ | $29.00 \%$ |
| Others | 55.0 | $31.40 \%$ | 46.9 | $22.50 \%$ | $-14.70 \%$ |
| Total | 174.9 | $100.00 \%$ | 208.3 | $100.00 \%$ | $19.10 \%$ |

Source: ZDNet Research, www.zdnet.com (accessed on August 1, 2006)

### 1.4 Mobile Phone in Thailand

### 1.4.1 Background of Mobile Phone in Thailand

Mobile telephone services in Thailand started when TOT Public Company Limited introduced the Nordic Mobile Phone Technology (NMT) 470 MHZ or Cellular 470 as the first mobile telephone system in year 1986. After that, the second mobile telephone system, the Advanced Mobile Phone System (AMPS) 800 MHz band A, was introduced in 1987 by CAT Telecom Public Company. These two systems, however, could not complete the rapidly rising demand. Therefore, two private companies, Advanced Info Service (AIS) and DTAC or Total Access Communications (TAC) in the
old name have joined this business. Since that, they become the two biggest players in the mobile operator business.

Mobile telephone system started in Thailand with analogue services available from 1986, and development of digital services followed. The digital system is Global System for Mobile Communication (GSM), Personal Communication Network (PCN) and Code Division Multiple Access (CDMA). There are seven service providers who provide mobile phone services in Thailand as shown in Table 1.2.

Table 1.2 List of service providers in Thailand

| TOT | Analogue NMT 470 | Since 1986 |
| :--- | :--- | :--- |
| CAT | Analogue AMPS 800- Band A | Since 1987 |
| AIS | Analogue NMT 900 | Since 1990 (TOT) |
| AIS | Analogue AMPS 800- Band B | Since 1991 (CAT) |
| TAC | Digital GSM 900 | Digital PCN 1800 (Worldphone) |
| DPC | Digital PCN 800 (Hello GSM 1800) | Since 1994 (CAT) |
| WCS | Digital PCN 1800 1997 (CAT) |  |
|  | Digital CDMA 800 | CAT |

Source: www.tradepartners.gov.uk/telecom/thailand/profile/overview (accessed on August 1, 2006)

At first mobile phone operator offered subscription system or post-paid that customers have to pay for entrance fee, monthly fee and the fee for airtime per minute of use. The price setting and service charged, there is a monthly subscription fee of 500 Baht per month for AIS and DTAC, and 300 Baht for Hello GSM 1800. The rate for
outgoing call has been categorized into two groups which are 3 Baht per minute for local calls and 8-12 Baht per minute for long distance calls. There is no charge for incoming calls.

Currently, the rate of services has been reduced by the mobile phone operators by offering various promotion packages. Customers also have an alternative for using mobile phone which is pre-paid or non subscription system. Pre-paid type is widely use one of the reason is this service cuts down operating expense, such as the cost of preparing and invoice, receipt, as well as reduce the risk of unpaid bills

### 1.4.2 Current Operators in Thailand

Current, there are many operators and various technologies in Thailand mobile phone market. However, there are three mobile operator companies who have majority of mobile market in Thailand these days under a "Built-Transfer-Operate (BTO)" concession granted by CAT Telecom Public Company Limited (CAT).

Advanced Info Services (AIS) was established in 1986. The company was awarded 20-years BTO concession from TOT Corporation Public Company Limited (TOT) to operate the nationwide mobile services by introducing Nordic Mobile Telephone (NMT) 900 MHz and the digital Global System for Mobile Communications (GSM). In 1996, TOT extended the concession periods from 20 years to 25 years. AIS is the first private company participating in this industry and become the leader in this market.

Total Access Communications (DTAC) was established in 1980. It was awarded 22-years BTO concession from CAT to operate mobile phone service under the name WorldPhone, currently has been changed its name to DTAC. DTAC is the second
private operator to participate in this market and also the second biggest player in this market.

TrueMove (TA Orange) is a provider of 1800 MHz frequency bands. It is a new comer in Thailand then, they use a lot of strategies, such as price strategy, promotion and special service, in order to attract customers, build brand awareness and making the different choice to offer customers.

### 1.4.3 Mobile Phone Market Share in Thailand

Since mobile phone has become a significant factor for communicating for people around the world including Thailand. The numbers of people who use mobile phone are increasing therefore the units sales of mobile phone in Thailand are raised up to 3.3 million units by the end of year 2005.


Figure 1.1 Mobile Phone Market Share in Thailand Source: Telecom Link Company Limited

The mobile phone market share in Thailand in year 2005 is shown in figure 1.1. It can be seen that the Nokia remains the largest player in the handset market in terms of
overall sales both in Thailand and worldwide. However, the second and the third are swap up between Motorola and Samsung. Sony Ericsson is still on the fourth position of the market share in Thailand.

### 1.5 Project Objectives

The research is to study the consumer's buying behavior towards mobile phone in Bangkok. This study focuses on the factors influencing customer's buying behavior in mobile phones. The objectives are as follows:

1) To provide a result of customer behavior in buying mobile phones in Bangkok.
2) To analyze critical factors that customers in Bangkok consider in purchasing mobile phones.

### 1.6 Statement of the Problems

At present, the increasing demand of mobile phones makes the market highly competitive. Customers have become an important factor in the competition. All the companies want to attract customer interesting by attempt to use various marketing strategies in order to stimulate its sales. Then, it is necessary for marketers to understand the consumer's behavior and the reason for which consumers buy the products.

### 1.7 Scope and Limitations of the Research

This research is to study the consumer's buying behavior towards mobile phone in Bangkok and analyze critical factors that customers in Bangkok consider in purchasing mobile phones. The demographic factors which are age, gender, occupation, education
level and income will be used to examine the differences. This research is conducted by a survey method using questionnaire to collect the information related to consumer's buying behavior of mobile phone. However, the study is limited to the people in Bangkok who have experience in buying and using mobile phones. The sample size to consider is 384 respondents in Bangkok area.

### 1.8 Significance of the Study

The result of this research will be beneficial for marketers who are in mobile phone business in order to understand buyers better. The result of this research will provide a result of customers' behavior in buying mobile phones in Bangkok. The critical factors that customers in Bangkok consider in purchasing mobile phones will be analyzed as well. Therefore, this research will help marketers in the mobile phone business understand consumer behavior more in order to adapt marketing strategies to serve consumer more effectively.

## II. LITERATURE REVIEW

In this part, the theories of customer behavior and related are presented. This paper is to analyze the factors influence consumer's buying behavior which focusing on demographic factors and marketing mix. Therefore, the consumer behavior demographic factors and marketing mix theories are included in this research.

### 2.1 Theoretical Framework

A theoretical framework is a conceptual model of how one theorizes the relationship among several factors that have been identified as important to the problems. It discusses the relationship among the variables that are deemed to be integral to the dynamics of the situation being investigated (Sekaran, 1992). In this section, the research reviews the theories related to this research. It consists of consumer behavior, marketing characteristics, and demographic characteristics.

The study of consumer behavior investigates the way individuals choose, purchase, use and dispose of goods and services in order to satisfy personal household needs. Some of the influences that shape consumer choices and tendencies are internal processes, such as won thinking, feeling, and desiring. Other influences spring from environmental factors, such as social forces (whether group of interpersonal) and economics, promotional considerations. Somehow, all these forces combine and dynamically interact to produce shopping behavior, the objective of which is to satisfy human needs and wants. The ultimate goal is to help marketers better standard the processes and activities of consumer behavior, and thus to anticipate how marketing strategies and tactics will influence consumers and affect the products that various types of consumer will buy. Additionally, in today's highly competitive marketplace, a sound
understanding of consumer behavior helps marketers gain a competitive advantage and establish positive and lasting customer relationships.

### 2.2 Consumer Behavior

Consumer behavior can be defined as the behavior that consumers display in searching for, buying, using, evaluating, and disposing of products and services that they expect will satisfy their needs. So, the study of consumer behavior focuses on how individuals make decision to spend their available resources (time, money, and effort) on consumption-related items. It includes the study of what they buy it, why they buy it, whey they buy it, where they buy it, how often they buy it, and how often they use it (Kotler, 2003).

Solomon (2004) also defines consumer behavior as a study of buying units and the exchange processes involved in acquiring, consuming, and disposing of goods, services, experienced, an ideas.

Hawkins, Best and Coney (2004) also state that consumer behavior is the study of individuals, groups, or organizations and the processes they use to select, secure, use and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society.

Peter and Olson (1996) indicate that consumer behavior is the study of how consumer select, purchase, use and dispose of goods and services to satisfy personal needs and wants

The starting point of understanding buyer behavior is the stimulus-response model shown in Figure 2.1. Marketing and environmental stimuli enter the buyer's consciousness. The buyer's characteristics and decision processes lead to certain purchase decisions. The marketer's task is to understand what happens in the buyer's

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consciousness between the arrival of outside stimuli and the purchase decisions. A consumer's buying behavior is influenced by cultural, social, personal, and psychological factors.
$\left.\left.\begin{array}{|l|l|}\hline \begin{array}{l}\text { Marketing } \\ \text { stimuli }\end{array} & \begin{array}{l}\text { Other } \\ \text { Stimuli }\end{array} \\ \hline \begin{array}{l}\text { Product } \\ \text { Price } \\ \text { Place } \\ \text { Promotion }\end{array} & \begin{array}{l}\text { Economic } \\ \text { Technological } \\ \text { Political } \\ \text { Cultural }\end{array} \\ \hline\end{array} \longrightarrow \begin{array}{|l|l|}\hline \begin{array}{l}\text { Buyer's } \\ \text { characteristics }\end{array} & \begin{array}{l}\text { Buyer's } \\ \text { decision process }\end{array} \\ \begin{array}{l}\text { Cultural } \\ \text { Social } \\ \text { Personal } \\ \text { Psychological }\end{array} & \begin{array}{l}\text { Problem recognition } \\ \text { Information search } \\ \text { Evaluation of } \\ \text { alternatives } \\ \text { Purchase decision } \\ \text { Post purchase behavior }\end{array} \\ \hline\end{array} \quad \begin{array}{|l}\text { Buyer's } \\ \text { decisions }\end{array}\right] \begin{array}{|l|l|}\hline \text { Product choice } \\ \text { Brand choice } \\ \text { Dealer choice } \\ \text { Purchase } \\ \text { timing } \\ \text { Purchase } \\ \text { amount }\end{array}\right]$

Figure 2.1 Model of Buyer Behavior
Source: Kotler, Philip. Marketing Management, $11^{\text {th }}$ edition. New Jersey: Prentice Hall, 2003.

### 2.3 Marketing Mix

Zikmund and Amico (1996) state that a market is a group of potential customers for a particular product. These customers are willing and able to spend money or exchange other resources to obtain the product. Marketing is the process of planning and executing the conception pricing, promotion and distribution of ideas, goods and services to create and exchange value, and satisfy individual and organizational objectives. The fundamental goal of marketing is to create and maintain exchanges by promoting products and services that satisfy the need of consumers.

Kotler (2003) defines that marketing mix is the set of marketing, tools that the firm uses to pursue its marketing objectives in the target market. Hawkins, Best and Coney (2004) define marketing mix as the products, price, communications, distribution, and services provided to the target market. It is the combination of these elements that

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meets customer needs and provides customer value. The particular marketing, variables under each P are shown in Figure 2.2.


Figure 2.2 The Four P Components of the Marketing Mix
Source: Kotler, Philip. Marketing Management, $11^{\text {th }}$ edition. New Jersey: Prentice Hall, 2003.

The marketing mix may have many facts, but its elements can be placed in four basic categories: product, place (distribution), promotion and price. These are commonly referred to as the four Ps of marketing or since they can be influenced by managers as the controllable variables of marketing. Because virtually every possible marketing activity can be placed in one of these categories, the four Ps constitute a framework that can be used to develop plans for marketing efforts. Preparing a marketing strategy requires considering each major mix area and marketing decisions about the development of sub strategies within each area (Zikmund and Amico, 1996).

### 2.3.1 Marketing Characteristics

Product is anything that can be offered to a market to satisfy a want or need. The consumer will judge the offering by three basic elements: product features, and quality, services mix and quality and price appropriateness (Kotler, 2003).

Price, each price will lead to a different level of demand. In the normal case demand and price are inversely related: the higher the price, the lower the demand (Kotler, 2003).

Place, brand purchased by habit should be distributed extensively because they are more likely to be high turnover, low margin items. Widespread distribution is important for the consumer purchasing the product because seeing the item reminds the consumer to buy (Zikmund, 1997)

Promotion is the most visible area of marketing, and the one that most actively tries to tap into the consumer's decision-making processes. Promotion is about communicating with the consumer, and about persuading people to try the product/service.

### 2.4 The Major Factors Influencing a Consumer's Buying Behavior

Solomon (2004) states that a consumer's buying behavior is influenced by cultural, social, personal, and psychological factors. Cultural factors exert the broadest and deepest influence.

## Cultural Factors

Culture is the most fundamental determinant of a person's wants and behavior. The growing child acquires a set of values, perceptions, preferences, and behaviors through his or her family and other key institutions.

Subculture, each culture consists of smaller subcultures that provide more specific identification and socialization for their members. Subcultures include nationalities, religions, racial groups, and geographic regions. Many subcultures make up important market segments, and marketers often design products and marketing programs tailored to their needs.

Social Classes are relatively homogeneous and enduring divisions in a society, which are hierarchically ordered and members share similar values, interests, and behavior.

## Social Factors

In addition to cultural factors, a consumer's behavior is influenced by such social factors as reference groups, family, and social roles and statuses.

Reference Groups, a person's reference groups consists of all the groups that have a direct (face-to-face) or indirect influence on the person's attitudes or behavior.

Groups having a direct influence on a person are called membership groups. The family is the most important consumer-buying organization in society, and it has been researched extensively. Family members constitute the most influential primary reference group. A person participates in many groups, family, clubs, and organizations. The person's position in each group can be defined in terms of role and status. A role consists of the activities that a person is expected to perform.

## Personal Factors

A buyer's decision is also influenced by personal characteristics. These include the buyer's age and stage in the life cycle, occupation, economic circumstances, lifestyle, and personality and self-concept.

## Psychological Factors

A person's buying choices are influenced by four major psychological factors, motivation, perception, learning, and beliefs and attitudes.

## Buying Behavior

Consumer decision making varies with the type of buying decision. Complex and expensive purchases are likely to involve more buyer deliberation and more participants.
a) Complex Buying Behavior involves a three-step process; first, the buyer develops beliefs about the product. Second, he or she develops attitudes about the product. Third, he or she makes a thoughtful choice.
b) Dissonance-Reducing Behavior, sometimes the consumer is highly involved in a purchase and see little difference in brands. The high involvement is based on the fact that the purchase is expensive, infrequent, and risky.
c) Habitual Buying Behavior: Many products are bought under conditions of low involvement and the absence of significant brand differences.
d) Variety-Seeking Buying Behavior: Some buying situations are characterized by low involvement but significant brand differences. Here consumers often do a lot of brand switching.

### 2.5 Demographic Factors

Nessim and Richard (2001) defined demographics as the most common basis for segmenting consumer markets. Marketers' preferences for using demographic data to segment markets rest on the relative ease of measuring them as well as there close like to demand for many products and services. Demographic characteristics are characteristics of people, sex, age, marital status, family size, income, education, occupation, and ethic origin.

Kotler (2003) also mentions that demographic variables are the most popular bases of distinguishing customer groups. One season is that consumer wants, preferences, and usage rates are often associated with demographic variables. A buyer' decisions are influenced by demographic factors which are internal factors including gender, age, education level, income and family size.

## Age

In general, age is one of the most widely used bases for segmentation because our wants and needs change as dramatically as we grow older. Product needs often vary with consumer age; marketers have found age to be a particularly useful demographic variable to distinguish segments. Many marketers have curved themselves a niche in the marketplace by concentrating on a specific age segment. Since consumer wants and abilities change with age, people buy different goods and services over their lifetime (Schiffman and Kanuk, 1994)

## Gender

Nessim and Richard (2001) state gender is also used as a basis for segmentation for a variety of products and services. Gender has always been a distinguishing segmentation variable. Kotler (2003) suggested gender influences to consumers' thinking, values, attitudes, behavior, wants, and purchase decision. Occasionally, other marketers notice and opportunity for gender segmentation. Male and female have different thinking, value, attitude, behavior, want, and purchase decision.

## Income

The amount of money or its equivalent one received during a period in exchange for labor or services is called individual income. Income plays an important role for many products and services. For example, even the consumption of such stable items as margarine, detergents and shampoo is affected by income level. Changing in disposable
income (income after taxes) can be directly linked to changes in market demand for many durable products and nonessential services. The increased buying power will directly affect purchases of an assortment of durable and unendurable products (Hawkins, Best and Coney, 2004). Peter and Olson (1996) also state that people at different income levels tend to have different values, behaviors, and life styles.

## Education Level

Hawkins, Best and Coney (2004) mention that education has a strong influence on one's tests and preferences. Marketers will have to recognize the education level of target markets to effectively reach and communicate with them. Kumar, Aaker and Day (1999) state that education also influences how decisions are made. Educated consumers seek more information and demand better-quality product.

## Occupation

Solomon (2004) states that occupation could affect the type of clothing a person buys, transportation choices, food purchases, and the need for timesaving products.

### 2.6 Questionnaire Scale Formats

With all types of structured data collection we have to set a clear idea of the data needs of the study which is to know what kinds of information that consumers want to know in order to make decision to purchase mobile phone. The information we need is the case with the construction of questionnaire.

All questions are carefully drafted and worded so that uncertainty is minimized. Three common questionnaire scale formats have been served in questionnaire models as follows:

## 1. Fill in the blanks

The common format asks questions and leaves a blank for the interviewee's response.
2. Multiple choices

These questions are expected that the respondent is given a choice of answer and must check one. It is generally preferable to provide the respondent with choices than to present a blank to fill in. However, this model requires us to have an idea of the range of possible responses and a line is provided for the respondent.
3. Likert Scales

Likert scale is one of the most useful question forms. The respondents are presented a sentence and are asked to agree or disagree. A clear statement is made and the respondent is asked to indicate whether the statement reflected his or her views.

## III. RESEARCH METHODOLOGY

This chapter presents the research methodology which included a conceptual framework, hypotheses and the sets of related variables. Conceptual framework is an own model which has been developed by adapting from Kotler's buyer behavior model to explain the independent and dependent variables. Hypotheses were the indication to identify the relationship of variables which will be tested in the research. The sets of related variables were stated as the examples translated into action of all variables and its sub-variables.

### 3.1 Conceptual Framework

The model of conceptual framework is developed to illustrate the relationship between independent and dependent variables. This study is to determine the factors which influence consumer's behavior


Figure 3.1 Conceptual Framework of the study (Kotler, 2003)

In the framework, marketing mix, product, price, place and promotion as external factors and demographic factors including gender, age, education level, occupation and income level internal factors or customer related with consumer's buying behavior. There are many factors which affect consumer's buying behavior in mobile phones, the study will define how differently influencing factors for each demographic factors. This study will find a relationship between consumer's buying behavior and marketing mix as well.

## Definition of Independent Variables:

Gender is used to prove the association with consumer behavior; male and female usually behave in different thinking ways.

Age is used to prove the association with consumer behavior. The different age groups might have differently buying behavior.

Education level is used to prove the association with consumer behavior. The different may occur from different knowledge they have.

Occupation is used to prove the association with consumer behavior. Different occupations may behave in different ways, depending on characteristics and major tasks of each occupation.

Income level is used to prove the association with consumer behavior. It tends to be the critical factor that affects consumer behavior. There are many income ranges of customers that lead to different buying behavior.

### 3.2 Research Methodology

This research uses both qualitative and quantitative methods:
Qualitative model: obtained from literatures, researches, term papers, thesis and internet

Quantitative model: comes from questionnaire surveys and the Statistical Package for Social Science (SPSS) for analysis and evaluation.

### 3.2.1 Sample Survey

The researcher uses questionnaires to find and obtain information from the respondents. This research used a survey technique in order to collect primary data from a sample of mobile phones. The questions as "Do you use mobile phones?" and "Do you live in Bangkok?" are asked to screen the target respondents. However, there is no sampling frame in this research survey as the researcher is not able to find a list of all people who purchase mobile phones and live in Bangkok

### 3.2.2 Sampling Procedure

In this research, a non-probability sampling is used as a sampling technique as the particular member of the population being chosen is very large and the population being chosen is unknown. The researcher uses purposive and convenience sampling method for selecting the respondents. The researcher selects a sample to serve a specific purpose because the researcher with to study consumer's buying behavior towards mobile phones of consumer in Bangkok area. Therefore, the respondents are selected by using screening question to ensure that respondents are the target population or person who has experience in buying or using mobile phone and lives in Bangkok area.

### 3.3 Respondents and Sampling Size

### 3.3.1 Target Population

The target population is a specific complete group relevant to the research project (Zikmund and Amico, 1997). The target population of this research is

1) A person who has experience in using or buying mobile phones and
2) A person who lives in Bangkok only

### 3.3.2 Sample Size

The sample technique of this study is non-probability sampling and the number of people who live in Bangkok is $5,658,953$ based on the data from the Department of Provincial Administration (http://www.dopa.go.th/stat/y_stat $48 . \mathrm{html}$ ). Thus, 384 observations are a suitable sample size as Gary Anderson (1996) is indicated in the table below:

Table 3.1 Theoretical sample size for different sizes of population and different tolerable error. (Anderson, 1996)

| Population / <br> (Sampling Frame) | Required Sample for Tolerable Error |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{5 \%}$ | $\mathbf{4 \%}$ | $\mathbf{3 \%}$ | $\mathbf{2 \%}$ |
| 100 | 79 | 85 | 91 | 96 |
| 500 | 217 | 272 | 340 | 413 |
| 1,000 | 277 | 375 | 516 | 705 |
| 5,000 | 356 | 535 | 897 | 1,622 |
| 50,000 | 381 | 593 | 1,044 | 2,290 |
| 100,000 | 382 | 596 | 1,055 | 2,344 |
| $1,000,000$ | 384 | 599 | 1,065 | 2,344 |
| $25,000,000$ | 384 | 600 | 1,067 | 2,400 |

In this research, the study focuses on the relationship of demographic factors and marketing mix towards consumer's buying behavior of mobile phones. The study will use 384 respondents for collecting the primary data via questionnaires.

### 3.4 Hypotheses

After identification of the proper variables, the network of association among the variables needs to be elaborated so the relevant hypotheses can be developed and subsequently tested.

## Demographic factors versus Product choices

$\mathrm{H1}_{0}$ : There is no difference between product choices in terms of objectives when classified by gender
$\mathrm{H} 1_{1}$ : There is a difference between product choices in terms of objectives when classified by gender
$\mathrm{H}_{2}$ : There is no difference between product choices in terms of objectives when classified by age
$\mathrm{H}_{1}$ : There is a difference between product choices in terms of objectives when classified by age
$\mathrm{H3}_{0}$ : There is no difference between product choices in terms of objectives when classified by education level
$\mathrm{H3}_{1}$ : There is a difference between product choices in terms of objectives when classified by education level
$\mathrm{H} 4_{0}$ : There is no difference between product choices in terms of objectives when classified by occupation
$\mathrm{H}_{1}$ : There is a difference between product choices in terms of objectives when classified by occupation
$\mathrm{H}_{0}$ : There is no difference between product choices in terms of objectives when classified by income
$\mathrm{H}_{1}$ : There is a difference between product choices in terms of objectives when classified by income

## Demographic factors versus Brand choices

$\mathrm{H}_{6}$ : There is no difference between brand choices when classified by gender
H6 ${ }_{1}$ : There is a difference between brand choices when classified by gender
$\mathrm{H} 7_{0}$ : There is no difference between brand choices when classified by age
$\mathrm{H} 7_{1}$ : There is a difference between brand choices when classified by age
H80: There is no difference between brand choices when classified by education level
$\mathrm{H}_{1}$ : There is a difference between brand choices when classified by education level
$\mathrm{H} 9_{0}$ : There is no difference between brand choices when classified by occupation
$\mathrm{H} 9_{1}$ : There is a difference between brand choices when classified by occupation
$\mathrm{H}_{10} 0_{0}$ : There is no difference between brand choices when classified by income
$\mathrm{H} 10_{1}$ : There is a difference between brand choices when classified by income

## Demographic factors versus Dealer choices

$\mathrm{H} 11_{0}$ : There is no difference between dealer choices when classified by gender
$\mathrm{H} 11_{1}$ : There is a difference between dealer choices when classified by gender
$\mathrm{H} 12_{0}$ : There is no difference between dealer choices when classified by age
$\mathrm{H} 12_{1}$ : There is a difference between dealer choices when classified by age
$\mathrm{H13}_{0}$ : There is no difference between dealer choices when classified by education level
$\mathrm{H13}_{1}$ : There is a difference between dealer choices when classified by education level
$\mathrm{H}_{1} 4_{0}$ : There is no difference between dealer choices when classified by occupation
$\mathrm{H} 14_{1}$ : There is a difference between dealer choices when classified by occupation
$\mathrm{H} 15_{0}$ : There is no difference between dealer choices when classified by income
H151: There is a difference between dealer choices when classified by income

## Demographic factors versus Purchase timing

H16 $6_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by gender

H16 : There is a difference between purchase timing based on intended time to buy mobile phone when classified by gender

H170: There is no difference between purchase timing based on intended time to buy mobile phone when classified by age

H171: There is a difference between purchase timing based on intended time to buy mobile phone when classified by age

H 180 : There is no difference between purchase timing based on intended time to buy mobile phone when classified by education level
$\mathrm{H} 18_{1}$ : There is a difference between purchase timing based on intended time to buy mobile phone when classified by education level
$\mathrm{H} 19_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by occupation

H191: There is a difference between purchase timing based on intended time to buy mobile phone when classified by occupation
$\mathrm{H} 20_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by income
$\mathrm{H} 2 \mathrm{O}_{1}$ : There is a difference between purchase timing based on intended time to buy mobile phone when classified by income

## Demographic factors versus Purchase amount

$\mathrm{H} 21_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by gender
$\mathrm{H} 21_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by gender
$\mathrm{H} 22_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by age
$\mathrm{H} 22_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by age
$\mathrm{H} 23_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by education level
$\mathrm{H} 23_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by education level
$\mathrm{H} 24_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by occupation
$\mathrm{H} 24_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by occupation
$\mathrm{H} 25_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by income
$\mathrm{H} 25_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by income

## Demographic factors versus Factors influencing choice of buying mobile phone

$\mathrm{H} 26_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by gender
$\mathrm{H} 26_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by gender
$\mathrm{H} 27_{0}$ : There is no different between factors influencing choicess of buying mobile phone when classified by age
$\mathrm{H} 27_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by age

H 280 : There is no different between factors influencing choice of buying mobile phone when classified by education level
$\mathrm{H} 28_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by education level
$\mathrm{H} 29_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by occupation
$\mathrm{H} 29_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by occupation
$\mathrm{H} 3 \mathrm{O}_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by income
$\mathrm{H} 30_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by income

## Marketing mix factors versus Factors influencing choice of buying mobile phone

$\mathrm{H} 31_{0}$ : There is no relationship between product factor and factors influencing choice of buying mobile phone
$\mathrm{H} 31_{1}$ : There is a relationship between product factor and factors influencing choice of buying mobile phone
$\mathrm{H} 32_{0}$ : There is no relationship between price factor and factors influencing choice of buying mobile phone
$\mathrm{H} 32_{1}$ : There is a relationship between price factor and factors influencing choice of buying mobile phone
$\mathrm{H} 33_{0}$ : There is no relationship between place factor and factors influencing choice of buying mobile phone
$H 33_{1}$ : There is a relationship between place factor and factors influencing choice of buying mobile phone
$\mathrm{H} 34_{0}$ : There is no relationship between promotion factor and factors influencing choice of buying mobile phone

H34 ${ }_{1}$ : There is a relationship between promotion factor and factors influencing choice of buying mobile phone

### 3.5 Sets of Independent and Dependent Variables

A concept is general idea about a class of objects, attribute occurrences, or processes. A concept must be made operational in order to be measured. Definition gives meaning of a concept by specifying the activities or operations necessary to
measure it. The operation definition specifies what must be done to measure the concept under investigation. Operational definitions help to specify the rules for assigning numbers. The values assigned in the measuring process can be manipulated according to certain mathematic rules. Once the variables of interest have been identified and defined conceptually, a specific type of scale must be selected.

Table 3.2 Operational component of variables

| Concept | Conceptual <br> Definition | Operational <br> Component | Level of <br> Measurement | Question <br> Number |
| :---: | :---: | :---: | :---: | :---: |
| Demographic <br> factors <br> Gender | Classification of sex | Male or female | Nominal level | Part 4: <br> 14 |
| Age | The length of time that a person has lived. | Duration of life specific to one person | Ordinal level | Part 4: 15 |

Table 3.2 Operational component of variables (Continued)

| Concept | Conceptual <br> Definition | Operational <br> Component | Level of <br> Measurement | Question <br> Number |
| :---: | :---: | :---: | :---: | :---: |
| Education levels | The knowledge or skill level one obtained or developed by a learning process through formal instruction at the school or college. | Individual's highest degree of study | Ordinal level | Part 4: 16 |
| Occupation | An activity that serves as one's regular source of livelihood. | Career occupied by one person. | Nominal level | Part 4: 17 |
| Income | The amount of money received over a certain period as payment for work or as interest on investments. | Individual average income per month | Ordinal level | Part 4: 18 |

Table 3.2 Operational component of variables (Continued)

| Concept | Conceptual <br> Definition | Operational <br> Component | Level of <br> Measurement | Question <br> Marker |
| :--- | :--- | :--- | :--- | :---: |
| Product | Anything that <br> can be offered <br> to a market to <br> satisfy a want or <br> need. | Influence level | Ordinal level | Part 3: |
| Price | The amount of <br> money one <br> must pay to get <br> the right in <br> using product. | Influence level | Ordinal level | Part 3: |

Table 3.2 Operational component of variables (Continued)

| Concept | Conceptual <br> Definition | Operational <br> Component | Level of <br> Measurement | Question <br> Number |
| :---: | :---: | :---: | :---: | :---: |
| Promotion | Any from of informing, persuading, or reminding potential customers about products and services | Influence level | Ordinal level | Part 3: <br> 13 |
| Factors influencing your choices of buying mobile phone | The stage in which factor affecting to buying behavior | Influence level <br> 1969 | Ordinal level | Part 2: 9 |

Table 3.2 Operational component of variables (Continued)

| Concept | Conceptual <br> Definition | Operational <br> Component | Level of Measurement | Question <br> Number |
| :---: | :---: | :---: | :---: | :---: |
| Consumer's <br> buying <br> behavior <br> Purchase <br> decision | Purchase <br> decision factors | - Product <br> choices <br> (Objective) <br> - Brand choices <br> (Brand <br> selection) <br> - Dealer choices <br> (Where to buy) <br> - Purchase <br> timing <br> (Intend time to <br> buy) <br> - Purchase <br> amount <br> (Reasonable <br> price) | Ordinal level | Part 1 |

### 3.6 Questionnaire

This research uses the questionnaire to gather the information from the respondents. The formation of questionnaire is conducted based on the theoretical framework and previous study. Researcher divides the questionnaire into three parts:

## Part 1: Customer's buying behavior towards mobile phones

This part contains 8 multiple choices questions. It also consists of questions as:

1) Do you have a mobile phone?

Product Selecting Reason
2) What is the main reason you have a mobile phone?

Brand Selecting
3) Which is the mobile phone's brand you consider for your latest purchasing?
4) Reason(s) for choosing the mobile phone in question 3

Price Selecting
5) Please specific your reasonable price of mobile phone

Place Selecting
6) Where do you purchase mobile phone?

Promotion Selecting
7) Which sources do you consider when you purchase a mobile phone?

Intended time to buy
8) When do you intend to buy mobile phone

## Part 2: The factors influence consumer's buying behavior

The factor that influence consumer's buying behavior of mobile phone in Bangkok. This section consists of 1 question for rating the importance of each statement on the five-point scale, very important, important, neutral, ordinary, and unimportant.
9) Factors influencing your choices of buying a mobile phone. From the given factors, please indicate the score that affects your buying decision.

## Part 3: Factors influencing consumer's buying behavior by marketing mix

The marketing mix that influence consumer's buying behavior of mobile phones in Bangkok. This section consists of 4 main questions for rating the importance of each statement on a five-point scale, very important, important, neutral, ordinary, and unimportant.
10) Factor influencing your choices of buying mobile phone by marketing mix in terms of product. From given factors, please indicate your level of influence towards each of the statements
11) Factor influencing your choices of buying mobile phone by marketing mix in terms of price. From given factors, please indicate your level of influence towards each of the statements
12) Factor influencing your choices of buying mobile phone by marketing mix in terms of place. From given factors, please indicate your level of influence towards each of the statements
13) Factor influencing your choices of buying mobile phone by marketing mix in terms of promotion. From given factors, please indicate your level of influence towards each of the statements

## Part 4: Information about demographic data

The personal data selection requests the information about the respondents' demographic data and asks respondents to provide indication of gender, age, education lever, occupation, and income level. Multiple choices are used in this part.
14) What is you gender?
15) How old are you?
16) What is your education level?
17) What is your occupation?
18) How much do your earn each month?

Before distributing the questionnaires, the researcher has to translate all questions into Thai language in order to make it easy to understand for respondents.

### 3.7 Research Instrument

In this research, the questionnaire will use to analyze consumer's buying behavior towards mobile phones in Bangkok.

### 3.8 Pre Testing

40 copies of questionnaires were distributed to respondents for pre testing. After distribution, there were some mistakes to be corrected. The questionnaire then, were reviewed, adjusted and developed.

### 3.9 Collection of Data

In this research, the data will be collected from questionnaires which people who have experience in purchasing or using mobile phones in Bangkok filled in. The data will present the consumer behavior of people who buy mobile phones in Bangkok and this data will be used for analyzes in this project.

Primary data will be also collected by using self-administered or close-formed questionnaires. This approach is the most flexible method of data collection because it is easy to provide and interpret information. Self-administered questionnaire can be used to present questions and record answers in quantitative field research surveys.

Self-administered questionnaire is a less expensive and less time consuming method in collect information from the large number of individuals simultaneously. It is also helpful in data collection process because it can make data comparable, minimize bias, and motivate the respondent.

Secondary data will be collected from several sources such as marketing and consumer behavior textbooks, magazines, newspaper article and other previous researches as well.

This research is a survey technique and the questionnaires will be distributed to the respondents who have experience in buying and using mobile phones around Bangkok.

### 3.10 Statistical Measurement

Once the data are collected, the Statistical Package for Social Science (SPSS) is utilized to summarize the data. After collecting the data of 384 questionnaires, the data will be coded into the form that can be used in SPSS. The following statistical procedures will be applied to solve the specific question in this study.

## Part 1: The consumer's buying behavior towards mobile phone

This part is designed to measure the buying behavior of consumer towards mobile phone in Bangkok. There are 7 questions which are divided to question to screen the respondents (question no. 1), question to analyze the reason for buying and using mobile phone in general terms (question no. 2), questions to measure brand selection (question no.3-4), price selection (question no. 5), place selection (question no. 6) promotion selection (question no. 7), intended time to buy (question no. 8).

## Part 2: The factors influence consumer's buying behavior.

This part is designed to measure how the given factors influence buying behavior of consumers of mobile phones in Bangkok. There is a scale measure which is as follows:

1. Unimportant
2. Not Much Important
3. Neutral
4. Important
5. Very Important

## Part 3: The factors influence consumer's buying behavior by marketing Mix

This part is designed to measure how the given factors influence consumer's buying behavior by marketing mix of customer in Bangkok. There is a scale measure which is as follows:

1. Unimportant
2. Not Much Important
3. Neutral
4. Important
5. Very Important

## Part 4: Demographic Data

The researcher will analyze the data in the form of a table which is as follows:
The number of respondents by gender
The number of respondents by age
The number of respondents by education level
The number of respondents by occupation
The number of respondents by income

## Chi-square test

The chi-square statistic $\left(\mathrm{x}^{2}\right)$ is used to test the statistical significance of the observed association in a cross-tabulation. It assists us in determining whether a systematic associating exists between two variables. The null hypothesis, H0, is that there is no association between the variable. The test is conducted by computing the cell frequencies that would be expected if no association were present between the variables, given the existing row and column totals (Malhotra, 2004).

In order to judge whether the hypotheses is to be accepted or rejected, the significance valued will be used. Observed significance level, which is often called as the p -value, is the basis for deciding whether or not to reject the null hypotheses (Ho). It is the probability that a statistical result as extreme as the one observed would occur if the null hypotheses were true. If the observed significance level is small enough, usually less than 0.05 or 0.01 , the null hypothesis is rejected (Keller and Warrack, 1997).

## Correlation analysis

The most famous technique that indicates the relationship of one variable to another is the coefficient of correlation. The coefficient of correlation is used to answer the question of how close the linear relation is for two variables (Malhotra, 2004).

Spearman's rank order correlation or Spearman's rho is a measure of association between rank orders. When both table variables (factors) are quantitative of linear association between the variables. The coefficient of correlation will always lie between -1 and +1 . The sign will be the same as the sign of the covariance and is interpreted in the same way. The Spearman's rank correlation coefficient is nonparametric test used to measure the strength of association between two variables are measured on an ordinal scale (Zikmund, 1997)

## IV. DATA ANALYSES

The purpose of this chapter is to analyze 384 questionnaires which collected from people who use mobile phones in Bangkok areas. The data was examined by using SPSS Program. This analysis has been divided into three major sections, respondent characteristics, summary of buying behavior analysis of respondents towards mobile phones and test of the hypotheses.

### 4.1 Respondent Characteristics Analysis

The respondent characteristics include all personal information which is demographic factors, gender, age, education levels, occupations, and average salary per month.

- Gender

There are 384 respondents in this descriptive study.


Figure 4.1 Respondent Characteristics Analysis by Gender

Table 4.1 Respondent Characteristics Analysis by Gender

## Gender

|  |  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Male | 238 | 62.0 | 62.0 | 62.0 |
|  | Female | 146 | 38.0 | 38.0 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

Table 4.1 shows the gender of the respondents of this study. It is composed of 238 male respondents and 146 female respondents or $62 \%$ and $38 \%$ respectively.

- Age

The age ranges are divided into 5 groups, less than 21 years old, 21-30 years old, 31-40 years old, 41-50 years old and more than 50 years old.


Figure 4.2 Respondent Characteristics Analysis by Age

Table 4.2 Respondent Characteristics Analysis by Age
Age

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | Less than 21 years old | 77 | 20.1 | 20.1 | 20.1 |
|  | $\begin{aligned} & 21-30 \text { years } \\ & \text { old } \end{aligned}$ | 136 | 35.4 | 35.4 | 55.5 |
|  | $\begin{aligned} & 31-40 \text { years } \\ & \text { old } \end{aligned}$ | 91 | 23.7 | 23.7 | 79.2 |
|  | $\begin{aligned} & 41-50 \text { years } \\ & \text { old } \end{aligned}$ | 45 | 11.7 | 11.7 | 90.9 |
|  | More than 50 years old | 35 | 9.1 | 9.1 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

As illustrated in Table 4.2, the majority of the respondents based on age ranges is in between 21-30 years old and counted for 136 respondents or $35.4 \%$. Next, 91 $(23.7 \%), 77(20.1 \%), 45(11.7 \%)$ of the respondents are between $31-40$ years old, less than 21 years old and between 41-50 years old respectively.

- Education Levels

Education levels in this study are categorized into less than High school level, High school level, Certificate or Diploma level, Bachelor's Degree level and Master's Degree or higher level.


Figure 4.3 Respondent Characteristics Analysis by Education Levels

Table 4.3 Respondent Characteristics Analysis by Education Levels
Education Level

|  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid | Less than High school | 14 | 3.6 | 3.6 |
|  | High school | 30 | 7.8 | 7.8 |
| Certificate/Diploma | 117 | 30.5 | 30.5 | 11.5 |
| Bachelor's Degree | 200 | 52.1 | 52.1 | 41.9 |
| Master's Degree or | 23 | 6.0 | 6.0 | 100.0 |
| higher | 384 | 100.0 | 100.0 |  |
| Total |  |  |  |  |

Table 4.3 shows that $52.1 \%$ of all respondents which counted for 200 respondents hold Bachelor's degree. Additionally, $30.5 \%$ or 117 respondents graduated in Certificate or Diploma level. 30 respondents (7.8\%) educated in High school level, 23
respondents ( $6 \%$ ) hold Master's degree or higher and 14 respondents or only $3.6 \%$ are less than High school education.

- Occupations

The occupations of sample groups are divided into 5 categories which are Student, Government or State Sector Employee, Private Sector Employee, SelfEmployed and other.


Figure 4.4 Respondent Characteristics Analysis by Occupation

Table 4.4 Respondent Characteristics Analysis by Occupation

## Occupation

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | Student | 72 | 18.8 | 18.8 | 18.8 |
|  | Government |  |  |  |  |
|  | Officer/State Sector | 134 | 34.9 | 34.9 | 53.6 |
|  | Employee |  |  |  |  |
|  | Private Sector | 142 | 37.0 | 37.0 | 90.6 |
|  | Employee | 142 | 37.0 | 37.0 | 9.6 |
|  | Self-Employed | 33 | 8.6 | 8.6 | 99.2 |
|  | Other | 3 | . 8 | . 8 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

As illustrated in Table 4.4, the majority of the respondents based on occupations is Private Sector Employee, counted for 142 respondents or $37 \%$. Additionally, 134 $(34.9 \%), 72(18.8 \%), 33(8.6 \%)$ and $3(0.8 \%)$ of the respondents are Government or State Sector Employee, Student, Self-Employed and others respectively.

- Average income per month

There are 6 levels which are average income as 10,000 Baht or less, 10,001 20,000 Baht, 20,001-30,000 Baht, 30,001-40,000 Baht, 40,001-50,000 Baht and more than 50,000 Baht.


Figure 4.5 Respondent Characteristics Analysis by Average income per month

Table 4.5 Respondent Characteristics Analysis by Average income per month
Average Income per month

|  |  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 10000 Baht or less | 172 | 44.8 | 44.8 | 44.8 |
|  | 10001-20000 Baht | Percent | 103 | 26.8 | 26.8 |
|  | 20001-30000 Baht | 54 | 14.1 | 14.1 | 71.6 |
|  | 30001-40000 Baht | 16 | 4.2 | 4.2 | 89.7 |
|  | 40001 - 50000 Baht | 18 | 4.7 | 4.7 | 94.5 |
|  | More than 50000 Baht | 21 | 5.5 | 5.5 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

Table 4.5 shows that the largest group, 172 (44.8\%) of respondents' average income per month range is 10,000 Baht or less. There are 103 respondents or $26.8 \%$ have the average income per month in between $10,001-20,000$ Baht. 54 respondents or $14.1 \%$ have average income 20,001-30,000 Baht per month, 21 respondents or $5.5 \%$
have average income more than 50,000 Baht, $18 \%$ or 18 respondents have 40,001 50,000 Baht per month and $4.2 \%$ or 16 respondents have an average income between $30,000-40,000$ Baht per month.

### 4.2 Buying Behavior Analysis of Respondents towards Mobile phones

- The main reasons for using mobile phones


Figure 4.6 The main reasons for using mobile phones

Table 4.6 The main reasons for using mobile phones

## Objective

|  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid Business | 78 | 20.3 | 20.3 | 20.3 |
|  | 157 | 40.9 | 40.9 | 61.2 |
| Private | 10 | 2.6 | 2.6 | 63.8 |
| Modernization | 139 | 36.2 | 36.2 | 100.0 |
| Convenience | 384 | 100.0 | 100.0 |  |

Table 4.6 shows that the main reasons for using mobile phone is for communication based on private or personal business as 157 respondents ( $40.9 \%$ ) from total 384 respondents, followed by 139 respondents or $36.2 \%$ use mobile phone for convenience reason. 78 participants ( $20.3 \%$ ) use mobile phone to serve business function. Finally, only 10 participants or $2.6 \%$ use mobile phones because the modernization reason.

- Brand of Mobile Phone


Figure 4.7 Brand of Mobile Phone

Table 4.7 Brand of Mobile Phone

## Brand

|  |  |  |  | Valid <br> Fercent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Nokia | 267 | 69.5 | 69.5 | 69.5 |
|  | Sony Ericsson | 28 | 7.3 | 7.3 | 76.8 |
| BenQ-Siemens | 7 | 1.8 | 1.8 | 78.6 |  |
| LG | 2 | .5 | .5 | 79.2 |  |
| Motorola | 20 | 5.2 | 5.2 | 84.4 |  |
| Samsung | 22 | 5.7 | 5.7 | 90.1 |  |
| Panasonic | 8 | 2.1 | 2.1 | 92.2 |  |
| I-Mobile | 19 | 4.9 | 4.9 | 97.1 |  |
| Others | 11 | 2.9 | 2.9 | 100.0 |  |
|  | Total | 384 | 100.0 | 100.0 |  |

Nokia is the most popular brand of mobile phone which respondents consider to purchase the most as illustrated in Table 4.7 with 267 respondents or 69.5 percent of the total 384 respondents. The other brands of mobile phone are Sony Ericsson counted for 28 respondents ( $7.3 \%$ ), Samsung counted for 22 respondents (5.7\%), Motorola counted for 20 respondents (5.2\%), I-Mobile counted for 19 respondents ( $2.9 \%$ ), other brands counted for 11 respondents ( $2.9 \%$ ), Panasonic counted for 8 respondents ( $2.1 \%$ ) and BenQ-Siemens counted for 7 respondents ( $1.8 \%$ ), respectively. Finally, only 2 respondents selected LG brand on their latest purchase of mobile phone.

- Reason for Selecting that Brand


Figure 4.8 Reason for choosing that brand

Table 4.8 Reason for choosing that brand

|  | Frequency | Percent |
| :--- | :---: | :---: |
| Well known Brand | 90 | $23.4 \%$ |
| Cheaper than other brands | 58 | $15.1 \%$ |
| Convenience | 69 | $18.0 \%$ |
| Advertising | 24 | $6.3 \%$ |
| Trust in its product \& service quality | 248 | $64.6 \%$ |
| Other | 39 | $10.2 \%$ |

Table 4.8 and Figure 4.8 show that the first reason why respondents selecting brand of mobile phone is trust in its product and service quality computed as $64.6 \%$ of all 384 respondents. The second reason is well know brand computed as $23.4 \%$ of total respondents. The third reason is convenience computed as $18 \%$ of total respondents.

The forth reason is cheaper than other brands computed as $15.1 \%$ of total respondents. The fifth reason is other computed as $10.2 \%$ of total respondents. The sixth reason is advertising computed as $6.3 \%$ of total respondents

- Reasonable Price


Figure 4.9 Reasonable Price

Table 4.9 Reasonable Price

## Reasonable Price

|  |  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Frequency | Percent |  |  |  |
|  | 5000 Baht or less | 143 | 37.2 | 37.2 | 37.2 |
|  | 10001-15000 Baht | 154 | 40.1 | 40.1 | 77.3 |
|  | 15001-20000 Baht | 71 | 18.5 | 18.5 | 95.8 |
| 20001-25000 Baht | 9 | 2.3 | 2.3 | 98.2 |  |
| 25001 Baht or more | 4 | 1.0 | 1.0 | 99.2 |  |
|  | Total | 38 | .8 | .8 | 100.0 |

Table 4.9 shows that the reasonable price of mobile phone for the respondents is $5,001-10,000$ Baht which accounted for 154 respondents or $40.1 \%$ followed by 5,000 Baht or less which counted for 143 respondents ( $37.2 \%$ ), 10,001-15,000 Baht which counted for 71 respondents ( $18.5 \%$ ), 15,001-20,000 Baht which accounted for 9 respondents ( $2.3 \%$ ), 20,001-25,000 Baht which accounted for 4 respondents (1\%) and 25,001 Baht or more which accounted for 3 respondents ( $0.8 \%$ ) respectively.

- Place to buy


Figure 4.10 Place to buy mobile phone

Table 4.10 Place to buy mobile phone

|  |  | Count |
| :--- | :--- | ---: |
| Where to buy: Mobile Center | No | 214 |
|  | Yes | 170 |
| Where to buy: Mobile Dealer | No | 250 |
|  | Yes | 134 |
| Where to buy: General Mobile Shop | No | 235 |
|  | Yes | 149 |
| Where to buy: Website/Internet | No | 372 |
|  | Yes | 12 |
| Where to buy: Others | No | 377 |
|  | Yes | 7 |

Table 4.11 Place to buy mobile phone (summary)

|  | Frequency | Percent |
| :--- | :---: | :---: |
| Mobile Center | 170 | $44.3 \%$ |
| Mobile Dealer | 134 | $34.9 \%$ |
| General Mobile Shop | 149 | $38.8 \%$ |
| Website/Internet | 12 | $3.1 \%$ |
| Others | 7 | $1.8 \%$ |

Table 4.11 and Figure 4.10 show that the first place where respondents consider buying mobile phone is mobile center computed as $44.3 \%$ of all 384 respondents. The second place is general mobile shop computed as $38.8 \%$ of total respondents. The third place is mobile dealer computed as $34.9 \%$ of total respondents. The forth place is website or internet computed as $3.1 \%$ of total respondents. The fifth place is other computed as $1.8 \%$ of total respondents.

- Sources consideration to buy mobile phone


Figure 4.11 Sources consideration to buy mobile phone

Table 4.12 Sources consideration to buy mobile phone (summary)

|  | Frequency | Percent |
| :--- | :---: | :---: |
| Advertising | 173 | $45.1 \%$ |
| Brochure | 167 | $43.5 \%$ |
| Friends or Closed relationship person | 135 | $35.2 \%$ |
| Magazine | 81 | $21.1 \%$ |
| Website/Internet | 80 | $20.8 \%$ |
| Sales Representative | 76 | $19.8 \%$ |
| Others | 4 | $1.0 \%$ |

Table 4.12 and Figure 4.11 show that the first source to help respondents consider when buy mobile phone is advertising computed as $45.1 \%$ of all 384 respondents. The second source is brochure computed as $43.5 \%$ of total respondents. The third source is friends or closed relationship person computed as $35.2 \%$ of total respondents. The forth source is magazine computed as $21.1 \%$ of total respondents. The fifth source is website
or internet computed as $20.8 \%$ of total respondents. The sixth source is sales representative computed as $19.8 \%$ of total respondents. The seventh source is other computed as $1 \%$ of total respondents.

- Intended time to buy mobile phone


Figure 4.12 Intended time to buy mobile phone

Table 4.13 Intended time to buy mobile phone
Intended time to buy

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid less than 6 months | 31 | 8.1 | 8.1 | 8.1 |
| 6 months - year | 44 | 11.5 | 11.5 | 19.5 |
| 1-2 year | 113 | 29.4 | 29.4 | 49.0 |
| 2-3 years | 66 | 17.2 | 17.2 | 66.1 |
| 3-4 years | 41 | 10.7 | 10.7 | 76.8 |
| 4-5 year | 25 | 6.5 | 6.5 | 83.3 |
| more than 5 years | 64 | 16.7 | 16.7 | 100.0 |
| Total | 384 | 100.0 | 100.0 |  |

Table 4.13 shows that the majority respondents of this study intend to buy mobile phone with in 1-2 year as counted for 113 respondents ( $29.4 \%$ ), followed by 66 respondent ( $17.2 \%$ ) who intend to buy in 2-3 years, 64 respondents ( $16.7 \%$ ) which intended time to buy mobile phone is more than 5 years, 44 respondent ( $11.5 \%$ ) who intend to buy in 6 months- 1 year, 41 respondent ( $10.7 \%$ ) who intend to buy in 3-4 years. Finally, 25 respondents ( $6.5 \%$ ) intend to buy in $4-5$ years.

### 4.3 Factors Influence Consumer's Buying Behavior Analysis

Table 4.14 Factors influencing choices of buying mobile phone

| Factor | Level of influence |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 1- <br> Not <br> Important | 2- <br> Not Much <br> Important | 3- <br> Neutral | 4- <br> Important | $\mathbf{5 -}$ <br> Very <br> Important |
| Brand | 6 | 15 | 88 | 147 | 128 |
| Spec | 2 | 8 | 56 | 155 | 163 |
| After Sale <br> Service | 11 | 25 | 111 | 136 | 101 |
| Advertising | 13 | 49 | 172 | 111 | 39 |
| Promotion | 11 | 25 | 74 | 127 | 147 |
| Price | 8 | 18 | 92 | 113 | 153 |
| Relative Person | 27 | 62 | 140 | 102 | 53 |
| Other | 2 | 1 | 11 | 5 | 3 |

From the table 4.14, the critical factors that influence buying behavior towards mobile phone of customers in Bangkok are performance and specification of mobile phone, price and promotion as these factors were classified in very important level of influence. After sale service was rated as important manner, advertising and relative person were concerned in neutral level.

### 4.4 Test of the Hypotheses

The hypotheses have been divided into groups as follows:

### 4.4.1 Demographic factors versus Product choices

$\mathrm{H}_{0}$ : There is no difference between product choices in terms of objectives when classified by gender
$\mathrm{H1}_{1}$ : There is a difference between product choices in terms of objectives when classified by gender

Table 4.15 The analysis of the difference between product choices in terms of objectives when classified by gender

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $3.592(\mathrm{a})$ | 3 | .309 |
| Square | 3.656 | 3 | .301 |
| Likelihood Ratio | 2.088 | 1 | .148 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases | 2 |  |  |

a 1 cells ( $12.5 \%$ ) have expected count less than 5 . The minimum expected count is 3.80 .

The analysis in table 4.15 indicated that the possibility of significance of Pearson Chi-square is .309 which is more than $.05(.309>.05)$

The null hypothesis fails to be rejected, that means there is no difference between product choices in terms of objectives when classified by gender.
$\mathrm{H} 2_{0}$ : There is no difference between product choices in terms of objectives when classified by age
$\mathrm{H}_{2}$ : There is a difference between product choices in terms of objectives when classified by age

Table 4.16 The analysis of the difference between product choices in terms of objectives when classified by age

Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $18.935(\mathrm{a})$ | 12 | .090 |
| Square | 20.125 | 12 | .065 |
| Likelihood Ratio | .010 | 1 | .922 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 5 cells $(25.0 \%)$ have expected count less than 5 . The minimum expected count is .91 .

The analysis in table 4.16 indicated that the possibility of significance of Pearson Chi-square is .090 which is more than $.05(.090>.05)$

The null hypothesis fails to be rejected, that means there is no difference between product choices in terms of objectives when classified by age.
$\mathrm{H}_{0}$ : There is no difference between product choices in terms of objectives when classified by education level
$\mathrm{H}_{1}$ : There is a difference between product choices in terms of objectives when classified by education level

Table 4.17 The analysis of the difference between product choices in terms of objectives when classified by education level

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $29.291(\mathrm{a})$ | 12 | .004 |
| Square | 31.524 | 12 | .002 |
| Likelihood Ratio | 1.558 | 1 | .212 |
| Linear-by-Linear | 384 |  |  |
| Association <br> N of Valid Cases |  |  |  |

a 6 cells $(30.0 \%)$ have expected count less than 5 . The minimum expected count is .36 .

The analysis in table 4.17 indicated that the possibility of significance of Pearson Chi-square is .004 which is less than $.05(.004<.05)$

The null hypothesis is rejected, that means there is a difference between product choices in terms of objectives when classified by education level.
$\mathrm{H}_{4}$ : There is no difference between product choices in terms of objectives when classified by occupation
$\mathrm{H}_{1}$ : There is a difference between product choices in terms of objectives when classified by occupation

Table 4.18 The analysis of the difference between product choices in terms of objectives when classified by occupation

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $26.381(\mathrm{a})$ | 12 | .009 |
| Square | 27.123 | 12 | .007 |
| Likelihood Ratio | 1.172 | 1 | .279 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 8 cells $(40.0 \%)$ have expected count less than 5 . The minimum expected count is .08 .

The analysis in table 4.18 indicated that the possibility of significance of Pearson Chi-square is .009 which is more than $.05(.009<.05)$

The null hypothesis is rejected, that means there is a difference between product choices in terms of objectives when classified by occupation.
$\mathrm{H}_{0}$ : There is no difference between product choices in terms of objectives when classified by income
$\mathrm{H} 5_{1}$ : There is a difference between product choices in terms of objectives when classified by income

Table 4.19 The analysis of the difference between product choices in terms of objectives when classified by income

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $25.366(a)$ | 15 | .045 |
| Square | 20.825 | 15 | .143 |
| Likelihood Ratio | .286 | 1 | .593 |
| Linear-by-Linear | 384 |  |  |
| Association <br> N of Valid Cases |  |  |  |

a 9 cells $(37.5 \%)$ have expected count less than 5 . The minimum expected count is .42 .

The analysis in table 4.19 indicated that the possibility of significance of Pearson Chi-square is .045 which is less than $.05(.045<.05)$

The null hypothesis is rejected, that means there is a difference between product choices in terms of objectives when classified by income.

### 4.4.2 Demographic factors versus Brand choices

$\mathrm{H}_{6}$ : There is no difference between brand choices when classified by gender
$\mathrm{H}_{1}$ : There is a difference between brand choices when classified by gender

Table 4.20 The analysis of the difference between brand choices when classified by gender

## Chi-Square Tests

|  |  |  | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi-Square | Value | df | (a) <br> Likelihood Ratio |
| Linear-by-Linear | 5.915 | 8 | .640 |
| Association | 3.331 | 1 | .657 |
| N of Valid Cases | 384 |  | .068 |

a 7 cells $(38.9 \%)$ have expected count less than 5 . The minimum expected count is .76 .

The analysis in table 4.20 indicated that the possibility of significance of Pearson Chi-square is .640 which is more than .05 (.640>.05).

The null hypothesis fails to be rejected, that means there is no difference between brand choices when classified by gender
$\mathrm{H} 7_{0}$ : There is no difference between brand choices when classified by age
$\mathrm{H} 7_{1}$ : There is a difference between brand choices when classified by age

Table 4.21 The analysis of the difference between brand choices when classified by age

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi-Square | $54.673(\mathrm{a})$ | 32 | .008 |
| Likelihood Ratio | 58.290 | 32 | .003 |
| Linear-by-Linear | .005 | 1 | .946 |
| Association | 384 |  |  |
| N of Valid Cases |  |  |  |

a 33 cells ( $73.3 \%$ ) have expected count less than 5 . The minimum expected count is . 18 .

The analys is in table 4.21 indicated that the possibility of significance of Pearson Chi-square is .008 which is less than $.05(.008<.05)$.

The null hypothesis is rejected, that means there is a difference between brand choices when classified by age.

H 80 : There is no difference between brand choices when classified by education level
$\mathrm{H} 8_{1}$ : There is a difference between brand choices when classified by education level

Table 4.22 The analysis of the difference between brand choices when classified by education level

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $53.136(a)$ | 32 | .011 |
| Square | 46.571 | 32 | .046 |
| Likelihood Ratio | 1.172 | 1 | .279 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 31 cells $(68.9 \%)$ have expected count less than 5 . The minimum expected count is .07 .

The analysis in table 4.22 indicated that the possibility of significance of Pearson Chi-square is .011 which is less than $.05(.011<.05)$

The null hypothesis is rejected, that means there is a difference between brand choices when classified by education level.
$\mathrm{H} 9_{0}$ : There is no difference between brand choices when classified by occupation
H9 $9_{1}$ : There is a difference between brand choices when classified by occupation

Table 4.23 The analysis of the difference between brand choices when classified by occupation

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $57.519(\mathrm{a})$ | 32 | .004 |
| Square | 51.673 | 32 | .015 |
| Likelihood Ratio | .442 | 1 | .506 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 32 cells ( $71.1 \%$ ) have expected count less than 5 . The minimum expected count is .02 .

The analysis in table 4.23 indicated that the possibility of significance of Pearson Chi-square is .004 which is less than $.05(.004<.05)$

The null hypothesis is rejected, that means there is a difference between brand choices when classified by occupation.
$\mathrm{H} 10_{0}$ : There is no difference between brand choices when classified by income
$\mathrm{H} 10_{1}$ : There is a difference between brand choices when classified by income

Table 4.24 The analysis of the difference between brand choices when classified by income

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $59.275(\mathrm{a})$ | 40 | .025 |
| Square | 62.114 | 40 | .014 |
| Likelihood Ratio | .093 | 1 | .760 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 40 cells ( $74.1 \%$ ) have expected count less than 5 . The minimum expected count is .08 .

The analysis in table 4.24 indicated that the possibility of significance of Pearson Chi-square is .025 which is less than $.05(.025<.05)$.

The null hypothesis is rejected, that means there is a difference between brand choices when classified by monthly income.

### 4.4.3 Demographic factors versus Dealer choices

$\mathrm{H} 11_{0}$ : There is no difference between dealer choices when classified by gender
$\mathrm{Hl1} 1_{1}$ : There is a difference between dealer choices when classified by gender

Table 4.25 The analysis of the difference between dealer choices when classified by gender

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $2.173(\mathrm{a})$ | 3 | .537 |
| Square | 2.497 | 3 | .476 |
| Likelihood Ratio | .488 | 1 | .485 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |

a 2 cells $(25.0 \%)$ have expected count less than 5 . The minimum expected count is .38 .

The analysis in table 4.25 indicated that the possibility of significance of Pearson Chi-square is .537 which is more than $.05(.537>.05)$.

The null hypothesis fails to be rejected, that means there is no difference between dealer choices when classified by gender.
$\mathrm{H} 12_{0}$ : There is no difference between dealer choices when classified by age
$\mathrm{H} 12_{1}$ : There is a difference between dealer choices when classified by age

Table 4.26 The analysis of the difference between dealer choices when classified by age

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- <br> Square | $7.949(\mathrm{a})$ | 12 | .789 |
| Likelihood Ratio | 7.248 | 12 | .841 |
| Linear-by-Linear | .419 | 1 | .518 |
| Association | 384 |  |  |
| N of Valid Cases |  |  |  |

a 9 cells $(45.0 \%)$ have expected count less than 5 . The minimum expected count is .09 .

The analysis in table 4.26 indicated that the possibility of significance of Pearson Chi-square is .789 which is more than $.05(.789>.05)$.

The null hypothesis fails to be rejected, that means there is no difference between dealer choices when classified by age.
$\mathrm{H}_{13}$ : There is no difference between dealer choices when classified by education level

H13 ${ }_{1}$ : There is a difference between dealer choices when classified by education level

Table 4.27 The analysis of the difference between dealer choices when classified by education level.

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $33.464(a)$ | 12 | .001 |
| Square | 15.232 | 12 | .229 |
| Likelihood Ratio | .011 | 1 | .917 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 11 cells $(55.0 \%)$ have expected count less than 5 . The minimum expected count is .04 .

The analysis in table 4.27 indicated that the possibility of significance of Pearson Chi-square is .001 which is less than $.05(.001<.05)$.

The null hypothesis is rejected, that means there is a difference between dealer choices when classified by education level.
$\mathrm{H}_{1} 4_{0}$ : There is no difference between dealer choices when classified by occupation
H14 $1_{1}$ : There is a difference between dealer choices when classified by occupation

Table 4.28 The analysis of the difference between dealer choices when classified by occupation

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $10.117(\mathrm{a})$ | 12 | .606 |
| Square | 10.033 | 12 | .613 |
| Likelihood Ratio | 2.028 | 1 | .154 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |

a 11 cells $(55.0 \%)$ have expected count less than 5 . The minimum expected count is .01 .

The analysis in table 4.28 indicated that the possibility of significance of Pearson Chi-square is .606 which is more than $.05(.606>.05)$.

The null hypothesis fails to be rejected, that means there is no difference between dealer choices when classified by occupation.
$\mathrm{H} 15_{0}$ : There is no difference between dealer choices when classified by income
$\mathrm{H} 15_{1}$ : There is a difference between dealer choices when classified by income

Table 4.29 The analysis of the difference between dealer choices when classified by income

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $17.494(\mathrm{a})$ | 15 | .290 |
| Square | 16.806 | 15 | .331 |
| Likelihood Ratio | .671 | 1 | .413 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 14 cells ( $58.3 \%$ ) have expected count less than 5 . The minimum expected count is .04 .

The analysis in table 4.29 indicated that the possibility of significance of Pearson Chi-square is .290 which is more than $.05(.290>.05)$.

The null hypothesis fails to be rejected, that means there is no difference between dealer choices when classified by income.

### 4.4.4 Demographic factors versus Purchase timing

$\mathrm{H} 16_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by gender

H16 : There is a difference between purchase timing based on intended time to buy mobile phone when classified by gender

Table 4.30 The analysis of the difference between timing based on intended time to buy mobile phone when classified by gender

Chi-Square Tests

|  |  | Asymp. Sig. <br> (2-sided) |  |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $7.223(\mathrm{a})$ | 6 | .301 |
| Square | 7.363 | 6 | .289 |
| Likelihood Ratio | .541 | 1 | .462 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 0 cells $(.0 \%)$ have expected count less than 5 . The minimum expected count is 9.51 .

The analysis in table 4.30 indicated that the possibility of significance of Pearson Chi-square is .301 which is more than $.05(.301>.05)$

The null hypothesis fails to be rejected, that means there is no difference between timing based on intended time to buy mobile phone when classified by gender.
$\mathrm{H} 17_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by age

H171: There is a difference between purchase timing based on intended time to buy mobile phone when classified by age

Table 4.31 The analysis of the difference between timing based on intended time to buy mobile phone when classified by age

Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $56.108(a)$ | 24 | .000 |
| Square | 54.942 | 24 | .000 |
| Likelihood Ratio | 27.476 | 1 | .000 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 7 cells $(20.0 \%)$ have expected count less than 5 . The minimum expected count is 2.28 .

The analysis in table 4.31 indicated that the possibility of significance of Pearson Chi-square is .000 which is less than $.05(.000<.05)$

The null hypothesis is rejected, that means there is a difference between timing based on intended time to buy mobile phone when classified by age.

H 180 : There is no difference between purchase timing based on intended time to buy mobile phone when classified by education level
$\mathrm{H} 18_{1}$ : There is a difference between purchase timing based on intended time to buy mobile phone when classified by education level

Table 4.32 The analysis of the difference between timing based on intended time to buy mobile phone when classified by education level

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $49.422(\mathrm{a})$ | 24 | .002 |
| Square | 45.958 | 24 | .004 |
| Likelihood Ratio | 10.345 | 1 | .001 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 17 cells ( $48.6 \%$ ) have expected count less than 5 . The minimum expected count is .91 .

The analysis in table 4.32 indicated that the possibility of significance of Pearson Chi-square is .002 which is less than $.05(.002<.05)$.

The null hypothesis is rejected, that means there is a difference between timing based on intended time to buy mobile phone when classified by education level.
$\mathrm{H} 19_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by occupation
$\mathrm{H} 19_{1}$ : There is a difference between purchase timing based on intended time to buy mobile phone when classified by occupation

Table 4.33 The analysis of the difference between timing based on intended time to buy mobile phone when classified by occupation

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $63.879(\mathrm{a})$ | 24 | .000 |
| Square | 63.690 | 24 | .000 |
| Likelihood Ratio | 1.436 | 1 | .231 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |

a 12 cells ( $34.3 \%$ ) have expected count less than 5 . The minimum expected count is .20 .

The analysis in table 4.33 indicated that the possibility of significance of Pearson Chi-square is .000 which is less than $.05(.000<.05)$.

The null hypothesis is rejected, that means there is a difference between timing based on intended time to buy mobile phone when classified by occupation.
$\mathrm{H} 2 \mathrm{O}_{0}$ : There is no difference between purchase timing based on intended time to buy mobile phone when classified by income
$\mathrm{H} 20_{1}$ : There is a difference between purchase timing based on intended time to buy mobile phone when classified by income

Table 4.34 The analysis of the difference between timing based on intended time to buy mobile phone when classified by age

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $38.962(\mathrm{a})$ | 30 | .127 |
| Square | 33.790 | 30 | .289 |
| Likelihood Ratio | .211 | 1 | .646 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 21 cells ( $50.0 \%$ ) have expected count less than 5 . The minimum expected count is 1.04 .

The analysis in table 4.34 indicated that the possibility of significance of Pearson Chi-square is .127 which is more than $.05(.127>.05)$.

The null hypothesis fails to be rejected, that means there is no difference between timing based on intended time to buy mobile phone when classified by income.

### 4.4.5 Demographic factors versus Purchase amount

$\mathrm{H} 21_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by gender
$\mathrm{H} 21_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by gender

Table 4.35 The analysis of the difference between purchase amount based on reasonable price of mobile phone when classified by gender

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $16.956(a)$ | 5 | .005 |
| Square | 17.146 | 5 | .004 |
| Likelihood Ratio | 3.435 | 1 | .064 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 5 cells $(41.7 \%)$ have expected count less than 5 . The minimum expected count is 1.14 .

The analysis in table 4.35 indicated that the possibility of significance of Pearson Chi-square is .005 which is less than $.05(.005<.05)$.

The null hypothesis is rejected, that means there is a difference between purchase amount based on reasonable price of mobile phone when classified by gender.
$\mathrm{H} 22_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by age
$\mathrm{H} 22_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by age

Table 4.36 The analysis of the difference between purchase amounts based on reasonable price of mobile phone when classified by age

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $58.240(\mathrm{a})$ | 20 | .000 |
| Square | 60.956 | 20 | .000 |
| Likelihood Ratio | 4.010 | 1 | .045 |
| Linear-by-Linear | 384 |  |  |
| Association <br> N of Valid Cases |  |  |  |

a 15 cells $(50.0 \%)$ have expected count less than 5 . The minimum expected count is .27 .

The analysis in table 4.36 indicated that the possibility of significance of Pearson Chi-square is .000 which is less than $.05(.000<.05)$.

The null hypothesis is rejected, that means there is a difference between purchase amount based on reasonable price of mobile phone when classified by age.
$\mathrm{H} 23_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by education level
$\mathrm{H} 23_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by education level

Table 4.37 The analysis of the difference between purchase amount based on reasonable price of mobile phone when classified by education level

Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $49.223(\mathrm{a})$ | 20 | .000 |
| Square | 47.435 | 20 | .001 |
| Likelihood Ratio | 26.292 | 1 | .000 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |

a 17 cells $(56.7 \%)$ have expected count less than 5 . The minimum expected count is .11 .

The analysis in table 4.37 indicated that the possibility of significance of Pearson Chi-square is .000 which is less than $.05(.000<.05)$

The null hypothesis is rejected, that means there is a difference between purchase amount based on reasonable price of mobile phone when classified by education level.
$\mathrm{H} 24_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by occupation
$\mathrm{H} 24_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by occupation

Table 4.38 The analysis of the difference between purchase amount based on reasonable price of mobile phone when classified by occupation

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $34.833(a)$ | 20 | .021 |
| Square | 38.157 | 20 | .008 |
| Likelihood Ratio | 5.331 | 1 | .021 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 18 cells $(60.0 \%)$ have expected count less than 5 . The minimum expected count is .02 .

The analysis in table 4.38 indicated that the possibility of significance of Pearson Chi-square is .021 which is less than $.05(.021<.05)$.

The null hypothesis is rejected, that means there is a difference between purchase amount based on reasonable price of mobile phone when classified by occupation.
$\mathrm{H} 25_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by income
$\mathrm{H} 25_{1}$ : There is a difference between purchase amount based on reasonable price of mobile phone when classified by income

Table 4.39 The analysis of the difference between purchase amount based on reasonable price of mobile phone when classified by income

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $60.761(\mathrm{a})$ | 25 | .000 |
| Square | 46.836 | 25 | .005 |
| Likelihood Ratio | 10.699 | 1 | .001 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 21 cells ( $58.3 \%$ ) have expected count less than 5 . The minimum expected count is .13 .

The analysis in table 4.39 indicated that the possibility of significance of Pearson Chi-square is .000 which is less than $.05(.000<.05)$

The null hypothesis is rejected, that means there is a difference between purchase amount based on reasonable price of mobile phone when classified by income.

### 4.4.6 Demographic factors versus Factors influencing choice of buying

## mobile phone

$\mathrm{H} 26_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by gender

H26 : There is a different between factors influencing choice of buying mobile phone when classified by gender

Table 4.40 The analysis of the difference between factors influencing choice of buying mobile phone when classified by gender

Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $25.340(\mathrm{a})$ | 21 | .233 |
| Square | 31.553 | 21 | .065 |
| Likelihood Ratio | 2.190 | 1 | .139 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 21 cells $(47.7 \%)$ have expected count less than 5 . The minimum expected count is .38 .

The analysis in table 4.40 indicated that the possibility of significance of Pearson Chi-square is .233 which is more than $.05(.233>.05)$

The null hypothesis fails to be rejected, that means there is no difference between factors influencing choice of buying mobile phone when classified by gender
$\mathrm{H} 27_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by age

H271: There is a different between factors influencing choice of buying mobile phone when classified by age

Table 4.41 The analysis of the difference between factors influencing choice of buying mobile phone when classified by age

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $119.111(\mathrm{a})$ | 84 | .007 |
| Square | 84 | .004 |  |
| Likelihood Ratio | 122.382 | 84 | .009 |
| Linear-by-Linear | 6.750 | 1 |  |
| Association <br> N of Valid Cases | 384 |  |  |

a 84 cells ( $76.4 \%$ ) have expected count less than 5 . The minimum expected count is .09 .

The analysis in table 4.41 indicated that the possibility of significance of Pearson Chi-square is .007 which is less than $.05(.007<.05)$

The null hypothesis is rejected, that means there is a difference between factors influencing choice of buying mobile phone when classified by age.
$\mathrm{H} 28_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by education level
$\mathrm{H} 28_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by education level

Table 4.42 The analysis of the difference between factors influencing choice of buying mobile phone when classified by education level

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $109.360(\mathrm{a})$ | 84 | .033 |
| Square | 105.802 | 84 | .054 |
| Likelihood Ratio | .021 | 1 | .885 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 88 cells $(80.0 \%)$ have expected count less than 5 . The minimum expected count is .04 .

The analysis in table 4.42 indicated that the possibility of significance of Pearson Chi-square is .033 which is less than $.05(.033<.05)$

The null hypothesis is rejected, that means there is a difference between factors influencing choice of buying mobile phone when classified by education level.
$\mathrm{H} 29_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by occupation
$\mathrm{H} 29_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by occupation

Table 4.43 The analysis of the difference between factors influencing choice of buying mobile phone when classified by occupation

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $82.555(\mathrm{a})$ | 84 | .524 |
| Square | 85.638 | 84 | .430 |
| Likelihood Ratio | 10.167 | 1 | .001 |
| Linear-by-Linear | 384 |  |  |
| Association <br> N of Valid Cases |  |  |  |

a 83 cells $(75.5 \%)$ have expected count less than 5 . The minimum expected count is .01 .

The analysis in table 4.43 indicated that the possibility of significance of Pearson Chi-square is .524 which is less than $.05(.524>.05)$

The null hypothesis fails to be rejected, that means there is no difference between factors influencing choice of buying mobile phone when classified by occupation.
$\mathrm{H} 3 \mathrm{O}_{0}$ : There is no different between factors influencing choice of buying mobile phone when classified by income
$\mathrm{H} 3 \mathrm{O}_{1}$ : There is a different between factors influencing choice of buying mobile phone when classified by income

Table 4.44 The analysis of the difference between factors influencing choice of buying mobile phone when classified by income

## Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) |
| :--- | ---: | ---: | ---: |
| Pearson Chi- | $111.730(\mathrm{a})$ | 105 | .308 |
| Square | 110.930 | 105 | .327 |
| Likelihood Ratio | 6.580 | 1 | .010 |
| Linear-by-Linear | 384 |  |  |
| Association |  |  |  |
| N of Valid Cases |  |  |  |

a 110 cells $(83.3 \%)$ have expected count less than 5 . The minimum expected count is .04 .

The analysis in table 4.44 indicated that the possibility of significance of Pearson Chi-square is .308 which is less than $.05(.308>.05)$

The null hypothesis fails to be rejected, that means there is no difference between factors influencing choice of buying mobile phone when classified by income.

### 4.4.7 Marketing mix versus Factors influencing choice of buying

$\mathrm{H} 31_{0}$ : There is no relationship between product factor and factors influencing choice of buying mobile phone
$\mathrm{H} 31_{1}$ : There is a relationship between product factor and factors influencing choice of buying mobile phone

Table 4.45 The analysis of the relationship between product factor and factors influencing choice of buying mobile phone

## Correlations

|  |  |  | Influencing <br> Factors | Marketing <br> Mix: Product |
| :--- | :--- | :--- | ---: | ---: |
| Spearman's <br> rho | Influencing | Correlation | 1.000 | $.542(* *)$ |
|  | Factors | Coefficient |  | .000 |
|  |  | Sig. (2-tailed) | 384 | 384 |
|  | Marketing Mix: | N | Correlation | $.542(* *)$ |
|  | Coefficient | 1.000 |  |  |
|  | Product | Sig. (2-tailed) | .000 |  |
|  |  | N | 384 | 384 |

** Correlation is significant at the 0.01 level (2-tailed).

The analysis in table 4.45 indicated that there is a statistically significant correlation between product factor and factor influencing customer's choice of buying mobile phone with a 2 -tailed significance of .000 which is less than $.05(.000<, 05)$.

The null hypothesis is rejected, that means there is a relationship between product factor and factor influencing customer's choice of buying mobile phone. The correlation coefficient is .542 means the product factor and factor influencing customer's choice of buying mobile phone have a moderate positive relationship.
$\mathrm{H} 32_{0}$ : There is no relationship between price factor and factors influencing choice of buying mobile phone
$\mathrm{H} 32_{1}$ : There is a relationship between price factor and factors influencing choice of buying mobile phone

Table 4.46 The analysis of the relationship between price factor and factors influencing choice of buying mobile phone

## Correlations

|  |  |  | Influencing <br> Factors | Marketing <br> Mix: Price |
| :--- | :--- | :--- | ---: | ---: |
| Spearman's <br> rho | Influencing | Correlation | 1.000 | $.364\left({ }^{* *}\right)$ |
|  | Factors | Coefficient |  | .000 |
|  |  | Sig. (2-tailed) | 384 | 384 |
|  |  | N | 384 | 1.000 |
|  | Marketing Mix: | Correlation | $.364\left({ }^{* *}\right)$ |  |
|  | Price | Coefficient | .000 | . |
|  |  | Sig. (2-tailed) | 384 | 384 |

** Correlation is significant at the 0.01 level ( 2 -tailed).

The analysis in table 4.46 indicated that there is a statistically significant correlation between price factor and factor influencing customer's choice of buying mobile phone with a 2 -tailed significance of .000 which is less than $.05(.000<.05)$.

The null hypothesis is rejected, that means there is a relationship between price factor and factor influencing customer's choice of buying mobile phone.

The correlation coefficient is .364 means the price factor and factor influencing customer's choice of buying mobile phone have a low positive relationship.
$\mathrm{H} 33_{0}$ : There is no relationship between place factor and factors influencing choice of buying mobile phone
$\mathrm{H} 33_{1}$ : There is a relationship between place factor and factors influencing choice of buying mobile phone

Table 4.47 The analysis of the relationship between place factor and factors influencing choice of buying mobile phone

## Correlations

|  |  |  | Influencing Factors | Marketing Mix: Place |
| :---: | :---: | :---: | :---: | :---: |
| Spearman's rho | Influencing | Correlation | 1.000 | .361(**) |
|  | Factors | Coefficient | 1.000 | .361(*) |
|  |  | Sig. (2-tailed) |  | . 000 |
|  |  | N | 384 | 383 |
|  | Marketing | Correlation | (**) | 1.000 |
|  | Mix: Place | Coefficient | (**) | 1.000 |
|  | $\square$ | Sig. (2-tailed) | . 000 |  |
|  |  | N | 383 | 383 |

** Correlation is significant at the 0.01 level (2-tailed).

The analysis in table 4.47 indicated that there is a statistically significant correlation between place factor and factor influencing customer's choice of buying mobile phone with a 2-tailed significance of .000 which is less than $.05(.000<.05)$.

The null hypothesis is rejected, that means there is a relationship between place factor and factor influencing customer's choice of buying mobile phone.

The correlation coefficient is .361 means the place factor and factor influencing customer's choice of buying mobile phone have a low positive relationship.
$\mathrm{H} 34_{0}$ : There is no relationship between promotion factor and factors influencing choice of buying mobile phone
$\mathrm{H} 34_{1}$ : There is a relationship between promotion factor and factors influencing choice of buying mobile phone

Table 4.48 The analysis of the relationship between promotion factor and factors influencing choice of buying mobile phone

## Correlations

|  |  |  | Influencing <br> Factors | Marketing Mix: <br> Promotion |
| :--- | :--- | :--- | ---: | ---: |
| Spearman's <br> rho | Influencing | Correlation | 1.000 | $.412(* *)$ |
|  | Factors | Coefficient <br> Sig. (2-tailed) | .4 | .000 |
|  | N | 384 | 384 |  |
|  | Marketing | Correlation | $.412(* *)$ | 1.000 |
|  | Mix: | Coefficient | .410. |  |
|  | Promotion | Sig. (2-tailed) | .000 | 384 |

** Correlation is significant at the 0.01 level (2-tailed).

The analysis in table 4.48 indicated that there is a statistically significant correlation between promotion factor and factor influencing customer's choice of buying mobile phone with a 2-tailed significance of .000 which is less than .05 (. $000<.05$ ).

The null hypothesis is rejected, that means there is a relationship between promotion factor and factor influencing customer's choice of buying mobile phone.

The correlation coefficient is .412 means the promotion factor and factor influencing customer's choice of buying mobile phone have a low positive relationship.

## V. SUMMARY OF FINDINGS AND DISCUSSION

This section is the interpretation of the results or summary of finding from the data gathered. It consists of two major parts which are a summary of respondents' characteristics and buying behavior and a summary of hypotheses testing.

### 5.1 Summary of Respondents' Characteristics and Buying Behavior

This research is to study the consumer's buying behavior towards mobile phones in Bangkok. Data was collected from 384 respondents who live in Bangkok and concerned about using or buying mobile phones. 238 respondents or $62 \%$ are male and 146 respondents or $38 \%$ are female. The majority of the respondents based on age ranges are in between 21-30 years old counted as $35.4 \%$. 200 respondents $(52.1 \%)$ are educated in Bachelor's degree level. The highest numbers of respondents (44.8\%) have an average monthly income of 10,000 Baht or less.

According to the consumer's buying analysis, the main reason for using mobile phone is for communication based on private or personal business as 157 respondents $(40.9 \%)$. Nokia is the most popular brand which respondents consider to purchase for the trust in product and service quality reason. Most respondents consider the reasonable price to buy at 5001-10,000 Baht. Mobile center such as Telewiz shop or Dtac Shop are the place where respondents confident to buy their mobile phones and advertising can help they make decision on buying. Specification and performance are rated as the very important factor influencing choices of buying mobile phones.

For the marketing mix, all factors, which mean product, price, place and promotion, are related to the consumer's buying behavior. Based on this study by determining the relationship between marketing mix factors and consumer's buying
behavior towards mobile phone, product is the most important factor that influences the respondents to buy mobile phones which accounted for $54.2 \%$.

### 5.2 Summary of Hypotheses Testing

The hypotheses are categorized into five groups. The results of hypotheses testing are summarized as shown in table below:

Table 5.1 Summary of hypotheses testing
Demographic factors versus Product choices

| Hypotheses | Test <br> Statistics | Level of <br> Significance | Results |
| :--- | :--- | :---: | :---: | :---: |
| $\mathrm{H} 1_{0}:$There is no difference between <br> product choices in terms of <br> objective when classified by <br> gender | Chi-Square | .309 | Accept $\mathrm{H}_{0}$ |
| $\mathrm{H} 2_{0}:$There is no difference between <br> product choices in terms of <br> objective when classified by | Chi-Square | .090 | Accept $\mathrm{H}_{0}$ |
| age  <br> $\mathrm{H} 3_{0}:$  <br> There is no difference between <br> product choices in terms of <br> objective when classified by <br> education level Chi-Square | .004 | Reject $\mathrm{H}_{0}$ |  |

Table 5.1 Summary of hypotheses testing (Continued)
Demographic factors versus Brand choices


Table 5.1 Summary of hypotheses testing (Continued)
Demographic factors versus Dealer choices


Table 5.1 Summary of hypotheses testing (Continued)
Demographic factors versus Purchase timing


Table 5.1 Summary of hypotheses testing (Continued)
Demographic factors versus Purchase amount

| Hypotheses | Test Statistics | Level of Significance | Results |
| :---: | :---: | :---: | :---: |
| $\mathrm{H} 21_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by gender | Chi-Square | . 005 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 22_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by age | Chi-Square | . 000 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 23_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by education level | Chi-Square | . 000 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 24_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by occupation | Chi-Square | . 021 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 25_{0}$ : There is no difference between purchase amount based on reasonable price of mobile phone when classified by income | Chi-Square | . 000 | Reject $\mathrm{H}_{0}$ |

Table 5.1 Summary of hypotheses testing (Continued)
Demographic factors versus Factors influencing choices of buying mobile phone


Table 5.1 Summary of hypotheses testing (Continued)
Marketing mix factors versus Factors influencing choices of buying

| Hypotheses | Test Statistics | Level of Significance | Results |
| :---: | :---: | :---: | :---: |
| $\mathrm{H} 31_{0}$ : There is no relationship between product factor and factors influencing choice of buying mobile phone | Spearman <br> Rho | . 000 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 32_{0}$ : There is no relationship between price factor and factors influencing choices of buying mobile phone | Spearman <br> Rho | . 000 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 33_{0}$ : There is no relationship between place factor and factors influencing choice of buying mobile phone | Spearman <br> Rho | . 000 | Reject $\mathrm{H}_{0}$ |
| $\mathrm{H} 34_{0}$ : There is no relationship between promotion factor and factors influencing choice of buying mobile phone | Spearman <br> Rho | . 000 | Reject $\mathrm{H}_{0}$ |

Based on the hypotheses testing, it can be found that the demographic factors that have an effect to consumer's buying behavior towards mobile phone. There is also a significant relationship between marketing mix factors and factors influencing choice of buying mobile phones. Therefore, it can be concluded that the result of this testing can be useful for people in mobile business to better understand the market and customers in order to apply the result of this study for further developing marketing strategies.

## VI. CONCLUSION AND RECOMMENDATION

### 6.1 Conclusion

Mobile phone has become one of the necessary equipments which people need to have to get connected with the others. Therefore, the demand of mobile phone tends to be growing and it makes the mobile phone market highly competitive. As the customers also become an important factor in the competition, all companies want to draw attention by deploying many strategies in order to inspire the sales volume.

This paper is to study consumer's buying behavior of mobile phone in Bangkok and to explore the factors which have an impact in the choice of buying and to examine the relationship between the behaviors focused on purchase decisions and demographic factors and marketing mix factors.

Various philosophies are accumulated in order to support this study. Consumer behavior is the main concept which is taken into account together with the demographic factors and marketing mix assumptions.

Regarding research methodology, the conceptual frame work was constructed to represent the correlation among the variables. The hypotheses are developed to substantiate the association and questionnaires are developed with the intention of proving those statements.

After collecting data, it was then evaluated by using SPSS. Chi square and Spearman's correlation coefficient methods are mainly used to test the hypotheses. The null hypotheses are both accepted or rejected. The result of each hypothesis is illustrated and summarized.

The result of this study is analyzed from 384 respondents who live in Bangkok area who are involved in this study including both male and female respondents.

Consistent with the results, there is a relationship between demographic factors and consumer behavior based on purchase decision and factors influencing choice of buying. Furthermore, there is a positive relationship between consumer behavior towards mobile phone buying and marketing mix factors.

Therefore, the result of this study can be a key to facilitate marketers who are in mobile phone business to better understand the customers.

### 6.2 Recommendation

Mobile phone business has rapidly expanded and there are many companies which are involved in the market. As a result, the marketing plan is a critical tool to maintain the customers in this business. According to the study, the marketing mix can be suggested as follows:

In terms of product, the specification and performance of mobile phones is the critical factor that people consider to purchase mobile phones. The battery capacity, duration and design are included in this point. The warranty of product is also concerned. It can be suggested that handsets for this century is supposed to be focused on specification with high performance. Functions of handsets should be confined to new technological innovation and advancements in order to capture people and must be added for more differentiation features. Furthermore, warranty of products is an important point to which most customers pay attention to. If the company can offer a longer period of warranty or offer better condition for customers, it can create and maintain a good relationship between customers and the company.

Price is one important factor that affects consumer's purchase decisions. Based on the study, a reasonable price is an important factor. People focus on the reasonable price compared with what they have got rather than consider only the cheapest product.

Thus, setting price is important, the price of mobile phone should be set as the appropriate price compared with product itself and its related factors. However, the company should not set the price high when compared with other companies or brands. The suggested price can be set at around 5,000-10,000 Baht according to the results of the study.

Place, the shops with variety of products in convenient locations are the best places where most customers consider buying mobile phones. The mobile shops with a number of products is more beneficial, however, the shops have to be located in the convenient areas. For example, shops can be located in the department stores such as Central, Siam Paragon and The Emporium. Mobile centers can also be located in the shopping centers such as Siam Square, Center Point, and Maboonkrong. It can be the place where customers can easily get through. Furthermore, the reputation of mobile shops is also considered, then, it is better for the company to make Telewiz or DTAC shop to be a channel.

Promotion involves activities to promote the product to the market. According to the study, advertising is the most effective way to promote the mobile phones to the rest of the people in society. Premium gift is another way of promotion which can encourage people to make decisions of purchasing mobile phones. If the company can come up with an effective promotion strategy, the company then, can get more chance to be successful.

### 6.3 Further Study

This study is to determine the consumer's buying behavior of mobile phones and analyze the critical factors which customers consider buying mobile phones by examining the effect of demographic factors towards factors influencing and find out
the relationship between the marketing mix and buying behavior. However, this study is based on data from respondents who live in Bangkok area only, it is better to conduct survey over Thailand for the next study in order to get more accurate results which will be cover the behavior of people in the whole country.

Furthermore, marketing strategy is an important part to be more focused next time. It is beneficial to marketers if they can come up with an efficient marketing strategy.

The mobile operators can be concerned in further study in order to cover more about the consumer behavior towards mobile phones, the study of customer's attitude and customer satisfaction in mobile products and mobile operators should be included as well. Therefore, the marketers can get more benefits from the results of this study.

APPENDIX A

QUESTIONNAIRE IN ENGLISH

## QUESTIONNAIRE

This questionnaire is designed to study the Consumer's buying behavior towards mobile phone for people residing in Bangkok metropolis. Your information obtained will be only be used for study purpose. Your kind response to this survey is highly appreciated. Thank you very much for your kind co-operation.

## Part 1: Customer's buying behavior towards mobile phones

## Instruction: Please select the choice that matches for your answer

1. Do you have a mobile phone?
$\square$ Yes
$\square$ No (End)
2. What is the main reason why you have a mobile phone? (Please select one)
$\square$ Business
$\square$ Personal
$\square$ Convenience
$\square$ Modernization
$\square$ Others, please specify
3. Which is the mobile phone's brand you consider for your latest purchasing? (Please select one)
$\square$ Nokia
$\square$ Motorola
$\square$ Sony Ericsson
$\square$ Samsung
$\square$ BenQ-Siemens
$\square$ Panasonic
$\square$ LG
$\square$ I-Mobile
$\square$ Others, please specify
4. Reason(s) for choosing the mobile phone in question 3. (Can choose more that one)
$\square$ Well known brandAdvertising
$\square$ Cheaper than other brandsTrust in its product and service quality
$\square$ Easy to buy
$\square$ Others, please specify $\qquad$
5. Please specific your reasonable price of mobile phone. (Please select one)
$\square$ Less than 5,000 Baht5,001-10,000 Baht
$\square 10,001-15,000$ Baht
$\square 15,001-20,000$ Baht
$\square$ 20,001-25,000 Baht
$\square 25,001$ Baht or more
6. Where do you purchase mobile phone? (Can choose more that one)
$\square$ Mobile centers (such as DTAC Shop, Telewiz)
$\square$ Mobile Dealer (such as Jmart, Powerbuy)
$\square$ General mobile shop (such as mobile shop in Maboonkrong)
$\square$ Website / Internet
$\square$ Others, please specify $\qquad$
7. Which sources do you consider when you purchase a mobile phone? (Can choose more that one)
$\square$ Brochures
$\square$ Advertising
$\square$ Sales representation/Dealer $\square$ Website / Internet
$\square$ Magazine Friends or closed relationship person
$\square$ Others, please specify
8. When do you intend to buy mobile phone? (Please select one)
$\square$ Less than 6 months
$\square 6$ months -1 year
$\square 1-2$ years
$\square 2-3$ years
$\square$ 3-4 years
$\square$ 4-5 years
$\square$ More than 5 years

## Part 2: Factor influencing your choice of buying mobile phone

9. Factors influencing your choice of buying mobile phone. From the given factors, please indicate the score that effect buying decision
$1=$ Unimportant $2=$ Not Much Important $3=$ Neutral
$4=$ Important $5=$ Very Important

| Factor influencing your choice | Level of influence |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 5 | 4 | 3 | 2 | 1 |
| Brand / Model of mobile phone |  |  |  |  |  |
| Performance / Specification |  |  |  |  |  |
| After sale service |  |  |  |  |  |
| Advertising |  |  |  |  |  |
| Promotion |  |  |  |  |  |
| Price |  |  |  |  |  |
| Relative person |  |  |  |  |  |
| Others please specify.................................. |  |  |  |  |  |

Part 3: Factor influencing your choice of buying mobile phone by marketing mix
From given factors, please indicate our level of influence towards each of the statements

| $1=$ Unimportant | $2=$ Not Much Important | $3=$ Neutral |
| :--- | :--- | :--- |
| $4=$ Important | $5=$ Very Important |  |


| Factor influencing your choice | Level of influence |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 5 | 4 | 3 | 2 | 1 |
| 10. Product Factor <br> Well know brand name |  |  |  |  |  |
| Trust worthy brand |  |  |  |  |  |
| Warranty of product |  |  |  |  |  |
| Design |  |  |  |  |  |
| Light weight |  |  |  |  |  |
| Battery capacity |  |  |  |  |  |
| Duration |  |  |  |  |  |
| Performance |  |  |  |  |  |
| 11. Price Factor |  |  |  |  |  |
| Low price than others |  |  |  |  |  |
| Reasonable price |  |  |  |  |  |
| Competitive price |  |  |  |  |  |
| 12. Place Factor |  |  |  |  |  |
| Convenient |  |  |  |  |  |

## Part 4: Information about demographic data

## Instruction: Please select the choice that most matches for your answer

14. Gender
$\square$ Male
$\square$ Female
15. Age
$\square$ Less than 20 years old
21-30 years old
$\square 31-40$ years old
$\square 41-50$ years old
$\square$ More than 50 years old
16. Education Level
$\square$ Less than high school
$\square$ High School
$\square$ Certificate / Diploma
$\square$ Bachelor's degreeMaster's degree or higher
17. Occupation
$\square$ Student
$\square$ Government Officer/State Sector Employee
$\square$ Private Sector Employee
$\square$ Self-Employed
$\square$ Others please specify
18. Average Income per month
$\square 10,000$ Baht or less
10,001-20,000 Baht20,001-30,000 Baht$30,001-40,000$ Baht40,001-50,000 Baht $\square$ More than 50,000 Baht

- Thank you very much for your kind co-operation -


## aIVERSITr

## APPENDIX B

QUESTIONNAIRE IN THAI

## แบบสอบถามพฤติกรรมผู้บริโภคในการซื้อโทรศัพท์มือถือ

แบบสอบถามฉบับนี้จัดทำขึ้นเพื่อใช้ศึกษาพฤติกรรมผู้บริโภคในการซื้อโทรศัพท์มือถือในเขต กรุงเทพฯ ข้อมูลที่ได้จะนำไปไช้เพื่อการศึกษาเท่านั้น ขอขอบคุณทุกท่านที่ให้ความร่วมมือ

ส่วนที่ 1 ข้อมูลเกี่ยวกับพฤติกรรมการซื้อ โทรศัพท์มือถือของผู้บริโภค กรุณาทำเครื่องหมายในช่องที่ต้องการ

1. ท่านใช้โทรศัพท์มือถือหรือไม่

$\square$ ไม่ใช้ (จบการตอบแบบสอบถาม)
2. วัตถุประสงค์หลักที่ท่านซื้อโทรศัพท์มือถือมาใช้ (เลือกเพียงข้อเดียว)
$\square$ เพื่อใช้ติดต่อธุรกิจ หรือเกี่ยวกับหน้าที่การงาน


เพื่อติดต่อธุรส่วนตัว
$\square$ เพื่อความทันสมัย


เพื่อความสะดวก
$\square$ อื่นๆ (โปรดระบุ) $\qquad$
3. โทรศัพท์มือถือที่ท่านซื้อครั้งล่าสุดยี่ห้อใด (เลือกเพียงข้อเดียว)

4. สาเหตุที่ท่านใช้โทรศัพท์มือถีอยี่ห้อดังกล่าว (เลือกได้มากกว่า 1 ข้อ)เป็นยี่ห้อที่มี่ชื่อเสียง
$\square$ ราคาถูกกว่ายี่ห้้ออื่น ๆ
$\square$ เป็นยี่ห้อที่หาซื้อได้ง่าย

$\square$การโมษณาของตราอี่ห้อ เชื่อในคุณภาพของสินค้าและบริการ อื่นๆ (โปรดระบุ)
5. ท่านคิดว่าราคาที่เหมาะสมของโทรศัพท์พือถือควรมีราคาเท่าใด (เลือกเพียงข้อเดียว)
$\square$ ไม่เกิน 5,000 บาท
$\square \quad 10,001-15,000$ บาท
$\square \quad 20,001-25,000$ บาท

$5,001-10,000$ บาท
$\square 15,001-20,000$ บาท
$\square 25,001$ บาท ขึ้นไป
6. ท่านซื้อโทรศัพท์มือถือจากแหล่งใด (เลือกได้มากกว่า 1 ข้อ)
$\square$ ศูนย์บริการของบริษัทผู้ให้บริการระบบโทรศัพท์ (เช่น DTAC Shop, Telewiz)
$\square$ ร้านตัวแทนจำหน่าย (เช่น เจมาร์ท, พาวเวอร์บาย)
$\square$ ร้านขายโทรศัพท์มือถือทั่วไป (เช่นร้านขายโทรศัพท์ในมาบุญครอง)
$\square$ Website / Internet


อื่น ๆ (โปรดระบุ)
7. แหล่งข้อมูลข่าวสารที่ใช้ประกอบการพิจารณาซื้อโทรศัพท์มือถือ (เลือกได้มากกว่า 1 ข้อ)

โบรชัวร์
ตัวแทนจำหน่าย
นิตยสาร


โฆษณา
Website / Internet
นิตยสาร
เพื่อน หรือคนใกล้ชิดแนะนำ อื่น ๆ (โปรดระบุ) $\qquad$
8. ท่านตั้งใจจะซื้อโทรศัพท์มือถือเครื่องใหม่ภายในระยะเวลาใด (เลือกเพียงข้อเดียว)

| $\square$ | น้อยกว่า 6 เดือน | $\square$ เดือน -1 ปี |
| :--- | :--- | :--- |
| $\square$ | $1-2$ ปี | $\square$ |
|  | $2-3$ ปี |  |
| $\square$ | $4-4$ ปี | $\square$ |

## ส่วนที่ 2 ปัจจัยที่มีอิทธิพลต่อการซื้อโทรศัพท์มือถือ

9. ปัจจัยต่อไปนี้มีอิทธิพลต่อการซื้อโทรศัพท์มือถือของท่านเพียงใด (โปรดเลือกระดับ ความสำคัญ)
$1=$ สำคัญน้อยที่สุด
$2=$ สำคัญน้อย $3=$ สำคัญปานกลาง
$4=$ สำคัญมาก
$5=$ สำคัญมากที่สุด

| ปัจจัยที่มีอิทธิพลต่อการซื้อ | ระดับความสำคัญ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 5 | 4 | 3 | 2 | 1 |
| ยี่ห้อ/รุ่นของโทรศัพท์มือถือ |  |  |  |  |  |
| ความสามารถ / คุณสมบัติของเครื่อง |  |  |  |  |  |
| บริการหลังการขาย |  |  |  |  |  |
| การ โฆษณาประชาสัมพันธ์ |  |  |  |  |  |
| โปร โมชั่น |  |  |  |  |  |
| ราคาเครื่อง |  |  |  |  |  |
| คำแนะนำของคนใกล้ชิด |  |  |  |  |  |
| อื่น ๆ (โปรดระบุ)........................ |  |  |  |  |  |

## ส่วนที่ 3 ส่วนประสมทางการตลาดที่มีอิทธิพลต่อการซื้อโทรศัพท์มือถือ

ปัจจัยต่อไปนี้มีอิทธิพลต่อการซื้อโทรศัพท์มืออือของท่านเพียงใด (โปรดเลือกระดับความสำคัญ)

| $1=$ สำคัญน้อยที่สุด | $2=$ สำคัญน้อย |
| :--- | :--- |
| $4=$ สำคัญมาก | $5=$ สำคัญมากที่สุด |


| ปัจจัยที่มีอิทธิพลต่อการซื้อ | ระดับความสำคัญ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | 4 | 3 | 2 | 1 |
| 10. ด้านผลิตภัณท์ เป็นยี่ห้อที่มีชื่อเสียง |  |  |  |  |  |
| มีความน่าเชื่อถือ |  |  |  |  |  |
| การรับประกันคุณภาพ |  |  |  |  |  |
| มีรูปทรงทันสมัย / วัสดุสวยงาม $\square$ |  |  |  |  |  |
| น้ำหนักเบา พกพาสะดวก |  |  |  |  |  |
| แบตเตอรี่ใช้งานได้นาน |  |  |  |  |  |
| แข็งแรง / ทนทาน / มีคุณภาพ |  | + |  |  |  |
| ความสามารถ / คุณสมบัติ / เทคโนโลยี |  | $\square$ |  |  |  |
| 11. ราคา <br> ราคาถูกกว่ายี่ห้ออื่น |  | $-$ |  |  |  |
| ราคาเหมาะสมกับคุณภาพ |  | - |  |  |  |
| ราคาใกล้เคียงกับยี่ห้ออื่น |  | $\checkmark$ |  |  |  |
| 12. สถานที่ / ช่องทางการจัดจำหน่าย หาซื่อง่าย |  |  |  |  |  |
| ร้านมีสินค้าให้เลือกมาก |  |  |  |  |  |
| มีบริการส่งถึงบ้าน |  |  |  |  |  |
| ร้านมีชื่อเสียง น่าเชื่อถือ |  |  |  |  |  |
| 13. การส่งเสริมการขาย โฆษณา |  |  |  |  |  |
| ของแถม / ของสมนาคุณ |  |  |  |  |  |
| มีบริการเงินผ่อน |  |  |  |  |  |
| มีพนักงานสาธิตสินค้า |  |  |  |  |  |

## ส่วนที่ 4 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

กรุณาทำเครื่องหมายในช่องที่ต้องการ
14. เพศ
$\square$ ชายหญิง
15.

| น้อยกว่า 20 ปี | 21-30 ปี |
| :---: | :---: |
|  |  |
| $31-40$ ปี | 41-50 ปี |
| มากกว่า 50 ปี |  |

16. การศึกษา
$\square$ ต่ำกว่ามัธยมศึกษา
$\square$ มัธยมศึกษา
$\square$ ปริญญาตรี
$\square$ ปริญญาโท หรือสุงกว่า
17. อาชีพ


นักเรียน นิสิต นักศึกษา


ข้าราชการ พนักงานรัฐวิสาหกิจ


พนักงานบริษัทเอกชนประกอบธุรกิจส่วนตัว
$\square$
อื่น ๆ (โปรตระบุ)
18. รายได้โดยเฉลี่ยต่อเดือน

| $\square$ | 10,000 บาทหรือน้อยกว่า | $\square$ |
| :--- | :--- | :--- |
| $\square$ | $10,001-20,000$ บาท |  |
| $20,001-30,000$ บาท | $\square 0,001-40,000$ บาท |  |
| $\square$ | $\square 0,001-50,000$ บาท | $\square$ มากกว่า 50,000 บาท |

- ขอขอบคุณที่กรุณาตอบแบบสอบถาม -


## APPENDIX C

ANALYSIS OF DATA

Table 1 Reason for Selecting that Brand - Well-known brand
Brand * Most important reason-Well known Brand Crosstabulation
Count

|  |  | Most important <br> reason-Well known <br> Brand |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  | No |  |  |
| Brand | Nokia | 192 | 75 | 267 |
|  | Sony | 19 | 9 | 28 |
|  | Ericsson |  |  |  |
|  | BenQ- | 7 | 0 | 7 |
|  | Siemens | 2 | 0 | 2 |
|  | LG | 17 | 3 | 20 |
|  | Motorola | 17 | 1 | 22 |
|  | Samsung | 21 | 0 | 8 |
|  | Panasonic | 8 | 0 | 0 |
|  | I-Mobile | 19 | 0 | 19 |
|  | other | 9 | 2 | 11 |
| Total | 294 | $\mathbf{9 0}$ | 384 |  |

Table 2 Reason for Selecting that Brand - Cheaper than other brands
Brand * Most important reason-Cheaper Crosstabulation
Count

|  |  | Most important <br> reason-Cheaper |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  | No | Yes | Total |  |
| Brand | Nokia | 244 | 23 | 267 |
|  | Sony | 23 | 5 | 28 |
|  | Ericsson |  |  |  |
|  | BenQ- | 2 | 5 | 7 |
|  | Siemens | 0 | 2 | 2 |
|  | LG | 16 | 4 | 20 |
|  | Motorola | 19 | 3 | 22 |
|  | Samsung | 6 | 2 | 8 |
|  | Panasonic | 8 | 11 | 19 |
|  | I-Mobile | 8 | 3 | 11 |
|  | other | 326 | $\mathbf{5 8}$ | 384 |

Table 3 Reason for Selecting that Brand - Convenience to purchase

## Brand * Most important reason-Convenience Crosstabulation

Count

|  |  | Most important <br> reason-Convenience |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  | No |  |  |
| Brand | Nokia | Yes | Total |  |
|  | Sony | 208 | 59 | 267 |
|  | Ericsson | 26 | 2 | 28 |
|  | BenQ- |  |  |  |
|  | Siemens | 7 | 0 | 7 |
|  | LG | 2 | 0 | 2 |
|  | Motorola | 18 | 2 | 20 |
|  | Samsung | 19 | 3 | 22 |
|  | Panasonic | 8 | 0 | 8 |
|  | I-Mobile | 17 | 2 | 19 |
|  | other | 10 | 1 | 11 |
| Total | 315 | 69 | 384 |  |

Table 4 Reason for Selecting that Brand - Advertising
Brand * Most important reason-Advertising Crosstabulation
Count

|  |  | Most important <br> reason-Advertising |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  | No |  | Yes |  |
| Brand | Nokia | 249 | 18 | 267 |
|  | Sony | 27 | 1 | 28 |
|  | Ericsson |  |  |  |
|  | BenQ- | 7 | 0 | 7 |
|  | Siemens | 2 | 0 | 2 |
|  | LG | 20 | 0 | 20 |
|  | Motorola | 18 | 4 | 22 |
|  | Samsung | 8 | 0 | 8 |
|  | Panasonic | 18 | 1 | 19 |
|  | I-Mobile | 11 | 0 | 11 |
|  | other | 360 | $\mathbf{2 4}$ | 384 |

Table 5 Reason for Selecting that Brand - Trust in its products and service quality

## Brand * Most important reason-Trust in its product $\&$ service quality

## Crosstabulation

Count

|  |  | Most important reason-Trust in its product \& service quality |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | No | Yes |  |
| Brand | Nokia | 74 | 193 | 267 |
|  | Sony | 8 | 20 | 28 |
|  | Ericsson | 8 | 20 | 28 |
|  | BenQ- <br> Siemens | 6 | 1 | 7 |
|  | LG | 2 | 0 | 2 |
|  | Motorola | 10 | 10 | 20 |
|  | Samsung | 13 | 9 | 22 |
|  | Panasonic | 3 | 5 | 8 |
|  | I-Mobile | 13 | 6 | 19 |
|  | other | 7 | 4 | 11 |
| Total |  | 136 | 248 | 384 |

Table 6 Reason for Selecting that Brand - Others

## Brand * Most important reason-Other Crosstabulation

Count

|  |  | Most important <br> reason-Other |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  | No | Yes |  |
| Brand | Nokia | 249 | 18 | 267 |
|  | Sony | 24 | 4 | 28 |
|  | Ericsson |  |  |  |
|  | BenQ- | 6 | 1 | 7 |
|  | Siemens | 2 | 0 | 2 |
|  | LG | 16 | 4 | 20 |
|  | Motorola | 17 | 5 | 22 |
|  | Samsung | 7 | 1 | 8 |
|  | Panasonic | 16 | 3 | 19 |
|  | I-Mobile | 8 | 3 | 11 |
|  | other | 345 | $\mathbf{3 9}$ | 384 |

Table 7 Factors influencing choice of buying mobile phone: brand

## Influencing choice of brand

|  |  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 1-Not Important | 6 | 1.6 | 1.6 | 1.6 |
|  | 2-Not Much | 15 | 3.9 | 3.9 | 5.5 |
|  | Important | 88 | 22.9 | 22.9 | 28.4 |
|  | 3-Neutral | 147 | 38.3 | 38.3 | 66.7 |
|  | 4-Important | 128 | 33.3 | 33.3 | 100.0 |
|  | 5-Very Important | 384 | 100.0 | 100.0 |  |
|  |  |  |  |  |  |

Table 8 Factors influencing choice of buying mobile phone: specification
Influencing choice of Spec

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Frequency | Percent | .5 |  |  |
|  | 2-Not Important | 2 | .5 | .5 | .5 |
|  | Important | 8 | 2.1 | 2.1 | 2.6 |
|  | 3-Neutral | 56 | 14.6 | 14.6 | 17.2 |
|  | 4-Important | 155 | 40.4 | 40.4 | 57.6 |
|  | 5-Very Important | 163 | 42.4 | 42.4 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

Table 9 Factors influencing choice of buying mobile phone: after sale service

## Influencing choice of Service

|  |  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 1-Not Important | 11 | 2.9 | 2.9 | 2.9 |
|  | 2-Not Much | 25 | 6.5 | 6.5 | 9.4 |
|  | Important | 111 | 28.9 | 28.9 | 38.3 |
|  | 3-Neutral | 136 | 35.4 | 35.4 | 73.7 |
|  | 4-Important | 101 | 26.3 | 26.3 | 100.0 |
|  | 5-Very Important | 384 | 100.0 | 100.0 |  |

Table 10 Factors influencing choice of buying mobile phone: advertising
Influencing choice of Advertising

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | 1-Not Important | 13 | 3.4 | 3.4 | 3.4 |
|  | 2-Not Much | 49 | 12.8 | 12.8 | 16.1 |
|  | Important | 4 | 12.8 | 12.8 | 16.1 |
|  | 3-Neutral | 172 | 44.8 | 44.8 | 60.9 |
|  | 4-Important | 111 | 28.9 | 28.9 | 89.8 |
|  | 5-Very Important | 39 | 10.2 | 10.2 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

Table 11 Factors influencing choice of buying mobile phone: promotion

## Influencing choice of Promotion

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 1-Not Important | 11 | 2.9 | 2.9 | 2.9 |
|  | 2-Not Much | 25 | 6.5 | 6.5 | 9.4 |
|  | Important | 74 | 19.3 | 19.3 | 28.6 |
|  | 3-Neutral | 127 | 33.1 | 33.1 | 61.7 |
|  | 4-Important | 147 | 38.3 | 38.3 | 100.0 |
|  | 5-Very | 384 | 100.0 | 100.0 |  |
|  | Important |  |  |  |  |
|  |  |  |  |  |  |

Table 12 Factors influencing choice of buying mobile phone: price

## Influencing choice of Price

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | 1-Not Important | 8 | 2.1 | 2.1 | 2.1 |
|  | 2-Not Much | 18 | 4.7 | 4.7 | 6.8 |
|  | Important | 18 |  | 4.7 | 6.8 |
|  | 3-Neutral | 92 | 24.0 | 24.0 | 30.7 |
|  | 4-Important | 113 | 29.4 | 29.4 | 60.2 |
|  | 5-Very | 153 | 39.8 | 39.8 | 100.0 |
|  | Important | 153 | 39.8 | 39.8 | 100.0 |
|  | Total | 384 | 100.0 | 100.0 |  |

Table 13 Factors influencing choice of buying mobile phone: person
Influencing choice of relative person

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 1-Not Important | 27 | 7.0 | 7.0 | 7.0 |
|  | 2-Not Much | 62 | 16.1 | 16.1 | 23.2 |
|  | Important | 140 | 36.5 | 36.5 | 59.6 |
|  | 3-Neutral | 102 | 26.6 | 26.6 | 86.2 |
|  | 4-Important | 53 | 13.8 | 13.8 | 100.0 |
|  | 5-Very | 384 | 100.0 | 100.0 |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Table 14 Factors influencing choice of buying mobile phone: other
Influencing choice of other

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Frequency | Percent | P/A | 362 | 94.3 |
| 94.3 | 94.3 |  |  |  |  |
|  | 1-Not Important | 2 | .5 | .5 | 94.8 |
| 2-Not Much | 1 | .3 | .3 | 95.1 |  |
| Important | 11 | 2.9 | 2.9 | 97.9 |  |
| 3-Neutral | 5 | 1.3 | 1.3 | 99.2 |  |
| 4-Important | 3 | .8 | .8 | 100.0 |  |
| 5-Very | SINCE |  | 100.0 |  |  |

## BIBLIOGRAPHY

## English References

Anderson, Gary. Fundamental of Educational Research. 1996.
Hawkins, Del I., Rojer J. Best and Kenneth A. Coney. Consumer Behavior: Building Marketing Strategy, $9^{\text {th }}$ edition. New York: McGraw-Hill/Irwin, 2004.

Keller, Gerald and Brian Warrack. Statistics for Management and Economics, $4^{\text {th }}$ edition. United States of America: Wadsworth Publishing, 1997.

Kotler, Philip. Marketing Management, $11^{\text {th }}$ edition. New Jersey: Prentice Hall, 2003.
Kumar, V., David A. Aaker and George S. Day. Essential of Marketing Research New York: John Wiley \& Sons, 1999.

Malhotra, Naresh K. Marketing Research: An Applied Orientation, $4^{\text {th }}$ edition. New Jersey: Prentice Hall, 2004.

Nessim, Hanna and Richard Wozniak. Consumer Behavior: An Applied Approach. Northern Illinois, 2001.

Peter, J. Paul and Jerry C. Olson. Consumer Behavior and Marketing Strategy. Chicago: Irwin, 1996.

Schiffman, Leon G. and Leslie Lazar Kanuk. Consumer Behavior, $5^{\text {th }}$ edition. New Jersey: Prentice Hall, 1994.

Sekaran, Uma. Research Methods for Business, $2^{\text {nd }}$ edition. New York: John Wiley \& Sons, 1992.

Solomon, Michael R. Consumer Behavior: Buying, Having, and Being. New Jersey: Prentice Hall, 2004.

Zikmund, William G and Michael D. Amico. Business Research Methods, $5^{\text {th }}$ edition. United States of America: The Dryden Press, 1997.
http://www.dopa.go.th/stat/y_stat $48 . h t m l$
http://www.tradepartners.gov.uk/telecom/thailand/profile/overview
http://www.zdnet.com

## Thai References

ฉัตรศิริ ปิยะพิมลสิทธิ์. การใชั SPSS เพื่อการวิเคราะห์ข้อมูล. กรุงเทพมหานคร: มหาวิทยาลัย ศรีนครินทรวิโรฒ, 2548.

ธานินทร์ ศิลป์จารุ. การวิจัยและวิเคราะห์ข้อมูลทางสถิติด้วย SPSS. กรุงเทพมหานคร: บริษัท วี. อินเตอร์ พริ้นท์ จำกัด, 2549

