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顧客滿意度——以智慧型手機使用者為研究
Customer Satisfaction- The Case Study of Smartphone Users

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ABSTRACT

Customer Satisfaction- The Case Study of Smartphone Users

By

Wan-Ju Li (Judy Li)

Today, smartphone has defined as an important tool in our daily lives; the market has been growing every year and the future global smartphone shipment is predicted to be nearly 1 billion in 2015. The function of smartphone is no longer limited to make calls to friends and family only, but also productivities, entertainments and multimedia functions (e.g. music, ringtones, games, web browsing, text messages and camera) provided by smartphone itself.

With the increasing competitions in the smartphone market, smartphone companies find it difficult to retain the existing customers and increase the market share. In that context, the objective of this research explanatory study aims to identify the main factors that determine the customer satisfaction of smartphone users.

The study survey was completed by 285 smartphone users who helped evaluating their smartphone satisfaction; the data was analyzed by IBM SPSS Statistics 20 and the results revealed the main findings are (1) image has high correlations with customer expectation, customer satisfaction and customer loyalty; (2) customer expectation has high correlations with perceive quality, perceived value and customer satisfaction; (3) perceived quality has high correlations with perceived value and customer satisfaction; (4) perceived value has a high correlation with customer satisfaction; (5) Customer satisfaction has a high correlation with customer loyalty; (6) the proposed model TCSI is proven with the effectiveness in explaining the relationships among image, customer expectation, perceived quality, perceived

value, customer satisfaction and customer loyalty for smartphone users. The conclusion of this study provides valuable information for smartphone producers, especially Taiwanese brand HTC, to develop the smartphones meet with customers' expectations and satisfactions.



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1. Introduction

In April 1973, the first handheld mobile phone was created by Dr. Martin Cooper, a Motorola research and executive; this first handheld mobile phone weighed 2.5 pounds, 9 inches long, 5 inches deep and 1.75 inches wide; talking time was 30 minutes and needed 10 hours to be re-charged.

Through the development in the past 40 years, innovative technology has improved the way we communicate with our family and friends. Today, mobile phones have become an integral part of our lives. According to comScore, Inc., the most popular function among U.S. mobile subscribers is making text messages at 68.6 percent; followed by web browsing at 38.6 percent, application downloading at 37.3 percent, social networking at 27.3 percent, playing games at 25.7 percent, and listening to music at 17.9 percent [1].

In 1993, the first smartphone IBM Simon was introduced, and then the first Nokia's smartphone was released in 1996 [2 & 3]. Ever since that, the innovations of smartphone continue to be developed; and the increasing smartphone growth has led the mobile phone market into a whole new competition. Kevin Restivo, senior research analyst with IDC's Worldwide Quarterly Mobile Phone Tracker, stated on his twitter account that “mobile phone users around the world are turning in their 'talk-and-text' devices for smartphones as these devices allow users to perform daily tasks like shopping and banking from anywhere. The growth trend is particularly pronounced in emerging markets where adoption is still in its early days. As a result, the growth in regions such as Asia/Pacific and Latin America will be dramatic over the coming years” [4].

Indeed, smartphone companies have tried adding more functions to the smartphone for

encouraging users to shift from mobile phones to smartphones. Marketing researchers Pitt et al. (2011) stated that smartphone is not just a simple mobile phone; rather it has an extensive data storage capacity and processing power. Today, new smartphone models weigh around 140-250 grams which can be fitted into our pocket easily and very light to be carried around. Smartphone is our personal digital assistant (PDA); a mini version of our personal computer which allows us to operate data storage, memo program, e-mails and web browsing easily. Smartphone has moved the data processing power to in the hands of mobile users, who can use the mobile device irrespective of time and space (Pitt et al., 2011). A recent Google study on the mobile movement indicates that the most common of smartphone usage is browsing the internet at 81 percent, researching at 77 percent, and watching videos at 48 percent. On this study, it also finds that 72 percent of smartphone users consume other media through their smartphones; and 93 percent owners use their smartphones at home [5].

Taiwan has been booming in the smartphone market over the last few years, this increasing growth has generated more smartphone demands and more competitions. According to the International Data Corporation (IDC), smartphone usage in Taiwan's overall mobile phone market was only 3% in 2004; but the rapid growth has jumped to 9% in 2008, 12% in 2009, and 25% in 2010 [6]. In 2012, Nielsen research in Taiwan conducted a smartphone study and the result indicates the ownership of smartphone in Asia Pacific has reached to another high level; 67% of mobile phone users in Korea own smartphones, 66% in China, 65% in Australia, 58% in Hong Kong and 50% in Taiwan (Table 1.1). This rapid growth has resulted in more smartphone choices offered by smartphone companies as they are trying to attract more customers and increase their market share; more phone functionalities will be added, data plan cost will be reduced and more competitive selling prices to be offered. The smartphone

ownership number will only grow up a lot of more in the coming future, and the International Data Corporation (IDC) forecasts smartphone vendors will ship nearly 1 billion by the end of 2015 [7].

1.1. Problem Background

Thanks to the fast growth of the mobile communication market and innovative technology, the smartphone demand is increasing every year; and the future global smartphone shipment is predicted to be nearly 1 billion in 2015 [5]. In spite of the potential growth in the future is large, only the companies provide the products meet with consumers' satisfactions would become the leading brands in the industry.

According to the press release of International Data Corporation (IDC), Nokia is eliminated from the list of top 5 leading smartphone vendors in 2012; the first time Nokia does not make it to the list since the inception of IDC's Mobile Phone Tracker in 2004 [8]. American business magnate Mr. Warren Buffett once said "Your premium brand had better be delivering something special, or it's not going to get the business". The competition of smartphone market has changed dramatically since Apple introduced the first iPhone at the Macworld Conference & Expo in 2007; Apple iPhone created many new innovations for other smartphone manufacturers to follow; for example, iPhone was the first smartphone introduced true touch-focused function [9].

Today, the smartphone market has dominated by Apple and Samsung; however, Samsung's global market share was only 3.3 percent which was behind HTC and listed as the fifth place based on the survey of the International Data Corporation (IDC) in 2009 [10] (Table 1.2). The recent IDC press release states that Samsung has become the new leading smartphone vendor

contributing 22.7 percent global smartphone shipments; and this market share percentage is almost 10 percent more than Apple's 13.8 percent and double more than HTC's 10.3 percent [8] (Table 1.3).

Based on these IDC reports, the biggest challenge for smartphone companies nowadays is to find out the key factors that effect on customer satisfaction; because customer satisfaction can decrease complaints and increase loyalty (Gronholdt et al., 2000; Johnson et al., 2001); and customer satisfaction can have an important impact on customer's repurchasing behavior (Anderson and Sullivan, 1993). Furthermore, Aaker (1997) proved that loyal customers can help companies to have higher market share and reduce the operating cost.

1.2. The Importance of Research

Globalization has changed the way how smartphone companies operate their business today; it allows consumers have more smartphone choices from all over the world easily. For smartphone producers, globalization also means more competitions to compete with; and more difficulties to keep customers retention. With technology improving at a fast pace, smartphone producers are facing the challenges to keep up with customer needs and distinguish themselves from the competitors. Bendapudi and Berry (1997) argued that if a company offers differentiated services that are difficult for a competitor to match or to provide with equivalents, or if few alternative competitors exist in the market, customers tend to remain with the existing company. In addition, Marchand (2003) claimed that companies that do not offer services in keeping with the technological trend ultimately end up losing the client to a competitor that does offer the service.

In today's challenging economy and competitive business world, every successful company

knows the importance of customer retention. Loyalty is often interpreted as actual retention (Gustafsson et al, 2005), and many empirical studies have pointed out that two factors impact on customer loyalty are to delight customers (Lee, Lee, and Feick, 2001; Oliver, 1999) and to deliver superior value derived from excellent services and quality products (Parasuraman and Grewal, 2000). Keeping your customer happy is more cost effective than finding new customers because it costs five times more to acquire a customer than to retain a customer (Keiningham T., Vavra T., Aksoy L. and Wallard H., 2005). In addition, Emmett and Mark (2002) found out that a 2% increase in customer retention has the same effect on profits as cutting costs by 10%; and a 5% reduction in customer defection can increase profits by 25–85% (Frederick and Sasser, 1980).

Reichheld (2001) believes the longer customers stay in relationship with the company, the more value the company generates. Therefore, the most important task and challenge for the smartphone producers now is finding the factors that meet with customer satisfaction and increase the customer loyalty. In addition, many marketing researches have pointed out that brand image, customer expectations, perceived quality and perceived value have strong influences on customer satisfaction (Aaker, 1991; Rory, 2000; Anderson et al., 1994; Clemes et al., 2008; Cronin et al., 2000). These factors are all the antecedents in Taiwan Customer Satisfaction Index (TCSI); therefore, Taiwan Customer Satisfaction Index (TCSI) will be present as the measurement to evaluate the relations.

1.3. Purpose

The purpose of this study is to use Taiwan Customer Satisfaction Index (TCSI) to find out the key factors that affect the customer satisfaction of smartphone users; and analyze how to improve the current smartphone products and services to fulfill the customer satisfaction.

Another purpose of this research is to provide Taiwanese smartphone brands and companies with a reference to make improvements based on the result of this study.



2. Overview of Customer Satisfaction Indexes (CSIs)

This chapter, the basic framework of Customer Satisfaction Index (CSI) will be presented first and followed by the general information of 3 important Customer Satisfaction indexes (CSIs) in the history which are Swedish Customer Satisfaction Barometer (SCSB), American customer satisfaction index (ACSI), and European Customer Satisfaction Index (ECSI). The final section, our own national index - Taiwan Customer Satisfaction Index (TCSI) will be discussed.

2.1. Customer Satisfaction Index (CSI)

Cardozo (1965) was the first scholar pointing out the concept of customer satisfaction; and he believed that customer satisfaction may result in more repeated purchase from customers. In 1989, the first nation-level measurement system of customer satisfaction - Swedish Customer Satisfaction Barometer (SCSB) was established; it soon became a great tool for companies to evaluate their performance and measure the customer satisfaction. The success of SCSB model has encouraged more countries to create their own Customer Satisfaction Index (CSI); the American customer satisfaction index (ACSI) was introduced in 1994; and the European Customer Satisfaction Index (ECSI) was created in 2000.

Since the establishment of SCSB, Customer Satisfaction Index (CSI) has attracted a great attention of marketing researchers; more and more empirical researches have focused on customer satisfaction (e.g. Anderson, 1996; Oliver, 1997; Hennig-Thurau and Klee, 1997); and some researchers have defined Customer Satisfaction Index (CSI) as good predictors for companies' market value (e.g. Eklof et al., 1999) and profitability (Fornell, 1992; Anderson et al., 1994, 1997; Eklof et al., 1999; Reichheld and Sasser, 1990).

Till today, many countries have developed their own National Customer Satisfaction Index (NCSI) according to their own national situations; some examples are German Barometer, Norwegian Customer Satisfaction Barometer (NCSB), Swiss Index of Customer satisfaction (SWICS), Korean Customer Satisfaction Index (KCSI), Malaysian Customer Satisfaction Index (MCSI), and Chinese Customer Satisfaction Index (CCSI).

The CSI model is a cause-and-effect relation between the antecedents and consequences; and each CSI model consists of different latent variables (e.g. customer expectation, perceived quality, perceived value, and image) to measure overall customer satisfaction which is demonstrated as the main core of the CSI framework. More details of Customer Satisfaction Barometer (SCSB), American customer satisfaction index (ACSI), European Customer Satisfaction Index (ECSI) and Taiwan Customer Satisfaction Index (TCSI) are presented in the following context.

2.2. Swedish Customer Satisfaction Barometer (SCSB)

Sweden was the first country in the world to have a national measurement instrument of customer satisfaction and evaluations of quality of products and services. (Martensen, Gronholdt, Eskildsen, and Kristensen, 2000). In 1989, Fornell and his colleagues in Michigan University helped Sweden build the first nation-level measurement system of customer satisfaction - Swedish Customer Satisfaction Barometer (SCSB); it was the first national customer satisfaction index for domestically purchased and consumed products and services (Fornell, 1992). Since then, SCSB has been adopted and adapted for using in the United States, known as American Customer Satisfaction Index (ACSI) (Fornell, Johnson, Anderson, Cha, and Bryant, 1996).

Swedish Customer Satisfaction Barometer (SCSB) enables to make comparisons of satisfaction measurement result between companies and industries; approximately 130 companies from 32 of Sweden's largest industries are involved and data is collected annually. Each year, around 25,000 customers from 32 leading industries are contacted via telephone interview during an eight-minute survey questionnaire; customers evaluated their satisfactions with organizations offerings on the brand level by 10 point scale and the survey results are analyzed by partial least squares methodology.



Source: Fornell, 1992.

Figure 2.1: Swedish Customer Satisfaction Barometer (SCSB)

According to Fornell (1992), the original SCSB model contains two primary antecedents of satisfaction: 1) perceptions of a customer's recent performance experience with a product or service; and 2) customer expectations about the performance. The perceived performance related to price and quality; and the customer expectation can be defined as customer predicts. The first driver "perceived performance (value)" is described by two measures: a) Quality Given Price; and b) Price Given Quality; perceived performance is evaluated by comparing

the product quality versus price paid; and price paid versus the product quality. Fonell (1992) believed that perceived performance is expected to positively impact on customers' satisfactions; when the perceived performance increases, the satisfaction levels will be also increased.

The other antecedent of satisfaction is "expectations", which defined as what customers expect from the product performance. Expectations play an important role in SCSB model because expectations forecast a company's ability to provide future performance. Researchers (Johnson, Gustafsson, Andreessen, Lervik & Cha, 2001) argued that expectations shall have positive influences on satisfaction; also expectations should be positively related to perceived performance (value).

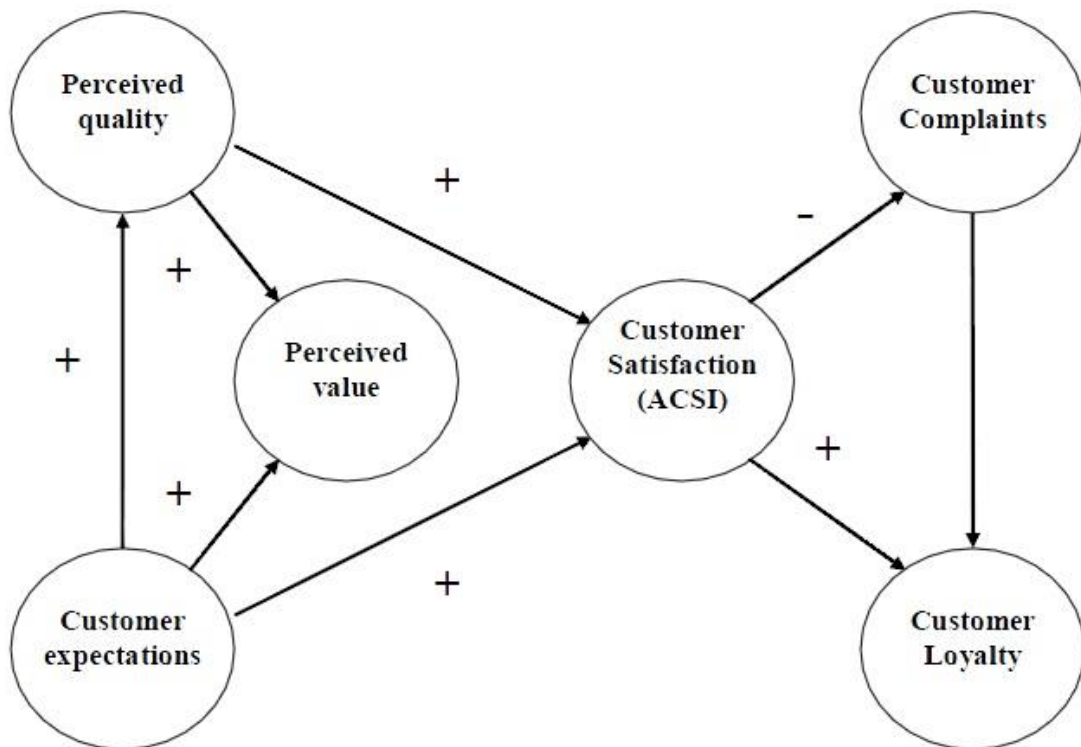
The consequences of satisfaction in the original SCSB model are derived from Hirschman's (1970) exit-voice theory. In his book *Exit, Voice and Loyalty* (1970), Hirschman argued that when a consumer is dissatisfied with the products or services that an organization provides, he can have three basic reactions: 1) He could remain *loyal* and hope the organization to provide some reward in exchange or hope the situation will be improved in the future, 2) He could demand a better product by raising *voice*, 3) He could *exit* and look for better products or services from the competitors. Based on this exit-voice theory, the authors of the SCSB model suggest that, if the company develops proper complaint handling system, the company may be turning complaining customers into loyal customers successful; or complaining customers will choose to exit.

2.3. American Customer Satisfaction Index (ACSI)

In 1994, the American customer satisfaction index (ACSI) was established; the model was

based on the original SCSB model specification; and produced through a partnership of the University of Michigan Business School, CFI Group, and the American Society for Quality. The National Quality Research Center (NQRC) at Michigan's Ross School of Business is the research and production center, also data analyzing and report writing for index. CFI Group provides software design and marketing consulting; published reports and news releases are handled by American Society for Quality (ASQ).

Today, the overall ACSI score factors from more than 230 companies in 47 industries; 2 local government service - the U.S. Postal Service and the Internal Revenue Service; and more than 100 services, program, and websites of federal government agencies. Each company or government service, industry, and sector is measured annually; over 200 organizations and a random sample of approximately 250 of the organization's customers are involved in the survey. Respondents are asked by a total of 15 survey questions which rated on 1 to 100-points scales point scales (Johnson et al, 2001).



Source: Anderson, Bryant, Cha, Fornell, Johnson, 1996

Figure 2.2: American Customer Satisfaction Index (ACSI)

ASCI is a benchmark for companies to compare with other companies in their own or other industries. Fornell (2001) stated that ACSI is predictive of corporate performance, growth in the Gross Domestic Product (GDP), and changes in consumer spending. ACSI measures ten economic sectors in the North American Industry Classification System (NAICS) that produce products and services sold directly to household customers. These sectors are: (1) Utilities, (2) Manufacturing/Nondurable Goods, (3) Manufacturing/Durable Goods, (4) Retail Trade, (5) Transportation and Warehousing, (6) Information,(7) Finance and Insurance, (8) Health Care and Social Assistance, (9) Accommodation and Food Services, and (10) Public Administration; the sectors included in ACSI produce 66% of the GDP.

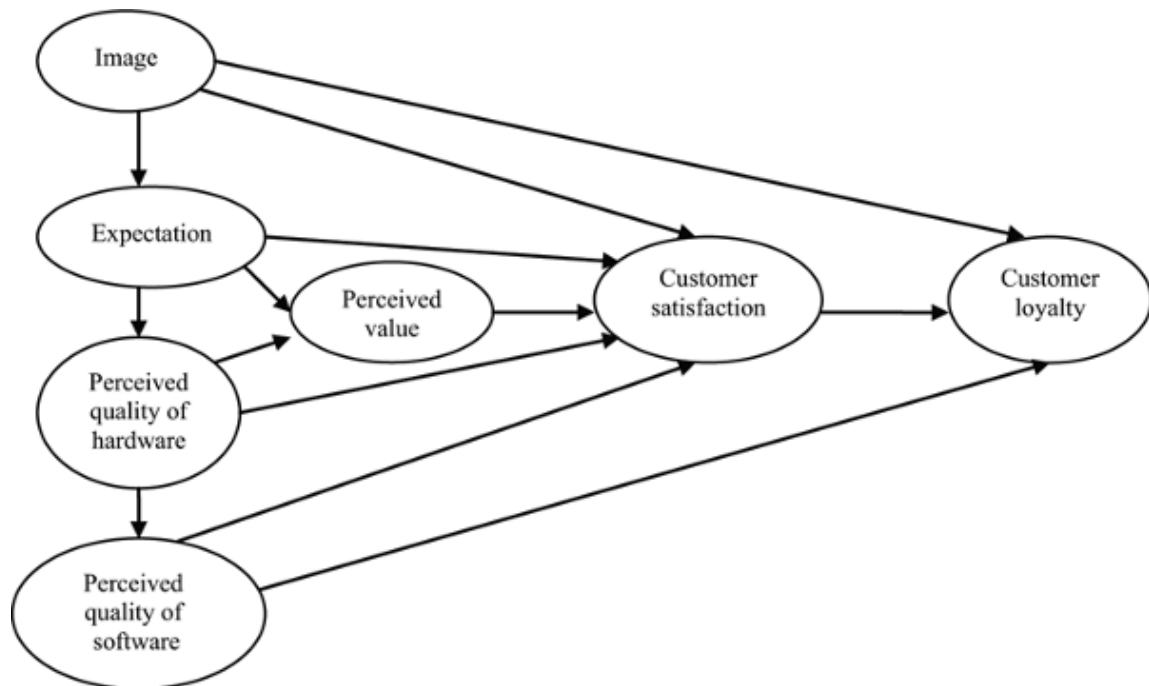
The ACSI model is a cause-and-effect model which has 3 antecedents for overall customer satisfaction: perceived quality, perceived value, customer expectations; and customer loyalty and customer complaint as consequences. The major difference in between ACSI and SCSB models is that perceived performance (value) construct used in SCSB model is replaced by two separate constructs perceived quality and perceived value in ACSI model. Perceived quality is evaluated by the product quality; and perceived value is measured by the product price which impact on customers' satisfaction.

2.4. European Customer Satisfaction Index (ECSI)

Since 1998, the success of Swedish Customer Satisfaction Barometer (SCSB) has inspired the European Union to develop a comparative system of national satisfaction index which allows companies, industries and countries within Europe to make comparisons.

The first survey of ECSI model was created and tested in 1999; more than 50,000 customers from 11 European countries anticipated in the survey study. The survey only included telecommunications (both fixed line and mobile telephone), retail banking and supermarkets as the industry sectors; but only telecommunication was included in all participating markets (Juhl, Kristensen and Østergaard, 2002).

In 2000, the European Customer Satisfaction Index (ECSI) was developed by the European Organization for Quality (EOQ) and the European Foundation for Quality Management (EFQM); the establishment of ECSI model allows European companies to evaluate their performance on national, European, and global levels.



Source: Martensen *et al.* (2000)

Figure 2.3: European Customer Satisfaction Index (ECSI)

The ECSI model is an adaptation of the SCSB and compatible with ACSI (ECSI, 1998; Eklöf and Westlund, 2002); however, there are few differences in between ECSI and ACSI models: (1) variable “image” is included within ECSI model; and it is expected to influence perceived value, customer satisfaction and customer loyalty, (2) perceived quality is divided into two separate variables; perceived quality of hardware) and perceived quality of software, and (3) Customer complaint is not included within ECSI model.

2.5. Taiwan Customer Satisfaction Index (TCSI)

Taiwan Customer Satisfaction Index (TCSI) is developed by Taiwan Customer Satisfaction Index Research Center of Chung Hua University and Taiwan Customer Satisfaction Research Committee (TCSRC) of Chinese Society for Quality (CSQ). The concept of TCSI is based on the framework of American Customer Satisfaction Index (ACSI) and European Customer

Satisfaction Index (ECSI) (Lee et al., 2005); the TCSI model provides the objective quality index in Taiwan, allow the national companies to follow up the standard reference. National Quality Research Center (2005) stated that the customer expectation and perceived quality of TCSI are using the same principle of customer expectation and perceived quality at ACSI model. However, the perceived value, customer satisfaction and customer loyalty of TCSI model are following based on the constructs at ECSI model (Kristensen et al., 2000).

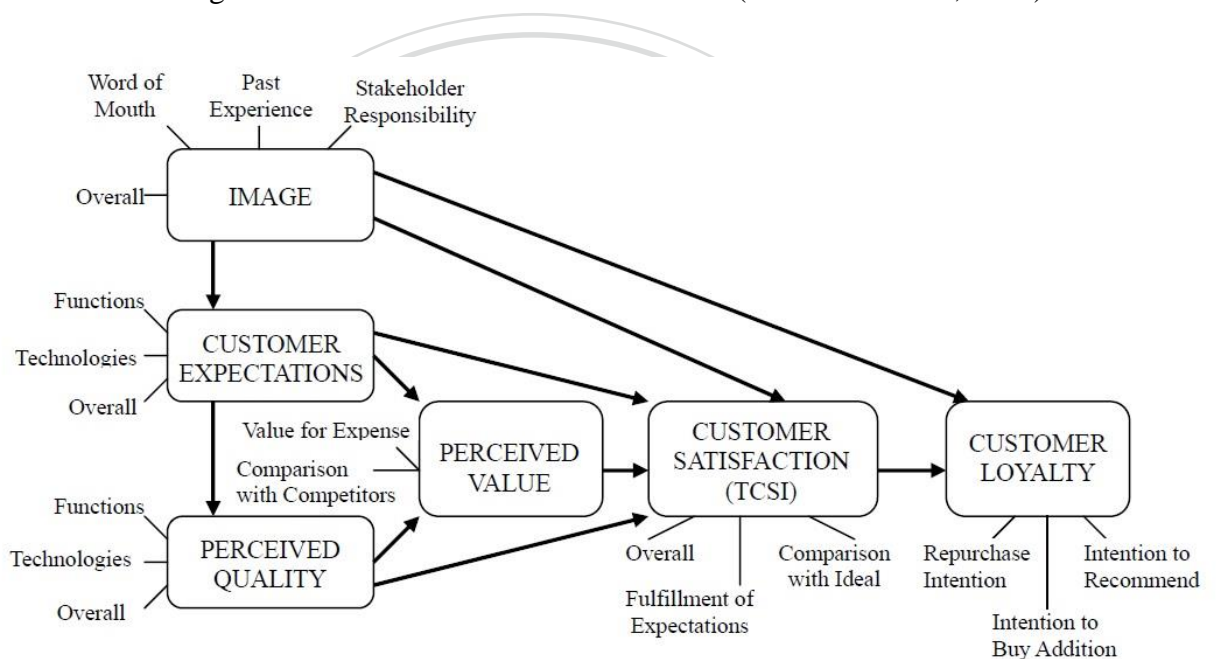


Figure 2.4: Taiwan Customer Satisfaction Index (TCSI)

In this study, Taiwan Customer Satisfaction Index (TCSI) is selected as the indicator to measure customer satisfaction of smartphone users.

3. Literature Review

Over the past decades, many marketing researchers have proposed numerous empirical studies which explain what motivates customer satisfaction. There are many factors can help organization to increase customer satisfaction, however, this review will only focus on four major variables which are presented at Taiwan Customer Satisfaction Index (TCSI); these variables are brand image, customer expectations, perceived quality and perceived value. After these antecedents, customer satisfaction and customer loyalty will be presented.

3.1. Brand Image

In the service marketing literatures, brand image has been defined as an important factor in the overall evaluation of the service and company (Grönroos 1984; Gummesson and Grönroos 1988; Bitner 1991; Andreassen and Lindestad 1997); the construct of brand image was first introduced in the Norwegian Customer Satisfaction Barometer (NCSB) model (Andreassen & Lindestad, 1998a; Andreassen & Lindestad, 1998b). Keller (1993) stated that brand image is the perceptions of an organization reflected in the associations held in consumer memory; and Assael (1998) proposed that brand images are developed when customers have experienced the quality of products or services companies provide, or based on friends' opinions.

Brand image is an important component of customer satisfaction model (Martensen et al., 2000); and some market researches proved that brand image has a direct effect on value (e.g., Kristensen et al., 1999; Martensen et al., 2000). According to Porter and Claycomb (1997), a positive brand image can encourage customers to re-purchase from the companies; and other researchers Lee et al (2005) proposed the similar theory that brand image has a strong impact on customers' buying behaviors. Ahmend (1991) found out that a strong and clear brand

image can increase consumer confidence and convince consumers to purchase, and Simon (2011) claimed that the stronger the brand's position is in the consumers' mind, the more essential source of differentiation it becomes, and this is a fundamental competitive advantage. In addition, Martenson (2007) stated that customers to a favorable brand image might affect perception of store brand.

For smartphone users, Knapman (2012) believes consumers are strongly influenced by brand when it comes to choosing Smartphone; because consumers usually go for a brand which they are familiar with, it can be a brand has high exposure and widely recognized among the target audiences, it can be a brand has special features than other competitors, or it can be a brand is well-known for its competitive pricing.

3.2. Customer Expectation

Globalization has changed today's business environment; the market competitions has become intensively and increasingly from both domestic and foreign smartphone producers which result in higher expectations from the customers. Customers' expectation is what the customers wish to receive from the service; understanding and accommodating customers' high expectation requires constant progress in service quality from smartphone producers to attract their customers to stay loyal.

Marketing researchers Zeithaml et al. (2006) proposed customer expectations are beliefs about a service delivery that serve as standard against which performance is done; customer expectation is the results of prior experience with the company's products (Türkyilmaz et al 2007), it involves many factors and complex considerations, including their own pre-purchase beliefs, previous experience with other companies, and learning from advertisement,

customers' psychological condition at the time of service delivery, customer background and values, the images of the purchased product, and other people's opinions. Different customers have different expectation about the same product; and the different expectations can be influenced by pre-purchase beliefs, individual needs, customers' own experiences, word of mouth communications and other personal attitudes.

Customers' expectations are important driver in the service quality formation process; and consumers' expectations have been an important topic of study in many other fields such as economic psychology (Oliver, 1997), consumer economics (Muth, 1961; Lovell, 1986), retailing (Swan and Trawick, 1980), pricing (Della and Monroe, 1974), and satisfaction (Fornell et al, 1996). The fulfillment of a consumer's expectation is a key factor in the consumer's satisfaction, and may indirectly influence the consumer's intention to repurchase from the same seller (Kim, Ferrin and Rao, 2003).

Lin and Wu (2011) found out that customers who are not satisfied with the received services would not be expected to have long run relationships with the company. For developing customer satisfaction, reliability in the providing of services and commitment to service relationships a company must attempt to increase customers' future expectations. Organizations that listen and exceed customers' expectations will succeed and maximize sales and market share; ultimately, it will be rewarded with customer loyalty and profitability.

To stay competitive in the smartphone industry, producers must constantly strive to improve their products and quality to meet with customers' expectations. Researchers (Hines, Silvi and Bartolini, 2002) suggested that companies should integrate customer expectations into their supply chain designs. In other words, management should be able to understand how their

customers perceive them and whether their performance meets these expectations (Hill, Brierley and MacDougall, 2003).

3.3. Customer Perceived Quality

In recent years, perceived quality has been the subject of considerable interest by both practitioners and researchers, mainly in services marketing (Cronin and Taylor, 1992; Parasuraman, Zeithaml and Berry 1996). Marketing researchers Aaker (1991) and Zeithaml (1988) proposed that perceived quality is not the actual quality of the brands or products; rather, it is the consumers' judgment about an entity's or a service's overall excellence or superiority; and perception of brand quality is determined by individual customers (Cole, Robert and Flynn, 2009).

Aaker (1991) pointed out that perceived quality has direct impacts on the consumers' purchase decision and brand loyalty, specifically when a consumer is not able to research the specific product in depth. High estimation of perceived quality does not only justify to the consumers a premium price for the brand, but it can also be used for brand extension, as the high quality the brand is known for in one market can be extended to a different marketplace.

Nowadays, the concept of perceived product quality has become an important marketing tool for companies to differentiate themselves from competitors; more and more academic scholars and marketing practitioner have already emphasized the importance of perceived product quality because it is the consumers' perception of overall components of products and good perceived product quality may result in customers' satisfactions. According to Zeithaml (1988), the perceived quality is (1) different from objective or actual quality, (2) a higher level abstraction rather than a specific attribute of a product, (3) a global assessment that in some

cases resembles attitude, and (4) a judgment usually made within a consumer's evoked set.

Perceived quality can affect a willingness to buy; and the price that customers will pay (Cole, Robert and Flynn, 2009). Some researchers stated the concept of perceived product quality not only affects the purchase intention of the consumer but also affects the market share, brand profitability, brand power, and brand equity (Garvin, 1984; Jacobson and Aaker, 1987; Aaker and Jacobson, 1994; Stobart, 1994). Chaudhuri (2002) claimed the perceived quality may lead to consumer satisfaction, which is determined by perceived performance and expectation. To understand the customers' perception about the quality of their service, companies must measure customers' satisfaction with their products and services; and deliver quality service is considered an essential strategy for success and survival in today's competitive environment (Zeithaml, and Berry 1985; Dawkins and Reichheld 1990; Parasuraman, Reichheld and Sasser 1990; Zeithaml, Parasuraman, and Berry 1990).

3.4. Perceived Value

One of the most cited definitions of perceived value is presented by Zeithaml (1988); he defined perceived value as "the consumer's overall assessment of the utility of a product based on what is received and what is given"; the concept of perceived value has gained its importance in the recent year because perceived value not only effects on consumer purchasing behavior but also provide important strategic marketing plans for the success of companies.

More and more industrial marketing researchers had studied perceived value because it is the essential result of marketing activities (Metcalf, Frear and Krishman, 1992; Anderson, Jain and Chintagunta, 1993; Parasuraman, 1997; Ravald and Grönross, 1996; Lapierre, 2000;

Walter, Ritter and Germünden, 2001; Ulaga and Chacour, 2001, Eggert and Ulaga, 2002; Flint, Woodruff and Gardial, 2002; Ulaga and Eggert, 2003; Woodall, 2003; Anderson and Narus, 2004; Leonidou, 2004; Lindgreen and Wynstra, 2005; Ulaga and Eggert, 2006; Eggert, Ulaga and Schultz, 2006). Researchers (Dodds, Monroe, and Grewal, 1991; Cronin, Brady, Brand, Hightower, and Shemwell, 1997; Grewal, Monroe, and Krishnan, 1998; Cronin, Brady, & Hulf, 2000; Oh, 2003) argued that perceived value is the price paid which related to the level of product quality; and it is identified as a construct configured by two major approaches; one is benefits received (economic, social and relationship) and the other is sacrifices made (price, time, effort, risk and convenience) by the customers.

Recently, a new approach based on the conception of perceived value as a multidimensional construct is supported by some marketing researchers (De Ruyter, Wetzels, Lemmink, and Mattson, 1997; Woodruff, 1997; DeRuyter, Wetzels, and Bloemer, 1998; Sinha and DeSarbo, 1998; Rust, Zeithaml, and Lemmon, 2000; Sweeney and Soutar, 2001); this new approach enables us to overcome some issues from the traditional approach to perceived value, particularly its excessive concentration on economic utility. Also, this new approach echoes the new theoretical developments in the area of consumer behavior, referring to the role played by feelings in buying and consumption habits.

Holbrook (1994) stated that customer value is the fundamental basis for all marketing activity; perceived value is a major tool to help the service provider to gain a better competitive position in the market (Naumann 1995; Woodruff 1997; Parasuraman 1997; Stahl, Barnes, Gardial, Parr and Woodruff 1999; Huber, Herrmann and Morgan 2001); and Fonell et al. (1996) pointed out that as the impact of value increased relation to quality, price is a more important determinant of satisfaction. To sum up, customer perceived value is an important

factor used to predict customers' behavioral intentions and preferences; and perceived value is considered to be a source of gaining competitive advantages.

3.5. Customer Satisfaction

In the past decades, many countries had already developed their national indicators for examining consumers' satisfaction such as The Swedish Customer Satisfaction Barometer (SCSB) in 1989, the American Customer Satisfaction Index (ACSI) in 1994, the Norwegian Customer Satisfaction Barometer (NCSB) in 1996, the Swiss Customer Satisfaction Index (SWICS) in 1998, the ECSI in 2000; and later the KCSI, CCSI, TCSI, etc. These national indicators allow companies to understand customers' evaluations and satisfactions about the quality of the products and services they supply. Customer satisfaction plays an important role and is often discussed in marketing literatures; customer satisfaction is crucial for all business organizations in today's competitive business environment, because it can have a positive impact on customer's retention, loyalty and intention to repurchase. Customer satisfaction is defined as an evaluation of the perceived discrepancy between prior expectations and the actual performance of the product (Tse and Wilton, 1988, Oliver 1999); satisfaction can also be described as a fulfillment response of service and an attitude change as a result of the consumption.

In previous studies, marketing researchers Anderson, Fornell and Mazvancheryl (2004) stated that it is costly to generate satisfied and loyal customers but that would prove profitable in a long run for a firm. The similar study was done by Eshghi, Haughton and Topi (2007); and they found out that satisfied customers can help the brands to build long and profitable relationships with their customers. In addition, some marketing scholars proved that satisfied customers are more likely to remain their loyalty by committing to an organization which

eventually leads to profits (Reichheld and Sasser, 1990; Heskett, Jones, Loveman, Saaser and Schlesinger, 1994; Heskett, Sasser and Schlesiner, 1997).

According to Deng et al. (2009), the ability of a service provider to create high degree of satisfaction is crucial for product differentiation and developing strong relationship with customers. Customers' satisfaction with products and services of a company is considered as most important factor leading toward competitiveness and success (Hennig-Thurau and Klee, 1997). Kotler & Keller (2006) proposed that customer satisfaction does not only prevent customers from complaining, but more importantly it meets and even exceeds customers' expectation. In addition, many empirical studies have shown that customer satisfaction helps companies to increase future revenues (Bolton, 1998; Fornell, 1992), reduces future transactions costs (Reichheld and Sasser, 1990) and decreases price elasticity (Anderson, 1996). Therefore, it is important for organizations to understand the key factors drive customers' satisfaction and increase the customer loyalty of company product or service.

Oliver (1997) stated customer satisfaction can be described as a judgment that a product or service provides pleasurable consumption; therefore, smartphone producers shall measure customers' satisfaction with their products and services if they would like to understand the customers' perception about the quality of their products and service. Another great motivation for smartphone producers to focus on customers' satisfaction is that higher customer satisfaction can lead to a stronger competitive position resulting in higher market share and profit (Fornell, 1992). In this study, customer satisfaction is defined as "the process of customer overall subjective evaluation of smartphone products and service delivered by smartphone producers against his/her expectation or desires over a time period".

3.6. Customer Loyalty

Customer loyalty is defined as a behavioral measure; it is customers' willingness to maintain their relations with a particular organization, service or product. (Kim and Yoon, 2004). In the consumer marketing community, customer loyalty has been considered as an important goal for companies (Reichheld and Schefter, 2000). Service organizations strive to maintain a superior quality of service in an effort to gain customer loyalty (Parasuraman, Zeithaml and Berry, 1996) because customer loyalty is one of the key drivers of customer retention process which will help a company sustains its long-term success. Therefore, building and maintaining customer loyalty has been an important marketing theory and practice because the competitive advantages can be offered to the companies (Gommans et al., 2001).

Today, companies are seeking solutions to increase customer loyalty of their organization because loyal customers make more purchase than non-loyal customers and they tend to have higher customer retention (Reichheld and Sasser, 1990). In addition to higher customer retention and higher spending, Zeithmal (2000) argued that loyal customers are more likely to help organizations to gain new customers by strong word-of-mouth and business referral. Aaker (1997) also pointed out that loyal customers can help companies to have higher market share and reduce the operating cost; and loyal customers are less price sensitive which brings more sales for the company compared to non-loyal customers because loyal customers are willing to purchase frequently, try different products or services, and bring new customers to the companies (Reichheld and Sasser, 1990).

In 1990, Reichheld and Sasser found that a 5% increase in customer retention increases a firm's profits at a range between 25% and 85%; and Raphel and Raphel (1995) pointed out that the cost of creating a new customer is 5-9 times greater than the cost of maintaining an

old customer. The similar study was examined by Frederick (2001) and he proved that the longer customers stay in relationship with the company, the more value the company generates; the customer profitability rate over the life of a retained customer tends to increase annually by up to 20 %. Researchers Gupta et al. (2004) claimed that a 1% improvement in the customer retention rate improves firm value by 5%.

Many other researchers had emphasized the benefits of customer retention (Bendapudi and Berry, 1997; Johnson et al., 2001; Libai et al., 2002; Johnson and Selnes, 2004); and Ehigie (2006) proposed that excellence in service quality is a key to achieve customer loyalty, which is the primary goal of business organizations, due to the advantages of customer retention. Berger and Nasr (1998) stated that the period of time a relationship maintained is one of fundamental factors determining the value that the customers provide to the firm. To reach customer retention, companies should manage satisfaction and consequences of customer loyalty (Naranyandas, 1998). Therefore, the most important task and challenge for all the smartphone producers now is customer retention and loyalty.

4. Research Method & Hypotheses

In this study, Taiwan Customer Satisfaction Index (TCSI) is the main model to measure customer satisfaction; TCSI consists of different variables that analyze the cause-and-effect relations between the antecedents and consequences of customer satisfaction. To measure the cause-and-effect relations of TCSI model, IBM SPSS Statistics 20 will be selected for the further understanding of analyzing statistical data.

Based on the previous sections, objectives of this study and theoretical basis of the TCSI model, 10 different hypotheses are developed in order to have an understanding of smartphone users' satisfaction and the hypotheses are developed based on the following effects.

4.1. Image Effects

Brand image is considered as important factor in establishing and maintaining loyalty among customers; several studies had shown the important effects of brand reputation and brand image in the customer's buying behavior (Zeithaml, 1981). Wu (2011) stated brand image has been assessed as an important antecedent of customer satisfaction and loyalty; a positive corporate brand image not only helps companies to increase competition but also encourages consumers to re-purchases (Porter and Claycomb, 1997). Aaker (1991) and Rory (2000) both pointed out customers would likely to increase the satisfaction of usage and recommend the good corporate image brands to others; similar theory was reported by De Chertanony and Harris (2000) that the positive corporate brands help companies achieving higher performance, such as sales.

Gensch (1978) stated brand image has big impacts on the purchase intention and the customer

satisfaction; the more customers consider a brand valuable, the more sales can be expected to be achieved. Davies et al. (2003) conducted a research study on the relationship between corporate brand image and customer satisfaction; and the result was positive; other searchers Johnson et al. (2001) also found that consumers more favorable the image has higher perceived in quality, value, satisfaction and loyalty.

Bloemer & Ruyter (1998) reported that brand image acts as a mediator of satisfaction; and customer satisfaction is the result from different attributes of a brand's image, also customer loyalty is related to customer satisfaction directly. Their study proved that the brand image has the direct impacts on its customer's satisfaction and loyalty. Aydin and Zer (2005) claimed the major antecedents of customer loyalty are brand image, perceived service quality, trust and customer switching costs; and loyal customers may buy more, accept higher prices and have a positive word-of-mouth effect. In addition, Johnson et al. (2001) stated brand image affect customer behavioral intentions such as customer loyalty. Other researchers (Loughlin and Coenders 2002; Kristensen, Martensen and Gronholdt 2000; Bloemer and Schroder 2002) also support the same theory that corporate image is predictor of loyalty. In line with existing researches, three hypothesizes related image are created:

H1: Image has a high correlation with customer expectation

H2: Image has a high correlation with customer satisfaction

H3: Image has a high correlation with customer loyalty

4.2. Customer Expectation Effects

Service quality is a measurement of the level of how well the service matches the customer expectation (Lewis & Booms, 1983). More and more marketing researchers have been

emphasized on perceived service quality; Zeithaml (1998) claimed that perceived service quality is defined as the customer's assessment of overall performance of service. Parasuraman et al. (1985, 1988) considered the customer's assessment of overall service quality depends on the gap between customer expectation and perception of actual performance of service. Chaudhuri (2002) argued the perceived quality may lead to consumer satisfaction, which is determined by perceived performance and expectation.

Rust and Oliver (1994) claimed that ultimately it is perceived value that attracts a customer or lures away a customer from a competitor; perceived value not only influences customers at the pre-purchase stage but also affects customers' satisfactions, intention to recommend and return behavior at the post purchase phase (Dodds, Monroe and Grewal 1991; Parasuraman and Grewal 2000; Petrick 2001).

Customer expectations are consequences of previous experiences with company's products or services; customer expectations play as an important performance indicator for companies to understand whether their company products or service has met or exceeded customers' expectations. Anderson et al. (1994) stated that customer expectations' construct is anticipated to have a direct and positive relationship with customer satisfaction. In addition, other marketing researchers Farris et al. (2010) claimed that expectations are a key factor behind customers' satisfactions. Based on the statements by previous researchers, this study would like to know whether customer expectation would have positive effects towards perceived quality, perceived value and customer satisfaction. Thus, the following hypothesizes would be:

H4: Customer expectation has a high correlation with perceived quality

H5: Customer expectation has a high correlation with perceived values

H6: Customer expectation has a high correlation with customer satisfaction

4.3. Perceived Quality Effect

Perceived quality is the consumer judgment over the general excellence or over product superiority (Zeithaml 1988); and perceived value is defined from the perspectives of money, quality, benefit, and social psychology. In previous studies, many researchers had pointed out that higher perceived quality typically leads to higher perceived value (Sweeney et al., 1999; Teas and Agarwal, 2000), and the relationship between both concepts is positive. Other empirical studies also reported that service quality will positively influence perceived value (Cronin et al., 1997; Cronin et al., 2000; Brady et al., 2001; Bauer et al., 2006).

According to Anderson et al. (1994), customer satisfaction is more influenced by the perceived quality than perceived price. A similar research conducted by Clemes et al. (2008) also indicated that perceived service quality affects customer satisfaction more than the perceived price. Taken together, the above discussion indicates that perceived quality is likely to have significant effects on perceived value and customer satisfaction. Therefore, the following hypotheses are established:

H7: Perceived quality has a high correlation with perceived value

H8: Perceived quality has a high correlation with customer satisfaction

4.4. Perceived Value Effects

According to Cronin et al. (2000), perceived value has effects on satisfaction and customer loyalty; also Eggert and Ulaga (2002) discovered that perceived value positively influences customer satisfaction in most cases of conventional retailers. In addition, marketing

researchers Schiffman and Kanuk (2004) reported that the overall objective of providing value to customers continuously and more effectively than competitors is to have and to retain highly satisfied customers. In telecommunication sector, Lin and Wang (2006) and Tung (2004) found positive relationship among perceived value and customer satisfaction. Therefore, based on the evidences given above, the next hypothesis is developed:

H9: Perceived value has a high correlation with customer satisfaction

4.5. Customer Satisfaction Effects

Oliver (1997) reported customer satisfaction is an important driver to customer loyalty and the success of businesses; and customer satisfaction has been widely studied as a predictor of customer loyalty (Fornell et al., 1996; Cronin et al., 2000; Yang and Peterson, 2004). Many marketing researchers (Anderson and Sullivan 1993; Gronholdt, Martensen and Kristensen, 2000; Anderson and Mittal, 2000; Rust, Zahorik and Keiningham 1995; Gustafsson and Johnson 2002) had studied the relationship between satisfaction and loyalty; and the results supported that customer satisfaction had strong and positive effects on customer loyalty. Also, many empirical studies have pointed out that two of the more effective means of generating customer loyalty are to delight customers (Lee, Lee, and Feick, 2001; Oliver, 1999) and to deliver superior value derived from excellent services and quality products (Parasuraman and Grewal, 2000). These empirical results show that customer satisfaction has a positive association with customers' loyalty. Hence, the next hypothesis is proposed:

H10: Customer satisfaction has a high correlation with customer loyalty

5. Measurement & Limitations of the Study

The questionnaire of this paper study is designed based on the TCSI; and the samples of this study cannot be generalized nor presented as all the smartphone users because the samples are not randomly selected. The data in this study is collected conveniently; the reliability and validity may be questioned. Also, majority of respondents are living in Taiwan, the analyzing result may not be presented all the smartphone users in the world; however, the results of this study provide good indications for smartphone producers. In addition, the questionnaire is developed based on Taiwan Customer Satisfaction Index (TCSI); which involves with 6 different variables (brand image, customer expectation, perceived quality and perceived value, customer satisfaction and customer royalty); however, the actual customer satisfaction of smartphone users may be effected by other variables which may be more complicated than the Taiwan Customer Satisfaction Index (TCSI) proposed by this study; a number of potential variables may be included, such as special pricing package with local telecommunication provider, personal preference for local brands which are not included in this study.

5.1. Questionnaire Design

The contents of the questionnaire consist of three major parts; the first part is user information which includes the questions to confirm the respondents are smartphone users; also the smartphone brands. These questions are used to get a perspective of consideration set for participants. In this part, respondent's basic information is also included, such as gender, nationality, residence country location, city location, age, education background, career industry, monthly income, smartphone cost, reasonable smartphone price, frequency of changing smartphone, smartphone brand, and others questions about how respondents perceive their smartphone, HTC brand smartphone, iPhone brand smartphone and Samsung

brand smartphone.

The second part is customer satisfaction investigation, this part consist of seven different factors which are “personal preference”, “image”, “expectation”, “perceived quality”, “perceived value”, “customer satisfaction” and “customer loyalty”; however, “personal preference” is not discussed in TCSI model, the questionnaire of this factor aims to understand more about smartphone users’ preference. The questionnaire of this second part consists of 30 items, including 5 personal preference items, 6 brand image items, 5 customer expectation items, 4 perceived quality items, 4 perceived value items, 3 customer satisfaction items, and 3 customer loyalty items; the questionnaire aims to understand smartphone users’ satisfaction of the overall smartphone usage experience. All the items related to personal preference are measured by a 5-point Likert scale; 1=“strongly disagree” to 5 =”strongly agree”; all the items related to brand image are measured by a 5-point Likert scale; 1=“very negative” to 5 =”very positive”; and all the items related to customer expectation, perceived quality, perceived value, customer satisfaction and customer loyalty are measured by a 5-point Likert scale; 1=“very dissatisfied” to 5 =”very satisfied”.

The final part is the open-question asking respondents about how can smartphone producers improve their smartphones to meet with customers’ expectations.

5.2. Sample & Data Collection

Originally, this study survey aims for Taiwanese smartphone users only. However, this criterion might lead the survey result a bit bias due to HTC is an international brand from Taiwan. To understand how non-Taiwanese and other nationalities perceive HTC brand from different perspective, also, to reach the smartphone users with different backgrounds; the

questionnaire was posted on Facebook and also sent by e-mailing for collecting respondents' answers from different countries and nationalities. A Facebook survey event was created and posted out at various Facebook groups; e.g. Taiwanese live in the Netherlands, Taiwanese live in Germany, expats live in France, Expats live in UK and others.

Before respondents start the survey, the purpose of this survey was explained. All the respondents were voluntarily participated in this study survey including world-wide population; not limited to Taiwan population only. A total of 291 respondents anticipated in this survey, 6 of them is invalid because the respondents who do not own/use a smartphone; therefore, 285 valid questionnaire was collected.

5.3. Statistical Analysis

After removing 6 non-smartphone users' invalid survey data, 285 respondents' answers and data were collected and analyzed with IBM SPSS Statistics 20 software. The total number of samples was 285; 130 male respondents (45%) and 161 female respondents (55%). The majority of the nationality is Taiwanese which are 165 respondents contributing 58% of the completed nationality; the next is 5% from 15 Canadians and the other 5% from 13 Americans. Among all the anticipated nationalities, 154 people (54%) currently live in Taiwan; 33 people (12%) live in the Netherlands, and 20 people (7%) live in Germany now.

Age levels between 24-30 years accounted for the most; constituted 30%; followed by 31-35 years accounted for 28%. Education background with college or university contribute the most, 138 people for total 48%; the next one is graduate school and above which include 127 people constituting 45%. Most of respondents are students which accounted for 30%; and 33 sales people contributed 12%.

Due to students contribute a big portion of all the respondents, it also reflects on the monthly income which below NT 25,000/Below EUR625 (US835) accounted for the most, 95 people constituting 33%; and the second large portion is 19% for salary among NT 25,000 – NT 39,999/EUR625~EUR1000 (US835~US1350). As for purchasing locations, phone shops can be found easily nowadays, 141 out of total 285 smartphone users bought their smartphones from phone shops which account for 49%; and the second choice is telecommunication bureau which account for 25%.

For the smartphone price, 22% users paid NT 5,000~10,000/EUR125~EUR250 (US170~US335); 14% paid NT 10,000~15,000/EUR250~EUR375 (US335~US500); 21% paid NT 15,000~20,000/ EUR375~EUR500 (US500~US665); 24% paid NT 20,000~25,000/EUR500~EUR625 (US665~US830); 11% paid NT 25,000~30,000/EUR625~EUR750 (US830~ US1000) and 8% paid above NT 30,000/ Above EUR750 (US1000) (See Table 5.1).

Table 5.1: The Cost of Respondent’s Current Smartphone
11. How much did you pay for your current smartphone?

NT 5,000~10,000 / EUR125~EUR250 (US170~ US335)	63	22%
NT 10,000~15,000 / EUR250~EUR375 (US335~ US500)	39	14%
NT 15,000~20,000 / EUR375~EUR500 (US500~ US665)	59	21%
NT 20,000~25,000 / EUR500~EUR625 (US665~ US830)	69	24%
NT 25,000~30,000 / EUR625~EUR750 (US830~ US1000)	32	11%
Above NT 30,000 / Above EUR750 (US1000)	23	8%

(Source: Own source from this study questionnaire, June 1, 2013)

Although 24% of smartphone users paid NT 20,000~25,000/EUR500~EUR625 (US665~US830) for their smartphones, only 6% of respondents consider this price range NT 20,000~25,000/EUR500~EUR625 (US665~US830) is reasonable for smartphones. 32% of

smartphone users consider NT 5,000~10,000/EUR125~EUR250 (US170~US335) is reasonable pricing for smartphones; 30% agrees on NT 10,000~15,000/EUR250~EUR375 (US335~US500); and 29% approves on NT 15,000~20,000/ EUR375~EUR500 (US500~US665) (See Table 5.2).

Table 5.2: Respondents' Ideal Smartphone Cost

12. In your opinion, what price range is considered reasonable for a smartphone?		
NT 5,000~10,000 / EUR125~EUR250 (US170~ US335)	90	32%
NT 10,000~15,000 / EUR250~EUR375 (US335~ US500)	85	30%
NT 15,000~20,000 / EUR375~EUR500 (US500~ US665)	82	29%
NT 20,000~25,000 / EUR500~EUR625 (US665~ US830)	17	6%
NT 25,000~30,000 / EUR625~EUR750 (US830~ US1000)	7	2%
Above NT 30,000 / Above EUR750 (US1000)	4	1%

(Source: Own source from this study questionnaire, June 1, 2013)

As the real smartphone prices are much higher than what customers hope for, only 13 people out of total 285 smartphone users change their smartphone less than 1 year which account for only 5%. Most of people change their smartphone among 1-3 years; 35% of users change every 1-2 years; and 39% of users change every 2-3 years. And 42% of users are currently using iPhone, 20% of users are using Samsung; and 18% of users are using HTC.

Being not well-recognized/well-known by consumers is a critical factor for smartphone producers because 148 respondents (52%) agree that brand is one of the main factors when they select a smartphone. Question# 14 approves that brand is an key factor for the success of Apple iPhone because 256 smartphone users (90%) agree brand is one of the reasons many users like Apple iPhone; even though the pricing is not really attractive, only 8% of users consider Apple iPhone pricing is one of the main reasons users select iPhone. Beside of the brand, respondents also believe in operation system and interface (187 respondents), phone

design & look (161 respondents), available software (140 respondents), and touch screen capabilities, high pixel cameras / video Function (131 respondents) are other winning factors for Apple iPhone.

At present, the market leader of smartphones is Samsung. On this study research, the questionnaire also asks the respondents what are the key factors that users like Samsung smartphones and the answers are big screen (186 respondents), pricing (161 respondents), operating system and interface (101 respondents), phone design & look (95 respondents), brand (91 respondents), and high pixel cameras / video Function (80 respondents). If we combine the top 5 of selecting Apple iPhone and Samsung factors, the results are brand, operating system and interface, big screen, phone design & look, pricing, available software, touch screen capabilities, and high pixel cameras / video function. These criteria match with the answers of question# 16; respondents select pricing, operating system and interface, brand, phone design & look, high pixel cameras / video function as the top 5 main factors when it comes to select a smartphone.

Question# 17 indicates the smartphone brand our respondents currently use; HTC is on the 3rd place. Though HTC is an international brand from Taiwan, 33 people out of these 285 smartphone users are not aware of HTC is from Taiwan which account for 12%. Among these 33 people, 6 of them are from Taiwan and 22 people are from other nationalities and under age 35. This information shows HTC is not well-recognized in many countries including homeland Taiwan; also indicates HTC hasn't campaigned the brand well in the world (See Table 5.3).

Table 5.3: Respondents Who Do Not Know HTC is a Mobile Brand from Taiwan

1. Gender	2. Nationality	3. Residence Country Location	5. Age	20. Do you know “HTC”is a mobile phone brand from Taiwan?	6. Education Background
Female	Argentina	Argentina	18 – 23	NO	Graduate School and above
Female	Argentina	Argentina	18 – 23	NO	College or University
Male	Australia	Japan	24 – 30	NO	College or University
Male	Belgium	France	24 – 30	NO	College or University
Female	Canada	Canada	36 - 40	NO	Senior High School
Male	Canada	Japan	24 - 30	NO	College or University
Male	Canada	Canada	36 - 40	NO	College or University
Female	Canada	Canada	36 - 40	NO	College or University
Male	Canada	Canada	36 - 40	NO	Graduate School and above
Male	France	France	18 - 23	NO	College or University
Male	Germany	Germany	24 - 30	NO	College or University
Female	Germany	The Netherlands	24 - 30	NO	Graduate School and above
Male	Nigerian	The Netherlands	24 - 30	NO	Graduate School and above
Male	Portugal	Portugal	18 - 23	NO	Graduate School and above
Female	Portugal	Germany	18 - 23	NO	College or University
Female	Russia	France	18 - 23	NO	Graduate School and above
Female	Russia	The Netherlands	18 - 23	NO	Senior High School
Female	Russia	USA	31 - 35	NO	Graduate School and above
Male	Slovakia	Slovakia	18 - 23	NO	College or University
Female	Spain	France	24 - 30	NO	Graduate School and above

Male	Taiwan	Taiwan	46 - 50	NO	Senior High School
Male	Taiwan	Taiwan	36 - 40	NO	College or University
Male	Taiwan	Taiwan	31 - 35	NO	College or University
Female	Taiwan	Germany	46 - 50	NO	College or University
Male	Taiwan	Taiwan	36 - 40	NO	College or University
Female	Taiwan	Taiwan	24 - 30	NO	Graduate School and above
Female	Thailand	Thailand	Under 18	NO	College or University
Female	The Netherlands	The Netherlands	24 - 30	NO	College or University
Male	The Netherlands	The Netherlands	18 - 23	NO	College or University
Male	UK	UK	18 - 23	NO	College or University
Female	UK	USA	24 - 30	NO	Senior High School
Female	USA	USA	31 - 35	NO	College or University
Male	USA	Japan	24 - 30	NO	College or University

(Source: Own source from this study questionnaire, June 1, 2013)

Question# 18 asks respondents' opinions about HTC smartphones 35% of people consider HTC smartphones are good price and good quality, 21% of people consider HTC is good pricing but bad quality. 26 people selected others because 19 of them never used HTC smartphones before, 3 consider pricing and quality are alright; 2 consider HTC is good quality but unknown price, 1 never heard of HTC, 1 do not use China product. Among 285 respondents, the ratio of considering HTC smartphone on their next purchase is almost 50/50; 54% respondents will consider HTC and 46% will not.

In order to understand more about why respondents do and do not consider HTC on their next smartphone purchase, our question# 23 & 24 ask respondents to select the reason and the results indicate around 25% of smartphone users say they would consider HTC because they would like to support Taiwanese brands, they also like the phone design & look, operation

system and interface, brand and pricing; however, 17% of people do not like HTC because HTC claims themselves it's a brand from Mainland China and 15% points out that HTC does not offer the best package for home market Taiwan. As pricing concerns, only 12% respondents consider HTC has expensive pricing. Though pricing is one of the key considering factors when it comes to consumers' decisions, this survey result shows that consumers are willing to pay higher pricing as long as the quality of the smartphones is good; only 8% of users consider Apple iPhone pricing is one of the main reasons users select iPhone (Result of question# 14); 120 of 285 (42%) respondents currently use Apple iPhone (Result of question# 17).

As the respondents' personal information, the data results comprise of various nationalities and ages; the information meets with statistical demands. The statistical analysis result is shown in Appendix.

5.4. Descriptive Statistics

Before analyzing the collected data of the second part of questionnaire, the 6 sub-questionnaires related to brand image, customer expectation, perceived quality, perceived value, customer satisfaction and customer loyalty were measured to test the internal consistency by computing the standard deviation test using the descriptive statistics. Based on the result of descriptive statistics, it shows the standard deviation of each question is among .819 – 1.067; the interpretation is good (See Table 5.4)

Table 5.4: Descriptive Statistics

Descriptive Statistics				
Content	Abstracted Dimension	Item Code	Mean	Std. Deviation
BI 1. Reputation Of This Smartphone Brand		BI 1	3.87	.844
BI 2. Professional Image		BI 2	3.92	.844
BI 3. Customer Relation Image		BI 3	3.58	.906
BI 4. Social Contributions To Society	Brand Image	BI 4	3.28	.878
BI 5. Your Own Experience Of Using This Smartphone Brand		BI 5	3.91	.934
BI 6. Overall Brand Image		BI 6	3.84	.819
CE 1. The function of this smartphone meets with your requirements		CE 1	3.88	.846
CE 2. Your Own Expectation About The Overall Quality of This Smartphone Brand		CE 2	3.80	.895
CE 3. Your Own Expectation About The Service Quality of This Smartphone Brand	Customer Expectation	CE 3	3.56	.876
CE 4. Your Own Expectation About The Perceived Value of This Smartphone Brand		CE 4	3.62	.833
CE 5. Overall Expectation		CE 5	3.74	.886
PQ 1. Your Own Experience About Product Quality Of This Smartphone Brand		PQ 1	3.72	.925
PQ 2. Your Own Experience About Service Quality Of This Smartphone Brand	Perceived Quality	PQ 2	3.61	.855
PQ 3. Own Experience About Customer Service Of This Smartphone Brand		PQ 3	3.45	.857
PQ 4. Overall Perceived Quality		PQ 4	3.68	.847

PV 1. The Price You Paid For This Smartphone Was Reasonable	Perceived Value	PV 1	3.21	.931
PV 2. The Price You Paid For This Smartphone Is Worth Of Your Spending		PV 2	3.46	.886
PV 3. Using This Smartphone Makes You Feel Great And Happy		PV 3	3.78	.870
PV 4. Your Overall Perceived Value About This Smartphone Brand		PV 4	3.66	.836
CS 1. Overall Satisfaction Compare To Expectation Before Purchase	Customer Satisfaction	CS 1	3.73	.893
CS 2. Overall Satisfaction Compare To Ideal Smartphone Brand		CS 2	3.60	.979
CS 3. Overall Satisfaction		CS 3	3.71	.941
CL 1. Your Repurchase Intention Of This Smartphone Brand	Customer Royalty	CL 1	3.73	1.008
CL 2. You Are Willing To Recommend This Smartphone Brand To Others		CL 2	3.76	1.067
CL 3. Even if other smartphone brands have better pricing offer, you would still stay with your current smartphone brand		CL 3	3.34	1.041

(Source: Own source from this study questionnaire, June 1, 2013)

5.5. Reliability Analysis

The reliability analysis results indicate the reliability coefficients of internal consistency is .870 for brand image, .910 for customer expectation, .896 for perceived quality, .826 for perceived value, .923 for customer satisfaction, and .880 for customer loyalty (See Table 5.5 and Table 5.6). Based on the rule of George and Mallery (2003): > .9 (Excellent), > .8 (Good), > .7 (Acceptable), > .6 (Questionable), > .5 (Poor), and < .5 (Unacceptable); the closer the coefficient is to 1.0, the greater is the internal consistency of the items (variables) in the scale. For each question of these six sub-questionnaires, the lowest Cronbach's Alpha is .735 for PV2 and .908 for CS1. All the reliability coefficients of these size sub-questionnaires are

higher than .80; therefore, the Cronbach's alpha result proves the internal consistency and reliability of this survey result is among excellent and good.

Table 5.5: Reliability Statistics
Reliability Statistics

	Cronbach's Alpha Based on Standardized		
	Cronbach's Alpha	Items	N of Items
Brand Image	.870	.872	6
Customer Expectation	.910	.910	5
Perceived Quality	.896	.898	4
Perceived Value	.826	.829	4
Customer Satisfaction	.923	.924	3
Customer Loyalty	.880	.880	3

(Source: Own source from this study questionnaire, June 1, 2013)

Table 5.6: Item-Total Statistics
Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BI1	18.53	11.644	.732	.602	.837
BI2	18.48	11.786	.703	.588	.842
BI3	18.82	11.643	.664	.493	.849
BI4	19.12	12.326	.563	.367	.866
BI5	18.49	11.723	.622	.548	.857
BI6	18.56	11.726	.744	.640	.835
CE1	14.73	9.059	.799	.674	.885
CE2	14.81	8.795	.800	.686	.884
CE3	15.05	9.462	.670	.455	.911
CE4	14.99	9.303	.758	.598	.893
CE5	14.87	8.677	.840	.716	.876
PQ1	10.75	5.471	.680	.513	.901
PQ2	10.86	5.271	.833	.727	.843

PQ3	11.02	5.489	.759	.667	.870
PQ4	10.79	5.350	.817	.669	.849
PV1	10.90	5.092	.527	.372	.840
PV2	10.65	4.553	.749	.591	.735
PV3	10.33	5.033	.610	.500	.800
PV4	10.46	4.770	.740	.628	.743
CS1	7.31	3.376	.822	.684	.908
CS2	7.43	3.049	.838	.714	.896
CS3	7.33	3.088	.877	.769	.862
CL1	7.11	3.644	.824	.701	.780
CL2	7.07	3.527	.790	.672	.809
CL3	7.49	3.899	.692	.484	.895

(Source: Own source from this study questionnaire, June 1, 2013)

5.6. KMO Analysis (Kaiser-Meyer-Olkin Measure of Sampling Adequacy)

The KMO analysis result is .961 (See Table 5.7). Based on the rule of KMO: > .9 (Marvelous), 0.80 - 0.89 (Meritorious), 0.7 - 0.79 (Middling), 0.60 - 0.69 (Mediocre), 0.5 - 0.59 (Miserable), and < .5 (Unacceptable); the closer the result is to 1.0, the greater is the sampling adequacy of the items (variables) in the scale.

Table 5.7: KMO and Bartlett's Test
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.961
Bartlett's Test of Sphericity	Approx. Chi-Square	6466.080
	Df	300
	Sig.	0.000

(Source: Own source from this study questionnaire, June 1, 2013)

5.7. Pearson Correlations

Correlation between variables analyzes how variables are related to each other; whether there is a significant relationship or association between variables. In this study, correlation analysis adopted the Pearson Product Moment Correlation (PPMC) which is the most common

correlation analysis in statistics to dissect the relationships among brand image, customer expectation, perceived quality, perceived value, customer satisfaction and customer loyalty. "r" is called the CORRELATION COEFFICIENT, and may take on any value between +1 and -1; the closer r is to "1", the stronger the relationship. The closer r is to "0", the weaker the relationship.

High correlation: .5 to 1.0 or -0.5 to 1.0

Medium correlation: .3 to .5 or -0.3 to .5

Low correlation: .1 to .3 or -0.1 to -0.3

The results of all correlation coefficients are shown in Table 5.8.

Table 5.8: Pearson Correlations
Pearson Correlations

	Brand Image	Customer Expectation	Perceived Quality	Perceived Value	Customer Satisfaction	Customer Loyalty
Brand Image	1					
Customer Expectation	.760**	1				
Perceived Quality	.769**	.856**	1			
Perceived Value	.614**	.736**	.690**	1		
Customer Satisfaction	.657**	.831**	.742**	.738**	1	
Customer Loyalty	.694**	.805**	.732**	.676**	.788**	1

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

(Source: Own source from this study questionnaire, June 1, 2013)

The results of all correlation coefficients are:

1. Brand image and customer expectation was 0.760 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H1).
2. Brand image and customer satisfaction was 0.657 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H2).
3. Brand image and customer loyalty was 0.694 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H3).
4. Customer expectation and perceived quality was 0.856 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H4).
5. Customer expectation and perceived value was 0.736 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H5).
6. Customer expectation and customer satisfaction was 0.831 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H6).
7. Perceived quality and perceived value was 0.690 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H7).
8. Perceived quality and customer satisfaction was 0.742 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H8).
9. Perceived value and customer satisfaction was 0.738 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H9).
10. Customer expectation and customer loyalty was 0.788 ($p < 0.01$), depicting the two factors to be positively related. This result entirely conformed to hypothesis (H10).

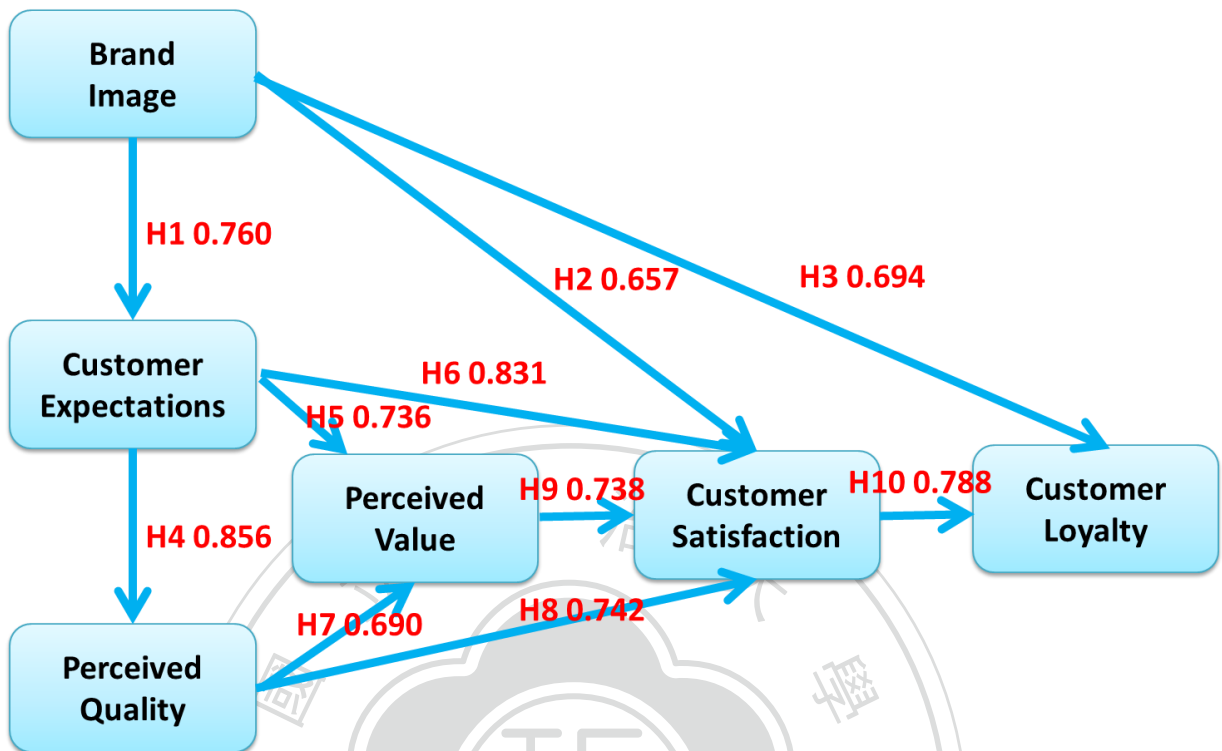


Figure 5.1: The Results of All Correlation Coefficients
 (Source: Own source from this study questionnaire, June 1, 2013)

5.8. Standardized Regression Coefficients

To confirm the relationship between two variables measured by correlations above, standardized regression coefficients is analyzed and the results are the same:

1. Brand image and customer expectation was 0.760
2. Brand image and customer satisfaction was 0.657
3. Brand image and customer loyalty was 0.694
4. Customer expectation and perceived quality was 0.856
5. Customer expectation and perceived value was 0.736
6. Customer expectation and customer satisfaction was 0.831
7. Perceived quality and perceived value was 0.690
8. Perceived quality and customer satisfaction was 0.742

9. Perceived value and customer satisfaction was 0.738

10. Customer expectation and customer loyalty was 0.788

Table 5.9: Standardized Regression Coefficients

Dependent	Independent	R	R Square	Adjusted Standardized		T	Sig.	Collinearity	
				R Square	Coefficients Beta / Beta			Tolerance	VIF
Customer Expectation		.760 ^a	.578	.577	.760	19.694	.000	1.000	1.000
Customer Satisfaction	Brand Image	.657 ^a	.432	.430	.657	14.663	.000	1.000	1.000
Customer Loyalty		.694 ^a	.482	.480	.694	16.212	.000	1.000	1.000
Perceived Quality		.856 ^a	.733	.732	.856	27.851	.000	1.000	1.000
Perceived Value	Customer Expectation	.736 ^a	.542	.541	.736	18.309	.000	1.000	1.000
Customer Satisfaction		.831 ^a	.691	.690	.831	25.155	.000	1.000	1.000
Perceived Value	Perceived Quality	.690 ^a	.476	.475	.690	16.047	.000	1.000	1.000
Customer Satisfaction	Perceived Quality	.742 ^a	.551	.550	.742	18.641	.000	1.000	1.000
Customer Satisfaction	Perceived Value	.738 ^a	.545	.543	.738	18.396	.000	1.000	1.000
Customer Loyalty	Customer Satisfaction	.788 ^a	.620	.619	.788	21.508	.000	1.000	1.000

(Source: Own source from this study questionnaire, June 1, 2013)

In conclusion, these ten hypotheses H1-H10 proposed in this case study have been proved.

5.9. Further Analyses

Based on the collected data, a few further analyses are processed to understand more about smartphone users' buying behaviors. Out of 285 respondents, only 156 will consider HTC on their next smartphone purchases. Current Apple iPhone users are 119 people; but only 34.5% of current Apple iPhone users will consider HTC on their next buy. Compared to Apple iPhone users, Samsung users has higher potential to buy HTC on their next smartphone purchase, 43 respondents out of total 59 current Samsung smartphone users (72.9%) will consider HTC. For HTC current users, 41 people out of total 50 people will consider (82%). The result is list on Table 5.10.

Table 5.10: Current Smartphone Brand & Consider HTC on Next Buy Cross Tabulation

CurrentSmartPhoneBrand * WillYouConsiderHTCOnYourNextBuy Cross tabulation				
Current Smartphone Brand		Will You Consider HTC On Your Next Buy?		Total
		Yes, I will consider HTC	No, I will not consider HTC	
Apple	Count	41	78	119
	% within CurrentSmartPhoneBrand	34.5%	65.5%	100.0%
	% of Total	14.4%	27.4%	41.8%
Samsung	Count	43	16	59
	% within CurrentSmartPhoneBrand	72.9%	27.1%	100.0%
	% of Total	15.1%	5.6%	20.7%
HTC	Count	41	9	50
	% within CurrentSmartPhoneBrand	82.0%	18.0%	100.0%
	% of Total	14.4%	3.2%	17.5%
Sony (Sony Ericsson)	Count	19	16	35
	% within CurrentSmartPhoneBrand	54.3%	45.7%	100.0%
	% of Total	6.7%	5.6%	12.3%

Blackberry	Count	3	4	7
	% within CurrentSmartPhoneBrand	42.9%	57.1%	100.0%
	% of Total	1.1%	1.4%	2.5%
Nokia	Count	3	3	6
	% within CurrentSmartPhoneBrand	50.0%	50.0%	100.0%
	% of Total	1.1%	1.1%	2.1%
Motorola	Count	1	2	3
	% within CurrentSmartPhoneBrand	33.3%	66.7%	100.0%
	% of Total	.4%	.7%	1.1%
Other	Count	1	1	2
	% within CurrentSmartPhoneBrand	50.0%	50.0%	100.0%
	% of Total	.4%	.4%	.7%
LG	Count	2	0	2
	% within CurrentSmartPhoneBrand	100.0%	0.0%	100.0%
	% of Total	.7%	0.0%	.7%
Google	Count	1	0	1
	% within CurrentSmartPhoneBrand	100.0%	0.0%	100.0%
	% of Total	.4%	0.0%	.4%
Sharpe	Count	1	0	1
	% within CurrentSmartPhoneBrand	100.0%	0.0%	100.0%
	% of Total	.4%	0.0%	.4%
Total	Count	156	129	285
	% within CurrentSmartPhoneBrand	54.7%	45.3%	100.0%
	% of Total	54.7%	45.3%	100.0%

(Source: Own source from this study questionnaire, June 1, 2013)

Question# 21 from the second part is asking smartphone users' opinions about HTC smartphones, 34.7% considers HTC is good price and good quality, 21.4% considers good price but bad quality, 18.9% considers expensive price and bad quality; and 15.8% considers HTC is expensive price but good quality. One finding is among 21.4% considers HTC good price but bad quality; only 7.7% are non-Taiwanese users and 13.7% are Taiwanese users (See Table 5.11). From this analysis result, the assumption is HTC shall focus more on the

quality issues to meet with more Taiwanese users' standard.

Table 5.11: Nationality & the Opinions about HTC Smartphones Cross Tabulation

Nationality * YouConsiderHTCsmartphonesAre Cross tabulation											
Nationality	YouConsiderHTCsmartphonesAre									Total	
	Good price and good quality	Good price but bad quality	Expensive price and bad quality	Expensive price but good quality	No Idea	Do not use China product	Good quality / unknown price	Never heard of them	Price and quality are so so		
Non Taiwanese Nationality	Count	50	22	10	22	12	0	2	1	0	119
	% within Nationality	42.0%	18.5%	8.4%	18.5%	10.1%	0.0%	1.7%	.8%	0.0%	100.0%
	% of Total	17.5%	7.7%	3.5%	7.7%	4.2%	0.0%	.7%	.4%	0.0%	41.8%
Taiwan	Count	49	39	44	23	7	1	0	0	3	166
	% within Nationality	29.5%	23.5%	26.5%	13.9%	4.2%	.6%	0.0%	0.0%	1.8%	100.0%
	% of Total	17.2%	13.7%	15.4%	8.1%	2.5%	.4%	0.0%	0.0%	1.1%	58.2%
Total	Count	99	61	54	45	19	1	2	1	3	285
	% within Nationality	34.7%	21.4%	18.9%	15.8%	6.7%	.4%	.7%	.4%	1.1%	100.0%
	% of Total	34.7%	21.4%	18.9%	15.8%	6.7%	.4%	.7%	.4%	1.1%	100.0%

(Source: Own source from this study questionnaire, June 1, 2013)

According to the survey result, the total respondents currently use HTC smartphones are 50 people (17.5%), however, only 33 out of these people are Taiwanese (See Table 5.12). Consider HTC is from Taiwan, HTC smartphones are not taking the advantage of its own home country. HTC shall definitely spend more marketing research and study on this issue; find out what local consumers really need and develop the right smartphone designs, functions and apps to attract more local consumers.

Table 5.12: Nationality & Current Smartphone Brand Cross Tabulation
Nationality * CurrentSmartPhoneBrand Cross tabulation

Nationality		CurrentSmartPhoneBrand					Total
		Apple	Samsung	HTC	Sony (Sony Ericsson)	Other	
Non-Taiwanese	Count	45	35	17	12	10	119
	% within Nationality	37.8%	29.4%	14.3%	10.1%	8.4%	100.0%
	% of Total	15.8%	12.3%	6.0%	4.2%	3.6%	41.8%
Taiwan	Count	74	24	33	23	12	166
	% within Nationality	44.6%	14.5%	19.9%	13.9%	7.2%	100.0%
	% of Total	26.0%	8.4%	11.6%	8.1%	4.2%	58.2%
Total	Count	119	59	50	35	22	285
	% within Nationality	41.8%	20.7%	17.5%	12.3%	7.7%	100.0%
	% of Total	41.8%	20.7%	17.5%	12.3%	7.7%	100.0%

(Source: Own source from this study questionnaire, June 1, 2013)

Though the survey shows only 50 users out of 285 respondents currently use HTC smartphones, questions# 22 asks all the respondents if they would consider HTC on their next smartphone purchase and 156 respondents replied yes which is 54.7% of total 285 respondents. With this result, a further study is processed to analysis Taiwanese users' choices and turn out 55.4% of Taiwanese smartphone users are willing to consider HTC on their next smartphone purchase, and 53.8% of non-Taiwanese smartphone users are also willing to consider HTC on their next smartphone purchase. Though both numbers are only slightly higher than 50%; these two numbers show that there are big potential opportunities for HTC to gain more market share by improving their smartphones.

Table 5.13: Nationality & Consider HTC on the Next Smartphone Purchase Cross Tabulation

Nationality * WillYouConsiderHTConYourNextBuy Cross tabulation

Nationality		Will You Consider HTC On Your Next Smartphone Purchase		Total
		Yes, I will consider HTC	No, I will not consider HTC	
Non-Taiwanese	Count	64	55	119
	% within Nationality	53.8%	46.2%	100.0%
	% of Total	22.5%	19.3%	41.8%
Taiwan	Count	92	74	166
	% within Nationality	55.4%	44.6%	100.0%
	% of Total	32.3%	26.0%	58.2%
Total	Count	156	129	285
	% within Nationality	54.7%	45.3%	100.0%
	% of Total	54.7%	45.3%	100.0%

(Source: Own source from this study questionnaire, June 1, 2013)

6. Discussion & Conclusion

In this study, the relationships among brand image, customer expectation, perceived quality, perceived value, customer satisfaction, and customer loyalty were examined; the proposed TCSI model was strongly supported by the data collected through the questionnaire. The results approve that brand image positively has high correlations with customer expectations, customer satisfaction and customer loyalty; customer expectation has high correlations with perceived quality, perceived values and customer satisfaction; perceived quality has high correlations with perceived value and customer satisfaction; perceived value has a high correlation with customer satisfaction; customer satisfaction has a high correlation with customer loyalty.

Brand image, customer expectations, perceived quality and perceived values all positively and directly influenced on customer satisfactions; the effect of customer expectation is the largest, followed by perceived quality, perceived value and brand image; and high customer satisfaction leads to higher customer loyalty. If smartphone producers attempt to increase their customer satisfaction and loyalty, they shall focus on the customer expectation first. For smartphone brand HTC, only 51% of 285 respondents consider HTC smartphones are good quality; in other words, almost 50% of the other consumers do not consider HTC smartphones are good quality. If customers do not have high expectations about smartphone quality, it would have a big influence on customer satisfaction and customer loyalty; question# 22 proves this that only 54% of respondents are willing to consider HTC on their next smartphone purchase.

These 54% of respondents are willing to consider HTC on their next smartphone purchase

because 26% like the phone design & look, 25% are Taiwanese people and would like to support Taiwanese brands, 24% like the operating system and interface, 22% like the brand and design. These percentages are all considered very low compared to Apple iPhone smartphone; 66% of respondents like iPhone operating system and interface, 56% like the phone design & look, 49% like available software; and 90% like the brand.

The other 46% of respondents will not consider HTC on their next smartphone purchase because 17% of respondents point out HTC claims themselves it's a brand from Mainland China; 15% say HTC does not offer the best package for home market Taiwan; and 12% vote for expensive pricing. To improve HTC market share, HTC needs to work on their customer satisfaction which has a high influence on customer royalty. Based on the result of this questionnaire, the suggestions for HTC will be

1. Improve the phone pricing, especially Taiwan market because many best pricing packages is not offered in home market Taiwan
2. Improve the operating system and interface by creating user friendly design for consumers
3. Improve the brand recognition by increasing the marketing budget and providing good market campaign and commercial
4. Improve the phone design and look by having market research first before the next phone design process
5. Improve the camera and video function by increasing high pixel and good camera and video quality
6. Improve the smartphone quality by hiring experienced engineers and increasing the budget for the quality development
7. Improve the smartphone battery life

Furthermore, the Taiwanese smartphone producers shall be fully aware of the raising of technology companies in Mainland China which might soon become big threats to all international smartphone companies including Taiwanese brands. For future research, it can extend this study questionnaire to focus on one particular country only, e.g. only survey smartphone users in USA or Canada to find out whether there is any difference when applied to different consumer groups/countries.



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TABLE

Table 1.1: The Ownership of Smartphone in Asia Pacific

The Ownership of Smartphone in Asia Pacific						
Market	Australia	China	Hong Kong	Taiwan	Korea	Japan
Smartphone Ownership	65%	66%	58%	50%	67%	26%

Source: Nielsen research, 2012/4

(Source: Nielsen Research in Taiwan, April, 2012)

Table 1.2: Top Five Converged Mobile Device Vendors, Shipments and Market Share, 2009

Top Five Converged Mobile Device Vendors, Shipments and Market Share, 2009 (Units in Millions)					
Company	2009 Shipments	2009 Market Share	2008 Shipments	2008 Market Share	Growth
Nokia	67.7	38.9%	60.5	40.0%	11.9%
RIM	34.5	19.8%	23.6	15.6%	46.2%
Apple	25.1	14.4%	13.8	9.1%	81.9%
HTC	8.1	4.6%	7.5	5.0%	8.0%
Samsung	5.7	3.3%	5.4	3.6%	5.6%
Others	33.1	19.0%	40.6	26.8%	-18.5%
Total	174.2	100.0%	151.4	100.0%	15.1%

(Source: IDC’s survey of the global smartphone market in 2009)

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http://appleinsider.com/articles/10/02/04/idc_apple_iphone_was_no_3_smartphone_in_2009_with_14_4_of_market

Table 1.3: Top Five Smartphone Vendors, Shipments and Market Share, 2012 Q3

Top Five Smartphone Vendors, Shipments, and Market Share, 2012 Q3 (Units in Millions)

Vendor	3Q12 Unit Shipments	3Q12 Market Share	3Q11 Unit Shipments	3Q11 Market Share	Year-over-year Change
Samsung	56.3	31.3%	28.1	22.7%	100.4%
Apple	26.9	15.0%	17.1	13.8%	57.3%
Research In Motion	7.7	4.3%	11.8	9.6%	-34.7%
ZTE	7.5	4.2%	4.1	3.3%	82.9%
HTC	7.3	4.0%	12.7	10.3%	-42.5%
Others	74.0	41.2%	49.9	40.3%	48.3%
Total	179.7	100.0%	123.7	100.0%	45.3%

(Source: IDC Worldwide Mobile Phone Tracker, October 25, 2012)

“Smartphones Drive Third Quarter Growth in the Worldwide Mobile Phone Market, According to IDC” IDC, Oct. 25, 2012. Web. June 1, 2013
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APPENDIX

智慧型手機使用者滿意度問卷調查

Customer Satisfaction Of Smartphone Users Survey

敬愛的受訪者，您好：這份文件說明您同意參加由國立政治大學國際企業管理經營碩士在職專班(所)，吳文傑 教授所指導之研究生李婉如的論文。

論文題目為「衡量顧客滿意度模型-以智慧型手機持有人為例」。此研究的結果將有助於手機品牌業者(尤其是台灣品牌，例如 HTC)增進其競爭優勢。填寫問卷時，您將被要求在每題選項選擇最適合的答案。本問卷有三部份，第一部分為個人基本統計資料；第二部分包括品牌形象、對手機的期望、對手機品質的認知、知覺價值(產品價格)、顧客滿意度與品牌忠誠度；第三部分為開放式問卷題。

完成此問卷需要花費您十~十五分鐘的時間。您的個人資料是匿名且機密的。這份問卷不會涉及任何危險。參與這次問卷調查是自願的。您可以在任何時間拒絕或不願繼續填寫問卷，沒有懲處或利益上的損失危及您的權利。

填寫問卷過程中，若有任何問題，請用電子郵件與我聯繫 judyli75@hotmail.com。

感謝您費時填寫本問卷，謝謝！

碩士候選人

李婉如

國立政治大學

國際企業管理經營碩士在職專班 (所)

E-mail: judyli75@hotmail.com

Dear Respondent,

Thank you for agreeing to participate in this study research.

My name is Judy Li, and I am a MBA student at National Cheng-Chi University in Taipei,

Taiwan. This is a research study questionnaire for my thesis project “Customer Satisfaction–The case study of Smartphone Users.”

The survey will take you about 10 ~ 15 minutes to complete; the results of this study will be useful for the smartphone producers and the measurement of customer satisfaction may improve the market share. Your responses and personal information will not be revealed to anyone outside of my study research group, and the data result will be presented at my master thesis.

If you have any question about the questionnaire, you may contact me directly via email at judyli75@hotmail.com.

Thank you for your time and participation.

Sincerely,

Wan-Ju, Li (Judy Li)

National Cheng-Chi University

E-mail: judyli75@hotmail.com

第一部份個人資料 / Part I – User Information

1. 性別 / Gender

- 男 / Male
 女 / Female

2. 國籍 / Nationality

- 台灣 / Taiwan
 美國 / USA
 加拿大 / Canada
 英國 / UK
 澳洲 / Australia
 荷蘭 / The Netherlands
 比利時 / Belgium
 法國 / France
 德國 / Germany

- 挪威 / Norway
- 瑞典 / Sweden
- 芬蘭 / Finland
- 丹麥 / Denmark
- 波蘭 / Poland
- 義大利 / Italy
- 西班牙 / Spain
- 俄羅斯 / Russia
- 中國 / China
- 日本 / Japan
- 韓國 / Korea
- 泰國 / Thailand
- 印度 / India
- 新加坡 / Singapore
- 馬來西亞 / Malaysia
- Other:

3. 居住國家 / Residence Country Location

- 台灣 / Taiwan
- 美國 / USA
- 加拿大 / Canada
- 英國 / UK
- 澳洲 / Australia
- 荷蘭 / The Netherlands
- 比利時 / Belgium
- 法國 / France
- 德國 / Germany
- 挪威 / Norway
- 瑞典 / Sweden
- 芬蘭 / Finland
- 丹麥 / Denmark
- 波蘭 / Poland
- 義大利 / Italy
- 西班牙 / Spain
- 俄羅斯 / Russia



- 中國 / China
- 日本 / Japan
- 韓國 / Korea
- 泰國 / Thailand
- 印度 / India
- 新加坡 / Singapore
- 馬來西亞 / Malaysia
- Other:

台灣居住城市 / Residence City In Taiwan

4. 居住城市 / Residence City

- 台北市 (含新北市) / Taipei city (Include New Taipei City)
- 桃園、新竹 & 苗栗地區 / Taoyuan, Hsinchu, & Miaoli area
- 台中 & 彰化地區 / Taichung & Changhua area
- 台南地區 / Tainan area
- 高雄地區 / Kaohsiung area
- 宜蘭地區 / Ilan area
- 花蓮地區 / Hualien area
- 金門、馬祖 & 澎湖地區 / Matsu、Penghu & Kinmen
- Other:

5. 年齡 / Age

- 未滿 18 歲 / Under 18
- 18 - 23 歲 / 18 - 23
- 24 - 30 歲 / 24 - 30
- 31 - 35 歲 / 31 - 35
- 36 - 40 歲 / 36 - 40
- 41 - 45 歲 / 41 - 45
- 46 - 50 歲 / 46 - 50
- 51 - 60 歲 / 51 - 60
- 超過 60 歲 / Above 60

6. 教育程度 / Education Background

- 小學 / Elementary School
- 國(初)中 / Junior High School

- 高中(職) / Senior High School
- 大專院校 / College or University
- 研究所(含)以上 / Graduate School and above

7. 職業別 / Career Industry

- 學生 / Student
- 農林漁牧業 / Agriculture
- 軍公教 / Public Sector (Government)
- 教育業 / Education and Teaching
- 建築與營造業 / Construction
- 製造業 / Manufacturing
- 餐飲與服務業 / Customer Service (e.g. Restaurants and shopping mall)
- 運輸、物流 / Transport and Logistics
- 行銷、業務 / Marketing and Sales
- 金融保險業 / Finance
- 旅遊業 / Travel, Leisure and Tourism
- 無業 / Unemployed
- Other:

8. 月收入(新台幣) / Monthly Income

- 25,000 元以下 / Below EUR625 (US835)
- 25,000~39,999 元 / EUR625~EUR1000 (US835~ US1350)
- 40,000~59,999 元 / EUR1000~EUR1500 (US1350~ US2000)
- 60,000~79,999 元 / EUR1500~EUR2000 (US2000~US2650)
- 80,000~99,999 元 / EUR2000~EUR2500 (US2650~ US3350)
- 100,000~150,000 元 / EUR2500~EUR3750 (US3350~ US5000)
- 150,000~200,000 元 / EUR3750~EUR5000 (US5000~ US6670)
- 200,000 元以上 / Above EUR5000 (US6670)

9. 目前持有並且使用智慧型手機 / At present, do you own and use a smartphone?

- 是 / YES
- 否 / NO

10. 請問您在何處購買您的智慧型手機? / Where did you purchase your current smartphone?

- 電信局 / Telecommunication bureau

- 手機門市 / Phone Shop
- 3C 賣場 / Electronic Store
- 網購 / Online Store
- 電視購物 / TV shopping
- Other:

11. 請問您購買手機時的價位為? (如果您買的手機有綁約, 請用您的月租費用 x 綁租月數 = 買的價格) / How much did you pay for your current smartphone? (If your smartphone is purchased with monthly plan, please use your monthly plan rate *24 months = the price you paid)

- 5,000~10,000 元 / EUR125~EUR250 (US170~ US335)
- 10,000~15,000 元 / EUR250~EUR375 (US335~ US500)
- 15,000~20,000 元 / EUR375~EUR500 (US500~ US665)
- 20,000~25,000 元 / EUR500~EUR625 (US665~ US830)
- 25,000~30,000 元 / EUR625~EUR750 (US830~ US1000)
- 30,000 元以上 / Above EUR750 (US1000)

12. 請問您認為購買手機的合理價位為? / In your opinion, what price range is considered reasonable for a smartphone?

- 5,000~10,000 元 / EUR125~EUR250 (US170~ US335)
- 10,000~15,000 元 / EUR250~EUR375 (US335~ US500)
- 15,000~20,000 元 / EUR375~EUR500 (US500~ US665)
- 20,000~25,000 元 / EUR500~EUR625 (US665~ US830)
- 25,000~30,000 元 / EUR625~EUR750 (US830~ US1000)
- 30,000 元以上 / Above EUR750 (US1000)

13. 您多久換一次您的手機? / How often do you change your phone?

- 1 年以下 / Less than 1 year
- 1 年 ~ 2 年 / 1 ~ 2 years
- 2 年 ~ 3 年 / 2 ~ 3 years
- 3 年以上 / More than 3 years

14. 就您所知, 蘋果 iPhone 智慧型手機吸引廣大使用者的主要原因為何? (最多選 5 項) / In your opinion, what are the reasons many users like Apple iPhone? (You may select up to five choices)

- 品牌 / Brand
- 價格 / Pricing
- 操作系統和界面 / Operating system and interface
- 大螢幕 / Big screen
- 手機設計 / Phone design & look
- 觸控功能 / Touch screen capabilities
- 應用軟體多 / Available software
- 通訊品質和速度 / Internet connection and speed
- 高畫質相機/攝影機功能 / High pixel cameras / Video Function
- 手寫功能辨識能力強 / Strong handwriting feature recognition capability
- 機身尺寸和重量 / Size and weight of the phone
- 開機速度夠快 / Fast boot time
- 社群功能 (ex:臉書...等) / Community features (ex: Facebook ...)
- 遊戲 / Games
- Other:

15. 就您所知，三星智慧型手機吸引廣大使用者的主要原因為何? (最多選 5 項) / In your opinion, what are the reasons many users like Samsung Smartphones? (You may select up to five choices)

- 品牌 / Brand
- 價格 / Pricing
- 操作系統和界面 / Operating system and interface
- 大螢幕 / Big screen
- 手機設計 / Phone design & look
- 觸控功能 / Touch screen capabilities
- 應用軟體多 / Available software
- 通訊品質和速度 / Internet connection and speed
- 高畫質相機/攝影機功能 / High pixel cameras / Video Function
- 手寫功能辨識能力強 / Strong handwriting feature recognition capability
- 機身尺寸和重量 / Size and weight of the phone
- 開機速度夠快 / Fast boot time
- 社群功能 (ex:臉書...等) / Community features (ex: Facebook ...)
- 遊戲 / Games
- Other:

16. 就您個人而言，影響您購買智慧型手機品牌的意願主要原因為何？(最多選 5 項) / In your opinions, what are the main factors when selecting a smartphone? (You may select up to five choices)

- 品牌 / Brand
- 價格 / Pricing
- 操作系統和界面 / Operating system and interface
- 大螢幕 / Big screen
- 手機設計 / Phone design & look
- 觸控功能 / Touch screen capabilities
- 應用軟體多 / Available software
- 通訊品質和速度 / Internet connection and speed
- 高畫質相機/攝影機功能 / High pixel cameras / Video Function
- 手寫功能辨識能力強 / Strong handwriting feature recognition capability
- 機身尺寸和重量 / Size and weight of the phone
- 開機速度夠快 / Fast boot time
- 社群功能 (ex: 臉書...等) / Community features (ex: Facebook ...)
- 遊戲 / Games
- Other:

17. 您目前使用智慧型手機的品牌 / At present, the brand of your smartphone

- 蘋果 / Apple
- 三星 / Samsung
- 宏達電 / HTC
- 谷歌 / Google
- 黑莓 / Blackberry
- 諾基亞 / Nokia
- 摩托羅拉 / Motorola
- 索尼愛立信 / Sony Ericsson
- 樂金 / LG
- Other:

18. 針對您目前使用智慧型手機的品牌，您認為此品牌智慧型手機的優勢為何？(最多選 5 項) / For the smartphone you currently use, what are the advantages of this brand? (You may select up to five choices)

- 品牌 / Brand

- 價格 / Pricing
- 操作系統和界面 / Operating system and interface
- 大螢幕 / Big screen
- 手機設計 / Phone design & look
- 觸控功能 / Touch screen capabilities
- 應用軟體多 / Available software
- 通訊品質和速度 / Internet connection and speed
- 高畫質相機/攝影機功能 / High pixel cameras / Video Function
- 手寫功能辨識能力強 / Strong handwriting feature recognition capability
- 機身尺寸和重量 / Size and weight of the phone
- 開機速度夠快 / Fast boot time
- 社群功能 (ex:臉書...等) / Community features (ex: Facebook ...)
- 遊戲 / Games
- Other:

19. 針對您目前使用智慧型手機的品牌，您認為此品牌智慧型手機的缺失為何? (最多選5項) / For the smartphone you currently use, what are the disadvantages of this brand? (You may select up to five choices)

- 價格昂貴 / Expensive Pricing
- 操作系統和界面不夠流暢 / Inefficient operating system and interface
- 安全性不夠 / Weak security
- 外型不佳 / Unattractive phone design/Look
- 通訊不良 / Bad internet connection and speed
- 低畫質相機/攝影機功能 / Bad cameras & video quality
- 開機速度不夠快 / Long boot time
- 付費軟體太多 / Extra payment for software
- 社群功能不足(ex:臉書...等) / Inefficient community features(ex: Facebook ...)
- 機身不夠輕薄 / Phone design is not light/thin enough
- Other:

20. 您知道宏達電 HTC 這個品牌來自台灣嗎? / Do you know “HTC” is a mobile phone brand from Taiwan?

- 知道 / Yes, I know HTC is from Taiwan
- 不知道 / No, I don't know HTC is from Taiwan

21. 您覺得宏達電 HTC 這個品牌生產的智慧型手機是 / In your opinion, HTC smartphones are:

- 價格和品質都很好 / Good price and good quality
- 價格貴但是品質很好 / Expensive price but good quality
- 價格貴而且品質不好 / Expensive price and bad quality
- 價格好但是品質不好 / Good price but bad quality
- Other:

22. 您的下一個智慧型手機，您會考慮宏達電 HTC 這個品牌嗎? / For your next smartphone purchase, will you consider HTC smartphone?

- 會考慮宏達電 HTC / Yes, I will consider HTC
- 不會考慮宏達電 HTC / No, I will not consider HTC

23. 考慮宏達電 HTC 的原因是(最多選 5 項) / You will consider HTC on your next smartphone purchase, because (You may select up to five choices):

支持台灣之光 – 台灣的手機品牌 / I am a Taiwanese and I would like to support Taiwanese brands

- 品牌 / Brand
- 價格 / Pricing
- 操作系統和界面 / Operating system and interface
- 大螢幕 / Big screen
- 手機設計 / Phone design & look
- 觸控功能 / Touch screen capabilities
- 應用軟體多 / Available software
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- 手寫功能辨識能力強 / Strong handwriting feature recognition capability
- 機身尺寸和重量 / Size and weight of the phone
- 開機速度夠快 / Fast boot time
- 社群功能 (ex:臉書...等) / Community features (ex: Facebook ...)
- 遊戲 / Games
- Other:

第二部份顧客滿意調查 / Part II – Customer Satisfaction

請您針對目前您所使用的智慧型手機品牌來回答以下問題 / Please answer the following

questions based on the brand of your current smartphone

個人喜好 / Personal Preference

PP 1. 當您在選購智慧型手機時，品牌形象是您考慮原因之一 – When you choose a smartphone, brand image is one of selecting factors

- (1) 強烈不同意 – Strongly Disagree
- (2) 不同意 - Disagree
- (3) 中立意見- Neither agree or disagree
- (4) 同意 - Agree
- (5) 強烈同意 – Strongly Agree

PP 2. 當您在選購智慧型手機時，市場占有率是您考慮原因之一 –When you choose a smartphone, the market share of smartphone brand is one of selecting factors

- (1) 強烈不同意 – Strongly Disagree
- (2) 不同意 - Disagree
- (3) 中立意見- Neither agree or disagree
- (4) 同意 - Agree
- (5) 強烈同意 – Strongly Agree

PP 3. 當您在選購智慧型手機時，品牌所屬國家是您考慮原因之一（例如：只買美國的品牌）– When you choose a smartphone, the brand of country of origin is one of selecting factors (For example: Only buy US brands)

- (1) 強烈不同意 – Strongly Disagree
- (2) 不同意 - Disagree
- (3) 中立意見- Neither agree or disagree
- (4) 同意 - Agree
- (5) 強烈同意 – Strongly Agree

PP 4. 當您在選購智慧型手機時，製造生產的國家是您考慮原因之一（例如：美國品牌但在中國生產）– When you choose a smartphone, the production of country of origin is one of selecting factors (For example: US brand but produced in China)

- (1) 強烈不同意 – Strongly Disagree
- (2) 不同意 - Disagree
- (3) 中立意見- Neither agree or disagree

- (4) 同意 - Agree
- (5) 強烈同意 – Strongly Agree

PP 5. 當您在選購智慧型手機時,如果有國產品牌, 會偏向支持國貨 (例如:韓國有三星, 台灣有宏達電 HTC, 美國有 iPhone) – When you choose a smartphone, you will prefer to buy and support the domestic brands (For example: Samsung is from Korea, HTC is from Taiwan, iPhone is from USA)

- (1) 強烈不同意 – Strongly Disagree
- (2) 不同意 - Disagree
- (3) 中立意見- Neither agree or disagree
- (4) 同意 - Agree
- (5) 強烈同意 – Strongly Agree

品牌形象 / Brand Image

BI 1. 企業口碑 – Reputation Of This Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常負面/消極 - Very negative
- (2) 負面/消極 - Negative
- (3) 中立意見- Neutral
- (4) 正面/積極 - Positive
- (5) 非常正面/積極 - Very positive

BI 2. 專業形象 – Professional Image

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常負面/消極 - Very negative
- (2) 負面/消極 - Negative
- (3) 中立意見- Neutral
- (4) 正面/積極 - Positive
- (5) 非常正面/積極 - Very positive

BI 3. 顧客關係形象 – Customer Relation Image

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on

the brand of your current smartphone

- (1) 非常負面/消極 - Very negative
- (2) 負面/消極 - Negative
- (3) 中立意見- Neutral
- (4) 正面/積極 - Positive
- (5) 非常正面/積極 - Very positive

BI 4. 社會責任 – Social Contributions To Society

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常負面/消極 - Very negative
- (2) 負面/消極 - Negative
- (3) 中立意見- Neutral
- (4) 正面/積極 - Positive
- (5) 非常正面/積極 - Very positive

BI 5. 使用此品牌手機的經驗 – Your Own Experience Of Using This Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常負面/消極 - Very negative
- (2) 負面/消極 - Negative
- (3) 中立意見- Neutral
- (4) 正面/積極 - Positive
- (5) 非常正面/積極 - Very positive

BI 6. 整體形象 - Overall Brand Image

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常負面/消極 - Very negative
- (2) 負面/消極 - Negative
- (3) 中立意見- Neutral
- (4) 正面/積極 - Positive
- (5) 非常正面/積極 - Very positive

顧客期望 / Customer Expectation

CE 1. 根據您個人期望，此智慧手機品牌的功能達到您需求– From your own expectation, the function of this smartphone meets with your requirements
請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CE 2. 您個人針對此品牌手機整體品質的期望– Your Own Expectation About The Overall Quality of This Smartphone Brand
請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CE 3. 您個人針對此品牌手機服務品質的期望–Your Own Expectation About The Service Quality of This Smartphone Brand
請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CE 4. 您個人針對此品牌手機知覺價值的期望 (知覺價值是顧客認知上獲得的利益與付出代價間的差距) – Your Own Expectation About The Perceived Value of This Smartphone Brand (Perceived Value - A customer's opinion of a product's value to him or her)
請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on

the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CE 5. 整體期望 – Overall Expectation

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

品質認知 / Perceived Quality

PQ 1. 您個人針對此智慧手機品牌的產品品質– Your Own Experience About Product Quality Of This Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

PQ 2. 您個人針對此智慧手機品牌的服務品質– Your Own Experience About Service Quality Of This Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral

- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

PQ 3. 您個人針對此智慧手機品牌的顧客服務 – Your Own Experience About Customer Service Of This Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

PQ 4. 整體品質認知 (品質認知是指顧客對產品或服務的整體品質的感覺) –Overall Perceived Quality (Perceived Quality - Customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose)

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

知覺價值 / Perceived Value

PV 1. 您目前所使用的這隻智慧型手機價格是合理的 – The Price You Paid For This Smartphone Was Reasonable

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

PV 2. 您認為您所付的這隻智慧型手機價格是值得的 – The Price You Paid For This Smartphone Is Worth Of Your Spending

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

PV 3. 使用這隻智慧型手機讓您感到愉快 – Using This Smartphone Makes You Feel Great And Happy

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

PV 4. 對此品牌的整體知覺價值評價 (知覺價值是顧客認知上獲得的利益與付出代價間的差距) – Your Overall Perceived Value About This Smartphone Brand (Perceived Value - A customer's opinion of a product's value to him or her)

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

顧客滿意度 / Customer Satisfaction

CS 1. 整體滿意度與購買前的期望相比 – Overall Satisfaction Compare To Expectation Before Purchase

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CS 2. 整體滿意度與理想中的智慧型手機相比 – Overall Satisfaction Compare To Ideal Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CS 3. 整體滿意度 – Overall Satisfaction

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

品牌忠誠度 / Customer Loyalty

CL 1. 您個人對此智慧型手機品牌的再次購買意願 - Your Repurchase Intention Of This Smartphone Brand

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意- Dissatisfied

- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CL 2. 您個人意願將此智慧型手機品牌推薦給其他人 – You Are Willing To Recommend This Smartphone Brand To Others

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意 - Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

CL 3. 如果其他智慧型手機品牌有較優惠的價格，您還是會選購您現在使用的品牌，不會因價格而改變未來購買的品牌 – Even if other smartphone brands have better pricing offer, you would still stay with your current smartphone brand, not switching to other brands because the better pricing offer

請您針對目前您所使用的智慧型手機品牌來回答 / Please answer this question based on the brand of your current smartphone

- (1) 非常不滿意 - Very dissatisfied
- (2) 不滿意 - Dissatisfied
- (3) 中立意見 - Neutral
- (4) 滿意的 - Satisfied
- (5) 非常滿意 - Very satisfied

第三部份開放式問卷 / Part III –Open Questions

1. 就您所知，您認為各大智慧型手機品牌製造商最迫切需要改進的地方為何?請舉例說明之/ In your opinion, what are the most important things that smartphone producers can improve themselves for attracting more customers? Please give examples.

問卷填答到此完畢，請您再一次檢查是否有漏答之部分。

再次感謝您的協助，謝謝 ☺

This is the end of this questionnaire; please kindly check if you missed any question. Thank you again for assisting with this research project ☺

Statistical Analysis Result

1. Gender

Male	130	45%
Female	161	55%

2. Nationality

Taiwan	165	58%
USA	13	5%
Canada	15	5%
UK	9	3%
Australia	1	0%
The Netherlands	11	4%
Belgium	1	0%
France	5	2%
Germany	6	2%
Norway	1	0%
Sweden	1	0%
Finland	1	0%
Demark	1	0%
Poland	4	1%
Italy	0	0%
Spain	2	1%
Russia	6	2%
China	0	0%
Japan	1	0%
Korea	2	1%
Thailand	13	5%
India	4	1%
Singapore	1	0%
Malaysia	2	1%
Other	20	7%

3. Residence Country Location

Taiwan	154	54%
USA	11	4%

Canada	10	4%
UK	4	1%
Australia	1	0%
The Netherlands	33	12%
Belgium	0	0%
France	14	5%
Germany	20	7%
Norway	1	0%
Sweden	0	0%
Finland	2	1%
Demark	0	0%
Poland	1	0%
Italy	1	0%
Spain	3	1%
Russia	0	0%
China	2	1%
Japan	7	2%
Korea	1	0%
Thailand	6	2%
India	2	1%
Singapore	2	1%
Malaysia	1	0%
Other	9	3%

4. Residence City

Taipei city (Include New Taipei City)	111	68%
Taoyuan, Hsinchu, & Miaoli area	15	9%
Taichung & Changhua area	11	7%
Tainan area	7	4%
Kaohsiung area	7	4%
Ilan area	0	0%
Hualien area	0	0%
Matsu, Penghu & Kinmen	0	0%

Other	12	7%
5. Age		
Under 18	3	1%
18 – 23	46	16%
24 – 30	86	30%
31 – 35	80	28%
36 - 40	43	15%
41 - 45	19	7%
46 – 50	6	2%
51 – 60	1	0%
Above 60	1	0%
6. Education Background		
Elementary School	0	0%
Junior High School	1	0%
Senior High School	19	7%
College or University	138	48%
Graduate School and above	127	45%
7. Career Industry		
Student	86	30%
Agriculture	2	1%
Public Sector (Government)	8	3%
Education and Teaching	24	8%
Construction	1	0%
Manufacturing	18	6%
Customer Service (e.g. Restaurants and shopping mall)	30	11%
Transport and Logistics	3	1%
Marketing and Sales	33	12%
Finance	22	8%
Travel, Leisure and Tourism	2	1%
Unemployed	13	5%
Other	43	15%
8. Monthly Income		
Below NT 25,000 / Below EUR625 (US835)	95	33%

NT 25,000~39,999 / EUR625~EUR1000 (US835~ US1350)	54	19%
NT 40,000~59,999 / EUR1000~EUR1500 (US1350~ US2000)	41	14%
NT 60,000~79,999 / EUR1500~EUR2000 (US2000~US2650)	34	12%
NT 80,000~99,999 / EUR2000~EUR2500 (US2650~ US3350)	13	5%
NT 100,000~150,000 / EUR2500~EUR3750 (US3350~ US5000)	24	8%
NT 150,000~200,000 / EUR3750~EUR5000 (US5000~ US6670)	15	5%
Above NT 200,000 / Above EUR5000 (US6670)	9	3%

10. Where did you purchase your current smartphone?

Telecommunication bureau	71	25%
Phone Shop	141	49%
Electronic Store	16	6%
Online Store	36	13%
TV shopping	0	0%
Other	21	7%

11. How much did you pay for your current smartphone?

NT 5,000~10,000 / EUR125~EUR250 (US170~ US335)	63	22%
NT 10,000~15,000 / EUR250~EUR375 (US335~ US500)	39	14%
NT 15,000~20,000 / EUR375~EUR500 (US500~ US665)	59	21%
NT 20,000~25,000 / EUR500~EUR625 (US665~ US830)	69	24%
NT 25,000~30,000 / EUR625~EUR750 (US830~ US1000)	32	11%
Above NT 30,000 / Above EUR750 (US1000)	23	8%

12. In your opinion, what price range is considered reasonable for a smartphone?

NT 5,000~10,000 / EUR125~EUR250 (US170~ US335)	90	32%
NT 10,000~15,000 / EUR250~EUR375 (US335~ US500)	85	30%
NT 15,000~20,000 / EUR375~EUR500 (US500~ US665)	82	29%
NT 20,000~25,000 / EUR500~EUR625 (US665~ US830)	17	6%
NT 25,000~30,000 / EUR625~EUR750 (US830~ US1000)	7	2%
Above NT 30,000 / Above EUR750 (US1000)	4	1%

13. How often do you change your phone?

Less than 1 year	13	5%
1 ~ 2 years	99	35%
2 ~ 3 years	112	39%
More than 3 years	61	21%

14. In your opinion, what are the reasons many users like Apple iPhone?

(You may select up to five choices)

Brand	256	90%
Pricing	23	8%
Operating system and interface	187	66%
Big screen	21	7%
Phone design & look	161	56%
Touch screen capabilities	89	31%
Available software	140	49%
Internet connection and speed	14	5%
High pixel cameras / Video Function	87	31%
Strong handwriting feature recognition capability	4	1%
Size and weight of the phone	41	14%
Fast boot time	7	2%
Community features (ex: Facebook ...)	29	10%
Games	35	12%
Other	17	6%

15. In your opinion, what are the reasons many users like Samsung Smartphones?

(You may select up to five choices)

Brand	91	32%
Pricing	161	56%
Operating system and interface	101	35%
Big screen	186	65%
Phone design & look	95	33%
Touch screen capabilities	51	18%
Available software	76	27%
Internet connection and speed	13	5%
High pixel cameras / Video Function	80	28%
Strong handwriting feature recognition capability	10	4%
Size and weight of the phone	56	20%
Fast boot time	3	1%
Community features (ex: Facebook ...)	15	5%
Games	6	2%

Other	23	8%
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16. In your opinions, what are the main factors when selecting a smartphone?

(You may select up to five choices)

Brand	148	52%
Pricing	194	68%
Operating system and interface	182	64%
Big screen	66	23%
Phone design & look	146	51%
Touch screen capabilities	78	27%
Available software	118	41%
Internet connection and speed	30	11%
High pixel cameras / Video Function	129	45%
Strong handwriting feature recognition capability	8	3%
Size and weight of the phone	96	34%
Fast boot time	9	3%
Community features (ex: Facebook ...)	30	11%
Games	7	2%
Other	9	3%

17. At present, the brand of your smartphone

Apple	120	42%
Samsung	58	20%
HTC	51	18%
Google	1	0%
Blackberry	7	2%
Nokia	6	2%
Motorola	3	1%
Sony Ericsson	28	10%
LG	2	1%
Other	9	3%

18. For the smartphone you currently use, what are the advantages of this brand?

(You may select up to five choices)

Brand	150	53%
Pricing	82	29%

Operating system and interface	169	59%
Big screen	65	23%
Phone design & look	117	41%
Touch screen capabilities	64	22%
Available software	104	36%
Internet connection and speed	21	7%
High pixel cameras / Video Function	86	30%
Strong handwriting feature recognition capability	8	3%
Size and weight of the phone	73	26%
Fast boot time	4	1%
Community features (ex: Facebook ...)	23	8%
Games	10	4%
Other	20	7%

19. For the smartphone you currently use, what are the disadvantages of this brand?

(You may select up to five choices)

Expensive Pricing	151	53%
Inefficient operating system and interface	25	9%
Weak security	9	3%
Unattractive phone design/Look	9	3%
Bad internet connection and speed	11	4%
Bad cameras & video quality	68	24%
Long boot time	22	8%
Extra payment for software	67	24%
Inefficient community features(ex: Facebook ...)	5	2%
Phone design is not light/thin enough	16	6%
Other	61	21%

20. Do you know “HTC”is a mobile phone brand from Taiwan?

Yes, I know HTC is from Taiwan	252	88%
No, I don't know HTC is from Taiwan	33	12%

21. In your opinion, HTC smartphones are:

Good price and good quality	99	35%
Expensive price but good quality	45	16%

Expensive price and bad quality	54	19%
Good price but bad quality	61	21%
Other	26	9%

22. For your next smartphone purchase, will you consider HTC smartphone?

HTC / Yes, I will consider HTC	155	54%
HTC / No, I will not consider HTC	130	46%

**23. You will consider HTC on your next smartphone purchase, because
(You may select up to five choices):**

I am a Taiwanese and I would like to support Taiwanese brands	72	25%
Brand	63	22%
Pricing	63	22%
Operating system and interface	67	24%
Big screen	41	14%
Phone design & look	74	26%
Touch screen capabilities	20	7%
Available software	32	11%
Internet connection and speed	6	2%
High pixel cameras / Video Function	48	17%
Strong handwriting feature recognition capability	2	1%
Size and weight of the phone	30	11%
Fast boot time	2	1%
Community features (ex: Facebook ...)	8	3%
Games	3	1%
Other	13	5%

**24. You will not consider HTC on your next smartphone purchase, because
(You may select up to five choices):**

Because HTC claims themselves it's a brand from Mainland China	49	17%
Expensive Pricing	34	12%
Inefficient operating system and interface	11	4%
Weak security	0	0%
Unattractive phone design/Look	13	5%
Bad internet connection and speed	4	1%
Bad cameras & video quality	19	7%

Long boot time	6	2%
Extra payment for software	6	2%
Inefficient community features(ex: Facebook ...)	2	1%
Phone design is not light/thin enough	5	2%
HTC does not offer the best package for home market Taiwan	43	15%
Other	43	15%

Part II – Customer Satisfaction

Personal Preference

PP 1. When you choose a smartphone, brand image is one of selecting factors

Strongly Disagree	12	4%
Disagree	13	5%
Neither agree or disagree	55	19%
Agree	166	58%
Strongly Agree	39	14%

PP 2. When you choose a smartphone, the market share of smartphone brand is one of selecting factors

Strongly Disagree	23	8%
Disagree	82	29%
Neither agree or disagree	88	31%
Agree	82	29%
Strongly Agree	10	4%

PP 3. When you choose a smartphone, the brand of country of origin is one of selecting factors (For example: Only buy US brands)

Strongly Disagree	54	19%
Disagree	74	26%
Neither agree or disagree	76	27%
Agree	62	22%
Strongly Agree	19	7%

PP 4. When you choose a smartphone, the production of country of origin is one of selecting factors (For example: US brand but produced in China)

Strongly Disagree	39	14%
Disagree	85	30%
Neither agree or disagree	81	28%

Agree	61	21%
Strongly Agree	19	7%

PP 5. When you choose a smartphone, you will prefer to buy and support the domestic brands (For example: Samsung is from Korea, HTC is from Taiwan, iPhone is from USA)

Strongly Disagree	47	16%
Disagree	65	23%
Neither agree or disagree	81	28%
Agree	69	24%
Strongly Agree	23	8%

Brand Image

BI 1. Reputation Of This Smartphone Brand

Very negative	1	0%
Negative	18	6%
Neutral	61	21%
Positive	141	49%
Very positive	64	22%

BI 2. Professional Image

Very negative	2	1%
Negative	15	5%
Neutral	54	19%
Positive	143	50%
Very positive	71	25%

BI 3. Customer Relation Image

Very negative	2	1%
Negative	26	9%
Neutral	110	39%
Positive	97	34%
Very positive	50	18%

BI 4. Social Contributions To Society

Very negative	7	2%
Negative	31	11%
Neutral	150	53%
Positive	68	24%

Very positive	29	10%
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BI 5. Your Own Experience Of Using This Smartphone Brand

Very negative	5	2%
Negative	20	7%
Neutral	47	16%
Positive	136	48%
Very positive	77	27%

BI 6. Overall ImageBrand

Very negative	2	1%
Negative	17	6%
Neutral	57	20%
Positive	156	55%
Very positive	53	19%

Customer Expectation

CE 1. From your own expectation, the function of this smartphone meets with your requirements

Very dissatisfied	2	1%
Dissatisfied	24	8%
Neutral	34	12%
Satisfied	168	59%
Very satisfied	57	20%

CE 2. Your Own Expectation About The Overall Quality of This Smartphone Brand

Very dissatisfied	5	2%
Dissatisfied	26	9%
Neutral	38	13%
Satisfied	166	58%
Very satisfied	50	18%

CE 3. Your Own Expectation About The Service Quality of This Smartphone Brand

Very dissatisfied	5	2%
Dissatisfied	25	9%
Neutral	95	33%
Satisfied	125	44%

Very satisfied	35	12%
CE 4. Your Own Expectation About The Perceived Value of This Smartphone Brand (Perceived Value - A customer's opinion of a product's value to him or her)		
Very dissatisfied	2	1%
Dissatisfied	24	8%
Neutral	87	31%
Satisfied	137	48%
Very satisfied	35	12%

CE 5. Overall Expectation

Very dissatisfied	4	1%
Dissatisfied	26	9%
Neutral	54	19%
Satisfied	155	54%
Very satisfied	46	16%

Perceived Quality

PQ 1. Your Own Experience About Product Quality Of This Smartphone Brand

Very dissatisfied	6	2%
Dissatisfied	31	11%
Neutral	42	15%
Satisfied	162	57%
Very satisfied	44	15%

PQ 2. Your Own Experience About Service Quality Of This Smartphone Brand

Very dissatisfied	5	2%
Dissatisfied	17	6%
Neutral	97	34%
Satisfied	128	45%
Very satisfied	38	13%

PQ 3. Your Own Experience About Customer Service Of This Smartphone Brand

Very dissatisfied	6	2%
Dissatisfied	19	7%
Neutral	130	46%

Satisfied	98	34%
Very satisfied	32	11%

PQ 4. Overall Perceived Quality (Perceived Quality - Customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose)

Very dissatisfied	4	1%
Dissatisfied	20	7%
Neutral	76	27%
Satisfied	146	51%
Very satisfied	39	14%

Perceived Value

PV 1. The Price You Paid For This Smartphone Was Reasonable

Very dissatisfied	6	2%
Dissatisfied	60	21%
Neutral	105	37%
Satisfied	93	33%
Very satisfied	21	7%

PV 2. The Price You Paid For This Smartphone Is Worth Of Your Spending

Very dissatisfied	4	1%
Dissatisfied	38	13%
Neutral	90	32%
Satisfied	127	45%
Very satisfied	26	9%

PV 3. Using This Smartphone Makes You Feel Great And Happy

Very dissatisfied	6	2%
Dissatisfied	15	5%
Neutral	63	22%
Satisfied	151	53%
Very satisfied	50	18%

PV 4. Your Overall Perceived Value About This Smartphone Brand (Perceived Value - A customer's opinion of a product's value to him or her)

Very dissatisfied	5	2%
Dissatisfied	19	7%
Neutral	76	27%

Satisfied	152	53%
Very satisfied	33	12%

Customer Satisfaction

CS 1. Overall Satisfaction Compare To Expectation Before Purchase

Very dissatisfied	5	2%
Dissatisfied	24	8%
Neutral	60	21%
Satisfied	150	53%
Very satisfied	46	16%

CS 2. Overall Satisfaction Compare To Ideal Smartphone Brand

Very dissatisfied	8	3%
Dissatisfied	32	11%
Neutral	70	25%
Satisfied	129	45%
Very satisfied	46	16%

CS 3. Overall Satisfaction

Very dissatisfied	7	2%
Dissatisfied	28	10%
Neutral	52	18%
Satisfied	151	53%
Very satisfied	47	16%

Customer Loyalty

CL 1. Your Repurchase Intention Of This Smartphone Brand

Very dissatisfied	10	4%
Dissatisfied	23	8%
Neutral	63	22%
Satisfied	126	44%
Very satisfied	63	22%

CL 2. You Are Willing To Recommend This Smartphone Brand To Others

Very dissatisfied	14	5%
Dissatisfied	22	8%
Neutral	52	18%
Satisfied	125	44%
Very satisfied	72	25%

CL 3. Even if other smartphone brands have better pricing offer, you would still stay with your current smartphone brand, not switching to other brands because the better pricing offer

Very dissatisfied	15	5%
Dissatisfied	38	13%
Neutral	104	36%
Satisfied	89	31%
Very satisfied	39	14%

Part III –Open Questions

1. In your opinion, what are the most important things that smartphone producers can improve themselves for attracting more customers? Please give examples.

電池續航力不足，SIM 卡規格混亂！維修的品質服務..員工的服務態度.. I am not very tech savvy when it comes to phones so I would not know what to recommend as I am currently satisfied. reducing the price and allow product reconfiguration. Provide good after-sales service. 舊手機的回收 Stable software Security branding Size & Weight of Phone Multiple software functions 大面板但易攜帶 價格可以更優惠, 供貨快速不需等待. 電池持久度 Battery life. 電池持久力 By far the most important thing is to improve battery life. Other things are improving user-friendliness and help data basing, and helping customers to get the most out of their phone without spending too many hours reading the user manual. HTC 給台灣與國外的價格差異過大,並為嘉惠本國人 I have no comments Here in the US, we live in a trend driven society. People constantly spend more money for the trendy brand named items. I feel that Apple is American's trendy phone. There are plenty of less expensive phones that are offered, yet most American's will pay two or three items more for an iPhone. As a family with 2 iPad's, the iPhone is great once you pay for an app on your iPad, you can use it on your phone at no extra cost. I want a phone, not a tablet. Bigger is not better. We're at a level that hardware is fast, no matter what. So now show us some awesome software! battery Metal, glass and hi-tec composite materials for handset body. Unstretchable shield glass PC/Mac software allowing to manage the memory usage and backup data Navigation really working in all territories to which maps are included in the phone. Updates that makes the phone work faster not slower like it usually is (long term top performance) 手機耐用度，智慧型手機價格高，但是用了 2 年之後手機的速度就變得鈍

鈍的。另外，電池容量可以再大一點，大家都買了智慧型手機又再去買行動電源其實是一件很蠢的事。 Good customer service. Warranty period extended to 2 years instead of 1 year. Strong features. Quality. Marketing campaign. durable materials Stock android, fast updates, good value for money. Develop a high end phone, top specifications without an enormous screen (preferably full hd, but 4,3", 4,7" is the absolute maximum) do not mess around with software updates from android. My next phone will be a nexus due to my annoyance with the late updates. 銀幕觸控敏感度 換電池 記憶卡 版本升級 網頁流暢度 銀幕保護程式的支援 核心和畫素不夠 開關機的速度不夠 免費支援的內容 不要客製機 More features, better pricing trust, reputation, hassle. all phones are the same, it is what you are going to get after, or any headaches, or doubts, problems. Not dealing or having to worry about anything is priceless 手機尺寸，手寫靈敏度 For most people I think it would be the brand, i.e. iPhones I need mine for work coz it makes my life so much easier. I can most of my business transaction away from home. I also use it as navi, and until recently iPhones had a horrible navi app that got everyone lost. Also another reason I hate iPhones and all apple products is that they are expensive, really expensive, even though they are made in sweat shops in China. There is a lot of Apple fanaticism going on and I wish to take no part in that 故障率高 Battery life time Making apps available for all types of smart phones not just select ones! 1. big screen with less power consuming 2. boot up faster 3. ID creativities Good customer service. Worldwide warranty. 王雪紅別再把錢捐給保守又邪惡的基督教教會了 不要只會做外型 軟體很重要 像三星之前手機不錯但是因為軟體 造成死當 宏達電 軟體和外形都好! Design, apps, operating system, cameras, batterylife Price we need faster and smarter smart phone with less price and very long battery life.. In short it has to be Really Smart..!! good interface with style design and long lasting battery Load times apps operating system 1. Elimination of built in obsolescence. Non 蘋果 iTunes 客服不夠好，安全提問太麻煩，會忘記自己的答案。 HTC 不要應該同款手機在每個國家有不同規格三星應該要停止模仿別人 價格太貴 壓低價格，市面上優秀的智慧型手機都還是太貴了，像是 iPhone。還有針對偷竊設計出更多遠端遙控和尋回功能，而不是一刷機就沒用了。耗电 使用上會照成姿勢不良 嚴重影響建康 price and cloud services fast operation system, big screen, - Value for money - Good customer service/ customer support - Good design 1.HTC 應該換掉董事長王雪紅與執行長周永明 2.華碩出的手機應該多重視一般使用者,而不要只針對工程師來設計 3.HTC 不應該再用網路工讀生到處罵人不愛國 舔韓這種負面方式來行銷手機. I am time sensitive, therefore a faster smartphone would be good for me. fast great camera great operating system ease of software apps free chat 沒有意見 每種機型各有其特殊功能(例如 A 手機沒有 B 手機的其中一個功能，B 手機亦無 A 手機其中一個功能)，希望可以將所有功能整合，買一隻就好了！ iPhone- creativity HTC-

manufacturing speed and quality Samsung - price, battery life 耐用度 產品使用年限過短的問題，例如 HTC，因為我的上一支手機就是購買 HTC，一方面因為支持國貨，另一方面覺得 HTC 總體而言評價不錯，因而購入，但是後來使用約一年半，手機就開始出現跑程式不流暢，當機次數也越趨頻繁，甚至還會自行關機(並非電力不足)，與其不斷推陳出新，倒不如踏踏實實地改善產品品質。防水 Functions Pricing, OS, design & physical attributes. 當機問題 相機的工能需加強 Better cameras A pure android experience, none of that HTC sense stuff Maintaining a more easily accessible balance between the pricing and the functionality of the smartphone FUNCTION, 照相功能，軟體，容量，品質。 For Judy, 加油~ Sylvia Chiang:) user interface 買了三星後發現很多人對三星的 s3 很多的反感.我買了不到一個禮拜手機照相功能有問題所以我對他的品質很反感.修了兩次才好害我跑兩趟.而且手機裡面有很多系統其實很多人都不用不到所以讓剛在拿到手機時要摸手機至少好幾個小時去設定很麻煩. 而且機車的是他自己勾選了連網路.-對於我們沒有申請的人會無奈的收到網路費用.因為根本不知他自己已設定所以三星~~打死不買了~ 疑難排解,產品良率與維修 Phones designed for specific needs (i.e. design phones with smaller screens, fast boot-up speeds and longer battery life) Lower the price of smart phones. 作業系統與操控流暢度 三星-外型設計 HTC-當機問題 lower the price to the point where it's more affordable to the majority 黑莓再不修正，就會倒了 I'm currently using HTC One S Special Edition I bought from Taiwan and I found it's very reliable and so far I'm quite satisfied with my phone except some minor points like the quality of front camera and battery life, otherwise I would give it fully satisfaction. Before buying this phone I have done many research before making decision, I found that HTC is quite well-known in some countries like Thailand and U.S. For me HTC should think about the accessories as well because I feel that when people get bored of the look of their current phone. They will look for a new case to transform the look of their phone. HTC lose this point because they develop many models, aiming to capture every target group, but supplier cannot catch up to produce choices of cases for every models HTC sold. It turned out that the customer can't find their preferred case to protect or even decorate their phone. Just think about iPhone, they have only one simple looking model but then the customer can decorate or get their iPhone the fanciest case you can imagine from every night market. New innovative ideas and interfacing. Personal planners built in with reminders. Apps that are fun and well-priced The style and look of the phone Battery Keep it stable and simple to use. creativity, reduce price brand distinction. they are all too similar to me. Price and Brand is the most important things to me. Battery life!!! -the stability of its operation system -quality of application -camera quality HTC : 1. 外型設計需加強 (new ONE 有改善了) 2.行銷需加強 3.產品供應鏈需穩定 三星 : 1. 外型頗糟 2.觸控品質差，用久會頓 3.抹黑對手>>手法惡劣 4.故障率高 5.售後服務態

度不佳 6.疑似欺騙？(ex.GalaxyS4 八 核心：並未八核心同時運作，只分不同時段採用不同核心運作，效能跑分輸小米>>詐欺？)(Amoled 面版技術尚未達 300ppi 之水準，卻謊稱 GalaxyS4 有 440ppi)>>詐欺？ Apple: 1.價格較高 2.使用界面彈性低>>沒辦法個人化 3.無法使用藍芽分享物件 4.資料同步或整理只能使用 iTunes,並未考慮部分使用者不會操作的問題 1. longest battery duration. 2. built in option for big button input. 3. no needs to hack the root to install some apps. 4. icon provides more features for better organizations (use folder to organize is still very simple and troublesome) Apple: Enlarge the screen size Samsung: Stop copying from other brands HTC: Develop good and less expensive handset 1. Price 2. Quality 3. After Service 4. Corporate Image 價格可以更親民 更人性化的界面操作，多國語言轉換，高畫質攝影功能，上網及 GPS 功能，超大電話連絡簿容量。Fast, fair pricing, available on several mobile carriers, listen to customer reviews so the next model addresses concerns, having a tough/rugged model for people who need smart phones but abuse them. Improve sensitivity to water and platform integration 三星：功能可更原創。追求高規格的硬體配置下，也要把軟硬體之間的校調做好 在強大的cpu 及大螢幕之下，電池的耗電量將是各大廠的一大挑戰 日後韌體更新也需內部完整測試後再釋出，免得造成更新後的災情 手機規格再提升的義意並不大，多開發其他更適合使用的功能為上 1) features that you personally want 2) broad reach 3) unique features not found in any other phone none. Low the price. 1. Better Design, build quality 2. Better Camera functions 3. Customizable software/ functions on the phone 4. Time to Market Price! Too expensive! I'm only satisfied with the price of Nexus 4. 充電器一致化減少污染 操作流暢性的提升，價格合理化,售後服務及保固條款 手機越做越輕越薄是好事 但限制消費者可更換電池和記憶卡是把手機便利性變得不方便了 HTC：企業良心 善待員工 老闆不要每天胡說八道 非專業領域之議題! 1. Price 2. Quality 3. After Service 4. Corporate Image Pricing - but it's a broken marketplace, and will never repair itself. Why should it? In America, you are trapped - by contractual gouging and ridiculous prices on the hottest phones in the market. If ever a company could break this trend and give actual reasonable value to their customers - they'd have a loyal buyer in me, for life. Also, battery life usually sucks. Prices need to be more reasonable, Price ease of use. In particular the ease of changing from one manufacturer to another. I have had an iPhone for so long now, I am not sure I would know how to use another type of phone. The amount of time it would take to be familiar with another phone is a concern. design Better quality of battery, better resistant for water or falling good luck to u ^^ Features n look n feel software is also an important factor Pricing Internet speed Better support for pc - phone - pc. Pricing. Allow calls to other countries. Better camera. speed durability security 價格 價格 客服品質 1. Customer services 2. Provide Rom version up to date. design (small/compact phone), internal memory space, Music player quality, esp

volume and earphones.. memory capacity. Ability to attach files eg docs, mp3s to emails. none
請 HTC 好好地想好行銷策略，不要連行銷都打輸三星。王雪紅不要再亂搞了。電不能
耗得太兇,充電需要快一點 no High software HD screen Big screen Faster touchscreen
Light weight More free application 操作介面 不要因為功能多重反而讓操作變得複雜。
例如打電話是最基本常用的功能，可是我打電話時，總是要我選擇是經由 VOIP 還是一
般手機，但是我若選 VOIP 的話，它會回應我並沒有註冊任何 VOIP 帳號。既然如此(它
都知道)，何苦叫我浪費一次操作來選擇呢？還有，中文的句點為什麼在輸入時必須把鍵
盤翻到特殊符號那一頁面才找得到？這麼常用的符號當然在ㄅㄆㄇㄏ的那一頁就該有
的啊？ Make the phone more smart all the time, innovation :) Customizable interface and
menus. I don't like that there are some apps I can't remove. Also wish I had more memory for
downloading apps. Adding more value apart from quality, such as brand image and core value
of its own brand. For example, Apple is really concentrate on education, they are not just
promoting the many apps for kids, having 'education' category in AppS store, but they also do
very well in iTunes U, Podcast. These are not just to presenting that apart from having a high
quality of smart phone, this help them to maintain the focus customer. 流暢度 系統穩定性
發行國為那個國家就由當地的國家生產，不要再什麼都 made in china For me the main
thing is work on applications the phone itself is important but applications are the key price
should be lower price down 電池持久性 價位 資訊安全,操作流暢度,當機頻率, 1.HTC 銷
售給國人價格太不合理,何來支技國產品牌 2.android 系統手機,操作介面可以更簡單些,
例如刪除一個應用程式不必好幾個步驟,手機一直在執行程式,明明已都刪除不久後還會
出現 Providing high quality products (both on design, build and software) while keeping the
price reasonable. 除了 APPLE 外, 其餘操作系統的穩定性要改善, 尤其是 android 系統
的調教. 經常有使用者抱怨該系統會死當, 這不是使用者樂見的情況. better relations
with different apps for making easier peoples lifes at the moment of using the cellphone. like
better translator or improve their agenda Price . functionality and upgrades along with great
customer support Regular updates to software 小螢幕(4 吋以下)的手機處理器跟記憶體都
很糟. - good quality for the camera and video function - dependable operating system - user
friendly MUCH higher runtime. Less than one day is just not enough. 1. 如何在軟體與硬
體之間的協調做出絕佳的平衡。不是軟體弱過於硬體，或是硬體跟不上軟體 2.創意，而
非改進別人的創意。例如外觀或是使用功能。需要創造潮流，而非跟著潮流。 3.CSR，
多半廠商沒有實踐，即時有也根本感受不到。 Having phones with keyboards, nearly all
smartphones are touch screen only which I find extremely annoying Better pricing and
after-service Battery long "life" Design options Operating system compatibility with (free)
apps, speed, durability (of battery and hardware) 手機外型及整體功能必須要大舉提升，例
如系統穩定性。 電池續電量、蘋果沒辦法容用其它體系外介面、HTC 不耐用、三星需

要改為非韓國廠牌 XD Differentiate themselves from other brands - have more personalized features which only come with that particular brand 拍照功能畫素提高 蘋果的送修制度很糟很不便 They should produce less models and keep coming up with latest innovations to market themselves. 蘋果最需要的就是要將螢幕尺寸做大 現在大螢幕尺寸會是主流 Improving processors and standardizing apps. Value for money product. Excellent service. Great software bundles fair trade and sustainability 電池續航力 會買各種手機就是不買 HTC, 因為這是隻出賣台灣的手機....爛中國手機,死都不會購買,除非 HTC 王雪紅出來替選舉不當言論道歉... 價格過高≠高 quality。一隻手機動不動就是幾萬幾萬,對學生來說,不僅大學生,想要擁有但父母不支持,須要靠自己努力獲取者來說,過高的價格會將選擇性降低,以至於買到與自己理想不同的手機。對 iPhone 而言,因為 Apple 只生產一台 iPhone,價格差別在於容量大小,但是至少品質是固定的。但對其他廠牌而言,高價位手機當然品質有一定保證,但對於較低價位手機則是便宜但不一定是好貨。Batterylife HTC- improve the marketing HTC 品牌行銷,三星太骯髒了 目前沒有 Better battery life 價格、狗屁專利,好用就好 網路費 Reliable phones. My HTC Evo crashes all the time and has very little internal memory. Many of the apps I have on the phone (ie. Facebook) can't be moved to the phone's SD card. As these apps get bigger with successive updates, more and more of my phone's memory gets taken up. This slows the phone down greatly. There have been many times I just want to throw my crazy phone against a wall and walk away. I will never buy any HTC product ever again. Price range, lots of low- and high-end but not much in between. 外型不要越來越像,不論哪個品牌,如果每個新產品都長得差不多,每個人拿的手機都長得一樣很無聊 Reasonable price for reasonable functions. Over spec isn't a good reason for expensiveness. Design, speed and connectivity, light, good screen and pixels for images, open for app developing 汰換率高 價格不超過, 19000, 規格高, 良性競爭, 不牽涉政治 Design, price 環保, 耐用, 容易更新軟體, 以至於可以用很久很久 品牌特色需要強烈!