# The purchasing behavior of the customer toward smartphone products in Cambodia

**Tang Houttheng**

**An Individual Study Paper Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration (English Program)**

**Department of Marketing in Digital Era,**

**College of Innovative Business and Accountancy,**

**Dhurakij Pundit University**

**2020**

# ใบรับรองสารนิพนธ์

วิทยาลัยบริหารธุรกิจนวัตกรรมและการบัญชี มหาวิทยาลัยธุรกิจบัณฑิตย์

ปริญญา บริหารธุรกิจมหาบัณฑิต

| | |
|---|---|
| หัวข้อสารนิพนธ์ | The purchasing behavior of the customer toward smartphone products in Cambodia |
| เสนอโดย | Mr.Tang Houttheng |
| อาจารย์ที่ปรึกษาสารนิพนธ์ | ผู้ช่วยศาสตราจารย์ ดร.ลีลา เตี้ยงสูงเนิน |

ได้พิจารณาเห็นชอบโดยคณะกรรมการสอบสารนิพนธ์แล้ว

.....ประธานกรรมการ

(ผู้ช่วยศาสตราจารย์ ดร.ศิริเดช คำสุพรหม)

..... กรรมการและอาจารย์ที่ปรึกษาสารนิพนธ์

(ผู้ช่วยศาสตราจารย์ ดร.ลีลา เตี้ยงสูงเนิน)

..... กรรมการ

(ดร.ซานซาน หวาง)

**วิทยาลัยบริหารธุรกิจนวัตกรรมและการบัญชี รับรองแล้ว**

..... คณบดีวิทยาลัยบริหารธุรกิจนวัตกรรมและการบัญชี

(ผู้ช่วยศาสตราจารย์ ดร.ศิริเดช คำสุพรหม)

วันที่ 18 เดือน ธันวาคม พ.ศ. 2563

| | |
|---|---|
| Independent Study Title: | The purchasing behavior of the customer toward smartphone products in Cambodia |
| Author: | Tang Houttheng |
| Supervisor: | Asst.Prof.Dr.Leela Tiangsoongnern |
| Department: | Marketing in Digital Era |
| Academic Year: | 2020 |

## ABSTRACT

The purpose of this study was to investigate the influencing factors of the independent variables such as demographic profile, integrated marketing communication tools, word of mouth communications on the purchasing behavior of customers as dependent variable for the smartphone products in Cambodia. Conceptual framework was designed from the theoretical framework and hypotheses were constructed from the conceptual framework in order to know the different and effects of independent variable on dependent variable. The study used questionnaires to collect data from 120 respondents from Phnom Penh, Siem Reap, Battambang and Preah Sihanouk, Cambodia. Data were analyzed by using descriptive analysis and inferential analysis, which included the analysis of T-Test, One-Way ANOVA and Chi-Square Test at significant level of 0.05

The findings revealed that smartphone customer in Cambodia from different demographic profile such as gender, age, marital status, occupations and income per month are likely to be different in their purchasing behavior (e.g. brand choice, reason of changing, design of smartphone and payment method). It was also found that integrated marketing communications tools and word of mouth communications have relationships with purchasing behavior of smartphone

customers in Cambodia. Most of respondents agreed that advertising; sales promotion and personal selling and offline channel strategy have an impact on their decisions of purchasing the smartphone.

The results of this study might benefit to smartphone manufacturers as well as people who doing their business or study related to the purchasing behavior of smartphone customers in Cambodia. They can perform duties for guideline to improve the marketing strategies to better capture a rapid change in their business or study in Cambodia.

## ACKNOWLEDGEMENT

First of all, I would like to express my sincere gratitude and appreciation to my individual study advisors, Asst. Prof. Dr. Leela Tiangsoongnern, for being my individual study advisors and for all her time, invaluable guidance and advice, generous suggestions, and full support throughout my study.

Then, I would like to express my sincere gratitude to Dr. Siridech Kumsuprom, Dean, College of Innovative Business and Accountancy (CIBA), for providing me the MBA scholarship and fully supporting me during my study in Thailand.

In addition, I would like to express my sincere thanks to the President, Deans, Staffs, and all Professors of CIBA- DPU for their kind supports, lectures and facilities. I would like to thank my MBA friends for sharing a good time during my study at the university.

Tang Houttheng

# Table of Contents

## List of Tables

# CHAPTER 1

# INTRODUCTION

## 1.1 Background of the Study

Today's smartphone has become an integral part of human life. With the increasing use of technology for mediating communication, it is used for personal use. The smartphone market in Cambodia is growing up every year and being more competitive with more features and attributes of all smartphones provide to the customers. These days, most of the customer supposed to have a smartphone at least once. Smartphone has high sensor big touch screens with pixel cameras, lots of features and applications for internet browsing, check email, navigation, reading news, social media, play music, game, taking notes, calendar, weather forecast, and more other things. Sometimes people uses a smartphone for work like type some document on Microsoft Word, Microsoft excel instead of using their laptops. These features and applications that have in a smartphone can help people's life easier in their daily life and also at workplace purposes (Jesensky John, 2013).

The booming of the smartphone sector has been an exceptional factor for economic growth in Cambodia. Smartphone has become one of the important features for the development of information technology. There are several types of businesses like hotels, travel, tourism, services, airlines, and many more that have been positively influenced by the use of a smartphone that grows well their businesses. Most of the people when they travel far away from home or go to another country and need to book flight ticket, book a hotel, they will book through their smartphone instead of using a computer or via a travel agent. Smartphone has become an indispensable part of the direct impact on the function of the economy. The growing obsession of teenagers with a smartphone is one of the potentials for smartphone marketers to develop new smartphones with enhanced technology (Silas Everett, 2015). The

marketing environment has to turn out to be a very multifaceted and competitive one and it is necessary for a business to find a way of gaining and keeping customer loyalty to the brand. There are so many brands of smartphones that anyone can buy. It makes customers face many alternatives to smartphones that can change the customer's mind (Jurnal Berkala Ilmiah Efisiensi, Tahun 2015).

## 1.2 Research Problem

What are the factors influencing customer purchasing behavior toward smartphone product in Cambodia?

## 1.3 Research Objectives of the Study

The aims of this study are as follows:

1.3.1 To identify the customer purchasing behavior towards smartphone in Cambodia.

1.3.2 To identify the different of customer's demographic characteristics on the purchasing behavior towards smartphone in Cambodia.

1.3.3 To identify the relationship between integrated marketing communication tools and purchasing behavior of smartphone customers in Cambodia.

1.3.4 To identify the relationship between word of mouth communication and purchasing behavior of the smartphone customers in Cambodia.

## 1.4 Conceptual Framework

Based on the objectives of the study, conceptual framework will be constructed and divided into dependent variables and independent variable. Demographic Profile, integrated marketing Communication tools and word of mouth communications are independent variable to determine smartphone customers' purchasing behavior in Cambodia.

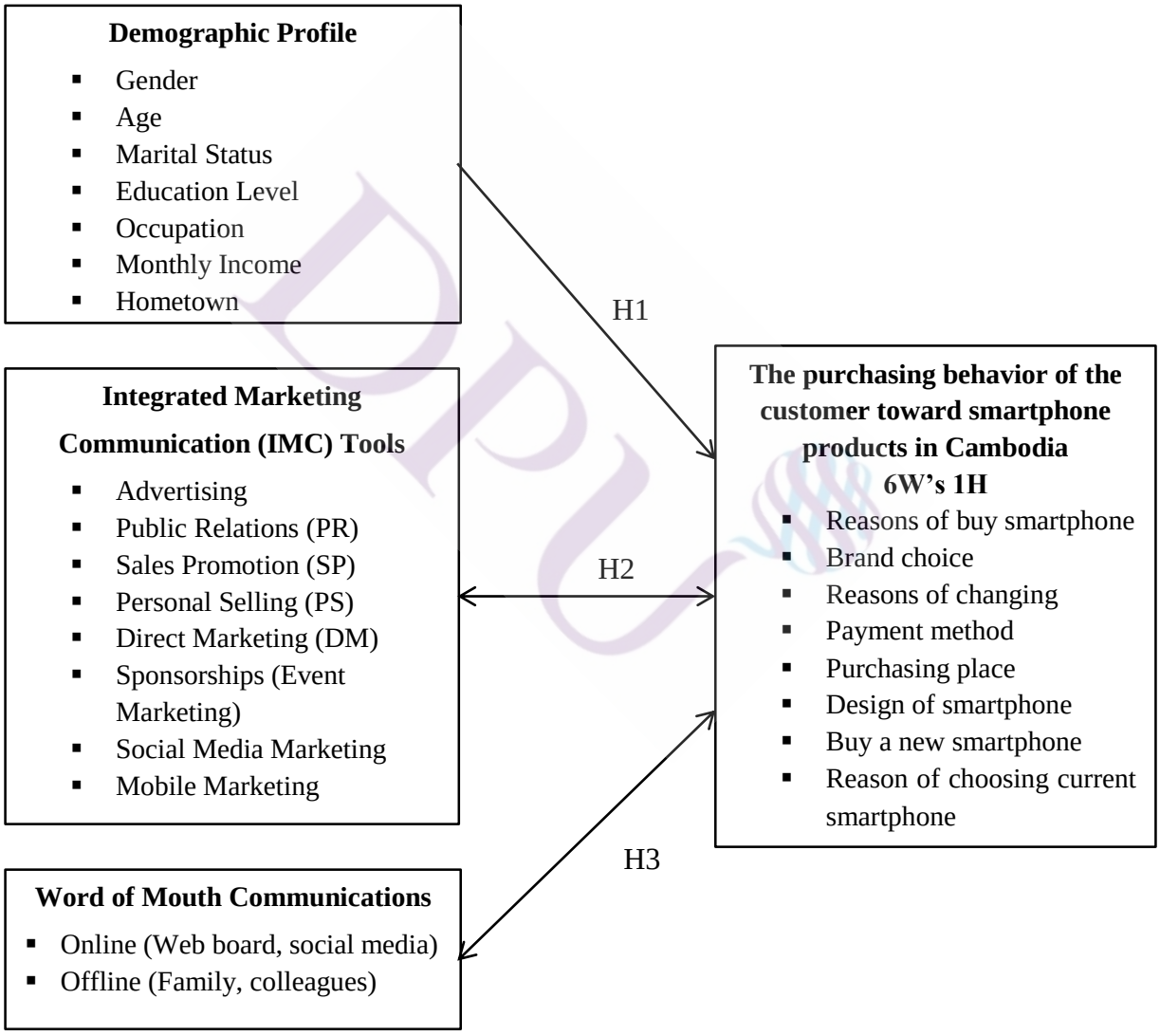



**Figure 1.1: Conceptual framework of the research study**

## 1.5 Hypothesis of the Study

According to the conceptual framework of this study, the hypotheses are listed as follow:

**H1**: Customers from different demographic profiles will have different purchasing behavior of the smartphone customer in Cambodia.

**H2**: There is a significant relationship between IMC Tools and purchasing behavior of the smartphone customer in Cambodia.

**H3**: There is a significant relationship between word of mouth communications and purchasing behavior of the smartphone customer in Cambodia.

## 1.6 Scope and Limitations of the Study

This research paper aims to study different from demographic profile will have different purchasing behavior, the relationship between integrated marketing communication tools, word of mouth communications on purchasing behavior of the smartphone customer in Cambodia. Therefore, this will limit a generalization of the result by using the following set of research extent.

## 1.7 Population and Sample

**Population:** Smartphone customers in Cambodia.

**Sample:** Smartphone customers from 4 cities in Cambodia: Phnom Penh, Siem Reap, Battambang, and Preah Sihanouk.

**Sample size**

Due to the number of population is unascertained, this research paper use Taro Yamane table to calculate the appropriate sample size at 95% of confidence level, 0.05% sampling error.

### 1.7.1 Sampling Method:

The process of sampling method is as follows:

**Simple random sampling** – by selecting sample from 4 cities in Cambodia, which are Phnom Penh, Siem Reap, Battambang, and Preah Sihanouk.

**Convenience sampling** – questionnaires are distributing to the smartphone user, using a survey research design and applied as a tool to collect data from respondents whose from Phnom Penh, Siem Reap, Battambang, and Preah Sihanouk.

### 1.7.2 Study Variables:

**Independent variables:**

- Demographic profiles
  - Gender
  - Age
  - Marital Status
  - Education Level
  - Occupation
  - Income/per month
  - Hometown
- Integrated Marketing Communication (IMC) tools
  - Advertising
  - Public Relations (PR)
  - Sales Promotion (SP)
  - Personal Selling (PS)
  - Direct Marketing (DM)
  - Sponsorships (Event Marketing)
  - Social Media Marketing
  - Mobile Marketing
- Word of mouth communication
  - Online Channel Strategy (e.g. webboard, social media)
  - Offline Channel Strategy (e.g. family, colleagues)

**Dependent variables:**

The purchasing behavior of the customer toward smartphone products in Cambodia, which is identified in term of a type of reason of buy smartphone, brand choice, reason of changing, reason choosing smartphone, payment method, place of buy smartphone, design of smartphone, buy new smartphone.

I am able to choose the dependent variables based on the study of Kotler (2003) suggested that marketers should examine customer-purchasing behavior using the 6W's and 1H question.

## 1.8 Definition of Terms

**1.8.1 Purchasing Behavior:** define as a process of choosing, purchasing, using and disposing of products or services by the individuals and groups in order to satisfy their needs and wants (Solomon et al, 1995).

**1.8.2 Smartphone:** A mobile phone with highly advanced features. A typical smartphone has a high-resolution touch screen display, Wi-Fi connectivity, Web browsing capabilities.

**1.8.3 Integrated Marketing Communication Tools:** An organization's unified, coordinated effort to promote a brand concept through the use of multiple communications channels to deliver a clear, consistent and compelling message tools that speak with a single voice (Nadube, P. M., 2018).

**1.8.4 Demographics:** characteristics of smartphone customer in particular gender, age, marital status, education level, occupation, income/per month, and hometown.

## 1.9 Significance of the Study

1.9.1 To develop a guideline on the purchasing behavior of customers on smartphone that may help to improve the marketing strategies or increase their sales.

1.9.2 To give new knowledge and understanding the market of smartphone to the student and researcher in the same field.

# CHAPTER 2
# LITERATURE REVIEW

This chapter addressed relevant constructs that were examined in the study, which consisted of:

2.1 Demographic Profile

2.2 Customer Purchasing Behavior

2.3 Integrated Marketing Communication Tools

2.4 Word of Mouth Communications

2.5 Related Research

## 2.1 Demographic Profile

There are several definitions of service in the literature.

### 2.1.1 Definition of demographic

Demographics is a part of the population that is considered as a group, especially by advertisers who want to sell things to that group and it is the study of a population based on factors such as age, gender, marital status, level of education, occupation, income level, and hometown.

Kotler & Armstrong (2003) revealed that demographic help to understand consumers and their needs. Theoretical models that seek to identify the influences on buyer behavior incorporate categories based on demographics or personal factors.

Anderson & Gaile-Sarkane (2008) - Demographic factors play an important role in purchasing process. Income, age, occupation, and other demographic factors may influence decision-making.

Iqbal, Ghafoor & Shahbaz (2013) showed in their study that the following demographic factors influence the selection of shops to purchase goods: the level of education, occupation, income level, number of household members. In addition, demographic factors such as age, number of household members, gender, marital status, education level, income level and social class are used extensively, and are considered as good indicators for the study of consumer behavior.

Based on the previous studies, researcher found that there were so many demographic factors to influence and play an important role in the purchasing behavior. This study particularly tried to examine the purchasing behavior of customer on smartphone so that 7 of demographic including gender, age, marital status, education level, occupation, income/per month, and hometown were used to measure.

## 2.2 Customer Purchasing Behavior

There are several definitions of customer purchasing behavior in the literature. Customer purchasing behavior is the actions taken both online and offline, the series of behaviors or patterns that customers follow before making a decision on purchase a product and this process may include engaging with social media posts, or a variety of other actions.

### 2.2.1 Definition of Customer Purchasing Behavior

Customer purchasing behavior is considered to be an inseparable part of marketing and Ian Chaston (2000) revealed that those acts of individuals directly involved in obtaining, using, and disposing of economic goods and services, including the decision processes that precede and determine these acts.

Kotler (1994) identified customer purchasing behavior as the study of how people buy, what they buy, when they buy and why they buy that product.

Solomon et al. (1995) define customer purchasing behavior as the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires.

Schiffman (2007) revealed that the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs.

### 2.2.2 An Analysis of Consumer Behavior

Kotler (2003) suggested that marketers should examine customer purchasing behavior using the 6W's and 1H question.

Table 1 An Analysis of Consumer Behavior

| Question (6W's 1H) | The answer to know (7Os) | Marketing strategy |
|---|---|---|
| 1. Who is in the target market? | Occupants of target group including<br>1. Demographic<br>2. Geographic<br>3. Psychology<br>4. Behavior | Marketing Mix includes product, price, place, promotion for satisfying the target group |

| | | |
|---|---|---|
| 2. What does the consumer buy? | Objects to consumer buy; who want product component & competitive differentiation | Product strategies including<br>1. Core product<br>2. Tangible product such as quality, feature style, packaging and brand<br>3. Augmented product<br>4. Expected product<br>5. Competitive differentiation product |
| 3. Why does the consumer buy? | Purchasing objective of consumer, for physical & psychology need that study in physical factor, social, culture and personality | Product strategies<br>1. Promotion strategies including advertising, personal selling, public relation<br>2. Price strategies<br>3. Distribution channel strategies |
| 4. Who participates in the buying? | Influence organization including people to<br>1. Initiator<br>2. Influencer<br>3. Decider<br>4. Buyer<br>5. Use | Advertising and promotion strategies to influence organization |
| 5. When does the consumer buy? | Occasions such as during seasonal of festival time | Promotion strategies relate to occasions |
| 6. Where does the consumer buy? | Outlets such as dependent store, convenience store and discount store | Distribution channel strategies for suitable middle man to consumer |

| | | |
|---|---|---|
| 7. How does to consumer buy? | Operation including<br>1. Problem recognition<br>2. Information search<br>3. Evaluation of alternative<br>4. Purchase decision<br>5. Post purchase evaluation | Promotion strategies including advertising, personal selling, public relating and direct Marketing |

**Source:** Philip Kotler, Mareting Magement 12e, page 180, 2003

### 2.2.3 Consumer Behavior Model

Mowen (1995) suggested the model that should be used to study the possible factors influencing purchasing behavior of consumer.

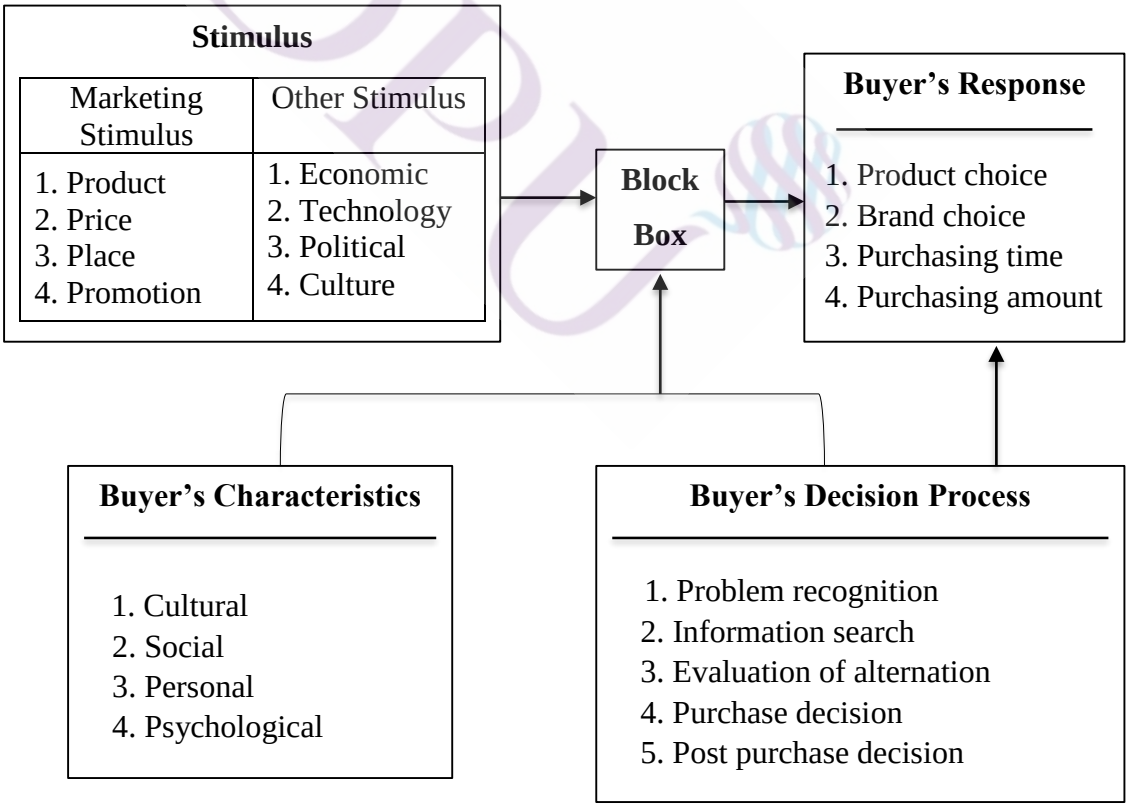



**Figure 2.1: Consumer Behavior Model**
Source: Mowen (1995)

The consumer behavior model can explain as follow:

**1. Stimulus** – is divided into internal and external factor which are:

1.1 **Marketing Stimulus** – this means marketing mix (4P‟s) used by seller:

Product – design and develop to appropriate such as quality and purchasing

Price – setting a proper price

Place – have a lot of branch for buying

Promotion – advertising, sale promotion, personal selling, public relation and direct marketing.

**2. Buyer's black box**: the feeling or thinking of consumer as "the black box" because marketer don't know well. So, they try to find in consumers‟ mind for designing the appropriate product and service to them.

**3. Buyer's response**: follow by consumer needs including;

Product choice – Core product benefits respond to customer needs

Brand choice – Confidence in brand image relate to quality and positioning

Purchase timing – When customers buy the product

Purchase amount – Spending per time to buy the product and service

### 2.3.4 Factor Influencing Consumer Behavior

The buyer characteristic refers to the internal factors that may have influence on consumer behavior. There consist of:

**1. Cultural Factors** exert the broadest and deepest influence on consumer behavior. The culture, subculture and social are particularly important in purchasing behavior.

**1.1 Culture** is the most basic cause of person's want and behavior. Culture is the basic value perception, wants and behavior learned by a member of society from family and other important institutions.

**1.2 Subculture** Each culture consists of smaller subcultures or groups of people with shored value system based on common life experiences and situation. Subcultures include nationalities, region, racial groups and geographic region.

**1.3 Social Class** is relatively permanent and ordered division whose members share similar values, interest, and behaviors. Social class is not determined by a single factor, such as income, but is measured as a combination of occupation, income, education, wealth and other variables. Social classes show distinct product and brand preference in area such as clothing, home furnishings, leisure activity, and automobiles.

**2. Social Factors** In addition to cultural factors a consumer's behavior also influenced by social factors such as social reference groups, family and social roles and status.

**2.1 Reference groups** A person's reference groups consist of all the groups that have a direct (face-to-face) or indirect influence on his/her attitudes or behavior.

**2.2 Family** The family life cycle; families go through stages; each stage create different consumer demand: Because in some families are becoming more common, the decision maker within the family unit is changing.

**2.3 Role** A person can have many roles when he or she is belong to many groups such as family, clubs and organizations. A role consists of the activities that a person is expected to perform according to the persons around them. Each role carries the status.

**2.4 Status** A status reflecting the general esteem given to it by society. People often choose products that show their status in society.

**3. Personal Factors** A buyer's decisions also are influenced by personal characteristics such as age and life cycle stage, occupation, economic situation, lifestyle, personality and self-concept.

**3.1 Age and life cycle Stage** People change the goods and services they buy over their lifetimes. For example, testes in food, clothes, furniture and recreation are often age related.

**3.2 Gender** Within every society, it is quite common to find product that are either exclusively or strongly associated with the members of one sex. Sex roles have an important cultural component. It is quite fitting to examine gender as a sub-cultural category (Schiffman 1997).

**3.3 Education** The education levels vary substantially among regions of a nation and affect considerably on need and wants of each region. Education influences what one can purchase by partially determining one's income and occupation. It also influences how one thinks how one thinks, makes buying decisions, and relates to others. Those with limited education are generally at a disadvantage not only in earning money but also in spending it widely. Not surprisingly, education has a strong influence on one's taste and preferences (Hawkins 2001).

**3.4 Occupation** A person's occupation affects the services bought. A blue-collar worker will buy work clothes, work shoes and lunch boxes. A company president will buy expensive suits, air travel, country club membership and large sailboat above-average interest in their products and services. Since the occupational groups that have above average interest tend to spend more amount of money therefore it is quite important to be able to identify them in any of special goods and services.

**3.5 Economic Situation or Income** is a major factor in people's ability to buy product or use a service. Income and economic growth, in general, has 17 increased around the world, however, the gap between developed countries and less developed countries is quite large. It leads to differences in purchase power. Consequently, wants and needs among these countries is also different. Developed countries have trend to buy products or service that satisfy high demand such as self-actualization, confidence and achievement, social and so forth. In contrast, developing or less developed countries like to buy a product or service to serve demand for safety, security or physiological. A person's income level combined with his or her accumulated wealth determines its purchasing power (Hawkins 2001).

**3.6 Lifestyle and value:** The lifestyle is the person's pattern of living in the world as expressed in activities, interest and options. People coming from the same subculture, social class and occupation may have quite different lifestyles. It involves measuring consumer's AIO dimensions activities (work, hobbies, shopping, sports, and social events) interests (food, fashion, family, recreation) and opinions (about themselves, social issues, business, and products). Lifestyle captures a person's whole pattern of acting and interacting in the world.

**4. Psychological Factors** There is four major psychological factors that influence a personal purchasing choice are the motivation, perception, learning, believed and the last one is the attitude.

**4.1 Motivation** A person has many needs at any given times. Some needs are bionic such as hunger and thirst. Other needs are psychogenic such as the need for recognition, esteem or belonging needs become the motive when it is aroused to a sufficient level or intensity motive is a need that drives the person to act. Motive is a need that is sufficiently pressing to

direct the person to seek satisfaction.

**4.2 Perception** is the process by which people selects organizes and interprets information to from a meaningful picture of the world.

**4.3 Learning** describes changes in an individual's behavior arising from experience. Learning is produced through the interplay of drives, stimuli, cues, response and reinforcement.

**4.4 Belief** is a descriptive thought that a person has about something. It may be based on real knowledge, opinion or faith and may or may not carry an emotional change. These beliefs make up product and images that affect buying behavior.

**4.5 Attitude** is a person's consistently favorable or unfavorable evaluations, feelings and tendencies toward an object on idea. People have attitude regarding religion, politics, cloths, music, food and almost everything else. A person's attitudes fit into a pattern and to change one attitude may require difficult adjustments.

**4.6 Personality** refers to the unique psychological characteristics that to relatively consistent and lasting responses to one's own environment. Personality is usually described in term of such traits as self-confidence, dominance, autonomy, deference sociability and adaptively.

**4.7 Self-concept** self-image is related to personality. The basic self-concept premise is that people's possessions contribute to and reflect their identities: that is, we are what we have. Thus, in order to understand consumer behavior the marketer must first understand the relationship between consumer self-concept and possessions.

## 2.3 Integrated Marketing Communication Tools

Integrated Marketing Communications (IMC) is the act of unifying the company's marketing message across channels and it aims to ensure that all forms of communications, messages are carefully linked together (Akshit Bagaria, in Marketing Essentials, 2019). The eight major Integrated Marketing Communication tools are as follows: (Akshit Bagaria, in Marketing Essentials, 2019)

**Advertising** is the non-personal and any paid form of products or services by an identified sponsor. The various media used are as:

- Print: newspapers and magazines
- Broadcast: radio and television
- Network: satellite, wireless and telephone
- Electronic: web page, audio and videotape
- Display: billboards, signs and posters.

**Public Relations** are a variety of programs directed toward improving and the practice of managing the relationship between the organization and the public.

**Sales Promotion** is a variety of short-term incentives to encourage trial or purchase of a product or service and It gives customers a reason to purchase the product by providing an attractive offers like discount coupons, samples, low-cost financing deals, and price packs.

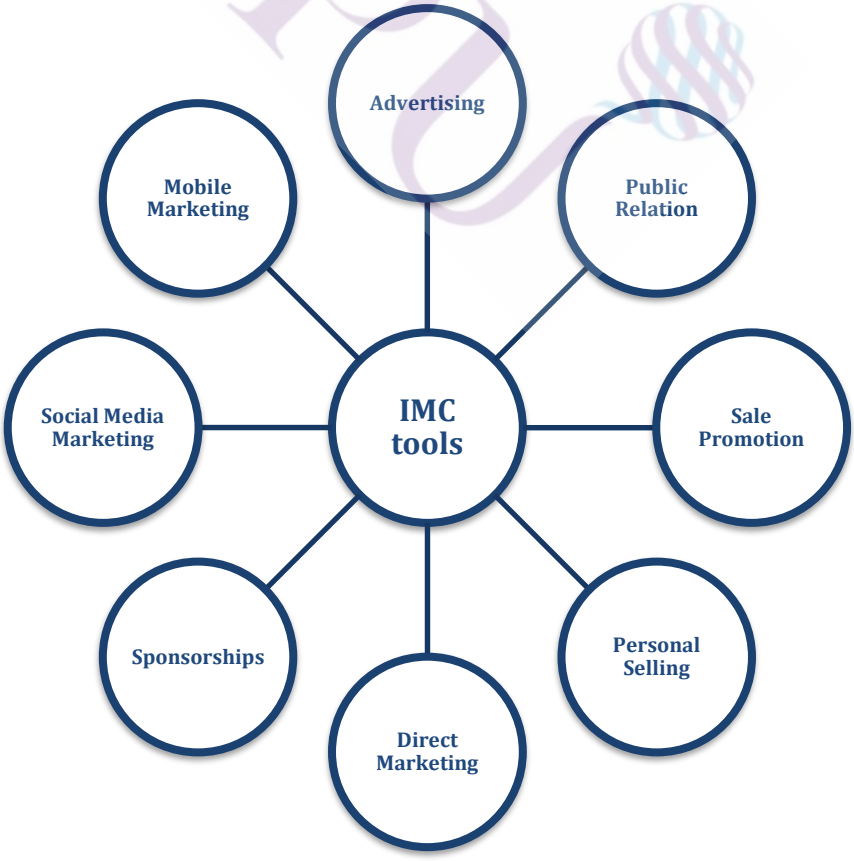
**Personal selling** is face-to-face interaction with one or more buyers for the motive of promoting the product and convincing the buyer to purchase the product. The advantage of personal selling is a salesperson can be directly communicates with the customer to resolves their issues on the spot and customized to the needs of the customer, and focused on building a long-term relationship with customers.

**Direct Marketing** is an organization directly communicates with end-users through emails, telephone, promotional letter, text messages, and brochure.

**Sponsorships** is a mixture of sales promotion and public relations, moreover it is an activities and programs designed to create brand-related interactions with customers.

**Social Media Marketing** refers to modern ways of communications with the customer and also the process of promoting business or websites through social media channels.

**Mobile marketing** is communicating with the customer through mobile device by sending them a simple message and introduce the new participation based campaign to customers or to allow them to visit a mobile website.



### 2.3.1 Definition of IMC tools

Philip Kotler (2007) IMC is the concept under, which a company carefully integrates and coordinates it's many communications channels to deliver a clear, consistent and compelling message about the organization and its products.

Khalid Hasan (2016) IMC is the strategic choice of elements of marketing communications, which will effectively and economically influence transactions between an organization and its existing and potential customers, clients and consumers.

Kevin Popovic (2017) IMC is a concept of marketing communications planning that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communication disciplines. For example, general advertising, direct response, sales promotion, and PR maximum communications impact (American Association of Advertising Agencies).

Duncan (2002) IMC is a process for managing the customer relationships that drive brand value. More specifically, it is a cross functional process for creating and nourishing profitable relationships with customers and stakeholders by strategically controlling or influencing all messages sent to these groups and encouraging data drive, purposeful dialogue with them.

## 2.4 Word of Mouth Communications

There are several definitions of word of mouth in the literature. Word of mouth (WOM) is the passing of information from person to person or when a consumer's interest in a company's product or service and telling someone a story about a real thing or something made up. Moreover, word of mouth was defined several times as being an informal and non-commercial form of face-to-face conversation between a communicator and a receiver regarding a product or a service. In other words, between potential consumer and other people such as product/service providers, independent experts, colleagues, family and friends. (Raluca Gheorghe, Marketing and Management of Innovations, 2012)

### 2.4.1 Definition of word of mouth communications

Chris Fill (2002) defined word of mouth communication as the multi-step model suggests that opinion leaders/formers and members of the target audience all influence each other.

Douglas Hoffman (2010) defined word of mouth communications as, "unbiased information from someone who has been through the service experience, such as friends, family".

Elvira Ismagilova (2012) word of mouth communication is conceptualized herein as a group phenomenon – an exchange of comments, thoughts, and ideas among two or more individuals in which none of the individuals represent a marketing source.

## 2.5 Related research works

The previous studies suggested the relationships between several service factors, such as demographic profile, integrated marketing communications, and word of mouth on purchasing behavior. For example, Kao Dauch (2016) studied the influencing factors toward brand loyalty of smartphone in Phnom Penh, Cambodia. The questionnaires were distributed to 400 samples within top five universities located in Phnom Penh, Cambodia. Percentage, frequency, mean, standard deviation, analysis of variance, and multiple regression analysis were used to analyze data and test the hypothesis. The result showed that the demographic background, most of the respondents are male, aged between 18 to 25 years old; most of them are single and hold a bachelor degree. Furthermore, most of the respondents are student and have an income of 216 dollars or less per month. In the result also showed that Apple's customers who intend to use the smartphone of this brand are mainly young and good educated (Bachelor degree). From the researcher's perspective, Apple's management should consider more to this group of people and understand their needs and wants in orders to make them more satisfied and keep them loyal with iPhone brand. In addition, the result from hypothesis testing indicated that some variables had a significant relationship and some had no significant relationship with each other.

Wilasinee Yonwikai (2016) the research on factors affecting mobile phone purchasing decision of Cambodian. The questionnaires were distributed to 200 Cambodians and data were collected through descriptive statistic and testing hypothesis with T-test and One-Way ANOVA. The result showed that out of 200 Cambodian mobile phone consumers and research participants are males, the aged 26 to 30 years old, and the most whereas 107 participants are single with average monthly income between 5,000 to 10,000 baht. The marketing mix, the demographic affecting purchasing decisions on mobile phone among Cambodians, customer whose

age, marital status, education, profession and average monthly income indicated the differences also had different opinions on purchasing decision.

Sarod Khandaker (2017) explored the factors affecting smartphone purchase decisions of Generation-Y. This study used questionnaires as the instrument for gathering data from 152 respondents. The data was analyzed by frequency, distribution, percentage mean and standard deviation, Pearson correlation analysis, variance (ANOVAs), and multiple regression analysis. The result showed that out of the 152 respondents, most of the respondents were male and the majority of the respondents were aged between 29 to 32 years, holds a Bachelor's degree. Most of respondents earned between RM 2,001 to RM 3,000. The result showed that Samsung is the most used mobile phone brand among the respondents and most of them get information about smartphones from their family and friends. In addition, there are strong correlations separately between the brand of the smartphone, product features, social influence, convenience and smartphone purchase decision of Generation-Y.

Based on the aforementioned, this study aims to test whether there are different and relationships between demographic profiles, integrated marketing communication tools, and word of mouth communications on the purchasing behavior of the customer toward smartphone in Cambodia. Therefore, this study proposed three hypotheses as follows:

H1: Customers from different demographic profiles will have different purchasing behavior of the smartphone customer in Cambodia.
H2: There is a significant relationship between IMC Tools and purchasing behavior of the smartphone customer in Cambodia.
H3: There is a significant relationship between word of mouth communications and purchasing behavior of the smartphone customer in Cambodia.

# CHAPTER 3
# RESEARCH METHODOLOGY

This study addresses the purchasing behavior of badminton court service's customers using the following constructs:

1. Demographic: gender, age, marital status, education level, occupation, income/per month, and hometown.

2. Purchasing behavior: reason of buy smartphone, brand choice, reason of changing, reason behind choosing current smartphone, payment method, purchasing place, design of smartphone, buy a new smartphone.

3. Integrated marketing communication (IMC) tools: advertising, public relation, sale promotion, personal selling, direct marketing, sponsorships, social media marketing and mobile marketing.

4. Word of mouth communications: online channel strategy and offline channel strategy

The research is a survey research design that uses a self-administrative questionnaire to collect data from respondents (Malhotra 2007). Several steps of research methodology were presented as follows:

3.1 Populations and Sample
3.2 Measurement items
3.3 Data collection method
3.4 Data analysis

## 3.1 Identifying Population and Sample

**Population:** Smartphone customers in Cambodia.

**Sample:** Smartphone customers from 4 cities in Cambodia: Phnom Penh, Siem Reap, Battambang, and Preah Sihanouk.

**Sample size**

Due to the number of population is unknown, the researcher use Taro Yamane table to calculate by the approximately sample size for this study (Poldongnok 2009). The sample size is calculated based on 95% confidence level and 5% sampling error based on the following formula:

n = Z 2 [P (1-P)] / e 2
n = Sample size
Z = Reliability of 95% is 1.96
e = Not reliability is 0.05
P = Percentage (0.05)

Calculation:

n = Z 2 [P (1-P)] / e 2
= (1.96) 2 [(0.50) (1-0.05)] / (0.05) 2
= 384

The sample size is 384 respondents.

**Sampling Method**

The research adopted purposive-sampling, snowball-sampling and convenience-sampling methods by distributing questionnaire to people who are using smartphone, using a survey research design and applied as a tool to collect data from respondents whose from 4 cities in Cambodia, which are Phnom Penh, Siem Reap, Battambang, and Preah Sihanouk. The questionnaires were distributed around 300 to the respondents

through online channel and 120 acts were received and all were used in data analysis, resulting the response rate of 40% were achieved.

### 3.2 Measurement Items

This study developed and adapted items from previous studies to measure the constructs following study:

- 7 items to measure demographic profile of smartphone customers. (Gender, age, marital status, education level, occupation, income/per month, and hometown.)
- 8 items to measure the purchasing behavior of smartphone customer. (Reason of buy smartphone, brand choice, reason of changing, payment method, purchasing place, design of smartphone, buy a new smartphone and reason of choosing current smartphone)
- 15 items to measure integrated marketing communication tools. (e.g. advertising, public relation, sale promotion, personal selling, direct marketing, social media Marketing, mobile marketing, and sponsorships.)
- 8 items to measure the word of mouth communications. (e.g. online channel strategy, offline channel strategy)

Likert Scale was used to quantify level of agreement on items related integrated marketing communication tools.

The scale descriptions are as follows:

| | | |
|---|---|---|
| "5" | = | Strongly agree with the statement |
| "4" | = | Agree with the statement |
| "3" | = | Feel neutral with the statement |
| "2" | = | Disagree with the statement |
| "1" | = | Strongly disagree with the statement |

According to Sirirat (2005), each item is assigned a numerical score, ranging from 1 to 5 as follows:

- Calculate the cutting/interval score = (5-1)/5 = 0.80
- Thus, descriptions of the revised score are as follows:

| Range of Score | | Level of agreement |
|---|---|---|
| 1.00 - 1.80 | = | strongly disagree with the statement |
| 1.81 - 2.60 | = | disagree with the statement |
| 2.61 - 3.40 | = | feel neutral with the statement |
| 3.41 - 4.20 | = | agree with the statement |
| 4.21 - 5.00 | = | strongly agree with the statement |

### 3.2.1 Measurement Items and Validations

There are 2 steps of validity tests for survey research questionnaires, which are;

1.1 Content Validity

Content validity was assured by developing the study constructs based on relevant literature and suggestions of academician and practitioners.

1.2 Reliability Validity

Researcher conducted a pilot test with 41 respondents. The data had coefficient alpha, or Cronbach‟s Alpha, 0.6 which indicated a moderate - fair internal consistency of the study constructs (Malhotra 2007).

## 3.3 Data Collection

This study collected 2 types of data, which are:

**1. Primary Data** – using the questionnaire to collect the data from smartphone customers in 4 cities, Cambodia: Phnom Penh, Siem Reap, Battambang, and Preah Sihanouk.

**2. Secondary Data** – using the documentary research to collect the data by studying the relevant literature in order to obtain a theoretical overview and to collect information from the articles, textbooks, reports, and other websites via the Internet to support the idea of this study.

### 3.4 Data Analysis

Data was analyzed using the following statistics:

1. Descriptive Statistic – Frequency, percentage, mean and standard deviation.

2. Inferential Statistics;

2.1 Independent Sample T-Test and One-Way ANOVA were used to test the different demographic profile have different purchasing behavior of smartphone customers.

2.2 Pearson's Chi-Square was used to test the relationship between integrated marketing communication tools, word of mouth communications and the purchasing behavior of smartphone customers.

The confidence level of 95% or < 0.05 was adopted to test the hypotheses of the study.

# CHAPTER 4
# FINDINGS

This study collected data from smartphone customers in Cambodia. Questionnaires were received 120 respondents who using smartphone from 4 cities in Cambodia: Phnom Penh, Siem Reap, Battambang and Preah Sihanouk.

The results were presented as follows:

4.1 Descriptive results of demographic data, integrated marketing communication tools, word of mouth communications and the purchasing behavior of smartphone customer.

4.2 Hypothesis test

Data were screened to assume that normal distribution could be assumed. There is zero sets of questionnaires were found to be outliners even there is some missing in the data collected and 120 sets of questionnaires tended to perform normal distribution within the $-1 \leq$ skewness $\leq +1$ and $-2 \leq$ kurtosis $\leq +2$ (Tabadinick & Fidell 2007).

## 4.1 Descriptive Results

### 4.1.1 Demographic Profile

The following tables showed the results of demographic profile.

Table 2 Descriptive Results of Gender

| Items | | Percent (%) |
|---|---|---|
| 1. Gender | Male | 55.8 |
| | Female | 44.2 |
| | Total | 100.0 |

Table 2 reported that Gender – the majority of respondents were male (55.8%) followed by female (44.2%).

Table 3 Descriptive Results of Age

| Items | | Percent (%) |
|---|---|---|
| 2. Age | Under 18 years old | 18.3 |
| | 18 – 24 years old | 27.5 |
| | 25 – 35 years old | 45.0 |
| | 36 – 50 years old | 9.2 |
| | Total | 100.0 |

Table 3 reported that Age – the majority of respondents were aged between 25 – 35 years old (45.0%) followed by 18 – 24 years old (27.5%), under 18 years old (18.3%) and 36 – 50 years old (9.2%).

Table 4 Descriptive Results of Marital Status

| Items | | Percent (%) |
|---|---|---|
| 3. Marital Status | Single | 65.0 |
| | Married | 30.8 |
| | Widower | 2.5 |
| | Divorced | 1.7 |
| | Total | 100.0 |

Table 4 reported that Marital Status – the majority of respondents were single (65.0%) followed by married (30.8%), widower (2.5%) and divorced (1.7%).

Table 5 Descriptive Results of Education Level

| Items | | Percent (%) |
|---|---|---|
| 4. Education Level | Less than high school | 5.8 |
| | High school | 27.5 |
| | Bachelor's degree | 48.3 |
| | Master's degree | 18.3 |
| | Total | 100.0 |

Table 5 reported that Education Level – the majority of respondents were bachelor's degree (48.3%) followed by high school (27.5%), master's degree (18.3%) and less than high school (5.8%).

Table 6 Descriptive Results of Occupation

| Items | | Percent (%) |
|---|---|---|
| 5. Occupation | Student | 29.4 |
| | Unemployed | 5.9 |
| | Wage labour | 31.1 |
| | Business owner | 5.9 |
| | Government/State enterprise employee | 14.3 |
| | Other | 13.4 |
| | Total | 100.0 |

Table 6 reported that Occupation – the majority of respondents were wage labour (31.1%) followed by student (29.4%), government/state enterprise employee (14.3%), other occupations (13.4%), Unemployed (5.9%) and business owner (5.9%).

Table 7 Descriptive Results of Income

| Items | | Percent (%) |
|---|---|---|
| 6. Income/per month | Less than 200 USD | 33.3 |
| | 200 – 500 USD | 40.0 |
| | 510 – 1,000 USD | 20.8 |
| | 1,100 – 2,000 USD | 4.2 |
| | 2,100 – 3,000 USD | 1.7 |
| | Total | 100.0 |

Table 7 reported that Income/per month (USD) – the majority of respondents had income approximately 200 – 500 USD (40.0%) followed by less than 200 USD (33.3%), 510 – 1,000 USD (20.8%), 1,100 – 2,000 USD (4.2%) and 2,100 – 3,000 USD (1.7%).

Table 8 Descriptive Results of Hometown

| Items | | Percent (%) |
|---|---|---|
| 7. Hometown | Phnom Penh | 25.8 |
| | Siem Reap | 51.7 |
| | Battambang | 17.5 |
| | Preah Sihanouk | 5.0 |
| | Total | 100.0 |

Table 8 reported that Hometown – the majority of respondents from Siem Reap (51.7%) followed by Phnom Penh (25.8%), Battambang (17.5%) and Preah Sihanouk (5.0%).

### 4.1.2 Integrated Marketing Communication (IMC) Tools

The following tables showed the results of integrated marketing communication tools.

Table 9 Descriptive Results of Advertising

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I know smartphone from brochure | 3.17 | 0.882 | Agree |
| 2. I know smartphone on website | 3.38 | 0.779 | Agree |
| 3. I know smartphone from billboard/poster | 3.63 | 0.687 | Agree |
| 4. I know smartphone from TV Ads | 3.18 | 0.796 | Agree |
| **Total** | **3.34** | **0.786** | **Agree** |

Table 9 reported that the majority of respondents had considered that Advertising has an effect on their decision when purchasing a smartphone (Mean = 3.34). They know smartphone from billboard/poster (Mean = 3.63) and they know smartphone on website (Mean = 3.38).

Table 10 Descriptive Results of Public Relation (PR)

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I know smartphone from Event | 3.30 | 0.836 | Agree |
| 2. I read smartphone new from magazine | 2.73 | 0.744 | Feel neutral |
| 3. I know smartphone from exhibition | 2.25 | 1.039 | Disagree |
| **Total** | **2.76** | **0.873** | **Feel neutral** |

Table 10 reported that the majority of respondents did not seem to considered that Public Relation (PR) has an effect on their decision when purchasing a smartphone (Mean = 2.76). They know smartphone from Event (Mean = 3.30).

Table 11 Descriptive Results of Sales Promotions (SP)

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I be likely to choose smartphone that offer “Discount promotion” | 3.61 | 0.919 | Agree |
| 2. I be likely to choose smartphone that offer free phone case | 3.17 | 0.982 | Disagree |
| **Total** | **3.39** | **0.950** | **Agree** |

Table 11 reported that the majority of respondents seem to considered that Sale Promotion (SP) has an effect on their decision when purchasing a smartphone (Mean = 3.39). They are likely to choose smartphone that offer “Discount promotion” (Mean = 3.61).

Table 12 Descriptive Results of Personal Selling (PS)

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. It is good to have sale person introducing the product you in detailed, information you want to know | 3.67 | 0.748 | Agree |
| 2. It is effective than other forms of promotion in obtaining a sale and gaining a satisfied from you | 3.28 | 0.791 | Feel neutral |
| **Total** | **3.47** | **0.769** | **Agree** |

Table 12 reported that the majority of respondents seem to considered that Personal Selling (PS) has an effect on their decision when purchasing a smartphone (Mean = 3.47). They think that it is good to have sale person introducing the product them in detailed, information they want to know (Mean = 3.67).

Table 13 Descriptive Results of Direct Marketing (DM)

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. It is good to have direct mail for giving smartphone information | 3.03 | 0.832 | Feel neutral |
| **Total** | **3.03** | **0.832** | **Feel neutral** |

Table 13 reported that the majority of respondents did not seem to consider that Direct Marketing (DM) has an effect on their decision when purchasing a smartphone (Mean = 3.03).

Table 14 Descriptive Results of Sponsorships (Event Marketing)

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I saw smartphone sponsor to the big event e.g. Olympic, FIFA World Cup | 2.65 | 0.950 | Disagree |
| **Total** | **2.65** | **0.950** | **Disagree** |

Table 14 reported that the majority of respondents did not consider that Sponsorships (Event Marketing) has an effect on their decision when purchasing a smartphone (Mean = 2.65).

Table 15 Descriptive Results of Social Media Marketing

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I see smartphone Ads every time I enter to FB, YouTube | 3.25 | 0.791 | Feel neutral |
| **Total** | **3.25** | **0.791** | **Feel neutral** |

Table 15 reported that the majority of respondents did not seem to consider that Social Media Marketing has an effect on their decision when purchasing a smartphone (Mean = 3.25).

Table 16 Descriptive Results of Mobile Marketing

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I often get a message about to allow me to visit a mobile website | 3.01 | 0.893 | Feel neutral |
| **Total** | **3.01** | **0.893** | **Feel neutral** |

Table 16 reported that the majority of respondents did not seem to consider that Mobile Marketing has an effect on their decision when purchasing a smartphone (Mean = 3.01).

### 4.1.3 Word of Mouth Communications

The following tables showed the results of word of mouth communication.

Table 17 Descriptive Results of Online Channel Strategy

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I believe on comments about smartphone posted on web board e.g. Samsung.com | 3.44 | 0.892 | Agree |
| 2. I rely on the reviews article about smartphone that posted on Internet social network e.g. FB, YouTube | 3.25 | 0.822 | Agree |
| 3. I like to ask for comments from people on web board e.g. Samsung.com | 2.52 | 0.898 | Disagree |
| 4. I often post my experience from using smartphone on my Social media e.g. FB, Instagram | 2.23 | 0.828 | Disagree |
| **Total** | **2.86** | **0.860** | **Disagree** |

Table 17 reported that the majority of respondents did not consider that Online Channel Strategy has an effect on their decision when purchasing a smartphone (Mean = 2.86).

Table 18 Descriptive Results of Offline Channel Strategy

| Items | Mean | SD | Level of Agreement |
|---|---|---|---|
| 1. I believe on comments about smartphone from my friends who using that smartphone | 3.65 | 0.741 | Agree |
| 2. I rely on reviews comment from people around me who using that smartphone | 3.31 | 0.776 | Agree |
| 3. I like to ask for comments from my family and my friends before buying a new smartphone | 3.81 | 0.892 | Agree |
| 4. I always recommend to other people after my experience form using new smartphone | 3.14 | 0.792 | Feel neutral |
| **Total** | **3.47** | **0.800** | **Agree** |

Table 18 reported that the majority of respondents had considered that Offline Channel Strategy has an effect on their decision when purchasing a smartphone (Mean = 3.47). They like to ask for comments from their family and friends before buying a new smartphone (Mean = 3.81), believe on comments about smartphone from my friends who using that smartphone (Mean = 3.65) and rely on reviews comment from people around me who using that smartphone (Mean = 3.31).

### 4.1.4 The purchasing behavior of smartphone customer

The following tables showed the results of smartphone customer on the purchasing behavior.

The purchasing behavior of respondents can be described as follows:

Table 19 Descriptive Results of Reason of buy smartphone

| Items | | Percent (%) |
|---|---|---|
| 1. Communication (video & audio) | Selected | 72.5 |
| | Not Selected | 27.5 |
| | Total | 100.0 |
| 2. Frequent updates and variety of models | Selected | 56.7 |
| | Not Selected | 43.3 |
| | Total | 100.0 |
| 3. Sales promotion (discounts and offerings) | Selected | 65.0 |
| | Not Selected | 35.0 |
| | Total | 100.0 |
| 4. Want to keep updated with technology (personal image) | Selected | 41.7 |
| | Not Selected | 58.3 |
| | Total | 100.0 |
| 5. Software flexibility (including access to application from Google play) | Selected | 62.5 |
| | Not Selected | 37.5 |
| | Total | 100.0 |

From table 19, the majority of respondents tended to choose communication (video & audio) as their reason of buy smartphone (72.5%) followed by sales promotion (discounts and offerings) (65.0%), software flexibility (including access to application from Google play) (62.5%), frequent updates and variety of models (56.7%) and want to keep updated with technology (personal image) (41.7%).

Table 20 Descriptive Results of Brand of Smartphone

| Items | Percent (%) |
|---|---|
| 1. iPhone | 36.7 |
| 2. Samsung | 25.8 |
| 3. Huawei | 10.8 |
| 4. Oppo | 20.8 |
| 5. Other | 5.8 |
| Total | 100.0 |

From table 20, the majority of respondents tended to use iPhone (36.7%) followed by Samsung (25.8%), Oppo (20.8%), Huawei (10.8%) and Other (5.8%).

Table 21 Descriptive Results of When You Change Smartphone

| Items | Percent (%) |
|---|---|
| 1. When it is ruined | 76.7 |
| 2. When you get bored from your phone | 20.8 |
| 3. Whenever there are new smartphone versions | 2.5 |
| Total | 100.0 |

From table 21, the majority of respondents tended to change their smartphone when it is ruined (76.7%) followed by when you get bored form your phone (20.8%) and whenever there are new smartphone versions (2.5%).

Table 22 Descriptive Results of Reason behind choosing current smartphone

| Items | Percent (%) |
|---|---|
| 1. Good previous experience | 60.0 |
| 2. Friend's Recommendations | 15.0 |
| 3. Internet Reviews | 16.7 |
| 4. Social Media | 8.3 |
| Total | 100.0 |

From table 22, the majority of respondents tended to choose good previous experience as their reason behind choosing current smartphone (60.0%) followed by internet reviews (16.7%), friend's recommendation (15.0%) and social media (8.3%).

Table 23 Descriptive Results of Payment Method

| Items | Percent (%) |
|---|---|
| 1. Cash | 85.7 |
| 2. Credit Card | 14.3 |
| Total | 100.0 |

From table 23, the majority of respondents tended to make payment by cash (85.7%) followed by credit card (14.3%).

Table 24 Descriptive Results of Place to Buy Smartphone

| Items | Percent (%) |
|---|---|
| 1. Smartphone store | 71.7 |
| 2. Hypermarkets & Malls | 4.2 |
| 3. Places that offer payment installments | 5.0 |
| 4. Nearest store to my home or work | 15.8 |
| 5. Through Online | 3.3 |
| Total | 100.0 |

From table 24, the majority of respondents tended to buy their smartphone at smartphone store (71.7%) followed by nearest store to my home or work (15.8%), places that offer payment installments (5.0%), hypermarkets & Malls (4.2%) and through online (3.3%).

Table 25 Descriptive Results of Design of Smartphone is Important

| Items | Percent (%) |
|---|---|
| 1. Yes, of course | 78.3 |
| 2. No, I don't care | 2.5 |
| 3. Not at all | 19.2 |
| Total | 100.0 |

From table 25, the majority of respondents tended to choose Yes, of course (78.3%) followed by Not at all (19.2%) and No, I don't care (2.5).

Table 26 Descriptive Results of Buy a New Smartphone is Important

| Items | Percent (%) |
|---|---|
| 1. Main function (making calls, using social media) | 36.1 |
| 2. Specific functions (camera, music player, screen size) | 58.8 |
| 3. External appearance | 3.4 |
| 4. Emotional satisfaction | 1.7 |
| Total | 100.0 |

From table 26, the majority of respondents tended to choose specific functions (camera, music player, screen size) as their decision to buy a new smartphone (58.8%) followed by main function (making calls, using social media) (36.1%), external appearance (3.4%) and emotional satisfaction (1.7%).

## 4.2 Results of Hypothesis Test

### Results of Hypothesis 1

Independent-Samples T-Test and One-Way ANOVA were used to test hypothesis 1

**H1: Customers from different demographic profiles will have different purchasing behavior of the smartphone customer in Cambodia.**

Demographic data was described by the gender, age, marital status, education level, occupation, income/per month, and hometown.

Purchasing behavior was measured by reason of buy smartphone, brand choice, reason of changing, reason behind choosing current smartphone, payment method, purchasing place, design of smartphone, buy a new smartphone.

This study found a partly support of H1 as follows:

### 4.2.1 Demographic Data (gender) and Purchasing Behavior

Table 27 showed that gender was found to have different on design of smartphone. ($P < 0.05$)

Table 27 different of gender on purchasing behavior

| Items | Levene's Test for Equality of Variances | | |
|---|---|---|---|
| | F | Sig. | Results |
| 1. Overall reason of buy smartphone | 0.110 | 0.740 | Not significant |
| 2. Brand Choice | 0.378 | 0.540 | Not significant |
| 3. Reason of changing | 0.051 | 0.821 | Not significant |
| 4. Reason behind choosing current smartphone | 0.150 | 0.700 | Not significant |
| 5. Payment method | 2.239 | 0.137 | Not significant |
| 6. Purchasing place | 0.735 | 0.393 | Not significant |
| **7. Design of smartphone** | **21.070** | **0.000** | **Significant** |
| 8. Buy a new smartphone | 0.13 | 0.910 | Not significant |

*Level of significant $\alpha = 0.05$

**Group Statistics**

| | Gender | N | Mean | SD | Std. Error Mean |
|---|---|---|---|---|---|
| Design of smartphone | Male | 67 | 1.55 | 0.875 | 0.107 |
| | Female | 53 | 1.23 | 0.640 | 0.088 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | |
|---|---|---|---|
| | | F | Sig. |
| Design of smartphone | Equal variances assumed<br>Equal variances not assumed | 21.070 | 0.000 |

In the result from testing H1 (Design of smartphone) by Independent Samples Test revealed that male and female have different design of smartphone. (Sig. 0.000 < 0.05)
So H1 is accepting, which means equal variances could not be assumed. It was found that male tend to choose the smartphone because of design higher than female (Mean = 1.55 > 1.23)

### 4.2.2 Demographic Data (age) and Purchasing Behavior

Table 28 showed that age was found to have different on brand choice, reason of changing, reason behind choosing current smartphone and design of smartphone. (P < 0.05)

Table 28 different of age on purchasing behavior

| Items | F | Sig. | Results |
|---|---|---|---|
| 1. Overall reason of buy smartphone | 0.818 | 0.486 | Not significant |
| **2. Brand Choice** | **6.439** | **0.000** | **Significant** |
| **3. Reason of changing** | **4.651** | **0.004** | **Significant** |
| **4. Reason behind choosing current smartphone** | **2.947** | **0.036** | **Significant** |
| 5. Payment method | 1.782 | 0.155 | Not significant |
| 6. Purchasing place | 2.445 | 0.068 | Not significant |
| **7. Design of smartphone** | **4.732** | **0.004** | **Significant** |
| 8. Buy a new smartphone | 1.152 | 0.331 | Not significant |

*Level of significant α = 0.05

**Descriptive**

Brand Choice

| | Mean | S.D |
|---|---|---|
| Under 18 Years Old | 3.27 | 1.162 |
| 18 – 24 Years Old | 2.45 | 1.325 |
| 25 – 35 Years Old | 1.98 | 1.221 |
| 36 – 50 Years Old | 1.82 | 1.168 |
| Total | 2.33 | 1.318 |

**Test of Homogeneity of Variances**

Brand Choice

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.781 | 3 | 116 | 0.155 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.155 > 0.05

It is rejected which means equal variances are assumed. (Use LSD Sig. to test H1)

**ANOVA**

Brand Choice

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 29.503 | 3 | 9.834 | 6.439 | 0.000 |
| Within Groups | 177.163 | 116 | 1.527 | | |
| Total | 206.667 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different age have different brand choice. (Sig. 0.000 < 0.05)

**Post Hoc Tests**

Dependent Variable: Brand Choice

LSD

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Under 18 Years Old | 18 – 24 Years Old | 0.818* | 0.018 |
| | 25 – 35 Years Old | 1.291* | 0.000 |
| | 36 – 50 Years Old | 1.455* | 0.002 |
| 18 – 24 Years Old | Under 18 Years Old | - 0.818* | 0.018 |
| | 25 – 35 Years Old | 0.473 | 0.086 |
| | 36 – 50 Years Old | 0.636 | 0.142 |
| 25 – 35 Years Old | Under 18 Years Old | - 1.291* | 0.000 |
| | 18 – 24 Years Old | - 0.473 | 0.086 |
| | 36 – 50 Years Old | 0.163 | 0.690 |
| 36 – 50 Years Old | Under 18 Years Old | - 1.455* | 0.002 |
| | 18 – 24 Years Old | - 0.636 | 0.142 |
| | 25 – 35 Years Old | - 0.163 | 0.690 |

*The mean difference is significant at the 0.05 level.

LSD (Under 18 Years Old)

3.27 – 2.45 = 0.81

3.27 – 1.98 = 1.29

Post Hoc Tests showed that brand choice of Under 18 Years Old is greater than 18 – 24 Years Old around 0.81 (Mean = 3.27 – 2.45). It was also found that brand choice of 18 – 24 Years Old (Mean = 2.45) is less than Under 18 Years Old (Mean = 3.27) around 0.81 (Sig. 0.018 < 0.05)

**Descriptive**

Reason of Changing

| | Mean | S.D |
|---|---|---|
| Under 18 Years Old | 1.09 | 0.294 |
| 18 – 24 Years Old | 1.27 | 0.517 |
| 25 – 35 Years Old | 1.22 | 0.420 |
| 36 – 50 Years Old | 1.73 | 0.786 |
| Total | 1.26 | 0.494 |

**Test of Homogeneity of Variances**

Reason of Changing

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 8.932 | 3 | 116 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Reason of Changing

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.113 | 3 | 1.038 | 4.651 | 0.004 |
| Within Groups | 25.879 | 116 | 0.223 | | |
| Total | 28.992 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different age have different reason of changing. (Sig. 0.004 < 0.05)

**Post Hoc Tests**

Dependent Variable: Reason of Changing

Tamhane

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Under 18 Years Old | 18 – 24 Years Old | - 0.182 | 0.480 |
| | 25 – 35 Years Old | - 0.131 | 0.558 |
| | 36 – 50 Years Old | - 0.636 | 0.137 |
| 18 – 24 Years Old | Under 18 Years Old | 0.182 | 0.480 |
| | 25 – 35 Years Old | 0.051 | 0.998 |
| | 36 – 50 Years Old | - 0.455 | 0.445 |
| 25 – 35 Years Old | Under 18 Years Old | 0.131 | 0.558 |
| | 18 – 24 Years Old | - 0.051 | 0.998 |
| | 36 – 50 Years Old | - 0.505 | 0.320 |
| 36 – 50 Years Old | Under 18 Years Old | 0.636 | 0.137 |
| | 18 – 24 Years Old | 0.455 | 0.455 |
| | 25 – 35 Years Old | 0.505 | 0.320 |

*The mean difference is significant at the 0.05 level.

Tamhane (Under 18 Years Old)

1.09 – 1.27 = - 0.18

1.09 – 1.22 = - 0.13

Post Hoc Tests showed that reason of changing of Under 18 Years Old is less than 18 – 24 Years Old around 0.18 (Mean = 1.09 – 1.27). It was also found that reason of changing of 18 – 24 Years Old (Mean = 1.27) is greater than Under 18 Years Old (Mean = 1.09) around 0.18 (Sig. 0.480 > 0.05)

**Descriptive**

Reason behind choosing current smartphone

| | Mean | S.D |
|---|---|---|
| Under 18 Years Old | 2.14 | 0.889 |
| 18 – 24 Years Old | 1.82 | 0.983 |
| 25 – 35 Years Old | 1.65 | 1.119 |
| 36 – 50 Years Old | 1.09 | 0.302 |
| Total | 1.73 | 1.019 |

**Test of Homogeneity of Variances**

Reason behind choosing current smartphone

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 7.619 | 3 | 116 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05

It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Reason behind choosing current smartphone

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 8.743 | 3 | 2.914 | 2.947 | 0.36 |
| Within Groups | 114.724 | 116 | 0.989 | | |
| Total | 123.467 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different age have different reason behind choosing current smartphone. (Sig. 0.036 < 0.05)

**Post Hoc Tests**

Dependent Variable: Reason behind choosing current smartphone

Tamhane

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Under 18 Years Old | 18 – 24 Years Old | 0.318 | 0.773 |
| | 25 – 35 Years Old | 0.488 | 0.266 |
| | 36 – 50 Years Old | 1.045* | 0.000 |
| 18 – 24 Years Old | Under 18 Years Old | - 0.318 | 0.773 |
| | 25 – 35 Years Old | 0.170 | 0.975 |
| | 36 – 50 Years Old | 0.727* | 0.003 |
| 25 – 35 Years Old | Under 18 Years Old | - 0.448 | 0.266 |
| | 18 – 24 Years Old | - 0.170 | 0.975 |
| | 36 – 50 Years Old | 0.557* | 0.016 |
| 36 – 50 Years Old | Under 18 Years Old | - 1.045* | 0.000 |
| | 18 – 24 Years Old | - 0.727* | 0.003 |
| | 25 – 35 Years Old | - 0.557* | 0.016 |

*The mean difference is significant at the 0.05 level.

Tamhane (Under 18 Years Old)

2.14 – 1.09 = 1.04

2.14 – 1.82 = 0.31

Post Hoc Tests showed that reason behind choosing current smartphone of Under 18 Years Old is greater than 36 – 50 Years Old around 1.04 (Mean = 2.14 – 1.09). It was also found that reason behind choosing current smartphone of 36 – 50 Years Old (Mean = 1.09) is less than Under 18 Years Old (Mean = 2.14) around 1.04 (Sig. 0.000 < 0.05)

**Descriptive**

Design of smartphone

| | Mean | S.D |
|---|---|---|
| Under 18 Years Old | 1.45 | 0.858 |
| 18 – 24 Years Old | 1.06 | 0.348 |
| 25 – 35 Years Old | 1.48 | 0.841 |
| 36 – 50 Years Old | 2.00 | 1.000 |
| Total | 1.41 | 0.794 |

**Test of Homogeneity of Variances**

Design of smartphone

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 19.426 | 3 | 116 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05

It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Design of smartphone

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 8.177 | 3 | 2.726 | 4.732 | 0.004 |
| Within Groups | 66.815 | 116 | 0.576 | | |
| Total | 74.992 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different age have different design of smartphone. (Sig. 0.04 < 0.05)

**Post Hoc Tests**

Dependent Variable: Design of smartphone

Tamhane

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Under 18 Years Old | 18 – 24 Years Old | 0.394 | 0.271 |
| | 25 – 35 Years Old | - 0.027 | 1.000 |
| | 36 – 50 Years Old | - 0.545 | 0.595 |
| 18 – 24 Years Old | Under 18 Years Old | - 0.394 | 0.271 |
| | 25 – 35 Years Old | - 0.421 | 0.010 |
| | 36 – 50 Years Old | - 0.939 | 0.065 |
| 25 – 35 Years Old | Under 18 Years Old | 0.027 | 1.000 |
| | 18 – 24 Years Old | 0.421 | 0.010 |
| | 36 – 50 Years Old | - 0.519 | 0.572 |
| 36 – 50 Years Old | Under 18 Years Old | 0.545 | 0.595 |
| | 18 – 24 Years Old | 0.939 | 0.065 |
| | 25 – 35 Years Old | 0.519 | 0.572 |

*The mean difference is significant at the 0.05 level.

Tamhane (18 – 24 Years Old)

1.06 – 1.48 = - 0.42

1.06 – 2.00 = - 0.93

Post Hoc Tests showed that design of smartphone of 18 – 24 Years Old is less than 25 – 35 Years Old around 0.42 (Mean = 1.06 – 1.48). It was also found that design of smartphone of 25 – 35 Years Old (Mean = 1.48) is greater than 18 – 24 Years Old (Mean = 1.06) around 0.42 (Sig. 0.010 < 0.05)

### 4.2.3 Demographic Data (Marital Status) and Purchasing Behavior

Table 29 showed that marital status was found to have different on brand choice, reason of changing and design of smartphone. ($P < 0.05$)

Table 29 different of marital status on purchasing behavior

| Items | F | Sig. | Results |
|---|---|---|---|
| 1. Overall reason of buy smartphone | 0.356 | 0.785 | Not significant |
| **2. Brand Choice** | **2.752** | **0.046** | **Significant** |
| **3. Reason of changing** | **8.213** | **0.000** | **Significant** |
| 4. Reason behind choosing current smartphone | 1.114 | 0.346 | Not significant |
| 5. Payment method | 1.413 | 0.243 | Not significant |
| 6. Purchasing place | 0.233 | 0.873 | Not significant |
| **7. Design of smartphone** | **3.602** | **0.016** | **Significant** |
| 8. Buy a new smartphone | 1.1160 | 0.328 | Not significant |

*Level of significant $\alpha = 0.05$

**Descriptive**

Brand Choice

| | Mean | S.D |
|---|---|---|
| Single | 2.55 | 1.355 |
| Married | 2.03 | 1.190 |
| Widower | 1.33 | 0.577 |
| Divorced | 1.00 | 0.000 |
| Total | 2.33 | 1.318 |

**Test of Homogeneity of Variances**

Brand Choice

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 4.297 | 3 | 116 | 0.006 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.006 < 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Brand Choice

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 12.732 | 3 | 4.577 | 2.752 | 0.046 |
| Within Groups | 192.935 | 116 | 1.663 | | |
| Total | 206.667 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different marital status have different brand choice. (Sig. 0.046 < 0.05)

**Post Hoc Tests**

Dependent Variable: Brand Choice

Tamhane

| (I) Marital Status | (J) Marital Status | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Single | Married | 0.524 | 0.208 |
| | Widower | 1.218 | 0.249 |
| | Divorced | 1.551* | 0.000 |

| | | | |
|---|---|---|---|
| Married | Single | - 0.524 | 0.208 |
| | Widower | 0.694 | 0.637 |
| | Divorced | 1.027* | 0.000 |
| Widower | Single | - 1.218 | 0.249 |
| | Married | - 0.694 | 0.637 |
| | Divorced | 0.333 | 0.963 |
| Divorced | Single | - 1.551* | 0.000 |
| | Married | - 1.027* | 0.000 |
| | Widower | - 0.333 | 0.963 |

*The mean difference is significant at the 0.05 level.

Tamhane (Single)

2.55 – 1.00 = 1.55

2.55 – 2.03 = 0.52

Post Hoc Tests showed that brand choice of Single is greater than divorced around 1.55 (Mean = 2.55 – 1.00). It was also found that brand choice of Divorced (Mean = 1.00) is less than single (Mean = 2.55) around 1.55 (Sig. 0.000 < 0.05)

**Descriptive**

Reason of Changing

| | Mean | S.D |
|---|---|---|
| Single | 1.19 | 0.397 |
| Married | 1.27 | 0.508 |
| Widower | 2.00 | 1.000 |
| Divorced | 2.50 | 0.707 |
| Total | 1.26 | 0.494 |

**Test of Homogeneity of Variances**

Reason of Changing

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 2.750 | 3 | 116 | 0.046 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.046 < 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Reason of Changing

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.079 | 3 | 1.693 | 8.213 | 0.000 |
| Within Groups | 23.912 | 116 | 0.206 | | |
| Total | 28.992 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different marital status have different reason of changing. (Sig. 0.000 < 0.05)

**Post Hoc Tests**

Dependent Variable: Reason of Changing

Tamhane

| (I) Marital Status | (J) Marital Status | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Single | Married | - 0.078 | 0.960 |
| | Widower | - 0.808 | 0.879 |
| | Divorced | - 1.308 | 0.792 |

| | | | |
|---|---|---|---|
| Married | Single | 0.078 | 0.960 |
| | Widower | - 0.730 | 0.912 |
| | Divorced | - 1.230 | 0.804 |
| Widower | Single | 0.808 | 0.879 |
| | Married | 0.730 | 0.912 |
| | Divorced | - 0.500 | 0.993 |
| Divorced | Single | 1.308 | 0.792 |
| | Married | 1.230 | 0.804 |
| | Widower | 0.500 | 0.993 |

*The mean difference is significant at the 0.05 level.

Tamhane (Single)

1.19 – 1.27 = - 0.07

1.19 – 2.00 = - 0.80

Post Hoc Tests showed that reason of changing of Single is less than married around 0.07 (Mean = 1.19 – 1.27). It was also found that reason of changing of married (Mean = 1.27) is greater than single (Mean = 1.19) around 0.07 (Sig. 0.960 > 0.05)

**Descriptive**

Design of a smartphone

| | Mean | S.D |
|---|---|---|
| Single | 1.26 | 0.673 |
| Married | 1.70 | 0.939 |
| Widower | 2.00 | 1.000 |
| Divorced | 1.00 | 0.000 |
| Total | 1.41 | 0.794 |

**Test of Homogeneity of Variances**

Design of a smartphone

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 8.681 | 3 | 116 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Design of a smartphone

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 6.390 | 3 | 2.130 | 3.602 | 0.016 |
| Within Groups | 68.602 | 116 | 0.591 | | |
| Total | 74.992 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different marital status have different design of a smartphone. (Sig. 0.016 < 0.05)

**Post Hoc Tests**

Dependent Variable: Design of a smartphone

Tamhane

| (I) Marital Status | (J) Marital Status | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Single | Married | - 0.446 | 0.071 |
| | Widower | - 0.744 | 0.906 |
| | Divorced | 0.256* | 0.007 |

| | | | |
|---|---|---|---|
| Married | Single | 0.446 | 0.071 |
| | Widower | - 0.297 | 0.999 |
| | Divorced | 0.703* | 0.000 |
| Widower | Single | 0.744 | 0.906 |
| | Married | 0.297 | 0.999 |
| | Divorced | 1.000 | 0.784 |
| Divorced | Single | - 0.256* | 0.007 |
| | Married | - 0.703* | 0.000 |
| | Widower | - 1.000 | 0.784 |

*The mean difference is significant at the 0.05 level.

Tamhane (Married)

1.70 – 1.00 = 0.70

1.70 – 1.26 = 0.44

Post Hoc Tests showed that design of a smartphone of married is greater than divorced around 0.70 (Mean = 1.70 – 1.00). It was also found that design of a smartphone of divorced (Mean = 1.00) is less than married (Mean = 1.70) around 0.70 (Sig. 0.000 < 0.05)

### 4.2.4 Demographic Data (Education Level) and Purchasing Behavior

Table 30 showed that education level was found to have different on brand choice. (P < 0.05)

Table 30 different of education level on purchasing behavior

| Items | F | Sig. | Results |
|---|---|---|---|
| 1. Overall reason of buy smartphone | 0.713 | 0.546 | Not significant |
| **2. Brand Choice** | **6.519** | **0.000** | **Significant** |
| 3. Reason of changing | 2.592 | 0.056 | Not significant |
| 4. Reason behind choosing current smartphone | 0.490 | 0.690 | Not significant |
| 5. Payment method | 2.020 | 0.115 | Not significant |
| 6. Purchasing place | 0.955 | 0.416 | Not significant |
| 7. Design of smartphone | 0.409 | 0.747 | Not significant |
| 8. Buy a new smartphone | 0.174 | 0.914 | Not significant |

*Level of significant $\alpha = 0.05$

**Descriptive**

Brand Choice

| | Mean | S.D |
|---|---|---|
| Less than high school | 3.00 | 1.155 |
| High school | 2.94 | 1.197 |
| Bachelor's degree | 2.21 | 1.424 |
| Master's degree | 1.55 | 0.596 |
| Total | 2.33 | 1.318 |

**Test of Homogeneity of Variances**

Brand Choice

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 6.057 | 3 | 116 | 0.001 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.001 < 0.05

It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Brand Choice

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 29.816 | 3 | 9.939 | 6.519 | 0.000 |
| Within Groups | 176.851 | 116 | 1.525 | | |
| Total | 206.667 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different education level have different brand choice. (Sig. 0.000 < 0.05)

**Post Hoc Tests**

Dependent Variable: Brand Choice

Tamhane

| (I) Marital Status | (J) Marital Status | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Less than high school | High school | 0.061 | 1.000 |
| | Bachelor's degree | 0.793 | 0.571 |
| | Master's degree | 1.455 | 0.086 |
| High school | Less than high school | - 0.061 | 1.000 |
| | Bachelor's degree | 0.732 | 0.063 |
| | Master's degree | 1.394* | 0.000 |
| Bachelor's degree | Less than high school | - 0.793 | 0.571 |
| | High school | - 0.732 | 0.063 |
| | Master's degree | 0.661* | 0.027 |
| Master's degree | Less than high school | - 1.455 | 0.086 |
| | High school | - 1.394* | 0.000 |
| | Bachelor's degree | - 0.661* | 0.027 |

*The mean difference is significant at the 0.05 levels.

Tamhane (High school)

2.94 – 1.55 = 1.39

2.94 – 2.21 = 0.73

Post Hoc Tests showed that brand choice of high school is greater than master's degree around 1.39 (Mean = 2.94 – 1.55). It was also found that brand choice of master's degree (Mean = 1.55) is less than high school (Mean = 2.94) around 1.39 (Sig. 0.000 < 0.05)

### 4.2.5 Demographic Data (Occupation) and Purchasing Behavior

Table 31 showed that occupation was found to have different on reason of changing and payment method. (P < 0.05)

Table 31 different of occupation on purchasing behavior

| Items | F | Sig. | Results |
|---|---|---|---|
| 1. Overall reason of buy smartphone | 1.055 | 0.389 | Not significant |
| 2. Brand Choice | 1.663 | 0.149 | Not significant |
| **3. Reason of changing** | **3.158** | **0.010** | **Significant** |
| 4. Reason behind choosing current smartphone | 1.716 | 0.137 | Not significant |
| **5. Payment method** | **3.149** | **0.011** | **Significant** |
| 6. Purchasing place | 0.505 | 0.772 | Not significant |
| 7. Design of smartphone | 1.093 | 0.368 | Not significant |
| 8. Buy a new smartphone | 1.137 | 0.345 | Not significant |

*Level of significant α = 0.05

**Descriptive**

Reason of changing

| | Mean | S.D |
|---|---|---|
| Student | 1.11 | 0.323 |
| Unemployed | 1.29 | 0.488 |
| Wage labour | 1.22 | 0.479 |
| Business owner | 1.86 | 0.900 |
| Government/State enterprise employee | 1.29 | 0.470 |
| Other | 1.38 | 0.500 |
| Total | 1.26 | 0.495 |

**Test of Homogeneity of Variances**

Reason of changing

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 5.963 | 5 | 113 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05

It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Reason of changing

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.546 | 5 | 0.709 | 3.158 | 0.010 |
| Within Groups | 25.378 | 113 | 0.225 | | |
| Total | 28.924 | 118 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different occupation have different reason of changing. (Sig. 0.010 < 0.05)

**Post Hoc Tests**

Dependent Variable: Reason of Changing

Tamhane

| (I) Occupation | (J) Occupation | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Student | Unemployed | - 0.171 | 1.000 |
| | Wage labour | - 0.102 | 0.994 |
| | Business owner | - 0.743 | 0.675 |
| | Government/State enterprise employee | - 0.180 | 0.936 |
| | Other | - 0.261 | 0.662 |
| Unemployed | Student | 0.171 | 1.000 |
| | Wage labour | 0.069 | 1.000 |
| | Business owner | - 0.571 | 0.942 |
| | Government/State enterprise employee | - 0.008 | 1.000 |
| | Other | - 0.089 | 1.000 |
| Wage labour | Student | 0.102 | 0.994 |
| | Unemployed | - 0.069 | 1.000 |
| | Business owner | - 0.641 | 0.829 |
| | Government/State enterprise employee | - 0.078 | 1.000 |
| | Other | - 0.159 | 0.994 |
| Business owner | Student | 0.743 | 0.675 |
| | Unemployed | 0.571 | 0.942 |
| | Wage labour | 0.641 | 0.829 |
| | Government/State enterprise employee | 0.563 | 0.924 |
| | Other | 0.482 | 0.977 |

| | | | |
|---|---|---|---|
| Government/State enterprise employee | Student | 0.180 | 0.936 |
| | Unemployed | 0.008 | 1.000 |
| | Wage labour | 0.078 | 1.000 |
| | Business owner | - 0.563 | 0.924 |
| | Other | - 0.081 | 1.000 |
| Other | Student | 0.261 | 0.662 |
| | Unemployed | 0.089 | 1.000 |
| | Wage labour | 0.159 | 0.994 |
| | Business owner | - 0.482 | 0.977 |
| | Government/State enterprise employee | 0.081 | 1.000 |

*The mean difference is significant at the 0.05 level.

Tamhane (Student)

1.11 – 1.89 = - 0.74

1.11 – 1.22 = - 0.11

Post Hoc Tests showed that reason of changing of student is less than business owner around 0.74 (Mean = 1.11 – 1.89). It was also found that reason of changing of business owner (Mean = 1.89) is greater than student (Mean = 1.11) around 0.74 (Sig. 0.675 > 0.05)

**Descriptive**

Payment Method

| | Mean | S.D |
|---|---|---|
| Student | 1.09 | 0.288 |
| Unemployed | 1.14 | 0.378 |
| Wage labour | 1.08 | 0.277 |
| Business owner | 1.00 | 0.000 |
| Government/State enterprise employee | 1.18 | 0.393 |
| Other | 1.44 | 0.512 |
| Total | 1.14 | 0.353 |

**Test of Homogeneity of Variances**

Payment Method

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 8.066 | 5 | 112 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Payment Method

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.794 | 5 | 0.359 | 3.149 | 0.011 |
| Within Groups | 12.757 | 112 | 0.114 | | |
| Total | 14.551 | 117 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different occupation have different payment method. (Sig. 0.011 < 0.05)

**Post Hoc Tests**

Dependent Variable: Payment Method

Tamhane

| (I) Occupation | (J) Occupation | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Student | Unemployed | - 0.055 | 1.000 |
| | Wage labour | 0.007 | 1.000 |
| | Business owner | 0.088 | 0.728 |
| | Government/State enterprise employee | - 0.088 | 1.000 |
| | Other | - 0.349 | 0.256 |

| | | | |
|---|---|---|---|
| Unemployed | Student | 0.055 | 1.000 |
| | Wage labour | 0.062 | 1.000 |
| | Business owner | 0.143 | 0.999 |
| | Government/State enterprise employee | - 0.034 | 1.000 |
| | Other | - 0.295 | 0.904 |
| Wage labour | Student | - 0.007 | 1.000 |
| | Unemployed | - 0.062 | 1.000 |
| | Business owner | 0.081 | 0.728 |
| | Government/State enterprise employee | - 0.095 | 0.999 |
| | Other | - 0.356 | 0.225 |
| Business owner | Student | - 0.088 | 0.728 |
| | Unemployed | - 0.143 | 0.999 |
| | Wage labour | - 0.081 | 0.728 |
| | Government/State enterprise employee | - 0.176 | 0.726 |
| | Other | - 0.438 | 0.056 |
| Government/State enterprise employee | Student | 0.088 | 1.000 |
| | Unemployed | 0.034 | 1.000 |
| | Wage labour | 0.095 | 0.999 |
| | Business owner | 0.176 | 0.726 |
| | Other | - 0.261 | 0.835 |
| Other | Student | 0.349 | 0.256 |
| | Unemployed | 0.295 | 0.904 |
| | Wage labour | 0.356 | 0.225 |
| | Business owner | 0.438 | 0.056 |
| | Government/State enterprise employee | 0.261 | 0.835 |

*The mean difference is significant at the 0.05 level.

Tamhane (Business owner)

1.00 – 1.44 = - 0.44

1.00 – 1.08 = - 0.08

Post Hoc Tests showed that payment method of business owner is less than other around 0.44 (Mean = 1.00 – 1.44). It was also found that payment method of other (Mean = 1.44) is greater than business method (Mean = 1.00) around 0.44 (Sig. 0.056 > 0.05)

### 4.2.6 Demographic Data (Income) and Purchasing Behavior

Table 32 showed that income was found to have different on brand choice, reason of changing and payment method. (P < 0.05)

Table 32 different of income on purchasing behavior

| Items | F | Sig. | Results |
|---|---|---|---|
| 1. Overall reason of buy smartphone | 0.408 | 0.803 | Not significant |
| **2. Brand Choice** | **3.854** | **0.006** | **Significant** |
| **3. Reason of changing** | **2.657** | **0.036** | **Significant** |
| 4. Reason behind choosing current smartphone | 1.945 | 0.108 | Not significant |
| **5. Payment method** | **4.210** | **0.003** | **Significant** |
| 6. Purchasing place | 0.536 | 0.709 | Not significant |
| 7. Design of smartphone | 1.685 | 0.158 | Not significant |
| 8. Buy a new smartphone | 1.003 | 0.409 | Not significant |

*Level of significant $\alpha = 0.05$

**Descriptive**

Brand Choice

| | Mean | S.D |
|---|---|---|
| Less than 200$ | 2.90 | 1.277 |
| 200$ - 500$ | 2.23 | 1.276 |
| 510$ - 1,000$ | 1.84 | 1.214 |
| 1,100$ - 2,000$ | 1.80 | 1.304 |
| 2,100$ - 3,000$ | 1.00 | 0.000 |
| Total | 2.33 | 1.318 |

**Test of Homogeneity of Variances**

Brand Choice

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.406 | 4 | 115 | 0.236 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.236 > 0.05

It is rejected which means equal variances are assumed. (Use LSD Sig. to test H1)

**ANOVA**

Brand Choice

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 24.428 | 4 | 6.107 | 3.854 | 0.006 |
| Within Groups | 182.239 | 115 | 1.585 | | |
| Total | 206.667 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different income have different brand choice. (Sig. 0.006 < 0.05)

**Post Hoc Tests**

Dependent Variable: Brand Choice

LSD

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Less than 200$ | 200$ - 500$ | 0.671* | 0.014 |
| | 510$ - 1,000$ | 1.060* | 0.001 |
| | 1,100$ - 2,000$ | 1.100 | 0.068 |
| | 2,100$ - 3,000$ | 1.900* | 0.039 |
| 200$ - 500$ | Less than 200$ | - 0.671* | 0.014 |
| | 510$ - 1,000$ | 0.389 | 0.213 |
| | 1,100$ - 2,000$ | 0.429 | 0.470 |
| | 2,100$ - 3,000$ | 1.229 | 0.179 |
| 510$ - 1,000$ | Less than 200$ | - 1.060* | 0.001 |
| | 200$ - 500$ | - 0.389 | 0.213 |
| | 1,100$ - 2,000$ | 0.040 | 0.948 |
| | 2,100$ - 3,000$ | 0.840 | 0.366 |
| 1,100$ - 2,000$ | Less than 200$ | - 1.100 | 0.068 |
| | 200$ - 500$ | - 0.429 | 0.470 |
| | 510$ - 1,000$ | - 0.040 | 0.948 |
| | 2,100$ - 3,000$ | 0.800 | 0.449 |
| 2,100$ - 3,000$ | Less than 200$ | - 1.900* | 0.039 |
| | 200$ - 500$ | - 1.229 | 0.179 |
| | 510$ - 1,000$ | - 0.840 | 0.366 |
| | 1,100$ - 2,000$ | - 0.800 | 0.449 |

*The mean difference is significant at the 0.05 level.

LSD (Less than 200$)

2.90 – 2.23 = 0.67

2.90 – 1.84 = 1.06

Post Hoc Tests showed that brand choice of Less than 200$ is greater than 200$ - 500$ around 0.67 (Mean = 2.90 – 2.23). It was also found that brand choice of 200$ - 500$ (Mean = 2.23) is less than Less than 200$ (Mean = 2.90) around 0.67 (Sig. 0.014 < 0.05)

**Descriptive**

Reason of Changing

| | Mean | S.D |
|---|---|---|
| Less than 200$ | 1.15 | 0.362 |
| 200$ - 500$ | 1.23 | 0.425 |
| 510$ - 1,000$ | 1.36 | 0.569 |
| 1,100$ - 2,000$ | 1.60 | 0.894 |
| 2,100$ - 3,000$ | 2.00 | 1.414 |
| Total | 1.26 | 0.494 |

**Test of Homogeneity of Variances**

Reason of Changing

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 8.995 | 4 | 115 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 > 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Reason of Changing

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.453 | 4 | 0.613 | 2.657 | 0.036 |
| Within Groups | 26.539 | 115 | 0.231 | | |
| Total | 28.992 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different income have different brand choice. (Sig. 0.036 < 0.05)

**Post Hoc Tests**

Dependent Variable: Reason of Changing

Tamhane

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Less than 200$ | 200$ - 500$ | - 0.079 | 0.986 |
| | 510$ - 1,000$ | - 0.210 | 0.680 |
| | 1,100$ - 2,000$ | - 0.450 | 0.981 |
| | 2,100$ - 3,000$ | - 0.850 | 1.000 |
| 200$ - 500$ | Less than 200$ | 0.079 | 0.986 |
| | 510$ - 1,000$ | - 0.131 | 0.978 |
| | 1,100$ - 2,000$ | - 0.371 | 0.995 |
| | 2,100$ - 3,000$ | - 0.771 | 1.000 |
| 510$ - 1,000$ | Less than 200$ | 0.210 | 0.680 |
| | 200$ - 500$ | 0.131 | 0.978 |
| | 1,100$ - 2,000$ | - 0.240 | 1.000 |
| | 2,100$ - 3,000$ | - 0.640 | 1.000 |
| 1,100$ - 2,000$ | Less than 200$ | 0.450 | 0.981 |
| | 200$ - 500$ | 0.371 | 0.995 |
| | 510$ - 1,000$ | 0.240 | 1.000 |
| | 2,100$ - 3,000$ | - 0.400 | 1.000 |
| 2,100$ - 3,000$ | Less than 200$ | 0.850 | 1.000 |
| | 200$ - 500$ | 0.771 | 1.000 |
| | 510$ - 1,000$ | 0.640 | 1.000 |
| | 1,100$ - 2,000$ | 0.400 | 1.000 |

*The mean difference is significant at the 0.05 level.

Tamhane (510$ - 1,000$)

1.36 – 1.15 = 0.21

1.36 – 1.23 = 0.13

Post Hoc Tests showed that reason of changing of 510$ - 1,000$ is greater than Less than 200$ around 0.21 (Mean = 1.36 – 1.15). It was also found that reason of changing of Less than 200$ (Mean = 1.15) is less than 510$ - 1,000$ (Mean = 1.36) around 0.21 (Sig. 0.680 < 0.05)

**Descriptive**

Payment Method

| | Mean | S.D |
|---|---|---|
| Less than 200$ | 1.08 | 0.270 |
| 200$ - 500$ | 1.08 | 0.279 |
| 510$ - 1,000$ | 1.36 | 0.490 |
| 1,100$ - 2,000$ | 1.00 | 0.000 |
| 2,100$ - 3,000$ | 1.50 | 0.707 |
| Total | 1.14 | 0.351 |

**Test of Homogeneity of Variances**

Payment Method

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 13.146 | 4 | 114 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 > 0.05

It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Payment Method

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.876 | 4 | 0.469 | 4.21 | 0.003 |
| Within Groups | 12.696 | 114 | 0.111 | | |
| Total | 14.571 | 118 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different income have different brand choice. (Sig. 0.003 < 0.05)

**Post Hoc Tests**

Dependent Variable: Payment Method

Tamhane

| (I) Age | (J) Age | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Less than 200$ | 200$ - 500$ | - 0.006 | 1.000 |
| | 510$ - 1,000$ | - 0.283 | 0.117 |
| | 1,100$ - 2,000$ | 0.077 | 0.580 |
| | 2,100$ - 3,000$ | - 0.423 | 1.000 |
| 200$ - 500$ | Less than 200$ | 0.006 | 1.000 |
| | 510$ - 1,000$ | - 0.277 | 0.128 |
| | 1,100$ - 2,000$ | 0.083 | 0.364 |
| | 2,100$ - 3,000$ | - 0.417 | 1.000 |
| 510$ - 1,000$ | Less than 200$ | 0.283 | 0.117 |
| | 200$ - 500$ | 0.277 | 0.128 |
| | 1,100$ - 2,000$ | 0.360* | 0.012 |
| | 2,100$ - 3,000$ | - 0.140 | 1.000 |
| 1,100$ - 2,000$ | Less than 200$ | - 0.077 | 0.580 |
| | 200$ - 500$ | - 0.083 | 0.364 |
| | 510$ - 1,000$ | - 0.360* | 0.012 |
| | 2,100$ - 3,000$ | - 0.500 | 0.999 |

| | | | |
|---|---|---|---|
| 2,100$ - 3,000$ | Less than 200$ | 0.423 | 1.000 |
| | 200$ - 500$ | 0.417 | 1.000 |
| | 510$ - 1,000$ | 0.140 | 1.000 |
| | 1,100$ - 2,000$ | 0.500 | 0.999 |

*The mean difference is significant at the 0.05 level.

Tamhane (510$ - 1,000$)

1.36 – 1.00 = 0.36

1.36 – 1.08 = 0.27

Post Hoc Tests showed that payment method of 510$ - 1,000$ is greater than 1,100$ - 2,000$ around 0.36 (Mean = 1.36 – 1.00). It was also found that payment method of 1,100$ - 2,000$ (Mean = 1.00) is less than 510$ - 1,000$ (Mean = 1.36) around 0.36 (Sig. 0.012 < 0.05)

### 4.2.7 Demographic Data (Hometown) and Purchasing Behavior

Table 33 showed that hometown was found to have different on brand choice. (P < 0.05)

Table 33 different of hometown on purchasing behavior

| Items | F | Sig. | Results |
|---|---|---|---|
| 1. Overall reason of buy smartphone | 1.978 | 0.121 | Not significant |
| **2. Brand Choice** | **4.645** | **0.004** | **Significant** |
| 3. Reason of changing | 1.772 | 0.156 | Not significant |
| 4. Reason behind choosing current smartphone | 1.098 | 0.353 | Not significant |
| 5. Payment method | 2.279 | 0.083 | Not significant |
| 6. Purchasing place | 0.443 | 0.723 | Not significant |
| 7. Design of smartphone | 0.311 | 0.818 | Not significant |
| 8. Buy a new smartphone | 0.809 | 0.491 | Not significant |

*Level of significant α = 0.05

**Descriptive**

Brand Choice

| | Mean | S.D |
|---|---|---|
| Phnom Penh | 1.65 | 0.839 |
| Siem Reap | 2.50 | 1.423 |
| Battambang | 2.86 | 1.195 |
| Preah Sihanouk | 2.33 | 1.506 |
| Total | 2.33 | 1.318 |

**Test of Homogeneity of Variances**

Brand Choice

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 7.663 | 3 | 116 | 0.000 |

Test of Homogeneity of Variances revealed that Levene test Sig. = 0.000 < 0.05
It is accepted which means equal variances are not assumed. (Use Tamhane Sig. to test H1)

**ANOVA**

Brand Choice

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 22.165 | 3 | 7.388 | 4.645 | 0.004 |
| Within Groups | 184.502 | 116 | 1.591 | | |
| Total | 206.667 | 119 | | | |

In the result from testing H1 by One-Way ANOVA revealed that different hometown have different brand choice. (Sig. 0.004 < 0.05)

**Post Hoc Tests**

Dependent Variable: Brand Choice

Tamhane

| (I) Hometown | (J) Hometown | Mean Difference (I-J) | Sig. |
|---|---|---|---|
| Phnom Penh | Siem Reap | - 0.855* | 0.003 |
| | Battambang | - 1.212* | 0.002 |
| | Preah Sihanouk | 0.688 | 0.902 |
| Siem Reap | Phnom Penh | 0.855* | 0.003 |
| | Battambang | - 0.357 | 0.845 |
| | Preah Sihanouk | 0.167 | 1.000 |
| Battambang | Phnom Penh | 1.212* | 0.002 |
| | Siem Reap | 0.357 | 0.845 |
| | Preah Sihanouk | 0.524 | 0.975 |
| Preah Sihanouk | Phnom Penh | 0.688 | 0.902 |
| | Siem Reap | - 0.167 | 1.000 |
| | Battambang | - 0.524 | 0.975 |

*The mean difference is significant at the 0.05 level.

Tamhane (Phnom Penh)

1.65 – 2.50 = - 0.85

1.65 – 2.86 = - 1.21

Post Hoc Tests showed that brand choice of Phnom Penh is less than Siem Reap around 0.85 (Mean = 1.65 – 2.50). It was also found that brand choice of Siem Reap (Mean = 2.50) is greater than Phnom Penh (Mean = 1.65) around 0.85 (Sig. 0.003 < 0.05)

**Results of Hypothesis 2**

Chi-Square was used to test hypothesis 2

**H2: There is a significant relationship between IMC tools and Purchasing Behavior of the smartphone customer in Cambodia.**

IMC tools was described by advertising, public relation, sales promotion personal selling, direct marketing, sponsorships, social media marketing and mobile marketing.

Purchasing behavior was measured by reason of buy smartphone, brand choice, reason of changing, reason behind choosing current smartphone, payment method, purchasing place, design of smartphone, buy a new smartphone.

This study found a partly support of H2 as follows:

### 4.2.8 IMC Tools (Advertising) and Purchasing Behavior

Table 34 showed that IMC tools (Advertising 1) were found having a significant relationship with brand choice ($P < 0.05$).

Table 34 showed the significant of relationship advertising 1 and purchasing behavior

| | 1.1) I know smartphone from brochure | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 1.453[a] | 4 | 0.835 |
| **2. Brand Choice** | **46.913[a]** | **16** | **0.000*** |
| 3. Reason of changing | 10.186[a] | 8 | 0.252 |
| 4. Reason behind choosing current smartphone | 19.763[a] | 12 | 0.072 |
| 5. Payment method | 3.534[a] | 4 | 0.473 |
| 6. Purchasing place | 8.617[a] | 16 | 0.928 |
| 7. Design of smartphone | 9.625[a] | 8 | 0.292 |
| 8. Buy a new smartphone | 7.797[a] | 12 | 0.801 |

*Level of significant $\alpha = 0.05$

Table 35 showed that advertising 1 have significant with brand choice (Sig. = 0.000). Respondents who agree with the statement tended to use Oppo (38.1%) followed by Samsung (31%), Huawei (19%), iPhone (9.5%) and Other (2.4%).

Table 35 Advertising 1 and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Strongly disagrees | 0<br>0.0% | 1<br>100% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% |
| Disagree | 18<br>60% | 4<br>13.3% | 1<br>3.3% | 5<br>16.7% | 2<br>6.7% |
| Feel neutral | 22<br>52.4% | 12<br>28.6% | 3<br>7.1% | 1<br>2.4% | 4<br>9.5% |
| Agree | 4<br>9.5% | 13<br>31% | 8<br>19% | 16<br>38.1% | 1<br>2.4% |
| Strongly agree | 0<br>0.0% | 1<br>20% | 1<br>20% | 3<br>60% | 0<br>0.0% |

Table 36 showed that IMC tools (Advertising 2) were found having a significant relationship with design of smartphone ($P < 0.05$).

Table 36 showed the significant of relationship advertising 2 and purchasing behavior

| | 1.2) I know smartphone from website | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 0.411[a] | 4 | 0.982 |
| 2. Brand Choice | 16.811[a] | 16 | 0.398 |
| 3. Reason of changing | 10.694[a] | 8 | 0.220 |
| 4. Reason behind choosing current smartphone | 17.422[a] | 12 | 0.134 |
| 5. Payment method | 3.149[a] | 4 | 0.533 |
| 6. Purchasing place | 12.934[a] | 16 | 0.678 |
| **7. Design of smartphone** | **16.251[a]** | **8** | **0.039*** |
| 8. Buy a new smartphone | 10.147[a] | 12 | 0.063 |

*Level of significant $\alpha = 0.05$

Table 37 showed that advertising 2 have significant with design of smartphone (Sig. = 0.039). Respondents who agree with the statement tended to choose Yes, of course (83.3%) followed by Not at all (16.7%).

Table 37 Advertising 2 and Design of smartphone

| Level of Agreement | Design of a smartphone is important | | |
|---|---|---|---|
| | Yes, of course | No, I don't care | Not at all |
| Strongly disagrees | 0 | 0 | 1 |
| | 0.0% | 0.0% | 100% |
| Disagree | 6 | 1 | 6 |
| | 46.2% | 7.7% | 46.2% |
| Feel neutral | 42 | 2 | 8 |
| | 80.8% | 3.8% | 15.4% |
| Agree | 40 | 0 | 8 |
| | 83.3% | 0.0% | 16.7% |
| Strongly agree | 6 | 0 | 0 |
| | 100% | 0.0% | 0.0% |

Table 38 showed that IMC tools (Advertising 3) were found having a significant relationship with brand choice and reason behind choosing current smartphone ($P < 0.05$).

Table 38 showed the significant of relationship advertising 3 and purchasing behavior

| 1.3) I know smartphone from billboard/poster | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 3.919[a] | 3 | 0.270 |
| **2. Brand Choice** | **30.483[a]** | **12** | **0.002*** |
| 3. Reason of changing | 7.133[a] | 6 | 0.309 |
| **4. Reason behind choosing current smartphone** | **21.552[a]** | **9** | **0.010*** |
| 5. Payment method | 0.217[a] | 3 | 0.975 |
| 6. Purchasing place | 11.272[a] | 12 | 0.506 |
| 7. Design of smartphone | 9.157[a] | 6 | 0.227 |
| 8. Buy a new smartphone | 6.745[a] | 9 | 0.664 |

Table 39 showed that advertising 3 have significant with brand choice (Sig. = 0.002). Respondents who agree with the statement tended to use Samsung (30.8%) followed by Oppo (29.2%), iPhone (21.5%), Huawei (13.8%) and Other (4.6%).

Table 39 Advertising 3 and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Disagree | 4 | 0 | 0 | 0 | 2 |
| | 66.7% | 0.0% | 0.0% | 0.0% | 33.3% |
| Feel neutral | 24 | 8 | 3 | 4 | 2 |
| | 58.5% | 19.5% | 7.3% | 9.8% | 4.9% |
| Agree | 14 | 20 | 9 | 19 | 3 |
| | 21.5% | 30.8% | 13.8% | 29.2% | 4.6% |
| Strongly agree | 2 | 3 | 1 | 2 | 0 |
| | 25% | 37.5% | 12.5% | 25% | 0.0% |

Table 40 showed that advertising 3 have significant with reason behind choosing your current smartphone (Sig. = 0.010). Respondents who agree with the statement tended to have Good previous experience (66.2%) followed by Friends' Recommendations (18.5%) and Internet Reviews (15.4%).

Table 40 Advertising 3 and Reason behind choosing your current smartphone

| Level of Agreement | Reason behind choosing your current smartphone | | | |
|---|---|---|---|---|
| | Good previous experience | Friends' Recommendations | Internet Reviews | Social Media |
| Disagree | 2 | 2 | 2 | 0 |
| | 33.3% | 33.3% | 33.3% | 0.0% |
| Feel neutral | 24 | 3 | 6 | 8 |
| | 58.5% | 7.3% | 14.6% | 19.5% |
| Agree | 43 | 12 | 10 | 0 |
| | 66.2% | 18.5% | 15.4% | 0.0% |
| Strongly agree | 3 | 1 | 2 | 2 |
| | 37.5% | 12.5% | 25% | 25% |

Table 41 showed that IMC tools (Advertising 4) were found having a significant relationship with brand choice ($P < 0.05$).

Table 41 showed the significant of relationship advertising 4 and purchasing behavior

| | 1.4) I know smartphone from TV Ads | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 0.675[a] | 3 | 0.879 |
| **2. Brand Choice** | **32.570[a]** | **12** | **0.001*** |
| 3. Reason of changing | 5.906[a] | 6 | 0.434 |
| 4. Reason behind choosing current smartphone | 8.952[a] | 9 | 0.442 |
| 5. Payment method | 5.246[a] | 3 | 0.155 |
| 6. Purchasing place | 11.696[a] | 12 | 0.470 |
| 7. Design of smartphone | 6.170[a] | 6 | 0.404 |
| 8. Buy a new smartphone | 5.416[a] | 9 | 0.797 |

Table 42 showed that advertising 4 have significant with brand choice (Sig. = 0.001). Respondents who agree with the statement tended to use Samsung and Oppo (34.1%) followed by Huawei (17.1%), iPhone (12.2%) and Other (2.4%).

Table 42 Advertising 4 and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Disagree | 15 | 6 | 2 | 0 | 3 |
| | 57.7% | 23.1% | 7.7% | 0.0% | 11.5% |
| Feel neutral | 24 | 10 | 4 | 10 | 2 |
| | 48.0% | 20% | 8% | 20% | 4% |
| Agree | 5 | 14 | 7 | 14 | 1 |
| | 12.2% | 34.1% | 17.1% | 34.1% | 2.4% |
| Strongly agree | 0 | 1 | 0 | 1 | 1 |
| | 0.0% | 33.3% | 0.0% | 33.3% | 33.3% |

### 4.2.9 IMC Tools (Public Relation) and Purchasing Behavior

Table 43 showed that IMC tools (Public Relation 1) were found having a significant relationship with brand choice and reason behind choosing current smartphone ($P < 0.05$).

Table 43 showed the significant of relationship public relation 1 and purchasing behavior

| | 2.1) I know smartphone from Event | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 2.847[a] | 3 | 0.416 |
| **2. Brand Choice** | **43.904[a]** | **12** | **0.000*** |
| 3. Reason of changing | 3.773[a] | 6 | 0.707 |
| **4. Reason behind choosing current smartphone** | **19.841[a]** | **9** | **0.019*** |
| 5. Payment method | 1.827[a] | 3 | 0.609 |

| | | | |
|---|---|---|---|
| 6. Purchasing place | 10.500[a] | 12 | 0.572 |
| 7. Design of smartphone | 9.576[a] | 6 | 0.144 |
| 8. Buy a new smartphone | 3.808[a] | 9 | 0.924 |

*Level of significant α = 0.05

Table 44 showed that public relation 1 has significant with brand choice (Sig. = 0.000). Respondents who agree with the statement tended to use Samsung (40%) followed by Oppo (34%), iPhone (16%), Huawei (6%) and Other (4%).

Table 44 Public Relation 1 and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Disagree | 17<br>70.8% | 1<br>4.2% | 2<br>8.3% | 1<br>4.2% | 3<br>12.5% |
| Feel neutral | 19<br>46.3% | 9<br>22% | 7<br>17.1% | 4<br>9.8% | 2<br>4.9% |
| Agree | 8<br>16% | 20<br>40% | 3<br>6% | 17<br>34% | 2<br>4% |
| Strongly agree | 0<br>0% | 1<br>20% | 1<br>20% | 3<br>60% | 0<br>0% |

Table 45 showed that public relation 1 has significant with reason behind choosing your current smartphone (Sig. = 0.019). Respondents who agree with the statement tended to have Good previous experience (76%) followed by Friends' Recommendations (12%), Internet Reviews (8%) and Social Media (4%).

Table 45 Public Relation 1 and Reason behind choosing your current smartphone

| Level of Agreement | Reason behind choosing your current smartphone | | | |
|---|---|---|---|---|
| | Good previous experience | Friends' Recommendations | Internet Reviews | Social Media |
| Disagree | 10<br>41.7% | 4<br>16.7% | 6<br>25% | 4<br>16.7% |
| Feel neutral | 23<br>56.1% | 5<br>12.2% | 9<br>22% | 4<br>9.8% |
| Agree | 38<br>76% | 6<br>12% | 4<br>8% | 2<br>4% |
| Strongly agree | 1<br>20% | 3<br>60% | 1<br>20% | 0<br>0% |

Table 46 showed that IMC tools (Public Relation 2) were found having a significant relationship with payment method ($P < 0.05$).

Table 46 showed the significant of relationship public relation 2 and purchasing behavior

| | 2.2) I read smartphone news from magazine | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 2.449[a] | 3 | 0.485 |
| 2. Brand Choice | 14.143[a] | 12 | 0.292 |
| 3. Reason of changing | 6.347[a] | 6 | 0.385 |
| 4. Reason behind choosing current smartphone | 13.092[a] | 9 | 0.158 |
| **5. Payment method** | **10.638[a]** | **3** | **0.014*** |
| 6. Purchasing place | 12.691[a] | 12 | 0.392 |
| 7. Design of smartphone | 6.509[a] | 6 | 0.369 |
| 8. Buy a new smartphone | 4.617[a] | 9 | 0.866 |

*Level of significant $\alpha = 0.05$

Table 47 showed that public relation 2 has significant with payment method (Sig. = 0.014). Respondents who agree with the statement tended to make a payment by cash (63.2%) and Credit Card (36.8%).

Table 47 Public Relation 2 and Payment Method

| Level of Agreement | Preferred payment method | | Total |
|---|---|---|---|
| | Cash | Credit Card | |
| Strongly Disagree | 2<br>100% | 0<br>0% | 2<br>100% |
| Disagree | 44<br>93.6% | 3<br>6.4% | 47<br>100% |
| Feel neutral | 44<br>86.3% | 7<br>13.7% | 51<br>100% |
| Agree | 12<br>63.2% | 7<br>36.8% | 19<br>100% |

Table 48 showed that IMC tools (Public Relation 3) were found having a significant relationship with brand choice, payment method and design of smartphone.

Table 48 showed the significant of relationship public relation 3 and purchasing behavior

| 2.3) I know smartphone from exhibition | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 3.670[a] | 3 | 0.299 |
| **2. Brand Choice** | **22.977[a]** | **12** | **0.028*** |
| 3. Reason of changing | 5.257[a] | 6 | 0.511 |
| 4. Reason behind choosing current smartphone | 16.408[a] | 9 | 0.059 |
| **5. Payment method** | **13.463[a]** | **3** | **0.004*** |
| 6. Purchasing place | 19.155[a] | 12 | 0.085 |
| **7. Design of smartphone** | **16.028[a]** | **6** | **0.014*** |
| 8. Buy a new smartphone | 15.076[a] | 9 | 0.089 |

*Level of significant α = 0.05

Table 49 showed that public relation 3 has significant with brand choice (Sig. = 0.028). Respondents who agree with the statement tended to use iPhone (60%), followed by Samsung (35%) and Other (5%).

Table 49 Public Relation 3 and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Strongly Disagree | 14 | 4 | 4 | 10 | 1 |
| | 42.4% | 12.1% | 12.1% | 30.3% | 3% |
| Disagree | 11 | 12 | 8 | 11 | 2 |
| | 25% | 27.3% | 18.2% | 25% | 4.5% |
| Feel neutral | 7 | 8 | 1 | 4 | 3 |
| | 30.4% | 34.8% | 4.3% | 17.4% | 13% |
| Agree | 12 | 7 | 0 | 0 | 1 |
| | 60% | 35% | 0% | 0% | 5% |

Table 50 showed that public relation 3 has significant with payment method (Sig. = 0.004). Respondents who agree with the statement tended to make a payment by cash (60%) and Credit Card (40%).

Table 50 Public Relation 3 and Payment Method

| Level of Agreement | Preferred payment method | | Total |
|---|---|---|---|
| | Cash | Credit Card | |
| Strongly Disagree | 29 | 3 | 32 |
| | 91.6% | 9.4% | 100% |
| Disagree | 41 | 3 | 44 |
| | 93.2% | 6.8% | 100% |
| Feel neutral | 20 | 3 | 23 |
| | 87% | 13% | 100% |
| Agree | 12 | 8 | 20 |
| | 60% | 40% | 100% |

Table 51 showed that public relation 3 has significant with design of smartphone (Sig. = 0.014). Respondents who agree with the statement tended to choose Yes, of course (95%) and Not at all (5%).

Table 51 Public Relation 3 and Design of smartphone

| Level of Agreement | Design of a smartphone is important | | |
|---|---|---|---|
| | Yes, of course | No, I don't care | Not at all |
| Strongly disagrees | 19 | 2 | 12 |
| | 57.6% | 6.1% | 36.4% |
| Disagree | 34 | 1 | 9 |
| | 77.3% | 2.3% | 20.5% |
| Feel neutral | 22 | 0 | 1 |
| | 95.7% | 0.0% | 4.3% |
| Agree | 19 | 0 | 1 |
| | 95% | 0.0% | 5% |

### 4.2.10 IMC Tools (Personal Selling) and Purchasing Behavior

Table 52 showed that IMC tools (Personal Selling 1) were found having a significant relationship with design of smartphone ($P < 0.05$).

Table 52 showed the significant of relationship personal selling 1 and purchasing behavior

| 4.1) It is good to have sale person introducing the product to you in detailed | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 0.431[a] | 3 | 0.934 |
| 2. Brand Choice | 6.857[a] | 12 | 0.867 |
| 3. Reason of changing | 6.344[a] | 6 | 0.386 |
| 4. Reason behind choosing current smartphone | 7.494[a] | 9 | 0.586 |
| 5. Payment method | 4.469[a] | 3 | 0.215 |
| 6. Purchasing place | 14.430[a] | 12 | 0.274 |
| **7. Design of smartphone** | **15.020[a]** | **6** | **0.020*** |
| 8. Buy a new smartphone | 8.467[a] | 9 | 0.488 |

Table 53 showed that personal selling 1 has significant with design of smartphone (Sig. = 0.020). Respondents who agree with the statement tended to choose Yes, of course (65.5%) followed by Not at all (32.7%) and No, I don't care (1.8%).

Table 53 Personal Selling 1 and Design of smartphone

| Level of Agreement | Design of a smartphone is important | | |
|---|---|---|---|
| | Yes, of course | No, I don't care | Not at all |
| Disagree | 5 | 0 | 0 |
| | 100% | 0.0% | 0.0% |
| Feel neutral | 41 | 2 | 2 |
| | 91.1% | 4.4% | 4.40% |
| Agree | 36 | 1 | 18 |
| | 65.5% | 1.8% | 32.7% |
| Strongly agree | 12 | 0 | 3 |
| | 80% | 0.0% | 20% |

### 4.2.11 IMC Tools (Direct Marketing) and Purchasing Behavior

Table 54 showed that IMC tools (Direct Marketing) were found having a significant relationship with reason behind choosing current smartphone ($P < 0.05$).

Table 54 showed the significant of relationship direct marketing and purchasing behavior

| 5.1) It is good to have direct mail for giving smartphone information | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 5.468[a] | 4 | 0.243 |
| 2. Brand Choice | 19.892[a] | 16 | 0.225 |
| 3. Reason of changing | 12.073[a] | 8 | 0.148 |
| **4. Reason behind choosing current smartphone** | **23.565[a]** | **12** | **0.023*** |
| 5. Payment method | 4.309[a] | 4 | 0.366 |
| 6. Purchasing place | 15.382[a] | 16 | 0.497 |
| 7. Design of smartphone | 9.300[a] | 8 | 0.318 |
| 8. Buy a new smartphone | 4.516[a] | 12 | 0.972 |

Table 55 showed that public relation 1 has significant with reason behind choosing your current smartphone (Sig. = 0.023). Respondents who agree with the statement tended to have Good previous experience (75.9%) and Internet Reviews (24.1%).

Table 55 Direct Marketing and Reason behind choosing your current smartphone

| Level of Agreement | Reason behind choosing your current smartphone | | | |
|---|---|---|---|---|
| | Good previous experience | Friends' Recommendations | Internet Reviews | Social Media |
| Strongly Disagree | 0<br>0.0% | 0<br>0.0% | 1<br>100% | 0<br>0.0% |
| Disagree | 14<br>43.8% | 8<br>25% | 7<br>21.9% | 3<br>9.4% |
| Feel neutral | 33<br>63.5% | 10<br>19.2% | 4<br>7.7% | 5<br>9.6% |
| Agree | 22<br>75.9% | 0<br>0.0% | 7<br>24.1% | 0<br>0.0% |
| Strongly agree | 2<br>50% | 0<br>0.0% | 1<br>25% | 1<br>25% |

### 4.2.12 IMC Tools (Sponsorships) and Purchasing Behavior

Table 56 showed that IMC tools (Sponsorships) were found having a significant relationship with brand choice, payment method and design of smartphone.

Table 56 showed the significant of relationship sponsorships and purchasing behavior

| 6.1) I saw smartphone sponsor to the big event e.g. Olympic, FIFA World Cup | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 0.878[a] | 4 | 0.928 |
| **2. Brand Choice** | **29.711[a]** | **16** | **0.020*** |
| 3. Reason of changing | 14.494[a] | 8 | 0.070 |
| 4. Reason behind choosing current smartphone | 16.479[a] | 12 | 0.170 |
| **5. Payment method** | **16.946[a]** | **4** | **0.002*** |

| | | | |
|---|---|---|---|
| 6. Purchasing place | 15.958[a] | 16 | 0.456 |
| **7. Design of smartphone** | **16.155[a]** | **8** | **0.040*** |
| 8. Buy a new smartphone | 5.999[a] | 12 | 0.916 |

*Level of significant α = 0.05

Table 57 showed that sponsorship has significant with brand choice (Sig. = 0.020). Respondents who agree with the statement tended to use Samsung (54.5%), followed by iPhone (27.3%), Huawei (9.1%), Oppo and Other (4.5%).

Table 57 Sponsorships and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Strongly Disagree | 6 | 0 | 1 | 5 | 0 |
| | 50% | 0.0% | 8.3% | 41.7% | 0.0% |
| Disagree | 15 | 8 | 4 | 12 | 5 |
| | 34.1% | 18.2% | 9.1% | 27.3% | 11.4% |
| Feel neutral | 17 | 9 | 6 | 7 | 1 |
| | 42.5% | 22.5% | 15% | 17.5% | 2.5% |
| Agree | 6 | 12 | 2 | 1 | 1 |
| | 27.3% | 54.5% | 9.1% | 4.5% | 4.5% |
| Strongly Agree | 0 | 2 | 0 | 0 | 0 |
| | 0.0% | 100% | 0.0% | 0.0% | 0.0% |

Table 58 showed that sponsorship has significant with payment method (Sig. = 0.002). Respondents who agree with the statement tended to make a payment by cash (81.8%) and Credit Card (18.2%).

Table 58 Sponsorship and Payment Method

| Level of Agreement | Preferred payment method | | Total |
|---|---|---|---|
| | Cash | Credit Card | |
| Strongly Disagree | 11 | 1 | 12 |
| | 91.7% | 8.3% | 100% |
| Disagree | 41 | 2 | 43 |
| | 95.3% | 4.7% | 100% |
| Feel neutral | 32 | 8 | 40 |
| | 80% | 20% | 100% |
| Agree | 18 | 4 | 22 |
| | 81.8% | 18.2% | 100% |
| Strongly Agree | 0 | 2 | 2 |
| | 0.0% | 100% | 100% |

Table 59 showed that sponsorship has significant with design of smartphone (Sig. = 0.040). Respondents who agree with the statement tended to choose Yes, of course (59.1%) and Not at all (40.9%).

Table 59 Sponsorship and Design of smartphone

| Level of Agreement | Design of a smartphone is important | | |
|---|---|---|---|
| | Yes, of course | No, I don't care | Not at all |
| Strongly Disagree | 7 | 0 | 5 |
| | 58.3% | 0.0% | 41.7% |
| Disagree | 37 | 2 | 5 |
| | 84.1% | 4.5% | 11.4% |
| Feel neutral | 35 | 1 | 4 |
| | 87.5% | 2.5% | 10% |
| Agree | 13 | 0 | 9 |
| | 59.1% | 0.0% | 40.9% |
| Strongly agree | 2 | 0 | 0 |
| | 100% | 0.0% | 0.0% |

### 4.2.13 IMC Tools (Mobile Marketing) and Purchasing Behavior

Table 60 showed that IMC tools (Mobile Marketing) were found having a significant relationship with brand choice and reason of changing. ($P < 0.05$)

Table 60 showed significant of relationship mobile marketing and purchasing behavior

| 8.1) I often get a message about to allow me to visit a mobile website | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 4.068[a] | 3 | 0.254 |
| **2. Brand Choice** | **54.687[a]** | **12** | **0.000*** |
| **3. Reason of changing** | **24.249[a]** | **6** | **0.000*** |
| 4. Reason behind choosing current smartphone | 15.342[a] | 9 | 0.082 |
| 5. Payment method | 5.760[a] | 3 | 0.124 |
| 6. Purchasing place | 16.900[a] | 12 | 0.153 |
| 7. Design of smartphone | 3.389[a] | 6 | 0.759 |
| 8. Buy a new smartphone | 9.134[a] | 9 | 0.425 |

*Level of significant $\alpha = 0.05$

Table 61 showed that mobile marketing has significant with brand choice (Sig. = 0.000). Respondents who agree with the statement tended to use Samsung (59.3%), followed by iPhone (22.2%), Oppo (14.8%) and Huawei (3.7%).

Table 61 mobile marketing and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Disagree | 25 | 0 | 3 | 9 | 3 |
| | 62.5% | 0.0% | 7.5% | 22.5% | 7.5% |
| Feel neutral | 12 | 9 | 9 | 12 | 4 |
| | 26.1% | 19.6% | 19.6% | 26.1% | 8.7% |
| Agree | 6 | 16 | 1 | 4 | 0 |
| | 22.2% | 59.3% | 3.7% | 14.8% | 0.0% |
| Strongly Agree | 1 | 6 | 0 | 0 | 0 |
| | 14.3% | 85.7% | 0.0% | 0.0% | 0.0% |

Table 62 showed that mobile marketing has significant with reason of changing (Sig. = 0.000). Respondents who agree with the statement tended to change their smartphone when it is ruined (88.9%) and when you get bored from your phone (11.1%).

Table 62 Mobile Marketing and Reason of Changing

| Level of Agreement | When do you change your smartphone? | | |
|---|---|---|---|
| | When it is ruined | When you get bored from your phone | Whenever there are new smartphone versions |
| Disagree | 25 | 12 | 3 |
| | 62.5% | 30% | 7.5% |
| Feel neutral | 41 | 5 | 0 |
| | 89.1% | 10.9% | 0.0% |
| Agree | 24 | 3 | 0 |
| | 88.9% | 11.1% | 0.0% |
| Strongly agree | 2 | 5 | 0 |
| | 28.6% | 71.4% | 0.0% |

**Results of Hypothesis 3**

Chi-Square was used to test hypothesis 3

**H3: There is a significant relationship between word of mouth communications and purchasing behavior of the smartphone customer in Cambodia.**

Word of mouth communications was described by online channel strategy and offline channel strategy.

Purchasing behavior was measured by reason of buy smartphone, brand choice, reason of changing, reason behind choosing current smartphone, payment method, purchasing place, design of smartphone, buy a new smartphone.

This study found a partly support of H3 as follows:

### 4.2.14 WOM Communications (Online Channel) and Purchasing Behavior

Table 63 showed that WOM (Online Channel Strategy 1) were found having a significant relationship with payment method, purchasing place. ($P < 0.05$)

Table 63 showed significant of relationship online channel 1 and purchasing behavior

| 1. I believe on comments about smartphone posted on web board | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 3.821[a] | 4 | 0.431 |
| 2. Brand Choice | 18.172[a] | 16 | 0.314 |
| 3. Reason of changing | 8.282[a] | 8 | 0.406 |
| 4. Reason behind choosing current smartphone | 16.299[a] | 12 | 0.178 |
| **5. Payment method** | **10.191[a]** | **4** | **0.037*** |
| **6. Purchasing place** | **27.765[a]** | **16** | **0.034*** |
| 7. Design of smartphone | 13.151[a] | 8 | 0.107 |
| 8. Buy a new smartphone | 7.557[a] | 12 | 0.819 |

Table 64 showed that online channel strategy 1 has significant with payment method (Sig. = 0.037). Respondents who agree with the statement tended to make a payment by cash (85.1%) and Credit Card (14.9%).

Table 64 Online Channel Strategy 1 and Payment Method

| Level of Agreement | Preferred payment method | | Total |
|---|---|---|---|
| | Cash | Credit Card | |
| Strongly Disagree | 1 | 0 | 1 |
| | 100% | 0.0% | 100% |
| Disagree | 16 | 0 | 16 |
| | 100% | 0.0% | 100% |
| Feel neutral | 36 | 5 | 41 |
| | 87.8% | 12.2% | 100% |
| Agree | 40 | 7 | 47 |
| | 85.1% | 14.9% | 100% |
| Strongly Agree | 7 | 5 | 12 |
| | 58.3% | 41.7% | 100% |

Table 65 showed that online channel strategy 1 has significant with purchasing place (Sig. = 0.034). Respondents who agree with the statement tended to buy a smartphone at smartphone store (76.6%), nearest store to my home or work (8.5%), places that offer payment installments (6.4%), hypermarkets & malls and through online (4.3%).

Table 65 Online Channel strategy 1 and Purchasing Place

| Level of Agreement | Place you prefer to buy a smartphone | | | | |
|---|---|---|---|---|---|
| | Smartphone store | Hypermarkets & Malls | Places that offer payment installments | Nearest store to my home or work | Through Online |
| Strongly Disagree | 1<br>100% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% |
| Disagree | 12<br>70.6% | 1<br>5.9% | 0<br>0.0% | 4<br>23.5% | 0<br>0.0% |
| Feel neutral | 29<br>70.7% | 0<br>0.0% | 1<br>2.4% | 11<br>26.8% | 0<br>0.0% |
| Agree | 36<br>76.6% | 2<br>4.3% | 3<br>6.4% | 4<br>8.5% | 2<br>4.3% |
| Strongly Agree | 6<br>50% | 2<br>16.7% | 2<br>16.7% | 0<br>0.0% | 2<br>16.7% |

Table 66 showed that WOM (Online Channel Strategy 3) were found having a significant relationship with brand choice. ($P < 0.05$)

Table 66 showed significant of relationship online channel 3 and purchasing behavior

| 3. I like to ask for comments from people on web board | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 2.190[a] | 3 | 0.534 |
| **2. Brand Choice** | **22.101[a]** | **12** | **0.036*** |
| 3. Reason of changing | 3.413[a] | 6 | 0.756 |

| | | | |
|---|---|---|---|
| 4. Reason behind choosing current smartphone | 7.189[a] | 9 | 0.617 |
| 5. Payment method | 3.404[a] | 3 | 0.333 |
| 6. Purchasing place | 14.226[a] | 12 | 0.287 |
| 7. Design of smartphone | 10.701[a] | 6 | 0.098 |
| 8. Buy a new smartphone | 9.741[a] | 9 | 0.372 |

*Level of significant α = 0.05

Table 67 showed that online channel strategy 3 has significant with brand choice (Sig. = 0.036). Respondents who agree with the statement tended to use iPhone (65%), followed by Samsung (25%), Huawei and Other (5%).

Table 67 Online Channel Strategy 3 and Brand Choice

| Level of Agreement | Brand of Smartphone you currently use | | | | |
|---|---|---|---|---|---|
| | iPhone | Samsung | Huawei | Oppo | Other |
| Strongly Disagree | 3 | 4 | 0 | 6 | 0 |
| | 23.1% | 30.8% | 0.0% | 46.2% | 0.0% |
| Disagree | 15 | 13 | 9 | 13 | 2 |
| | 28.8% | 25% | 17.3% | 25.0% | 3.8% |
| Feel neutral | 13 | 9 | 3 | 6 | 4 |
| | 37.1% | 25.7% | 8.6% | 17.1% | 11.4% |
| Agree | 13 | 5 | 1 | 0 | 1 |
| | 65% | 25% | 5% | 0.0% | 5% |

Table 68 showed that WOM (Online Channel Strategy 4) were found having a significant relationship with design of smartphone. (P < 0.05)

Table 68 showed significant of relationship online channel 4 and purchasing behavior

| 4. I often post my experience from using smartphone on my Social media | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 1.135[a] | 3 | 0.769 |
| 2. Brand Choice | 11.828[a] | 12 | 0.460 |

| | | | |
|---|---|---|---|
| 3. Reason of changing | 8.739[a] | 6 | 0.189 |
| 4. Reason behind choosing current smartphone | 7.791[a] | 9 | 0.555 |
| 5. Payment method | 2.900[a] | 3 | 0.407 |
| 6. Purchasing place | 20.939[a] | 12 | 0.051 |
| **7. Design of smartphone** | **14.274[a]** | **6** | **0.027*** |
| 8. Buy a new smartphone | 4.313[a] | 9 | 0.890 |

*Level of significant $\alpha = 0.05$

Table 69 showed that online channel strategy 4 has significant with design of smartphone (Sig. = 0.027). Respondents who agree with the statement tended to choose Yes, of course (87.5%) and Not at all (12.5%).

Table 69 Online Channel Strategy 4 and Design of smartphone

| Level of Agreement | Design of a smartphone is important | | |
|---|---|---|---|
| | Yes, of course | No, I don't care | Not at all |
| Strongly Disagree | 12 | 2 | 8 |
| | 54.5% | 9.1% | 36.4% |
| Disagree | 43 | 1 | 12 |
| | 76.8% | 1.8% | 21.4% |
| Feel neutral | 31 | 0 | 2 |
| | 93.9% | 0.0% | 6.1% |
| Agree | 7 | 0 | 1 |
| | 87.5% | 0.0% | 12.5% |

### 4.2.15 WOM Communications (Offline Channel) and Purchasing Behavior

Table 70 showed that WOM (Offline Channel Strategy 4) were found having a significant relationship with payment method. ($P < 0.05$)

Table 70 showed significant of relationship offline channel 4 and purchasing behavior

| 4. I always recommend to other people after my experience from using new smartphone | | | |
|---|---|---|---|
| Items | Value | Df. | Sig. |
| 1. Reason of buy smartphone | 30.080[a] | 4 | 0.080 |
| 2. Brand Choice | 12.284[a] | 16 | 0.724 |
| 3. Reason of changing | 6.394[a] | 8 | 0.603 |
| 4. Reason behind choosing current smartphone | 17.872[a] | 12 | 0.120 |
| **5. Payment method** | **12.690[a]** | **4** | **0.013*** |
| 6. Purchasing place | 23.680[a] | 16 | 0.097 |
| 7. Design of smartphone | 5.895[a] | 8 | 0.659 |
| 8. Buy a new smartphone | 20.364[a] | 12 | 0.061 |

*Level of significant $\alpha = 0.05$

Table 71 showed that offline channel strategy 4 has significant with payment method (Sig. = 0.013). Respondents who agree with the statement tended to make a payment by cash (78.9%) and Credit Card (21.1%).

Table 71 Offline Channel Strategy 4 and Payment Method

| Level of Agreement | Preferred payment method | | Total |
|---|---|---|---|
| | Cash | Credit Card | |
| Strongly Disagree | 2<br>66.7% | 1<br>33.3% | 3<br>100% |
| Disagree | 13<br>68.4% | 6<br>31.6% | 19<br>100% |
| Feel neutral | 55<br>96.5% | 2<br>3.5% | 57<br>100% |
| Agree | 30<br>78.9% | 8<br>21.1% | 38<br>100% |
| Strongly Agree | 2<br>100% | 0<br>0.0% | 2<br>100% |

# CHAPTER 5

## Conclusion and Recommendations

This study aim to identify the customers from different demographic profiles will have different purchasing behavior and to determine the relationships between integrated marketing communication tools, word of mouth communications on purchasing behavior of the smartphone customer in Cambodia.

In conclusion, the respondents are Cambodian from Phnom Penh, Siem Reap, Battambang and Preah Sihanouk. Most of them are male from Siem Reap and the aged between 25 to 35 years old, most of them are single and hold a bachelor's degree. Furthermore, most of the respondents are wage labour and have income approximately 200 to 500 US dollars per month.

Most of respondents agreed that advertising; sales promotion and personal selling and offline channel strategy have an impact on their decisions of purchasing the smartphone. Furthermore, they feel neutral that public relation, direct marketing, social media and mobile marketing have an impact on their decisions of purchasing the smartphone. However, sponsorships (event marketing) and online channel strategy didn't influence on their decisions of purchasing the smartphone in Cambodia.

The majority of respondents tended to choose communication (video & audio) as their reason of buy a smartphone and more than thirty percent of the respondents are using iPhone. Most of them tended to change their smartphone when it is ruined and the reasons behind choosing their current smartphone is they have good previous experience. They chose to purchase smartphone at the smartphone store and preferred to make their payment by cash than credit card. Moreover, they think that design of smartphone is important for them when they decided to buy a

smartphone and they are likely to look at the specific functions (camera, music player, screen size) as their decision to buy a new smartphone.

Results of hypothesis testing as follows:

**H1**: Customers from different demographic profiles have different purchasing behavior of the smartphone customer in Cambodia.

**H2:** There is a significant relationship between IMC Tools and purchasing behavior of the smartphone customer in Cambodia.

**H3:** There is a significant relationship between word of mouth communications and purchasing behavior of the smartphone customer in Cambodia.

## 5.1 Discussion

The study aims to determine the different demographic profile will have different purchasing behavior and the relationship between IMC tools, Word of mouth communication on purchasing behavior of the customer toward smartphone products in Cambodia. The results from hypothesis testing indicated that some variables have significant and some have no significant with each other. Some of the research findings can be discussed as follows:

Based on the result of hypothesis one, the study found that there is a partial different from demographic profile have different purchasing behavior. The findings showed that different gender, age and marital status was found a significant different on purchasing behavior design of smartphone. Further, the study revealed that customers from different age, marital status and income per month have different behavior on brand choice and reason of changing their smartphone. The study also found the customer from different occupations and incomes per month have different purchasing behavior on payment method.

According to the result from hypothesis two, the study found that there is a partial relationship between IMC tools and purchasing behavior of the smartphone customer in Cambodia. The results showed that advertising, public relation, sponsorship and mobile marketing have significant relationship with purchasing behavior (brand choice). It also showed that advertising, public relation, direct marketing have relationship with purchasing behavior (reason behind choosing current smartphone). Moreover, advertising, public relation, personal selling and sponsorship have relationship with purchasing behavior (design of smartphone). However, IMC tools also have negative significant with purchasing behavior such as reason of buy smartphone, purchasing place and buy a new smartphone.

From the results of hypothesis three, the study found that WOM Communications (online channel strategy) have a positive significant relationship with purchasing behavior such as payment method, purchasing place, brand choice and design of smartphone. But for, offline channel strategy only has a positive significant with purchasing behavior (payment method). However, purchasing behavior such as reason of buy smartphone, reason of changing, buy a new smartphone and reason behind choosing current have negative significant relationship with IMC tools.

## 5.2 Implication of the study

Most of respondents agreed that Integrated marketing communication tools such as advertising, sales promotion and personal selling have an impact on their decisions of purchasing the smartphone compare to other IMC tools. The result suggests customers don't seem to consider sponsorships (event marketing) influence on their decisions of purchasing the smartphone. Therefor, smartphone manufacturers should be more focus on sponsorships (event marketing) when considering the tools for marketing communication campaign. Moreover, word of mouth communications

such as online channel strategy also was found to show least effect on purchasing behavior of customers compare to offline channel strategy. The customers seem not to consider online channel strategy as a good platform for them to choose the smartphone. For that reason smartphone manufacturers should be more consider on online channel strategy.

### 5.3 Limitation of the study

There are some limitations in which the researcher encountered throughout the processes of research conduction. The limitation of the study still leaves gaps for future study. This study was collected data from 120 respondents in Cambodia, which is from 4 cities that have Phnom Penh, Siem Reap, Battambang and Preah Sihanouk. In order to have better and more reliable results, the data collection for the future studies should cover at least 10 cities with a larger sample size from each cities and provinces. In addition, 120 of the respondents cannot be representative of the entire population of the country. Also, the sample group is from 4 cities of Cambodia, most of them were age category of 25 to 35 years old. Thus, the survey results are not possible to generalize, as the sample does not represent all age categories that use smartphone.

## BIBLIOGRAPHY


Akshit Bagaria (2019), Integrated Marketing Communication – Meaning, Tools, & Examples, in Marketing Essentials. https://www.feedough.com

Chris Fill (2002), Marketing Communications: Contexts, Strategies, and Applications. (Inside – Page 39)

Elvira Ismagilova, Yogesh K. Dwivedi, Emma Slade (2017), Electronic Word of Mouth (eWOM) in the Marketing Context: A State of the Art Analysis and Futures Directions. (Inside – Page 6)

Gary Armstrong, Philip Kotler (2007), Marketing an Introduction. (Inside – Page 366)

Ian Chaston (2000), New Marketing Strategies: Evolving Flexible Processes To Fit Marketing Circumstances. (Inside – Page 84)

Jesensky John (2013), Why are Smartphones so Important in Daily Life?, technology news, electronic gadget's, digital marketing tricks articles.

Jurnal Berkala Ilmiah Efisiensi, Tahun (2015), The Influence Of Brand Image, Brand Trust And Customer Satisfaction On Brand Loyalty (Case Of Samsung Smartphone)

KAO Dauch (2016), The Influencing Factors toward Brand Loyalty of smartphones in Phnom Penh, Cambodia. RSU International Research Conference.

Kevin Popovic (2017), Satellite Marketing: Using Social Media to Create Engagement. (Inside – Page 116)

K. Douglas Hoffman, John E.G. Bateson (2010), Services Marketing: Concepts, Strategies & Cases.

Nadube, P. M. (2018), Understanding integrated marketing communication: Concepts, definitions and dimensions.

Raluca Gheorghe, Marketing and Management of Innovations (2012), WORD-OF-MOUTH COMMUNICATION: A THEORETICAL REVIEW

Syed Saad Andaleeb, Khalid Hasan (2016), Strategic Marketing Management in Asia: Case Studies and Lessons Across Industries. (Inside – Page 426)

# Appendix A

# Questionnaire

## Purchasing behavior of the customer in Cambodia toward smartphone products.

This questionnaire is a partial fulfillment of the requirements for the degree of Master of Business Administration, College of Innovative Business and Accountancy (CIBA) – International Program, Dhurakij Pundit University. The data collect through these questions will be used to identify Purchasing behavior of the customer in Cambodia toward smartphone products. Kindly answer the question sincerely. The information obtained will be kept confidential and used for academic study only.

Remark: This questionnaire has 4 parts:
Part 1 Demographic Profile
Part 2 Purchasing behavior of Cambodia's customer
Part 3 Integrated Marketing Communication (IMC) tools
Part 4 Word of mouth communications (Online, Offline)

Thank you very much for your assistance

Tang Houttheng
Email: tanghouttheng@gmail.com

---

**Part 1: Demographic Profile**

Instruction: Please mark ☑ in the answer that most applicable to you.

1. Gender

☐ 1) Male ☐ 2) Female

2. Age

☐ 1) Under 18 ☐ 2) 18 – 24 ☐ 3) 25 – 35

☐ 4) 36 – 50 ☐ 5) Above 50

3. Marital Status

☐ 1) Single ☐ 2) Married ☐ 3) Widower

☐ 4) Divorced ☐ 5) Separated

4. Education Level

☐ 1) Less than high school ☐ 2) High school ☐ 3) Bachelor's degree

☐ 4) Master's degree ☐ 5) Doctor's degree

5. Occupation

☐ 1) Student ☐ 2) Unemployed ☐ 3) Wage labour

☐ 4) Business owner ☐ 5) Government/State enterprise employee

☐ 6) Other (Please specify…….)

6. Income/per month (USD)

☐ 1) Less than 200$ ☐ 2) 200$ - 500$ ☐ 3) 510$ - 1,000$

☐ 4) 1,100$ - 2,000$ ☐ 5) 2,100$ - 3,000$ ☐ 6) More than 3,000$

7. Hometown

☐ 1) Phnom Penh ☐ 2) Siem Reap ☐ 3) Battambang

☐ 4) Preah Sihanouk

---

**Part 2: Purchasing behavior of Cambodia's customer on smartphone**

Instruction: Please mark ☑ in the answer that most applicable to you

1. Why do you buy a smartphone? (Select maximum 3 choices)

☐ 1) Communication (video & audio)

☐ 2) Want to keep updated with technology (personal image)

☐ 3) Sales promotion (discounts and offerings)

☐ 4) Software flexibility (including access to application from Google play or Apple store, etc.)

☐ 5) Frequent updates and variety of models

2. Which smartphone brand do you currently use?

☐ 1) iPhone

☐ 2) Samsung

☐ 3) Huawei

☐ 4) Oppo

☐ 5) Other (Please specify…….)

3. When do you change your smartphone?

☐ 1) Whenever there are new smartphone

☐ 2) When it is ruined

☐ 3) When you get bored from your phone

4. What is the reason behind choosing your current smartphone?

☐ 1) Good previous experience

☐ 2) Friends Recommendations

☐ 3) Internet Reviews

☐ 4) Social Media

☐ 5) Printed Ads

☐ 6) Other (Please specify…….)

5. When you buy a smartphone, what's your preferred payment method?

☐ 1) Cash

☐ 2) Credit Card

6. Where do you prefer to buy a smartphone?

☐ 1) Smartphone store

☐ 2) Hypermarkets & Malls

☐ 3) Places that offer payment installments

☐ 4) Nearest store to my home or work

☐ 5) Through Online

☐ 6) Other (Please specify…….)

7. Is the design of a smartphone important for you?

☐ 1) Yes, of course

☐ 2) No, I don't care

☐ 3) Not at all

8. Buying a new smartphone for you is important:

☐ 1) Main function (making calls, using social media)

☐ 2) Specific functions (camera, music player, screen size)

☐ 3) External appearance

☐ 4) Emotional satisfaction

**Part 3: Integrated Marketing Communication (IMC) tools**

Instruction: Please circle ○ on the number that most applicable to you by rates the statements about your opinion in the table using the scale below.

5: Strongly agree with the statement

4: Agree with the statement

3: Feel neutral with the statement

2: Disagree with the statement

1: Strongly disagree with the statement

| Items | Items | | | | |
|---|---|---|---|---|---|
| | 5 | 4 | 3 | 2 | 1 |
| **1. Advertising** | | | | | |
| 1.1) I know smartphone from brochure | 5 | 4 | 3 | 2 | 1 |
| 1.2) I know smartphone on website | 5 | 4 | 3 | 2 | 1 |
| 1.3) I know smartphone from billboard/poster | 5 | 4 | 3 | 2 | 1 |
| 1.4) I know smartphone from TV Ads | 5 | 4 | 3 | 2 | 1 |
| **2. Public Relation (PR)** | | | | | |
| 2.1) I know smartphone from Event | 5 | 4 | 3 | 2 | 1 |
| 2.2) I read smartphone news from magazine | 5 | 4 | 3 | 2 | 1 |
| 2.3) I know smartphone from exhibition | 5 | 4 | 3 | 2 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **3. Sales Promotions (SP)** | | | | | |
| 3.1) I be likely to choose smartphone that offer "Discount promotion" | 5 | 4 | 3 | 2 | 1 |
| 3.2) I be likely to choose smartphone that offer "Free phone case" | 5 | 4 | 3 | 2 | 1 |
| **4. Personal Selling (PS)** | | | | | |
| 4.1) It is good to have sale person introducing the product to you in detailed, information you want to know | 5 | 4 | 3 | 2 | 1 |
| 4.2) It is effective than other forms of promotion in obtaining a sale and gaining a satisfied from you | 5 | 4 | 3 | 2 | 1 |
| **5. Direct Marketing (DM)** | | | | | |
| 5.1) It is good to have direct mail for giving smartphone information | 5 | 4 | 3 | 2 | 1 |
| **6. Sponsorships (Event Marketing)** | | | | | |
| 6.1) I saw smartphone sponsor to the big event e.g. Olympic, FIFA World Cup. | 5 | 4 | 3 | 2 | 1 |
| **7. Social Media Marketing** | | | | | |
| 7.1) I see smartphone Ads every time I enter to FB, YouTube | 5 | 4 | 3 | 2 | 1 |
| **8. Mobile Marketing** | | | | | |
| 8.1) I often get a message about to allow me to visit a mobile website. | 5 | 4 | 3 | 2 | 1 |

**Part 4: Word of mouth communications (Online, Offline)**

Instruction: Please circle ○ on the number that most applicable to you by rates the statements about your opinion in the table using the scale below.

5: Strongly agree with the statement

4: Agree with the statement

3: Feel neutral with the statement

2: Disagree with the statement

1: Strongly disagree with the statement

| Items | Items | | | | |
|---|---|---|---|---|---|
| | 5 | 4 | 3 | 2 | 1 |
| **Online Channel Strategy** | | | | | |
| 1. I believe on comments about smartphone posted on web board (e.g. apple.com, Samsung.com) | 5 | 4 | 3 | 2 | 1 |
| 2. I rely on the reviews article about smartphone that posted on Internet social network (e.g. FB, YouTube) | 5 | 4 | 3 | 2 | 1 |
| 3. I like to ask for comments from people on web board (e.g. apple.com, Samsung.com) | 5 | 4 | 3 | 2 | 1 |
| 4. I often post my experience from using smartphone on my Social media (e.g. FB, Instagram) | 5 | 4 | 3 | 2 | 1 |

| **Offline Channel Strategy** | | | | | |
|---|---|---|---|---|---|
| 1. I believe on comments about smartphone from my friends who using that smartphone | 5 | 4 | 3 | 2 | 1 |
| 2. I rely on reviews comment from people around me who using that smartphone | 5 | 4 | 3 | 2 | 1 |
| 3. I like to ask for comments from my family and my friends before buying a new smartphone | 5 | 4 | 3 | 2 | 1 |
| 4. I always recommend to other people after my experience from using new smartphone | 5 | 4 | 3 | 2 | 1 |

Thank you so much for your time!!