

**HOW LOYAL ARE YOU?  
FACTORS INFLUENCING CONSUMER BRAND  
LOYALTY**

**SITI NOOR AISHAH MOHD SIDIK**

**MASTER OF SCIENCE MANAGEMENT  
UNIVERSITI UTARA MALAYSIA  
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**HOW LOYAL ARE YOU?  
FACTORS INFLUENCING CONSUMER BRAND LOYALTY**

**By**

**SITI NOOR AISHAH MOHD SIDIK**

**Thesis Submitted to  
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of Master of Science Management**



Othman Yeop Abdullah  
Graduate School of Business

Universiti Utara Malaysia

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## **ABSTRACT**

Hand phone have become a necessity in human life. This is due to technological advances that allow people to communicate with each other anywhere and at any time. The variety of hand phone in the market directly contributes to the increase in the competition among the marketers to attract and ensure brand loyalty. This study aims to determine the factor influencing brand loyalty among hand phone users. Factors such as Brand Reputation, Brand Competence, Price, Advertising Spending, Brand image and Design are being investigated. Students of University Utara Malaysia were chosen as sample of this study. A total of 400 questionnaires were distributed to the respondents and 390 were obtained and usable. Correlation and regression analysis were used to analyses all data. The of Pearson Correlation analysis indicated that all the independent variables- Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design had a certain degree of relationship with brand loyalty. Based on the Regression Analysis, it study shows that Brand Reputation, Brand Competence and Price influenced brand loyalty among hand phone users. However, other three variables, Advertising Spending, Brand Image and Design do not influence brand loyalty. Results also indicate that Brand Competence is the most important factor that influenced brand loyalty. In conclusion, the finding of this study will be a great challenge for marketers to prepare their strategic plan in maintaining customer loyalty.

**Keywords:** Brand Loyalty, Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image, Design

## ABSTRAK

Telefon bimbit telah menjadi satu keperluan dalam kehidupan manusia. Ini adalah kerana kemajuan teknologi yang membenarkan orang ramai untuk berkomunikasi antara satu sama lain di mana-mana dan pada bila-bila masa sahaja. Kepelbagaian jenama telefon bimbit di pasaran secara langsung menyumbang kepada peningkatan dalam persaingan antara pemasar untuk menarik dan memastikan kesetiaan jenama. Kajian ini bertujuan adalah untuk menentukan faktor yang mempengaruhi kesetiaan jenama di kalangan pengguna telefon bimbit, iaitu Reputasi Jenama, Kecekapan Jenama, Harga, Perbelanjaan Pengiklanan, Imej Jenama dan Reka Bentuk. Pelajar Universiti Utara Malaysia telah dipilih sebagai sampel kajian ini. Sebanyak 400 soalan kaji selidik telah diedarkan kepada respondent dan 390 daripada soalan kaji selidik telah diperolehi dan boleh digunakan. Analisis Kolerasi Pearson dan analisis regresi berganda telah digunakan untuk menganalisis semua data. Hasilnya berasaskan Analisis korelasi Pearson menunjukkan bahawa semua pembolehubah – Reputasi Jenama, Kecekapan Jenama, Harga , Perbelanjaan Pengiklanan, Imej jenama dan Reka Bentuk mempunyai hubungan pada tahap tertentu dengan kesetiaan jenama. Berdasarkan analisis regresi berganda, kajian ini menunjukkan bahawa Reputasi Jenama, Kecekapan Jenama dan Harga mempengaruhi kesetiaan jenama di kalangan pengguna telefon bimbit di UUM. Bagaimanapun, tiga pembolehubah lain, Perbelanjaan Pengiklanan,Imej Jenama dan Reka Bentuk tidak mempengaruhi kesetiaan jenama. Kajian juga menunjukkan bahawa Kecekapan Jenama adalah faktor yang paling penting dalam mempengaruhi kesetiaan jenama berbanding dengan pemboleh ubah lain. Kesimpulannya, dapatan kajian ini akan memberi cabaran besar bagi pemasar untuk menyediakan pelan strategik mereka dalam mengekalkan kesetiaan pelanggan.

Kata kunci: Kesetiaan Jenama, Reputasi jenama, Kecekapan Jenama, Harga, Perbelanjaan Pengiklanan, Imej jenama dan Reka Bentuk

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 Chapter introduction**

This study presents an overview about the brand loyalty factors among mobile phone users. The factor includes brand reputation, brand competence, price, advertising spending, brand image and design. Hence, this chapter views all issues and variable in this study. This chapter contains seven parts which are classified as follows: (1) Background of the study, (2) Problem statement, (3) Research objectives, (4) Research questions, (5) Variable of the study, (6) Theoretical framework, (7) Hypothesis, (8) Significance of the study and lastly is the conclusion.

### **1.1 Background of study**

Brand loyalty can be defined as the behavior of customers to be loyal to a particular brand. Companies usually design their own value to create brand loyalty among the consumers, such as offer superior product and service. Besides, firms also organize and make accessible database of information on individuals such as Customer Relationship Management systems in order to keep customer data. This approach plays an important role to maintain relationship with consumers in a long term period (Kotler, Keller, Ang, Leong and Tan, 2013).



In other perspectives, brand loyalty is an important asset for companies to achieve profit and compete with other competitors in the same industry. In order to be successful, big companies create their own platform to attract and retain good relationship with consumers. The application of technology such social network and internet are examples of tools that can manage cost efficiently and retain consumers worldwide. However, in this competitive market, businesses are challenged to ensure brand loyalty because the consumer is more intelligent to choose the right product. Consumers are aware about the brand with high quality, and at the same time offer good image and reasonable price (Giddens and Hoffman, 2010).

In the competitive market, the mobile phone industry is an example of business that marketers feel is challenging to ensure brand loyalty. Nowadays, people buy mobile phones for many reasons such a taking and saving personal photos, downloading music, adding wallpapers, creating shortcuts and select their desire of apps. Besides, technology advances in mobile phone lead to application of smart phone and contributed to high rate usage among mobile phone users. The consumer is more attracted on the Smart phone because it offers excellent computing power and connectivity compare to contemporary mobile phone. Smartphone also help people to make voice call, video call, SMS, and MMS.

In the mobile industry, Malaysia represents one of the highest penetration rates for cellular phones in South East Asia with a current penetration rate is over 120%. In

2010, the number of mobile phone subscribers increase 33,859 million, and with penetration rate of 119.2%. The percentages also increase by at the end of 2011, with total 35,707 million and penetration rate, 124.6% (Thomas and Lim, 2012). This means that mobile phones are becoming a need to consumers and they follow the latest trend of mobile phone technology. In addition, mobile phones are important sources for people to communicate with other people and for the social needs. Nowadays, most teenagers and senior citizens use mobile phones in their daily life. Table 1.1 and Table 1.2 show the penetration rates of mobile phone usage in Malaysia based on the age and state from year 2008 until year 2012.

**Table 1.1**  
*Penetration rate mobile phone users by age*

<b>Age category 2008-2011</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Age category 2012</b>
<i>Below 15</i>	2.8	2.3	3.4	1.9	1.8	Below 15
15-19	12.3	12.4	10.9	10.4	11.4	15-19
20-24	18.8	20.0	17.3	17.6	17.3	20-24
25-29	15.8	15.9	15.9	16.5	15.8	25-29
30-34	13.3	14.2	13.5	13.4	13.4	30-34
35-39	9.4	9.3	10.1	9.8	10.8	35-39
40-44	9.9	8.1	9.2	10.3	9.2	40-44
45-49	6.3	5.9	6.5	6.6	6.5	45-49
					5.4	50-54
50 and above	11.3	11.8	13.3	13.4	3.3	55-59
					1.9	60-64
					2.9	65 and above

Source: Malaysia Communication and Multimedia Commission (2012).

**Table 1.2**  
**The Penetration Rates of mobile phone users by State (per 100 inhabitants)**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Johor</b>	101.3	105.9	112.8	126.5	128.7
<b>Kedah</b>	88.1	92.1	117.2	116.4	118.8
<b>Kelantan</b>	70.6	88.1	83.3	103.3	107.8
<b>Melaka</b>	102.7	120.4	128.9	182.3	143.6
<b>Negeri Sembilan</b>	92.4	115.7	148.8	158.4	144.7
<b>Pahang</b>	86.4	90.2	101.7	91.7	134.8
<b>Perak</b>	85.9	105.5	107.7	119.7	114.6
<b>Perlis</b>	94.8	112.3	92.0	124.5	139.6
<b>Pulau Pinang</b>	101.4	110.5	125.5	123.9	142.3
<b>Selangor</b>	96.4	104.3	138.5	145.5	154.4
<b>Terengganu</b>	62.6	84.2	107.8	125.3	132.6
<b>Sabah</b>	58.5	77.8	92.6	88.8	87.6
<b>Sarawak</b>	65.7	73.3	74.3	94.8	105.7
<b>W.P.Kuala Lumpur</b>	151.8	163.8	208.6	229.0	203.5
<b>W.P Putrajaya</b>					120.6
<b>W.P. Labuan</b>					87.0

2008 until 2011 Sabah includes W.P. Labuan, Selangor includes W.P. Putrajaya  
 Sources: Malaysia Communications and Multimedia Commission (2012).

Furthermore, according to Swann (2012), people that were born in the 20th century are more likely to use mobile phones for social reasons and in maintaining relationships with the society. Social media also allows consumers to use mobile phones for online communities and forum, bloggers and social network such Facebook, Twitter, Kakao Talk, Whatapps, Line and others. People also use mobile phones for games and blogging activities. Besides, consumers also need technologies that are convenience and

save their time. They use mobile phones to send emails, shopping and mobile banking. This shows that mobile phones usage is important medium to manage people daily life.

In the market, Samsung and Apple are examples of companies that had aggressively done method to reach potential buyer every year. These companies are also able to increase their revenue when launching new products rapidly in the market. Hence, competitions among firms indirectly give the challenges to enforce the brand loyalty. To gain information about the behavior of people about the mobile phone brand, this study will explore the factors that influence their loyalty to a particular mobile phone brand. Findings of the study may be useful to various parties such academicians, mobile phone provider company and researchers. Based on the previous research on the brand loyalty, this study will examine the factors that influence brand loyalty among mobile phone users such as brand reputation, brand competence, price, advertising spending, brand image and design.

## **1.2 Problem statement**

The level of rivalry in mobile phone industry is growing rapidly and lead to various mobile phone brands in the market. This situation leads to uncertainty among the consumers to choose the best mobile phone brands. Besides, the new trend today, consumers buying mobile phones are like buying fashions to fulfill the current need of high technology of mobile phone. According to Li (2010), to follow the current situation market, mobile phone manufacturers are consistent producing new products with faster speed every year. They also offer variety of attractive designs. This situation is a critical challenge for marketers to retain the consumers because consumers have many options in the market.

Besides, consumers also are continuously facing the dilemma which phones to buy. After smartphones were released, consumers are more difficult to decide their purchase decision in buying the right brand (Nidhi, 2013). Furthermore, according to Sarkar (2011), consumers also find it easy to switch between mobile phone brands. This is because consumer desire on brand that have ability to perform and satisfy their needs. This situation leads marketers challenged to cultivate a brand relationship between their consumers.

In order to give a better view about brand loyalty, much previous research has been conducted, and researchers come out with many variables to measure the brand loyalty among the consumers. In Malaysia, much study focus on sportswear and hypermarket brand loyalty. According to Yee and Sidek (2008) and Khraim (2011) they

found that price, brand name, product quality influence brand loyalty. However, in another study by Kruger et al., (2013), in a research brand loyalty in cellphone industry at South African, researcher found positive relationship between brand romance, brand attitude with brand loyalty on cellphone brands. Hence, the purpose of the study is to complement existing research on brand loyalty among mobile phone users in Malaysia.

## **1.3 Objective of the Study**

### **1.3.1 Main objective**

The main objective of this study is to determine the factors that influence brand loyalty among mobile phone users.

### **1.3.2 The Specific Objectives**

1. To examine the significant difference brand loyalty between genders among mobile phone users.
2. To examine the significance difference of brand loyalty between age, ethnic group, religion, level of education and mobile phone brand name among mobile phone users.
3. To determine the relationship between the independent variable (brand reputation, brand competence, price, advertising spending, brand image and design) on brand loyalty among mobile phone users.
4. To determine the influence of brand reputation, brand competence, price, advertising spending, brand image and design toward brand loyalty among mobile phone users.

## **1.4 Research questions**

1. Is there any significant difference in brand loyalty between genders among mobile phone users?
2. Is there any significance difference in brand loyalty between age, ethnic group, religion, level of education and mobile phone brand name among mobile phone users?
3. Is there any relationship between brand reputation, brand competence, price, advertising spending, brand image and design on brand loyalty among mobile phone users?
4. Is there any significance influence between brand reputation, brand competence, price, advertising spending, brand image and design on brand loyalty among mobile phone users?



## **I.5 The variable of the study**

### **1.5.1 Dependent Variables**

Brand loyalty is the dependent variable in this study.

### **1.5.2 Independent Variables**

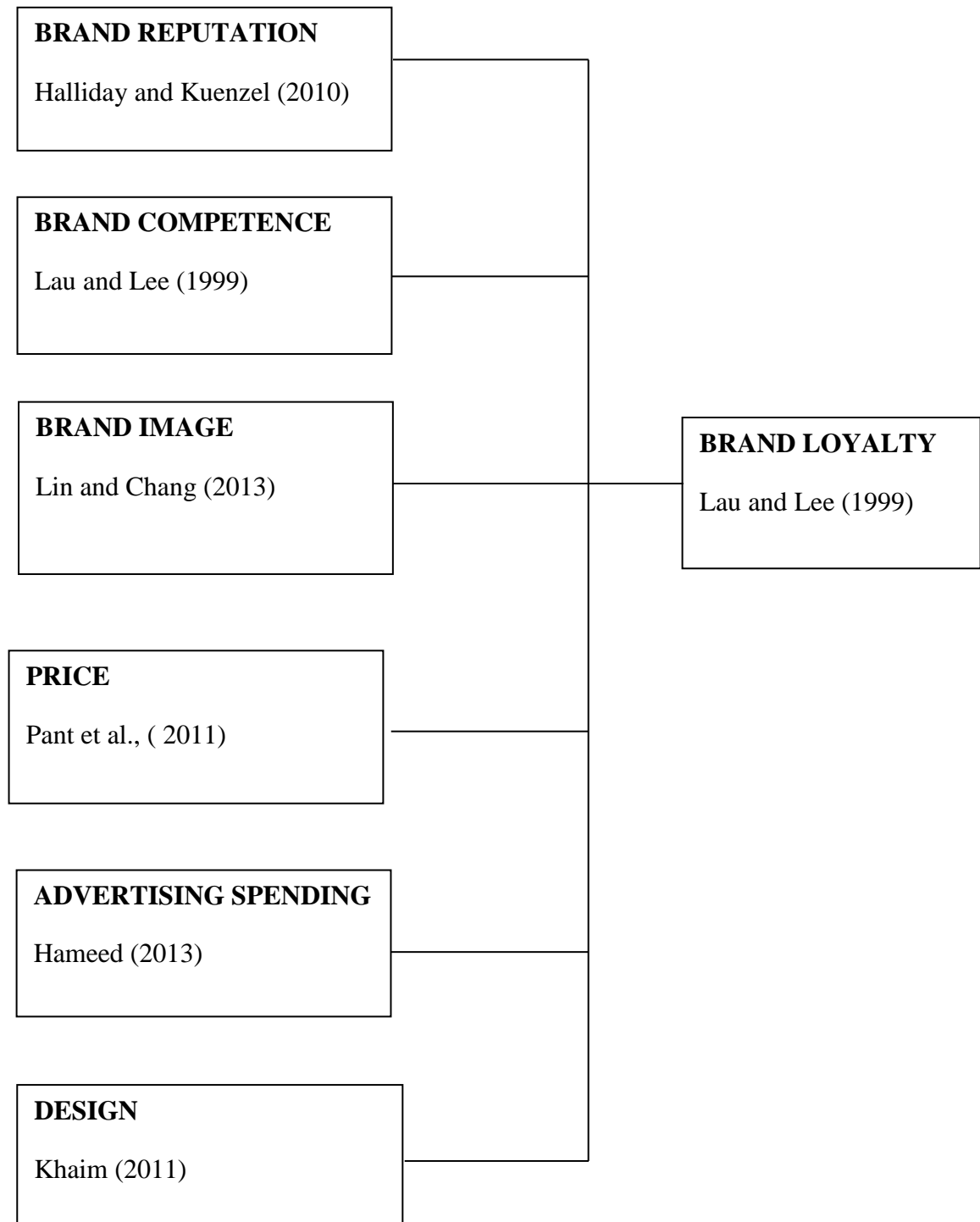
The independent variables in this study are Brand Reputation, Brand Competence, Price, Brand image, Advertising Spending, and Design.

## **1.6 Theoretical framework**

In this study, there are six variables are independent variables (IV) and one dependent variable. The dependent variable is “Brand Loyalty” among mobile phone users. The independent variables of this study consist of six factors namely “Brand Reputation”, “Brand Competence”, “Price”, “Brand image”, “Advertising Spending”, and “Design”. Figure 1.1 shows the theoretical framework of the research, and variables that need to be examined according the objective, and research question of the study.

**INDEPENDENT VARIABLES**

**DEPENDENT VARIABLE**



**Figure 1.1: Theoretical Framework of the Research**

## **1.7 HYPOTHESIS**

### **Hypothesis 1**

There is a significant difference of brand loyalty between genders among mobile phone users.

### **Hypothesis 2**

There is a significant difference of brand loyalty between Ethic group (2a), Age (2b), Religion (2c), Level of education (2d) and Mobile phone Brand Name (2e) among mobile phone users.

### **Hypothesis 3**

There is significant relationship between Brand Reputation (3a), Brand Competence (3b), Price (3c), Advertising Spending (3d), Brand Image (3e) and Design (3f) on brand loyalty among mobile phone users.

### **Hypothesis 4**

Brand reputation, brand competence, price, advertising spending, brand image and design significantly influenced brand loyalty among mobile phone users.

## **1.8 SIGNIFICANCE OF THE STUDY**

This study is expected to provide some contribution for consumer and marketers mobile phone industry in Malaysia.

### **1.8.1 Marketers**

Firstly, this study can help marketers to get a better understanding of student perception on brand loyalty. In the market, young consumers are potential segment that can contribute high sales for the firm. From the study, firms can improve the marketing strategy and enhance the reputation to ensure customer trust on the firm. This study also will motivate the marketers to design the new strategy to attract new buyers such as promotion, enhance the advertising effort and improve their performance consistently.

### **1.8.2 Consumers**

Consumers play important roles in giving success to the firm. This study will provide directions to the consumer to consider the best brand in the market. They are concerned about the performance of the firm, the innovative design and the competence of the brand before make a buying decision. The study provides them a clear view on how to make comparison between good brands in the market compare to others brand. Besides, the study also can guide consumers to make own decision when to buy a mobile phone after considering all the factors of brand loyalty.

## **1.9 CHAPTER CONCLUSION**

In this chapter, the specific factors are being underlined to determine factors influence brand loyalty among mobile phone users. The importance of the study was identified and mentioned. The theoretical framework, research objectives and hypothesis were also highlighted.

## **CHAPTER 2**

### **LITERITURE REVIEW**

#### **2.0 Chapter introduction**

In this chapter, brand loyalty (DV) and all six independent variables (IV) namely “Brand Reputation”, “Brand Competence”, “Brand image”, “Price”, “Advertising Spending”, and “Design” are being explained based on the previous research.

#### **2.1 Brand loyalty**

The most critical challenge for the firm is to ensure the brand loyalty among the consumers. Firms which had strong relationship with the consumers will obtain competitive advantage to survive in the business and able to manage their cost effectively. According to Oliver (1999), customer loyalty is the intention to rebuy a desired product or service continuously in the future. Consumers purchasing decision is also influenced by situational factors such as marketing effort of firms, which that influenced switching behavior. Marketers can persuade consumers to be loyal to the brand. The best indicator is to offer products and services that exceed consumer’s expectation. Through high quality of products and services, firms can manage the risk of consumers switching to other brands.

According to Aaker and Keller (1990), loyalty is influenced by numerous factors, and experience of product usage is an important factor that influences consumer's loyalty. Other factors include economic or psychological factors that make it costly or difficult for consumers to switch. Price is also another important consideration to consumers in making the decision to buy the product. They expect to get positive benefits from the usage of the product with the best price value. Consumers also have their own reasons to be loyal towards the brand, such as level of income, style and perception that related to the brand. Hence, firms must consider all entire factors in order to understand the buying behavior and perception of the consumer.

In another point of view, consumers may also be loyal because they are satisfied with the brand, and thus want to stay in relationship with the brand (Fornell, 1992). Besides, the brand with good combination of quality and price can lead to consumer satisfaction. Consumers are more motivated to be loyal to the brand and desire to repeat purchase in the future. In this relation, marketers need to increase satisfaction, through providing product warranty, rewards and maintain the relationship with the consumer via the customer relationship strategy (CRM). Some companies effectively maintain the relationship with customers by sending the birthday wishes and event update to stay connected with their consumers.

In addition, Venkateswaran (2011) argued that to accomplish brand loyalty, the consumers must trust marketers offered brand with good combination of price and quality. The level of customer loyalty can also be detected through the strength of brands, and at the same time relates to the uniqueness of brand associations stored in consumer's memory. In addition, brand with good value price and quality can lead positive perception in the consumer's mind. In the mobile phone market, the technology and capabilities of the mobile phone brands can lead the positive feeling and consumer excited to buy future the products from the same firm.

Loyal customers also can give benefits to the company by reducing costs in performing business activities. Companies can reduce advertising cost to create brand awareness and introduce new products. Loyal consumers also are the key indicator that is used to help companies influence potential buyers in the market. The power of the consumer is via word –of- mouth communication. They share product knowledge and experience with other relatives and friend (Bennet et al., 2005).

According to Duffy (2003) loyalty is the feeling that a customer has about a brand which eventually generates positive and measurable financial results. Customer loyalty also helps improvements in retention and increasing in the share of the company. This means that loyal customers are important assets to the firm to expand their market share in the business. The firm gets a big opportunity to apply the same strategy to influence potential buyers, because the firm is strong in the market and the majority of consumers are aware about the firm. This situation directly helps firm to improve their



performance through customer's feedback and suggestions about the firm. The best brand is a brand that can fulfill customers' needs and wants. Companies will be successful in the market when they effectively to provide the latest products and follow the current trend of the consumers.

Sahin et al., (2011), suggested that high volume of consumers are asset to the company to gain brand equity among loyal consumers, which is less sensitive to price changes as compared to non-loyal consumers. Firms can enhance the brand loyalty efficiently by promoting club membership programs. The club opens to anyone who purchases products or services, or it can be limited to an affinity group, or those willing to pay a small fee. Apple has a highly successful club by encourages 30 members to over 1000 member form local Apple-user group. The group provides Apple owners with opportunities to learn more about their computers, share idea, and get product discount (Kotler et al, 2013).

Clearly, brand loyalty has an important effect on businesses. Therefore, firms must play their role to enhance their relationship with consumers to survive in the long - term period. Suitable with the advance of technology, firms can adapt all the benefits of the technology to ensure brand loyalty. The approach is to enhance advertising and promotion in the social media and this is the best way to influence consumer's perception. Firms also can consider the price and other factors that relate to the consumer to understand consumer behavior in the market and lead to customer satisfaction.

## **2.2 Brand reputation**

Brand reputation is defined as the consumer's view that the brand is the best and trustworthy. In the marketplace, businesses develop brands reputation through advertising and public relation. Firms also increase product quality and performance to create a positive image about the company in the consumer mind (Lau and Lee, 1999).

According to Creed and Miles (1996), reputation leads to positive expectations and develop mutual understanding between the parties. Good reputation occurs when the consumer perceives that the brand is good as compared to other brand and they trust the brand. Reputation also can reinforce trust and awareness among consumers when the brand meets their expectations after the usage experience. Besides, consumers are usually loyal to the brand that provides them the feeling of satisfaction. However, if the brand does not have a good reputation, consumers are more curious to buy the product and difficult for business to grab more consumers and achieve the profit. Therefore, to be successful, the businesses must develop a good reputation and maintain their performance. This is because loyal consumers are sensitive to brand performance, and they compare reputation of the brands with other competitors to obtain the best product from the brand.

According to Ali (2008), companies and consumers are concerned about brand reputation when buying the brand in the market. The competition among brands also leads to value in the consumer mind because every brand is viewed in different values

and creates a distinct image among the other brand in the market. For example in the mobile industry Sony Ericsson is poised as “music and entertainment” etc.

On the other hand, brand growth and market share of the company will be affected if companies fail to ensure a trustworthy and maintain the brand reputation. Consumers are the king in the market. Their needs and wants also change with the situation. This is a big challenge to firms in order to enhance brand attribute and features to fit to the consumer’s requirement and enforce consumer relationship with the brand. In the mobile phone industry, brand reputation is important to influence the consumer's mind, especially in relation to of the brand in the local as well as the global market share (Browne, 1999).

According to Kapferer (1997), good reputation offer superior quality, added value and leads to a premium price. Reputable brand is also an asset for the firm. With good reputation, firms can retain consumer loyalty and enhance the return and sales in the future. Besides, brand reputation can be used to measure the degree to which the consumers recognize the brand in the market. According to Paul and John (1997), reputation attributes are consistence and firms are able to perform in the long term period. Firms also enhance performance of brand reputation through the marketing mix effort such as offering the best price of the product, superior quality, aggressive promotion, and good marketing skill among the employees.

Based on previous research by Halliday and Kuenzel (2010), they found that reputation has positive relationship with brand loyalty. The level of brand loyalty is high when consumers perceive a brand as reputable. Besides, a positive reputation is an advantage to companies to retain the existing customers and attract more potential customers in the market.

### **2.3 Brand competence**

According Lee and Lau (1999), brand competence is one of the important elements of brand characteristic. Brand competence plays an important role in determining whether a consumer decides to trust the particular brand. In the competitive environment, consumer consider characteristic of brand before making decision to purchase a product and create relationships with the brand.

According to Butler and Cantrell (1984), a competent brand is able to answer the consumer's problem in the market. In this definition, ability refers to the skill and characteristic of the brand that enables to influence consumers trust. This means that the competence of a brand depends on the benefit after usage, consumers are satisfied with the value after using the brand. In the mobile phone industry, marketers can ensure the customer trust if the band can perform well and fulfill the consumer needs. Marketers also can enhance brand competence through the adoption of the high technology by the brand. The current trend today, consumers will desire to own something that enables them to solve the problem and manage the time with efficient.

Brand Competence is important to firm ensure brand loyalty and positive word-of-mouth among the consumers (Deutsch, 1960; Cook and Wall, 1980; Sitkin and Roth, 1993). In order to enhance the brand trust, a consumer may find out about brands competence via word-of-mouth communication. Their relatives and friends play an important role in convincing the consumers that a brand is able to solve the problem and persuade consumers to rely on that brand.

A previous study by Lee and Lau (1999), brand competence is an important factor to ensure customer trust and will lead to brand loyalty. The companies can establish their competence by conducting research to find out about the latest consumers' needs and wants. Companies can achieve competitive advantages by focusing on the main product and not have too many brand extension beyond the core competence. This is important to give a clear perception about the brand and overcome doubt among the consumers.

Besides, to establish high image on the consumer mind, marketers should use key opinion leaders, who are viewed as authorities in specific area. Opinion leaders can help companies to speak on behalf of the company brand and encourage trust among the consumer about the brand. Some examples of key opinion leaders are famous physicians for pharmaceutical products.

## **2.4 Price**

Price is the sum of money which is charged for a service or product, and as exchanged for values that consumers will get after having or using the product or service (Kotler and Armstrong, 2010). In business, a price decision of consumer changes according to environment situation. Advanced technology in mobile phones allows the connection between buyers and seller in buying process. This is because, using the internet consumers can get lower price and compare the price of products from various companies in the local and global market (Kotler, Keller, Ang, Leong and Tan, 2013).

In a competitive market, business should take the opportunity to offer both elements of price and quality of service to attract customer's attention. Besides, the price is also the key indicator to fulfill customers' needs and create positive perceptions in the consumers mind when buying desired product (Melody, 2001). In order to persuade consumers, marketers also offer mobile price with the other package such SMS charge and the internet charge to attract customers to buy the SIM card (Kollmann, 2000).

However, Monroe (2003) suggested that price is the total of cash consumers need to expense to get a desired product or service. Consumers make decision to pay high price to get the desire product, for example in mobile phone buying process. They look at the quality and value that they can get after buying the mobile phone in the future. Besides, prices can change, customer evaluation about products and affect customer re-purchase in the next time buying. Best price will give motivation to consumers to buy

the same product or other product from the company in the future (Monroe and Lee 1999).

In addition, companies can attract new buyers and existing buyer to buy product from the company when offer lower prices at the proper time (Armstrong and Kotler, 2011). Companies attract buyers through price promotion such as special-event pricing. Popular and Tesco, for example, established special prices in certain seasons to draw more customer. Clearly, price is an important element which the consumer is concerned before buying any product or service. Based on previous research by Yee and Sidek, 2008; Khraim, 2011; Pant, 2011, they found that price is considered by all consumers when buying products and stay loyal with the brand. However, in research by Khan et al., (2013) they found that price do not influence brand loyalty among cosmetic consumer. This is because consumers trust the brand more and benefit from the cosmetic products.

## **2.5 Advertising spending**

According to Moorthy and Zhao (2000), advertising spending is a signaling device showing how strong the brand is in the market place. In the marketing effort, advertising provides an introduction to the consumers about the company and its products, explain about the new features of the product, remind consumers about how to use the product and reassure them about their purchase. To generate positive sales and return every year, businesses use traditional ways through newspapers, television and radio create an

image and position product in the customer's mind. All these tools help the firm to achieve their objective of reaching more customers and stay successfully in the business.

In addition, advertising is any paid form, of non-personal presentation and promotion of ideas, goods, or service by an identified sponsor via print, broadcast, network, electronic and display media. There are many roles of advertising, the first role of advertising for business and consumer is persuasiveness, where advertising permits the seller to repeat a message. It also allows the buyer to receive and compare the message of various competitors. Large scale advertising usually says something about the seller's size, power and success.

The second role of advertising is amplified expressiveness. This means that advertising provides opportunities to dramatizing the company and its product through the artful use of print, sound and color. The third role of advertising is related to impersonality. Here, the audience does not feel obligated to pay attention or respond to advertising. At the same time, advertising is a monologue in front of, and not involve dialogue with the audience. Hence, advertising is freedom to the consumer whether to interpret or just to see (Kotler, Keller, Ang, Leong and Tan, 2013).

According to Park and Jang (2012) to help companies to manage the cost, advertising spending on social network is the best solution. This medium plays many important roles in business-to-business and business-to-consumer marketing. Companies use the social network such as Facebook and Twitter to create relationships with



consumers and advertise their latest product. This social network directly gives a positive impact by reaching new consumers with the lowest cost of advertising.

According to Chioveanu (2008), in order to create loyal consumers towards a particular brand or firm, high investment is spent for advertising which leads towards brand loyalty. The money spent in the selected media such as television ads, print ads, and radio ads. Besides, company also can use public spaces as alternative to advertise their products (Kotler et al., 2013). In positive view, to generate positive sales and returns, businesses can use traditional ways, such as newspapers, television and radio. This medium plays the role to create an image and position product in the customer's mind. In addition, this tool directly helps firm to achieve their objective reach more customer and success in the business.

Howard (2010) suggested that television advertisement is the most powerful advertising medium. The advantage of this medium is to be able to reach a wide market of consumers. Television advertisement also can demonstrate product attributes, and explain product benefits to all consumers. Large companies such as Coca-cola, Samsung, and Apple use the television ads to introduce new products and get customers' attention. Advertising also introduce and promote organization to the public, and directly give impact on the organizational performance and customer's opinion of the market (Kotler et al, 2013).

Based on the previous study by Hameed (2013) in a study brand loyalty of hypermarket, consumers in Pakistan were not influenced by advertising spending because most of the department store did not effectively used in advertising. They are more concerned about other factors that link to brand loyalty such as perceived quality, location, parking area and environment of the store.

## **2.6 Brand image**

Brand is a symbol or a sign that help consumers to recognize the product. Firms with progressive brand image in the market get the advantage to endure in the business and expand in the market share. Positive brand image enables the brand to be recognized in the market and loyal consumers will influence the other buyers to buy the particular brand that have with good brand image. They believe brand with a high brand image to perform better to serve them the best quality of product and satisfied their needs (Park, Jaworski and MacInnis, 1986).

According to Thakur and Sigh (2012) brand image is the set of beliefs and at the same time idea and impression that a person grips about the brand. Consumers believe with the brand and concern about the image before they buy the product. Besides, consumers also have high positive perception and leads to memory about the image of firm in the market (Keller 1993). On the other hand, consumers trust the brand, according to their perception, memory and contribution of the company in the business such as corporate social responsibilities, events and sponsorships. Brand image also

gives direction to consumers in identifying their needs and satisfaction about the brand. Besides, brand image also differentiates competitors brand in the same industry, and encouraging customer to buy the brand. According to Raza Naqvi (2013) positive brand image means an ability of a firm to embrace its market position. A positive brand image also helps firms to obtain consumer satisfaction, provide service superiority, loyalty and repurchasing intention (Lai et al., 2009).

In the market place, Samsung Company is an example that involves in Nonpersonal (Mass) Communication channels to create their own brand image in consumers mind. Samsung take the opportunity to enhance the brand image through sponsoring sports events such as the Olympics. Samsung has been an official Olympics partner since 1997. The involvement from the Samsung indirectly gives the biggest impact on their success and also to position a good brand image in the consumer mind word wide (Kotler et al., 2013). Most previous studies found that the brand image has a significant relationship with brand loyalty. According to Anwar et al., (2011) and Mohamad Doostar (2013), brand image influenced consumer loyalty with the brand because brand as a symbol that lead to the positive image of the firm and consumer compare the brand with other brand in the market.

The result is supported by other research (Lin and Chang, 2013). In their study about the factors influencing brand loyalty in the Taiwanese market, they found that the brand image of mobile phone had a direct effect on brand loyalty. Therefore, firms must concern to design product to enhance personal image to influence consumer loyalty. In

addition, firms can establish a strong brand image through high product quality and superb post-sale service. Firms also must be involved in the social welfare activities to create the relationship between firms and the public. This is an efficient way to create brand awareness and build positive positioning about the firm. Consumers will trust more the brand and link to the brand loyalty in the long term period.

## **2.7 Design**

Design is a powerful way to distinguish company products and services. According to Frings (2005), design is the visual appearance and lead to consumer's perception towards the brand. The element of design includes line, the details and shape. Brands with stylish design draw loyal consumers who follow fashion trend. Besides, leaders of fashion usually will choose the store with highly fashionable for repeat purchase of the product. The latest design and brand also can satisfy the current need of the consumers.

In consumers mind, design can change consumer perceptions for them to have brand experience and more rewarding. Good design includes elements such bold simplicity. Design is also the key advantage to compete with other competitors, especially in the mobile industry. Samsung is a good example of this, it is concerned with the design when introducing new mobile in the market. Samsung realized that it needed to design more products for wide market such as in India, China and other potential market that can contribute to industry growth. Samsung focus on the six

consumer segments such as needs, style, infotainment, business, multimedia, connected and basic necessities (Kotler et al, 2013).

According to a study by Duff (2007), consumer desire for products with more attractive design. However, the result is different in another study by Khraim (2011). He found that design is not important consideration for United Arab Emirates (UEA) consumers when buying cosmetic product.

## **2.8 CHAPTER CONCLUSION**

This chapter explained brand loyalty and the factors that might influence customer loyalty towards a mobile phone brand. These factors are brand reputation, brand competence, brand image, price, advertising spending and design.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.0 Chapter Introduction**

This chapter begins by describing the research design, population and sampling, sample size determination, questionnaire design, data collection method and other statistical method such pilot test and Reliability coefficient. This chapter will highlight the questionnaire measurement related to brand loyalty.

#### **3.1 Research Design**

Research design used in this study is the survey method using a questionnaire to collect data. A Survey is where samples of target respondents giving answer to the same questions to measure various variables and test multiple hypotheses (Neuman, 2007). A six point Likert scales is used in this study to measure responses from the respondents.

#### **3.2 Population and Sampling**

Population refers to the entire group of people, events or thing of interest that the researcher wishes to investigate and sample is subset of the population (Sekaran and Bougie, 2012). Students of Universiti Utara Malaysia are a population and sample in this study. Using university students is appropriate because this group is an important target market for mobile phone services (Shermach, 2005). Students also used mobile

phones for their learning process and communicate with others. Hence, it is important to all marketers to understand student's perception of brand loyalty.

### 3.2.1 Sample Size

According to Hair, Anderson, Tatham and Black (2006) a sample can be defined as a portion or subset of a larger group or population. In this study, 377 respondents are adequate based on the 20,000 population of Universiti Utara Malaysia students. The sample size decisions are made based on the Table 3.1.

**Table 3.1**  
*Scientific Guideline for a Sample Size Decision*

Population Size	Sample Size
15000	375
20000	377
30000	379
40000	380
50000	381
75000	382
1000000	384

Source: Sekaran and Bougie (2012)

### **3.2.2 Sampling design**

The sampling technique for this study is convenience random sampling and was conducted in Universiti Utara Malaysia (UUM) Sintok Kedah. According to Sekaran and Bougie (2010), convenience random sampling means the collection of information from members of the population who are conveniently available to use. Besides, this technique is the best approach in getting some basic information quickly and efficiently. On the other hand, Zikmund (2010), pointed out that convenience sampling is the sampling procedure of gaining those people or units that are most conveniently available. In addition, the purpose to use convenience sampling is to obtain a large number of completed questionnaires with quickly and economically.

### **3.2.3 Unit of analysis**

The unit analysis in this study is individual, which are students of Universiti Utara Malaysia, and have experience in using a mobile phone. According to Weil, Alam and Nor (2011), the majority of university students are youngsters. The approach to understanding buying behavior and loyalty among students would be beneficial for marketers who wish to target this market segment. Furthermore, in the next two to four years university students will have their own purchasing power after graduating. Hence, this study is important to understanding their current behavior for firms to expand future opportunities and retain consumer loyalty.



### **3.3 Questionnaire Design**

The questionnaire of this research consists of 58 questions and divided into two sections. In Section A there are 9 questions which relate to demographic profile measurement. In section B, there are 48 items that are related to dependent variable and independents variable.

#### **SECTION A: Demographic profile information**

The purpose of section A is to gather information about demographic information of the respondent. The questions asked are related to gender, ethnic group, age, religion, level of education, college, the respondent status, whether own mobile phone or not, the mobile phone brand and how long they using mobile phone.

#### **SECTION B: Factors influencing brand loyalty**

This part consists of 48 statements based on dependent variable and independent variables in this study. It is intended to gather information from respondents about Brand Loyalty, Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design. The dimensions and items for each dimension are as follows:-

1. “**Brand Loyalty**” Consists of the 10 items adopted from Keller (2001), Lau and Lee (1992) and Quester and Lim (2003).
2. “**Brand Reputation**” Consists of the 8 items adopted from Lee and Lau (1992), Haliday and Kuenzel (2010) and Ali (2008).
3. “**Brand Competence**” has 5 questions adapted from Lau and Lee (1992).
4. “**Price**” Consists of 7 questions adapted from Khan et al., (2013), Consuegra et al (2007), Lau et al., (2006) and Taylor et al., (2004).
5. “**Advertising Spending**” has 7 questions adapted from Kirmani and Wright (2007) and Yoo et al., (2000).
6. “**Brand image**” has 7 questions adapted from Kim (2005), Aaker (1996) and Keller (1993).
7. “**Design**” Consists of 4 questions adapted from Khraim (2011).

The summary of all the items of the questionnaire is shown as in Table 3.2.

**Table 3.2**  
*Summary of the questionnaire*

<b>VARIABLES</b>	<b>NO .OF ITEMS</b>	<b>ITEMS</b>
<b>Section A</b>		
Demographic	9	Section A : Item 1-9
<b>Section B</b>		
Brand Loyalty	10	Section B: 1-10
Brand Reputation	8	Section B: 11-18
Brand Competence	5	Section B: 19-23
Price	7	Section B: 24- 30
Advertising Spending	7	Section B: 31-37
Brand Image	7	Section B: 38- 44
Design	4	Section B: 45- 48

### **3.4 Measurement**

Six-point Likert scale was used in this study. The use of Likert Scale is to produce a good reliability and validity outcome. For each statement, respondents are required to indicate the level of agreement to the statement. According to Zikmund *et al.*, (2010), Likert scale is a measurement approach and manner that are used to empower the respondent to give rate based on how extremely nor strongly they agree or disagree with carefully regarding the constructed statement.

The score ranges for Likert- Scale used in this study is:

**Table 3.3**  
*Measurement scale*

Scale	Score
Extremely Disagree	1
Strongly Disagree	2
Disagree	3
Agree	4
Strongly Agree	5
Extremely Agree	6

Source: Zikmund *et al* (2010)

The data in this study were the analyzed using “Statistical Package for Social Science” (SPSS) version 21.0. To ensure the questions are reliable and capable to achieve all the objectives, the questionnaires were adopted and adapt from a reliable source based on previous research on brand loyalty. Table 3.4 shows the variable and the number of items in this study.

**Table 3.4**  
*Source of Measurement Items*

<b>Variable</b>	<b>No. of items</b>	<b>Source and Year</b>
Brand Loyalty	10	Keller (2001), Lau and Lee (1992) and Quester and Lim (2003).
Brand Reputation	8	Lee and Lau (1992), Haliday and Kuenzel (2010) and Ali (2008).
Brand Competence	5	Lau and Lee (1992).
Price	7	Khan et al., (2013), Consuegra et al., (2007), Lau et al., (2006) and Taylor et al., (2004).
Advertising Spending	7	Kirmani and Wright (2007), and Yoo et al., (2000).
Brand Image	7	Kim (2005), Aeker (1996) and Keller (1993).
Design	4	Khraim (2011).

### **3.5 Data collection method**

The undergraduate, postgraduate and PhD student of Universiti Utara Malaysia (UUM) were chosen as respondents of this study. The population of UUM student is 20,000 and occupying in 15 students' residence halls. In this study, 400 questionnaires were distributed using convenience random sampling method.

The centers of students, such as library, student residence hall, and classroom at DKG 1, 2 and 3 and Faculty Economy are used as the location to conduct this study. The samples of respondent were selected by picking any 3 students that reach in the area at a particular time. This is to ensure the questionnaire is randomly normally distributed to all the respondents.

To ensure that the process of collecting data is efficient, the questionnaire was given to the respondents with explanation about the research is given to help them easy to understand the questions during answering process. The time provided for respondents to complete the questionnaire was 15 minutes. After the period, the questionnaire was collected. However, after the survey only 390 set of questionnaires were received and 10 questionnaires were not returned. Therefore, only 390 questionnaires were adopted to analyze in this study.

### **3.6 Pilot Test**

Pilot test is used to see the questions flow and whether it necessary to remove or improve some of the questions before implementing in the large scale. In addition, it also can help to obtain informative, accurate and useful information from the respondents (Bryman and Bell, 2007). In this study, fifty (50) students of UUM are selected to participate in the pilot test.

### **3.7 Data Analysis Strategy**

This study used descriptive and inferential analyses. For the purpose of data analysis and hypothesis testing several statistical tools and methods were employed from SPSS software version 21.0, which is included normality test, reliability test, descriptive statistic, One-way ANOVA, Person Correlation Analysis, and Multiple Regression.

#### **3.7.1 Reliability test**

Reliability is the measurement used to determine the consistency and stability of the data in the study. If Cronbach's alpha value, is less than 0.60, item used are considered poor. If the value is in the range of 0.70, the items are considered acceptable, and if the value is more than 0.80, the items are considered is good (Sekaran and Bougie, 2012). Table 3.5 shows the value of Cronbach's alpha and its internal consistency.

**Table 3.5**  
*Internal Consistency Measurement*

<b>Cronbach's Alpha</b>	<b>Internal consistency</b>
a = 0.9	Excellent
0.8 = a < 0.9	Good
0.7 = a < 0.8	Acceptable
0.6 = a < 0.7	Questionable
0.5 = a < 0.6	Poor
A < 0.5	Unacceptable

Source: (Sekaran and Bougie, 2012)

Based on Table 3.6, the results show that the Cronbach's Alpha value obtained for both pilot test and the real test are more than 0.70 (between 0.782 and 0.950). This means that all the items are reliable.

**Table 3.6**  
**Reliability Test of Result**

<b>Variables</b>	<b>No. of items</b>	<b>Cronbach's Alpha</b>	
		<b>Pilot Test</b>	<b>Real Test</b>
Brand Loyalty	10	0.950	0.948
Brand Reputation	8	0.893	0.930
Brand Competence	5	0.940	0.939
Price	7	0.788	0.891
Advertising Spending	7	0.940	0.928
Brand Image	7	0.853	0.923
Design	4	0.782	0.905



### **3.7.2 Normality Test**

In this study, normality test is used to assess the distribution of the data as a whole. Based on the Q-Q plot theory, if the data are normally distributed the data points will be close to the diagonal line. However, if the data points stray from the line in an obvious non-linear pattern, the data are considered not normally distributed (Pallant, 2005). In this study normality test is used to see the normality of dependent variables (Brand loyalty) and all the six independent variables.

### **3.7.3 Descriptive Statistic**

According to Zikmund, Carr and Griffin (2010), descriptive statistics provide simple summaries about the sample and measures. In this study, descriptive is used to describe the characteristics of the population or sample regarding to their demographic background, such as gender, age, ethnic group, level of education, mobile phone brand name and duration using the mobile phone.

### **3.7.4 Independent Sample T-test**

According to Pallant (2005), independent sample T-test is used to compare the means scores of two different groups of people or conditions. In this study, T-test will analyze differences between female and male in relation to brand loyalty.

### **3.7.5 One-Way ANOVA**

According to Sekaran and Bougie (2012), One-Way ANOVA involves examination of the significant differences between means of three or more groups on one factor or dimension. In this study, the One-Way ANOVA is used to see the differences of age, ethnic group, religion, level of study and mobile phone brand names on brand loyalty.

### **3.7.6 Pearson Correlation Analysis**

According to Pallant (2005), correlation analysis is used to explain the strength and direction of the linear relationship between independent and dependent variables. In this study, the Pearson correlation analysis is analyzed based the relationship between Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design on Brand Loyalty.

### **3.7.7 Multiple Regression Analysis**

According to Pallant (2005), Multiple Regression is family of technique that can be used to discover the relationship between one continuous dependent variable on independent variables. There are three main types of multiple regressions that can be used to analyze the data in the study, namely standard or simultaneous, hierarchical or sequential and stepwise.

However, in this study Standard multiple regressions will be used to analyze the influenced of independent variables on the dependent variable. This technique will be able to show the strongest factor that influenced brand loyalty among mobile phone users.

### **3.10 CHAPTER CONCLUSION**

This chapter is related to the research design in this study. The questionnaire design, sampling techniques, pilot test and data collection technique are being explained. In the next chapter, the hypothesis testing and all results of this study will be discussed.

## **CHAPTER 4**

### **FINDINGS**

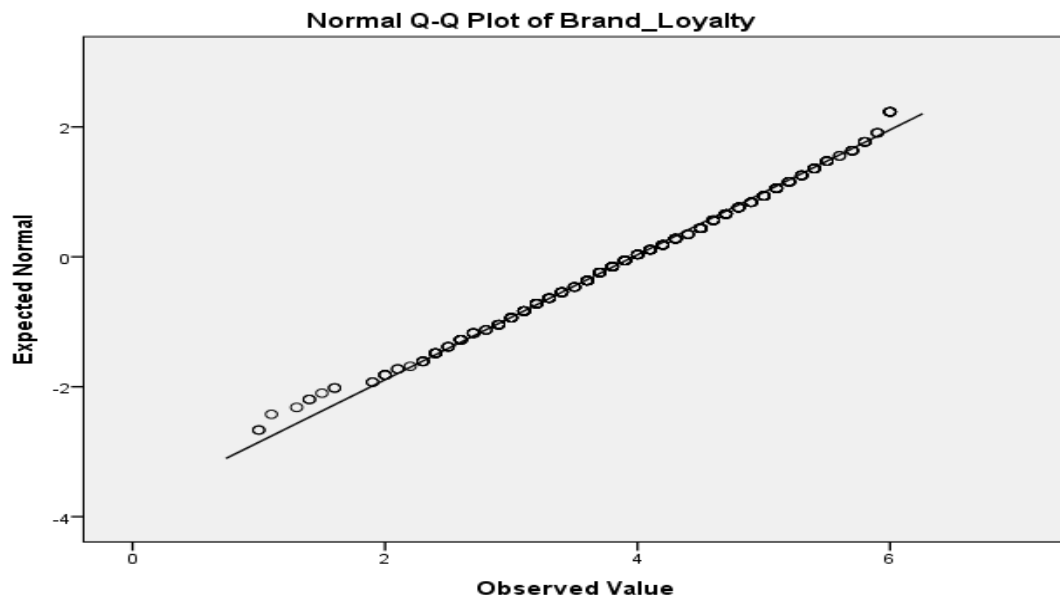
#### **4.0 Chapter introduction**

This chapter will discuss about the results from the survey. The chapter consists of (1) Descriptive statistics of data, (2) Independent sample T-test, (3) One way analysis of variance, (4) Hypothesis testing, (5) Regression analysis and (6) Conclusion. In analyzing the data, several statistical methods are used as follows:

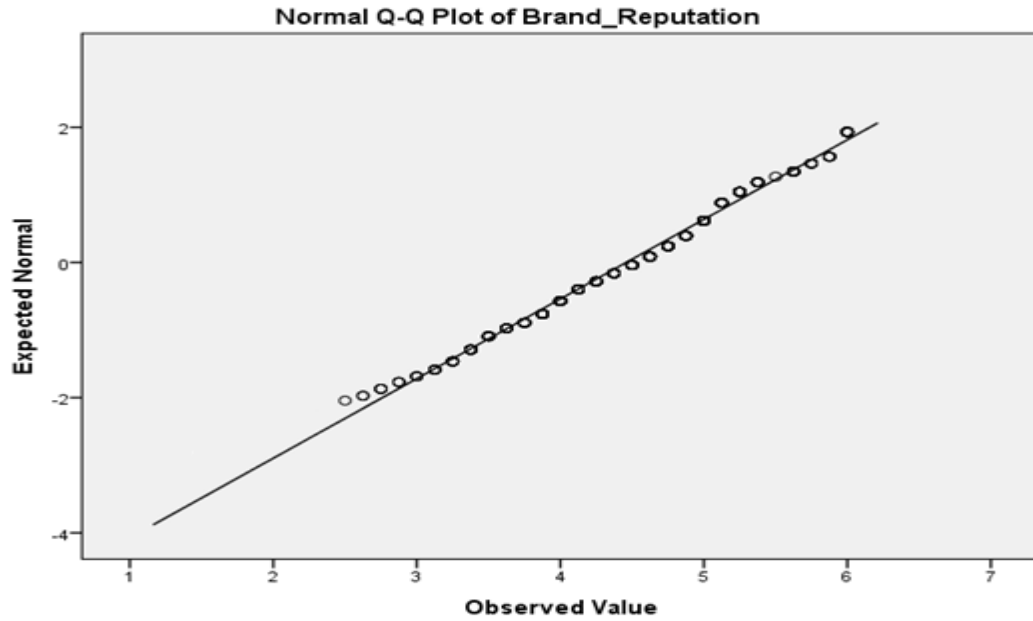
- Normality test
- Descriptive Statistic (Frequencies and means);
- Mean and standard deviation;
- One- way ANOVA;
- T-test;
- Correlation Analysis;
- Regression Analysis

## 4.1 Normality Test

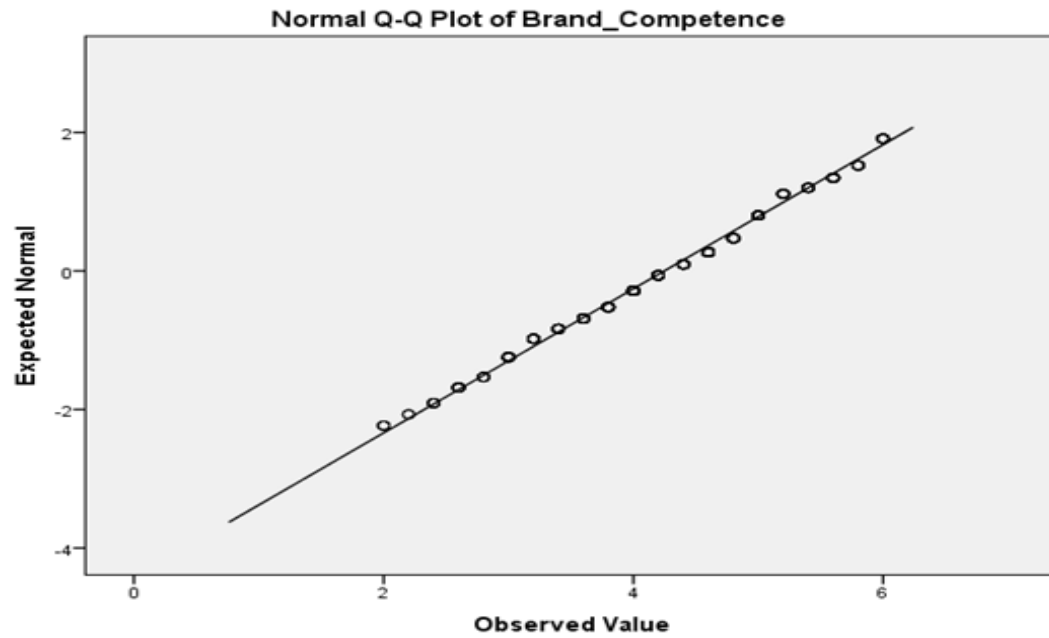
Normality refers to the shape of the data distribution to an individual metric variable and its correspondence to the normal distribution (Hair and Samouel, 2007). From the result of the normality test in Figure 4.1 until Figure 4.7, it can be concluded that the data of this study are considered to be normally distributed as it follows the diagonal line closely and does not appear to have a non-linear pattern.



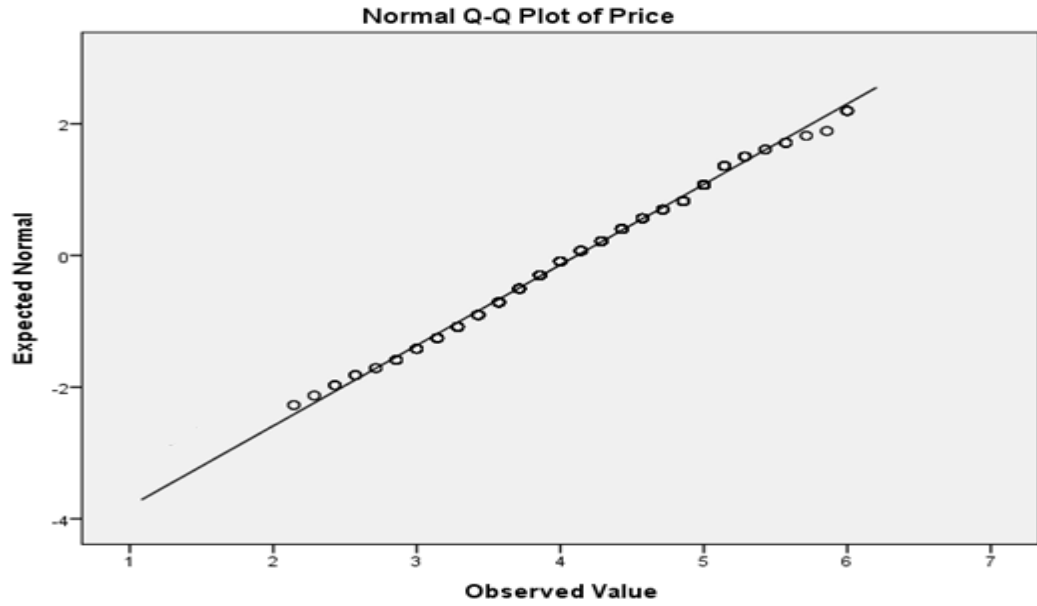
**Figure 4.1**  
*Normal Q-Q Plot Brand Loyalty*



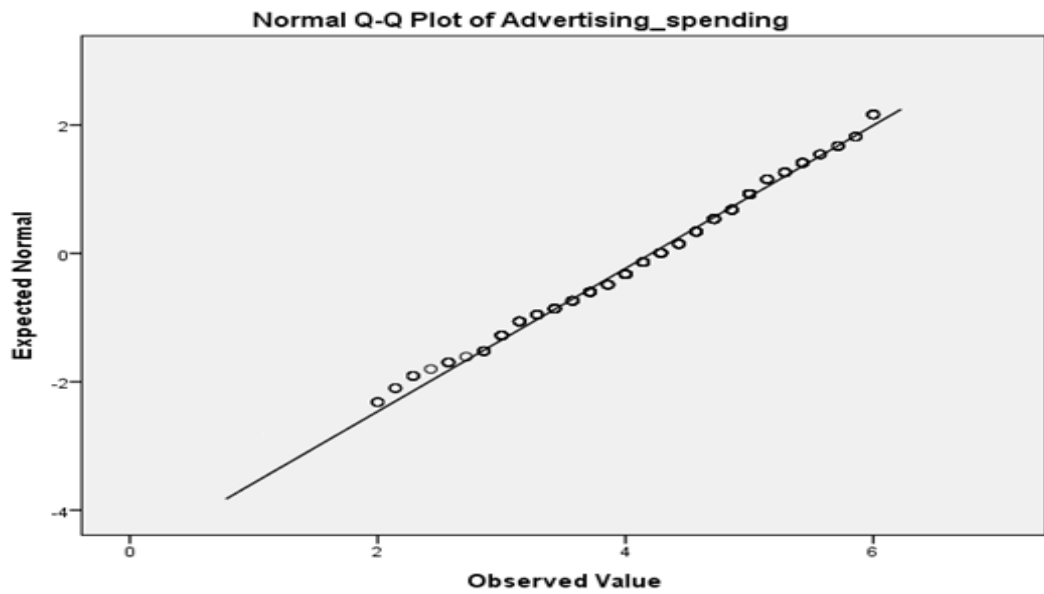
**Figure 4.2**  
*Normal Q-Q Plot Brand Reputation*



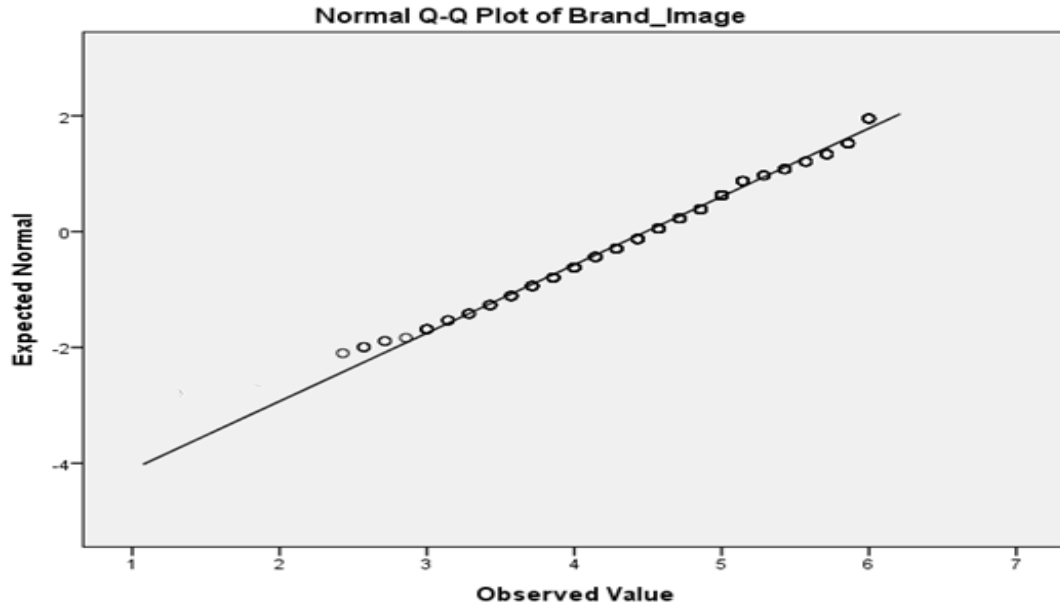
**Figure 4.3**  
*Normal Q-Q Plot Brand Competence*



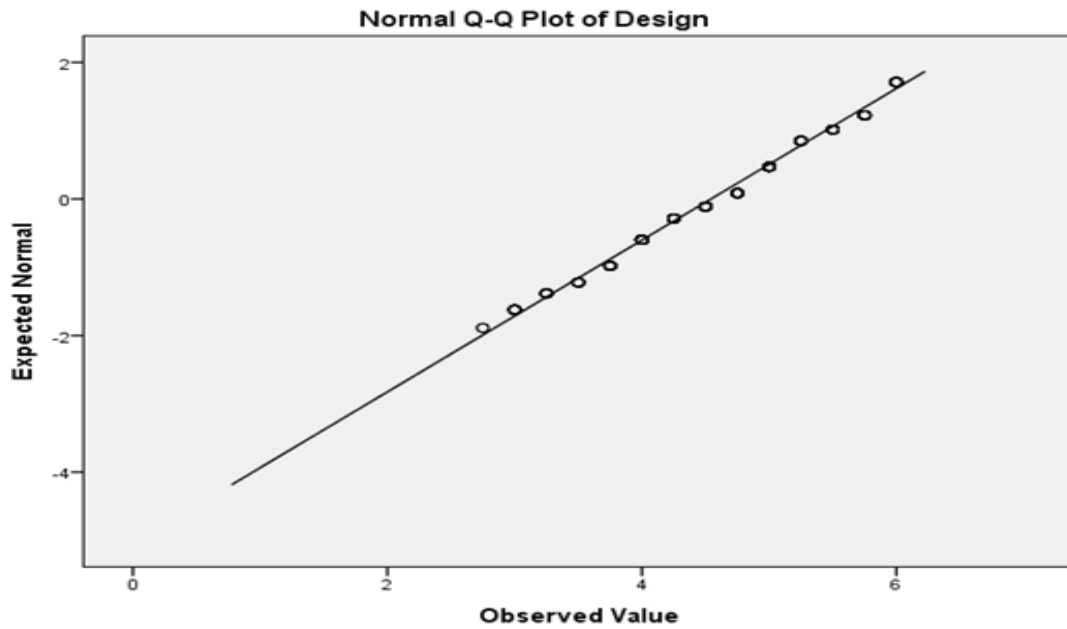
**Figure 4.4**  
*Normal Q-Q Plot Price*



**Figure 4.5**  
*Normal Q-Q Plot Advertising Spending*



**Figure 4.6**  
*Normal Q-Q Plot Brand Image*



**Figure 4.7**  
*Normal Q-Q Plot Design*



## 4.2 Descriptive Statistic of Data

In this research, descriptive statistic is useful to obtain respondent's demographic information such as their gender, age, ethnic group, religion, level of study, state of origin, mobile phone brand name and duration using the mobile phone.

### 4.2.1 Gender of Respondents

Table 4.1 represents the gender of the respondents of this study. Most respondents are female (213 respondents or 54.6 %) and while male respondents are 45.4% (177 respondents).

**Table 4.1**  
*Gender of Respondents*

<b>Gender</b>	<b>No. of respondents</b>	<b>Percent</b>
Female	213	54.6
Male	177	45.4
<b>Total</b>	<b>390</b>	<b>100</b>

#### 4.2.2 Ethnic group of Respondents

Based on Table 4.2, 255 respondents (65.4%) are Malays, 80 respondents (20.5%) are Chinese, 26 respondents (6.7 %) are Indian, and 29 respondents (7.4%) belong to others ethnic group.

**Table 4.2**  
*Ethnic Group of Respondents*

<b>Ethnic Group</b>	<b>No. of respondents</b>	<b>Percent</b>
Malay	255	65.4
Chinese	80	20.5
Indian	26	6.7
Others	29	7.4
<b>Total</b>	<b>390</b>	<b>100</b>

### 4.2.3 Age of respondents

Based Table 4.3, the result indicates the most respondents are between 20-25 years old (343 respondents or 87.9 %). On the other hand 38 respondents (9.7 %) are between 26-30 years old and only 9 respondents (2.3 %) are above 30 years old.

**Table 4.3**  
*Age of respondents*

<b>Age</b>	<b>No. of Respondents</b>	<b>Percent</b>
20-25	343	87.9
26-30	38	9.7
Above 30	9	2.3
<b>Total</b>	<b>390</b>	<b>100</b>

#### 4.2.4 Religion of Respondents

The religion of respondents is shown in Table 4.4. In the table, it shows that 265 respondents (67.9%) are Muslim, 36 respondents ( 9.2%) are Christians, 61 respondents (15.6%) are Buddhist, 25 respondents ( 6.4%) are Hindus and 3 respondents (0.8%) are belong to other religions.

**Table 4.4**  
*Religion of Respondents*

<b>Religion</b>	<b>No. of Respondents</b>	<b>Percent</b>
Muslims	265	67.9
Christians	36	9.2
Buddhist	61	15.6
Hindus	25	6.4
Others	3	0.8
<b>Total</b>	<b>390</b>	<b>100</b>

#### 4.2.5 Level of Study of Respondents

Table 4.5 shows the level of study of respondents. It shows that 296 respondents (75.9 %) are degree students, 56 respondents (14.4%) are Master students and 38 respondents or 9.7% are PhD students.

**Table 4.5**  
*Level of study of Respondents*

<b>Level of study</b>	<b>No. of Respondents</b>	<b>Percent</b>
Degree	296	75.9
Master	56	14.4
PhD	38	9.7
<b>Total</b>	<b>390</b>	<b>100</b>

#### 4.2.6 Academic College of Respondents

Table 4.6 shows academic college of respondents, it shows that 242 respondents (62.1%) from COB (College of Business), 44 respondents (11.3%) are from CAS (College of Art and Science) and 104 respondents (26.7%) are from COLGIS (College of Law, Government and International Studies).

**Table 4.6**  
*Academic College of Respondents*

<b>College of Respondents</b>	<b>No. of Respondents</b>	<b>Percent</b>
COB	242	62.1
CAS	44	11.3
COLGIS	104	26.7
<b>Total</b>	<b>390</b>	<b>100</b>

#### 4.2.7 Mobile phones' Brand Name of Respondents

Table 4.7 shows the mobile phone brand name used by the respondents. The table show that 196 respondents (50.0%) used Samsung, 66 respondents (16.9%) used Sony, 54 respondents (13.8%) used Nokia, and 18 respondents (4.6%) used a Blackberry. Besides, 19 respondents (4.9%) used Apple, 10 respondents (2.6 %) used HTC, 3 respondents (0.8 %) used Motorola and 25 respondents (6.4 %) used others brand name.

**Table 4.7**  
*'Mobile phone' Brand Name used by Respondents*

<b>Mobile phone brand name</b>	<b>No. of Respondents</b>	<b>Percent</b>
Samsung	<b>196</b>	<b>50.0</b>
Sony	<b>66</b>	<b>16.9</b>
Nokia	<b>54</b>	<b>13.8</b>
Blackberry	<b>18</b>	<b>4.6</b>
Apple	<b>19</b>	<b>4.9</b>
HTC	<b>10</b>	<b>2.6</b>
Motorola	<b>3</b>	<b>0.8</b>
Others	<b>25</b>	<b>6.4</b>
<b>Total</b>	<b>390</b>	<b>100</b>

#### 4.2.8 Duration Using Mobile phone of Respondents

Table 4.8 shows the duration respondents had been using mobile phones. The results showed that 25 respondents (6.4%) used mobile phone less than 1 year and 205 respondents (52.6%) used mobile phone 3-5 years. In addition, 44 respondents (11.3 %) uses mobile phone 6-10 years and only 4 respondents or 1.0 % using mobile phone over 10 years.

**Table 4.8**  
*Duration using Mobile phone of Respondents*

<b>Duration</b>	<b>No. of Respondents</b>	<b>Percent</b>
Less than 1 years	25	6.4
1-2 years	205	52.6
3-5 years	112	28.7
6-10 years	44	11.3
Over 10 years	4	1.0
<b>Total</b>	<b>390</b>	<b>100</b>



### 4.3 Mean and Standard Deviation Collected Data

Tables 4.9 to Table 4.16 provide the Mean and Standard Deviation score of the dependent variable and independent variable adopted in this study. Overall, the mean score for all 48 items show a positive high means value range from 3.97 to 4.54.

**Table 4.9**  
*Mean and Standard Deviation of all Variables*

<b>Variables</b>	<b>Dimension</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>Dependent Variable</b>	Brand Loyalty	3.97	1.04
<b>Independent variables</b>	Brand Reputation	4.46	0.85
	Brand Competence	4.24	0.96
	Price	4.12	0.82
	Advertising Spending	4.21	0.90
	Brand Image	4.49	0.85
	Design	4.54	0.90

### 4.3.1 Brand Loyalty

Table 4.10 shows the mean and standard deviation scores of Dependent variable “Brand Loyalty” Overall average mean for Brand Loyalty is 3.97. The item one: “I consider myself loyal to this brand” scored the highest mean (4.24) while fifth items “If someone makes a negative comment about this brand, I would defend it” gained lowest mean value of 3.81.

**Table 4.10**  
*Mean and Standard Deviation (Brand Loyalty)*

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
I consider myself loyal to this brand	4.24	1.28
I feel this is the only brand of this product I need.	3.86	1.25
This is the one brand I would prefer to buy or use.	4.07	1.30
If this brand is not available in the store when I need it, I will buy it another time.	3.88	1.34
If someone makes a negative comment about this brand, I would defend it.	3.81	1.20
I often tell my friends how good this brand is	3.97	1.20
Although another brand is on sale, I still buy this brand.	3.95	1.29
I always think of this brand over another brand when I consider buying a mobile phone.	4.01	1.22
I always find myself consistently buying this brand over the other brands.	3.93	1.23
I feel more loyal to this brand than the other brands.	3.95	1.29
<b>Average (Brand Loyalty)</b>	<b>3.97</b>	<b>1.04</b>

### 4.3.2 BRAND REPUTATION

Table 4.11 shows the mean and standard deviation scores of independent variable “Brand Reputation”. Overall average mean for Brand reputation is 4.46. The fourth item “It is important that I buy a brand with a good reputation” scored the highest mean (4.90) while sixth items “I consider this brand as a most favorable brand in terms of brand reputation” gained lowest mean value (4.32).

**Table 4.11**  
*Mean and Standard Deviation (Brand Reputation)*

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
This brand has a reputation for being good.	4.50	1.05
Other people have told me that this brand is reliable.	4.40	1.04
This brand is reputed to perform well.	4.52	0.923
It is important that I buy a brand with a good reputation.	4.90	0.96
People I know think highly of this brand.	4.37	1.04
I consider this brand as a most favorable brand in terms of brand reputation.	4.32	1.10
I consider this brand as most publicly recognized brand in terms of brand reputation.	4.35	1.08
I consider this brand as the most reliable brand in terms of brand reputation.	4.32	1.08
<b>Average (Brand Reputation)</b>	<b>4.46</b>	<b>0.85</b>

### 4.3.3 Brand Competence

Table 4.12 shows the mean and standard deviation scores of independent variable” Brand Competence”. Overall average mean for Brand Competence is 4.24. The fourth item “This brand meets my needs better than other brands” scored the highest mean (4.33) while the fifth item “This brand accomplishes its task better than other brands” scored the lowest mean (4.20).

**Table 4.12**  
*Mean and Standard Deviation (Brand Competence)*

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
This brand is the best one for this category of products.	4.27	1.07
This brand performs better than other brands.	4.22	1.10
This brand more effective than other brands.	4.21	1.04
This brand meets my needs better than other brands.	4.33	1.09
This brand accomplishes its task better than other brands.	4.20	1.06
<b>Average (Brand Competence)</b>	<b>4.24</b>	<b>0.96</b>

#### 4.3.4 Price

Table 4.13 shows the mean and standard deviation scores of independent variable” Price”. Overall average mean for price is 4.12. The seventh item “The brand is offered at reasonable price scored the highest mean (4.34) while the first item “Increases of price aren't hampering me to purchase “scored the lowest mean (3.79).

**Table 4.13**  
*Mean and Standard Deviation (Price)*

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
Increases of price aren't hampering me to purchase.	3.79	1.19
The brand provides goods rate for money.	4.13	1.07
The brand I use, charge fair prices.	4.30	0.97
Comparatively the brand I use charge low price.	3.96	1.05
The brand offers good value for price I paid.	4.29	1.02
I usually accept any changes in price of the brand.	4.01	1.09
The brand is offered at reasonable price.	4.34	0.95
<b>Average (Price)</b>	<b>4.12</b>	<b>0.82</b>

### 4.3.5 Advertising spending

Table 4.14 shows the mean and standard deviation scores of independent variable “Advertising Spending”. Overall average mean for Advertising Spending is 4.21. The first item “The brand name is advertised intensively “scored the highest mean (4.37) while the third item “The ad campaigns for this brand seem very expensive, compared to campaign for competing brands “ scored the lowest mean (4.09).

**Table 4.14**  
**Mean and Standard Deviation (Advertising Spending)**

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
The brand name is advertised intensively.	4.37	1.01
The ad campaigns for this brand are frequently seen.	4.27	1.09
The ad campaigns for this brand seem very expensive, compared to campaign for competing brands.	4.09	1.11
I think advertising is, in general, very good.	4.23	1.05
In general, I like the advertising campaigns for this brand spending.	4.18	1.06
My opinion about this brand advertising is very high.	4.12	1.01
I think this brand is intensively advertised, compared to competing brand.	4.12	1.11
<b>Average (Advertising Spending)</b>	<b>4.21</b>	<b>0.90</b>

### 4.3.6 Brand Image

Table 4.15 shows the mean and standard deviation scores of independent variable “Brand Image”. Overall average mean for Brand Image is 4.49. The third item “This brand is well established scored the highest mean (4.68) the first item “This brand has a differentiated image in comparison with the other brand” scored the lowest mean of (4.26).

**Table 4.15**  
*Mean and Standard Deviation (Brand Image)*

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
This brand has a differentiated image in comparison with the other brand.	4.26	1.08
This brand has a clean image.	4.44	1.06
This brand is well established.	4.68	0.93
The brand always upgrades its technology to improve its services.	4.56	1.08
The brand fits very well with my lifestyle.	4.51	1.02
Overall, this brand delivers a good value for the price I pay.	4.51	1.01
This brand offers the best choice of mobile phone.	4.45	1.01
<b>Average (Brand Image)</b>	<b>4.49</b>	<b>0.85</b>

### 4.3.7 Design

Table 4.16 shows the mean and standard deviation scores of independent variable “Design”. Overall average mean for Design is 4.54. Second item “Designs of this brand are suitable for me” scored the highest mean (4.58) while the fourth item “Designs of the brand are trendy and fashionable” scored the lowest mean of (4.54).

**Table 4.16**  
*Mean and Standard Deviation (Design)*

<b>Item</b>	<b>Mean</b>	<b>Standard Deviation</b>
The brand provides a wide variety of designs.	4.49	1.02
Designs of this brand are suitable for me.	4.58	1.01
Designs of the brand have distinctive features.	4.56	0.98
Designs of the brand are trendy and fashionable.	4.54	1.07
<b>Average (Design)</b>	<b>4.54</b>	<b>0.90</b>



#### 4.4 INDEPENDENT SAMPLES T-TEST

**To Achieve Objective 1;** Independent Sample T-test will be used to test Hypothesis 1 in this study.

(H1): *There is a significant difference of brand loyalty between genders among mobile phone user.*

The result of t-test is shown in Table 4.17, result from the table shows that the female respondents (mean = 4.02) scored more than male respondents (mean= 3.91). This indicates that female respondents have higher tendency to loyal to the brand as compare to male respondents. Besides, for Levene's Test, the p-value is above 0.158 which is larger than .05, this means that the sample is assumed Equal Variance. The result also shows no significant difference between gender, (female and male) on brand loyalty among mobile phone users (t value = 0.962, p = 0.337). This is because the value in the sig (2-tailed) column is above 0.5.

Based on the analysis below, it can be concluded that there is no significant difference of brand loyalty between genders among mobile phone users. **Hence, (H1) is rejected.**

**Table 4.17**  
*Independent Sample T-test between gender and Brand Loyalty*

		<b>Independent Samples Test</b>				
		Levene's Test for Equality of Variances		T-test for Equality of Means		
		F	Sig	T	Df	Sig. (2- tailed)
<b>Brand Loyalty</b>	<b>Equal variances assumed</b>	1.996	.158	.962	388	.337
	<b>Equal variances not assumed</b>			.958	368.705	.339

	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>T</b>	<b>Significant</b>
<b>Brand</b>	<b>Female</b>	213	4.02	1.019	0.962	0.337
<b>Loyalty</b>	<b>Male</b>	177	3.91	1.064		

#### 4.5 One –Way Analysis of Variance

**To Achieve Objective 2:** One- way ANOVA will be used to test Hypothesis 2: (H2a), (H2b), (H2c), (H2d), and (H2e.).

One- way ANOVA is used to test and evaluate whether there exists a significant difference between the population mean of this study. According to Pallant (2005), if the significant value is less than or equal to 0.5 (e.g .0.3.01, .001) then there is significant different somewhere among the mean score on the dependent variable for the three groups.

*H2a: There is a significant difference of brand loyalty between age among mobile phone users.*

As depicted in Table 4.18, it shows that there is no significant different among age on brand loyalty (F= 1.81,  $p > 0.05$ ) with significance level 0.308. Hence, **H2a is rejected**

**Table 4.18**  
*One-way ANOVA between Age and Brand Loyalty*

Test of Homogeneity Variance						
	Levene Statistic	df1	df2	Sig.		
<b>Brand Loyalty</b>	0.001	2	387	0.999		

		Sum of Squares	Df	Mean Square	F	Sig.
<b>Brand Loyalty</b>	<b>Between Group</b>	2.551	2	1.276	1.181	0.308
	<b>Within Group</b>	418.145	387	1.080		
	<b>Total</b>	420.696	389			

***H2b: There is a significant difference of brand loyalty between Ethnic groups among mobile phone users.***

As depicted in Table 4.19, it shows that there is no significant different among Ethnic group on brand loyalty ( $F=0.405$ ,  $p > 0.05$ ) with a significant level 0.750. **Hence, H2b is rejected.**

**Table 4.19**  
***One-way ANOVA between Ethnic group and Brand Loyalty***

<b>Test of Homogeneity Variance</b>						
		<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>	
<b>Brand Loyalty</b>		0.419	3	386	0.739	

		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Brand Loyalty</b>	<b>Between Group</b>	1.319	3	0.440	0.405	0.750
	<b>Within Group</b>	419.378	386	1.086		
	<b>Total</b>	420.696	389			

***H2c: There is a significant difference of brand loyalty between Religions among mobile phone users.***

As depicted in Table 4.20, it shows that there is no significant different among Religion on brand loyalty ( $F=0.196$ ,  $p > 0.05$ ) with significant level 0.940. Hence, **H2c is rejected.**

**Table 4.20**  
***One-way ANOVA between Religion and Brand Loyalty***

<b>Test of Homogeneity Variance</b>						
<b>Brand Loyalty</b>	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>		
	0.333	4	385	0.855		

		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Brand Loyalty</b>	<b>Between Group</b>	0.854	4	0.214	0.196	0.940
	<b>Within Group</b>	419.84	385	1.090		
	<b>Total</b>	420.696	389			

**H2d: There is a significant difference of brand loyalty between Level of Education among mobile phone users.**

As depicted in Table 4.21, it shows that there is no significant different among Level of Study on brand loyalty ( $F= 0.584$ ,  $p > 0.05$ ) with a significant level 0.558. Hence, **H2d is rejected.**

**Table 4.21**  
**One-way ANOVA between Level of Educations and Brand Loyalty**

Test of Homogeneity Variance						
Brand Loyalty	Levene Statistic	df1	df2	Sig.		
	1.581	2	387	0.207		

		Sum of Squares	Df	Mean Square	F	Sig.
Brand loyalty	Between Group	1.256	2	0.633	0.584	0.558
	Within Group	419.431	387	1.084		
	Total	420.696	389			

***H2e: There is a significant difference of brand loyalty between Mobile phone Brand Name among mobile phone users.***

As depicted in Table 4.22, it show that there is significant different among Mobile phone Brand Name on brand loyalty (F=0.584,  $p < 0.05$ ) with significant level 0.000. Hence, **H2e is accepted.**

**Table 4.22**  
***One-way ANOVA between Mobile phone Brand Name and Brand Loyalty***

<b>Test of Homogeneity Variance</b>						
<b>Brand loyalty</b>	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>		
	1.533	7	382	0.154		

		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Brand Loyalty</b>	<b>Between Group</b>	27.961	7	3.994	3.8885	0.000
	<b>Within Group</b>	392.735	382	1.028		
	<b>Total</b>	420.696	389			

## 4.6 Correlation Analysis

**To Achieve Objective 3:** Correlation analysis will be used to test the hypothesis H3:

(H3a), (H3b), (H3c), (H3d), (H3e), and (H3f).

The Table 4.23 below shows the correlation scale use in the correlation test.

**Table 4.23**  
*Pearson Correlation Coefficient Scale*

<b>R</b>	<b>Level</b>
Above 0.70	Very strong relationship
0.50 to 0.69	Strong relationship
0.30 to 0.49	Moderate relationship
0.10 to 0.29	Low relationship
0.01 to 0.09	Very low relationship

Source: Hair et al., (2009)



***Hypothesis H3a: There is significant relationship between Brand Reputation and Brand Loyalty among mobile phone users.***

Table 4.24 showed that is positive relationship between Brand Reputation and Brand Loyalty, at a value of 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.742$ ) signifies that the strength, the relationship between Brand Reputation and Brand Loyalty is very strong relationship. Thus, **H3a is accepted.**

**Table 4.24**  
***Correlation between Brand Reputation and Brand Loyalty***

<b>Correlations</b>		Brand_Loyalty
	Pearson Correlation	.742**
Brand_reputation	Sig. (2-tailed)	.000
	N	390

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

**Hypothesis H3b: *There is significant relationship between Brand Competence and Brand Loyalty among mobile phone users.***

Based on Table 4.25, there is positive relationship between Brand Competence and Brand Loyalty, which is 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.775$ ) signifies that the strength of the relationship between Brand Competence and Brand Loyalty is a very strong relationship. Thus, **H3b is accepted.**

**Table 4.25**  
***Correlation between Brand Competence and Brand Loyalty***

<b>Correlations</b>		Brand_Loyalty
Brand_Competene	Pearson Correlation	.775**
	Sig. (2-tailed)	.000
	N	390

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

**Hypothesis H3c: *There is a significant relationship between Price and Brand Loyalty among mobile phone users.***

Based on Table 4.26, that there is positive relationship between Price and Brand Loyalty with 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.707$ ) signifies that the strength of the relationship between Price and Brand Loyalty is a very strong relationship. Thus, **H3c is accepted.**

**Table 4.26**  
*Correlation between Price and Brand Loyalty*

<b>Correlations</b>		Brand_Loyalty
Price	Pearson Correlation	.707**
	Sig. (2-tailed)	.000
	N	390

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

**Hypothesis H3d: *There is a significant relationship between Advertising Spending and Brand Loyalty among mobile phone users.***

Based on Table 4.27, it is found that is a positive relationship between Advertising Spending and Brand Loyalty, whereby at a value of 0.000 ( $p < 0.01$ , Sig.2-tailed). The positive value of person correlation ( $r = 0.545$ ) signifies that the strength of the relationship between Advertising Spending and Brand Loyalty is a strong relationship. Thus, **H3d is accepted.**

**Table 4.27**  
***Correlation between Advertising Spending and Brand Loyalty***

<b>Correlations</b>		Brand_Loyalty
	Pearson Correlation	.545**
Advertising_spending	Sig. (2-tailed)	.000
	N	390

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

**Hypothesis H3e: *There is a significant relationship between Brand Image and Brand Loyalty among and phone users.***

Based on Table 4.28, it shows that is a positive relationship between Brand Image and Brand Loyalty at value 0.000 ( $p < 0.01$ , Sig.2-tailed). The positive value of person correlation ( $r = 0.705$ ) signifies that the strength of the relationship between Brand Image and Brand Loyalty is a very strong relationship. Thus, **H3e is accepted.**

**Table 4.28**  
***Correlation between Brand Image and Brand Loyalty***

<b>Correlations</b>		Brand_Loyalty
	Pearson Correlation	.705 <sup>**</sup>
Brand_Image	Sig. (2-tailed)	.000
	N	390

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

***Hypothesis H3f: There is a significant relationship between Design and Brand Loyalty among mobile phone users.***

Based on Table 4.29, it shows that is a positive relationship between Design and Brand Loyalty at value 0.000 ( $p < 0.01$ , Sig.2-tailed). The positive value of person correlation ( $r = 0.628$ ) signifies that the strength of the relationship between Design and Brand Loyalty is a strong relationship. Thus, **H3f is accepted.**

**Table 4.29**  
***Correlation between Design and Brand Loyalty***

<b>Correlations</b>		Brand_Loyalty
Design	Pearson Correlation	.628 <sup>**</sup>
	Sig. (2-tailed)	.000
	N	390

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

#### **4.7 Regression Analysis**

**To achieve Objective 4;** multiple regressions will be used to determine the significant influence between independent variable (Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design on brand loyalty. Hence, Regression analysis will be used to analyze the hypothesis 4:-

*H4: Brand reputation, brand competence, price, advertising spending, brand image and design significantly influenced brand loyalty among mobile phone users.*

##### **4.7. 1 Regression Analysis on Coefficient of Determination (R<sup>2</sup>)**

In this study Coefficient of determination (R<sup>2</sup>) function is to measure and explain changes of brand loyalty (Dependent Variable) with the changes of the independent variable (Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design).

The model summary of Multiple Regression for this study is shown in Table 4.30. From the table, the value of adjusted R<sup>2</sup> was 0.823. The independent variable (Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image, and Design) were explaining that 67.7% of the change in dependent variable (Brand Loyalty) as tested in the model. That means it had 67.7% of influences to the Brand Loyalty (Dependent Variable).

**Table 4.30**  
*Regression Analysis on Model Summary*

<b>Model</b>	<b>R</b>	<b>R Square</b>
<b>1</b>	<b>0.823</b>	<b>0.677</b>

#### **4.7.2 ANOVA Test**

According to Hair et al., (2007) the larger the F-Ratio, the more varied the independent variable is explained by the independent variable. Besides, if the p-value is greater than 0.05, it indicates that the result is insignificant. However, if the p-value is lower than 0.05, the result is significant. In the ANOVA table 4.31, The F-ratio is 133.988 and highly significant at the level 0.000. This means that there is a strong relationship, between “independent variable” and “dependent” variables.

**Table 4.31**  
*Regression Analysis of ANOVA*

<b>Model</b>	<b>F</b>	<b>Sig.</b>
<b>1</b>	<b>133.988</b>	<b>0.000</b>



### 4.7.3 Regression Analysis of Coefficient

Based on Table 4.32, Beta of Brand Reputation is 0.312, Brand Competence is 0.407, Price is 0.328, Advertising Spending is – 0.05, Brand Image is 0.056 and Design is - 0.33. Hence, Brand Competence is the strongest factor that influences brand loyalty.

In addition, three independent variables are significant influence of Brand Loyalty, which is Brand Reputation (0.000), Brand Competence (0.000) and Price also (0.000). On the other hand, the other three independent variables did not influence on Brand Loyalty: Advertising Spending (0.999), Brand Image (0.513) and Design (0.603). **Hence, H4, Rejected.**

**Table 4.32**  
*Regression Analysis of Coefficient*

<b>Model</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>Sig.</b>
(Constant)	-604		-3.347	0.001
Brand Reputation	0.312	0.255	4.639	0.000
Brand Competence	0.407	0.376	6.957	0.000
Price	0.328	0.258	5.775	0.000
Advertising Spending	-0.05	0.000	-0.01	0.999
Brand Image	0.056	0.046	0.655	0.513
Design	-0.33	-0.29	-520	0.603

## **CHAPTER 5**

### **DISCUSSION, RECOMMENDATIONS AND CONCLUSION**

#### **5.0 Chapter Introduction**

This chapter consists of four parts: (1) Discussion, (2) Limitations of the study, (3) Recommendations and (4) Conclusion.

#### **5.1 Discussion**

The main objective of this study is to determine the factors that influenced brand loyalty among mobile phone users in University Utara Malaysia. The data were gathered from the questionnaires which are distributed to 400 UUM students. Only 390 questionnaires are returned and used for data analysis. SPSS Version 21.0 was used to analyze the relationship between Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design on Brand Loyalty.

##### **5.1.1 Descriptive Statistic**

In terms of gender, the research results show the most respondents are female with total 213 respondents (54.6 %) and male respondents are 177 (45.4%). In case of ethnic group of respondents, 255 respondents (65.4%) are Malays, 80 respondents (20.5%) are Chinese, 26 respondents (6.7%) are Indians, and 29 respondents (7.4%) belong to

another ethnic group. Besides, in term of age of the respondents, the result indicates that most respondents are between 20-25 years old (343 respondents or 87.9%). 38 respondents (9.7%) are between 26-30 years old and only 9 respondents (2.3%) are above 30 years old.

In terms of religion of respondents, it was found that 265 respondents (67.9%) are Muslim, 36 respondents (9.2 %) are Christian, 61 respondents (5.6%) are Buddhist, 25 respondents (6.4%) are Hindu and 3 respondents (0.8%) are belong to other religions. In case of the level of study of respondents, results show, those 296 respondents (75.9%) are degree students, 56 respondents (14.4%) are Master students and 38 respondents (9.7%) are PHD students. In term of college of respondents, 242 respondents (62.1%) are from COB, 44 respondents or 11.3% are from CAS and 104 respondents (26.7%) are from COLGIS.

Furthermore, students also own a variety of mobile phone brand names. From the survey 196 respondents (50.0%) used Samsung, followed by 66 respondents (16.7%) used Sony, 54 respondents (13.8%) using Nokia, 18 respondents (4.6%) used Blackberry. Besides, 19 respondents (4.9%) used Apple, 10 respondents (2.6%) used HTC, 3 respondents (0.8 %) used Motorola and only 25 respondents (6.4 %) used others brand name.

In term of duration of respondents using mobile phones. The results showed that 25 respondents (6.4%) use mobile phones less than 1 year and 205 respondents (52.6%) used mobile phones 3-5 years. In addition, 44 respondents (11.3%) used mobile phones 6-10 years and only 4 respondents (1.0 %) had used the mobile phone more than 10 years.

### **5.1.2 Independent Samples T-test**

This test was conducted to achieve Objective 1 of the study. According to the analysis conducted using Sample T-test, H1 is rejected, whereby there is no significant difference between genders on brand loyalty among mobile phone users (t value = 0.962, p = 0.337). The result is supported by a study conducted by Chen and Miller (2008) whereby, he found there is no similarity between male and female shopper brand loyalty. Deari and Balla (2013) also indicate that there is no significant difference between male and female in the brand loyalty of global brands.

### **5.1.3 One-way analysis of variance**

This test was conducted to achieve Objective 2 of the study. Using One-way ANOVA, only one hypothesis is accepted and three other hypotheses are rejected. In terms of test of age, **H2 is rejected**, whereby there is no there is no significant different between age on brand loyalty (F= 1.81, p > 0.05) with significant level 0.308.

The result is similar to ethnic group, whereby there is no significant different among ethnic groups on Brand Loyalty ( $F=0.405$ ,  $p > 0.05$ ) with significance level 0.750. **Hence, H3 is rejected.** Besides, for the religion, the result is similar to that of age and ethnic group, whereby there is no significant different among Religion on Brand Loyalty ( $F=0.196$ ,  $p > 0.05$ ) with significance level 0.940. Hence, **H4 is rejected.**

**H5 also rejected,** whereby result shows that there is no significant different among level of study on brand loyalty ( $F=0.584$ ,  $p > 0.05$ ) with significance level 0.558. However, the result for mobile phone brand name is the opposite for this factor, the result show that there is significant different among Mobile phone brand name on Brand Loyalty ( $F=0.584$ ,  $p < 0.05$ ) with significance level 0.000. Hence, **H6 is accepted.**

#### **5.1.4 Correlation Analysis**

This test was conducted to achieve Objective 3 of the study. The result of correlation analysis showed, that there is a significant relationship between all independent variables (Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design) with the dependent variable (Brand Loyalty).

The result of correlation analysis showed that there is positive relationship between Brand Reputation and Brand Loyalty, with a value of 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r=0.742$ ) signifies that the strength of

the relationship between brand reputation and brand loyalty is very strong relationship. Thus, **H3a is accepted**. The result is supported by Shah Alam and Mohd Yasin (2010), in research online airline ticket buyers in Malaysia. They found that brand reputation is an important to achieve consumer trust on the product and companies. Hence, important to all the marketers to maintain their good reputation in order to sustain brand trust and retain brand loyalty among mobile phone users.

Similarly, the result correlation analysis shows that there is positive relationship, between brand competence and brand loyalty with value of 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.775$ ) signifies that the strength of the relationship, between brand competence and brand loyalty is very strong relationship. Thus, H3b is accepted. The result is similar to the study made by Lee and Lau (1996), whereby they found that brand competence important in ensuring customer trust and leads to brand loyalty.

In addition, there is positive relationship between Price and Brand Loyalty at a value of 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.707$ ) signifies that the strength of the relationship between price and brand loyalty is very strong relationship. Thus, **H3c is accepted**. According Anantha Raj (2012), price has at positive relationship towards Malaysian hypermarkets brand loyalty. Hence, marketers must handle customer's perceptions properly by providing them with attractive, low and reasonable price without decreasing the quality of the product.

In terms of the relationship between Advertising Spending and Brand Loyalty, the result also positive, whereby there is positive relationship between Advertising Spending and Brand Loyalty, with 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.545$ ) signifies that the strength of the relationship, between Advertising Spending and Brand Loyalty is strong. Thus, **H3d is accepted**. In another study by Mohammad Doostar et al., (2013), advertising was found to influence brand loyalty among consumers of Khazargaz in Mazandaran. According to Sawant (2013) advertising is the key success factors that lead to brand awareness. Hence, in the mobile phone market, advertising directly can help consumers recall about the product capability and function.

The correlation analysis conducted also proves that there is positive relationship between Brand Image and Brand Loyalty with a value of 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation n ( $r = 0.705$ ) signifies that the strength of the relationship between Brand Image and Brand Loyalty is a very strong relationship. Thus, **H3e is accepted**. The result is similar with other study by Fatema (2013). They found that brand image provides an important contribution to brand loyalty.

On the other hand, according to Saeed et al., (2013) companies with a strong brand image obtained advantages by learning about judgment and perception of customer in the markets, whether these perceptions are aligned with their needs and goals. Besides, brand image will guide the marketers to determine customer satisfaction

regarding the product and service offered by the company. Hence, is important to marketers to improve positive brand image in the mind of the consumers. This because positive brand image can influence consumer's purchase intention and lead to positive word-of-mouth.

Lastly, in terms of the relationship between Design and Brand Loyalty the result also shows there is positive relationship between Design and Brand Loyalty with value, 0.000 ( $p < 0.01$ , Sig. 2-tailed). The positive value of person correlation ( $r = 0.628$ ) signifies that the strength of the relationship between advertising spending and brand loyalty is strong relationship. Thus, **H3f is accepted**. According to Sproles and Kendall (1986), people with emotion in fashions are motivated to buy the product with exciting and trendy design. They also follow new design and changing fashion to get the latest product in the market. However, the result is not similar to another study conducted by Khan et al., (2013), in their study, they found that design did not influence brand loyalty among cosmetic product. Consumers are more focus on other factors such as brand name, and perceived quality factor to make decision in buying cosmetic products.



### 5.1.5 Regression Analysis

This test was conducted to achieve Objective 4 of the study. In this study, result of regression analysis indicates that are only three independent variables are significant predictors of Brand Loyalty, which is Brand Reputation (0.000), Brand Competence (0.000) and Price also (0.000). However, the other three independent variable is not predictors of Brand Loyalty, which Advertising Spending (0.999), Brand Image (0.513) and Design (0.603). **Hence H4 is rejected.**

Based on the result brand reputation and brand competence are important considerations, among consumers to loyal to the particular brand. The result is similar with research Lee and Lau (1999) whereby brand reputation and brand competence important in ensuring consumer trust and lead to brand loyalty among the consumers. Besides, Pant et al., (2011) also found that price has a larger impact in influencing early adopter consumers.

However, the result of brand image is not similar with study by Henry and Quansah (2013). They found brand image is the strongest contributor to telecommunication network brand choice among the consumer in Ghana. Consumers of telecommunication network choose telecommunication because it is perceived to possess unique features, it is prestigious and it has a wider coverage area. In terms of advertising spending, the result is supported by Anatha Raj (2011), whereby advertising spending has no significant positive influence towards Malaysian hypermarkets' brand loyalty. Lastly, result of design is supported by Khraim (2011), whereby a design is not

important consideration to United Arab Emirates (UEA) consumers when buying cosmetic product.

Besides, the result shows beta value of Brand Reputation is 0.312, Brand Competence is 0.407, the price is 0.328, Advertising Spending is - 0.05, Brand Image is 0.056 and Design is -0.33. Hence, Brand Competence has the strongest impact on the dependent variable (Brand Loyalty) and influence brand loyalty among mobile phone users in Universiti Utara Malaysia.

## **5.2 Limitations of the study**

The first limitation of this study is placed of the research. It only involved the students of UUM. Hence, the result cannot be generalized for the whole population among mobile phone users in Malaysia. The next limitation is the sample size. A sample of 390 respondents is considered small. Further research is needed to be conducted on a larger scale and including diverse locations. Thirdly is related to time. The lack of the time poses the difficulties to investigate in depth about the brand loyalty among mobile phone users. This is because much research is conducted on brand loyalty, but only a few researchers focus on the mobile phone industry in Malaysia. Lastly, another limitation of this research is the inclusion of only one product which is a mobile phone. Different product may have a different response from the students. To obtain a clear view of factor influence brand loyalty the comparison of two brands can give the better finding of this study.

### **5.3 Recommendations**

The outcomes of this study provide empirical evidence for the factor that influence brand loyalty among mobile phone users. However, the finding of the research cannot be generalized for the whole Brand Loyalty of Malaysia mobile phone users. This is because this study only conducted among student of UUM. However, this study gives the positive result whereby the result showed that all independent variables had significant relationship with the brand loyalty.

There are several approaches that can be implemented in future studies:

1. The total number of respondents should be increased. In this study, the number of respondents contains only 400 people and this cannot be generalized to the whole population of student in Malaysia.
2. In the future research, the study must include various locations in order to gain different perception and response about the brand loyalty. The other study can consider other factor such as level of income and marital status to gain a different view about brand loyalty.
3. This study focuses on student as the respondents. Future research must include other segments such as working adults to obtain a different perception on brand loyalty.

4. Future study also can be conducted to more groups such as college and school students. Using the same variable in this study, it's easy to get a better understanding on the whole market of students. This is because, young consumer gives higher percentage to contribute to firm profit and high sale in the business. Hence, important to the marketers understand about buying behavior and students' attitude to loyal to a brand.

## **5.4 CONCLUSION**

First and foremost, the aim of the study is to identify the factors influence brand loyalty among mobile phone users. The result of this study showed that all the six independent variables, namely Brand Reputation, Brand Competence, Price, Advertising Spending, Brand Image and Design have a positive relationship with Brand Loyalty among mobile phone users. Besides, the findings of the study suggest that Brand Competence is the strongest factor that influence brand loyalty. This means that consideration, of consumers to be loyal to a brand is based on the competence and capability of the product. People are attracted to the brand that has ability to perform the function efficiently and effectively.

In addition, other factors, namely Price and Brand Reputation also influence Brand Loyalty in this study. This finding provides additional evidence to the marketers and manager to understand about the perceptions of customers in the market. They also

can design new strategies to compete with other competitors in mobile phone industry. On the other hand, although profit as the main objective in any business, marketers need to enforce the brand reputation through advertising and public relation. This strategy is important to maintain customer trust and enhance the positive image in the customer's mind. In addition, the pricing strategy also plays an important role to influence customer intention to loyal to the brand. The efficient pricing strategy such as promotion and discount price is the best approach to attract potential buyers in the market. Besides, the best value of price can increase customer trust and retention of loyal to the brand for the long term period.

In conclusion, marketers in the mobile phone industry must be aware about the latest trend and current need and wants of the consumers to persuade them to be loyal towards the brand. In addition, marketers can also adopt technology advance to build long term relationship with the consumers. Hence, marketers must be consistent with their marketing strategy to ensure brand loyalty. This is because customers today are more intelligent to choose the best brand for their usage.

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**APPENDIX A**  
**QUESTIONNAIRE**



Dear respected respondents:

You are invited to participate in this research entitled **Factor influence brand loyalty among mobile phone users**. Please answer honestly and carefully all items in the questionnaire as it will influence the result of the research. Information obtained from this questionnaire **WILL BE TREATED STRICTLY CONFIDENTIAL** and will be used solely for academic purposes.

Thanks you for your time in responding to this questionnaire.

Your participation is highly appreciated.

Sincerely yours,

Siti Noor Aishah Binti Mohd Sidik

Matric No: 813385

MSc. UUM (Management)

**Section A: DEMOGRAPHIC PROFILE**

**Directions: Please select the best option that describes you**

1. Gender: ( ) Male ( ) Female

2. Ethnic group: ( ) Malay ( ) Chinese ( ) Indian ( ) others, please state\_\_\_\_\_

3. Age: ..... years

4. Religion: ( ) Islam ( ) Christian ( ) Buddhist  
( ) Hindu ( ) Others, Please state .....

5. Level of study at UUM:

( ) Degree in .....

( ) Masters in .....

( ) PHD in.....

6. College: ( ) COB ( ) CAS ( ) COLGIS

7. Do you have mobile phone?

Yes - If yes, please answer the other questions

No- If No, your answer ends here, thank you.

8. What is your mobile phone brand name? (**Choose only one**)

Samsung  Sony Ericsson  Nokia  Blackberry  Apple

HTC  Motorola  others, please state.....

9. How long has you been using the mobile phone in question 8? ..... Years

**Section B: FACTOR INFLUENCE BRAND LOYALTY ( BRAND REPUTATION, BRAND COMPETENCE,PRICE, ADVERTISING SPENDING, BRAND IMAGE ,DESIGN)**

Direction: Please circle the number of your answer that relates your opinion toward mobile phone brand you using now. Your answers are based on the mobile phone brand that you choose in question 8.

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>

No	Item						
1	I consider myself loyal to this brand	1	2	3	4	5	6
2	I feel this is the only brand of this product I need	1	2	3	4	5	6
3	This is the one brand I would prefer to buy or use	1	2	3	4	5	6
4	If this brand is not available in the store when I need it, I will buy it another time	1	2	3	4	5	6
5	If someone makes a negative comment about this brand, I would defend it	1	2	3	4	5	6
6	I often tell my friends how good this brand is	1	2	3	4	5	6
7	Although another brand is on sale, I still buy this brand	1	2	3	4	5	6
8	I always think of this brand over other brand when I consider buying mobile phone	1	2	3	4	5	6
9	I always find myself consistently buying this brand over the other brands	1	2	3	4	5	6
10	I feel more loyal to this brand than the other brands	1	2	3	4	5	6



11	This brand has a reputation for being good	1	2	3	4	5	6
12	Other people have told me that this brand is reliable	1	2	3	4	5	6
13	This brand is reputed to perform well	1	2	3	4	5	6
14	It is important that I buy a brand with a good reputation.	1	2	3	4	5	6
15	People I know think highly of this brand	1	2	3	4	5	6
16	I consider this brand as most favourable brand in terms of brand reputation	1	2	3	4	5	6
17	I consider this brand as most publicly recognized brand in terms of brand reputation.	1	2	3	4	5	6
18	I consider this brand as most reliable brand in terms of brand reputation	1	2	3	4	5	6
19	This brand is the best one for this category of products	1	2	3	4	5	6
20	This brand performs better than other brands	1	2	3	4	5	6
21	This brand more effective than other brands	1	2	3	4	5	6
22	This brand meets my needs better than other brands	1	2	3	4	5	6
23	This brand accomplishes its task better than other brands	1	2	3	4	5	6
24	Increases of price not hamper me to purchase	1	2	3	4	5	6
25	The brand provides goods rate for money	1	2	3	4	5	6
26	The brand I use, charge fair prices	1	2	3	4	5	6
27	Comparatively the brand I use charge low price	1	2	3	4	5	6
28	The brand offers good value for price I paid	1	2	3	4	5	6
29	I usually accept any changes in price of the brand	1	2	3	4	5	6
30	The brand is offered at reasonable price	1	2	3	4	5	6
31	The brand name is advertised intensively	1	2	3	4	5	6
32	The ad campaigns for this brand are frequently	1	2	3	4	5	6

	seen						
33	The ad campaigns for this brand seem very expensive, compared to campaign for competing brands.	1	2	3	4	5	6
34	I think advertising is, in general, very good	1	2	3	4	5	6
35	In general, I like the advertising campaigns for this brand spending	1	2	3	4	5	6
36	My opinion about this brand advertising is very high	1	2	3	4	5	6
37	I think this brand is intensively advertised, compared to competing brand	1	2	3	4	5	6
38	This brand has a differentiated image in comparison with the other brand	1	2	3	4	5	6
39	This brand has a clean image	1	2	3	4	5	6
40	This brand is well established	1	2	3	4	5	6
41	The brand always upgrades its technology to improve its services.	1	2	3	4	5	6
42	The brand fits very well with my lifestyle	1	2	3	4	5	6
43	Overall this brand delivers a good value for the price I pay	1	2	3	4	5	6
44	This brand offers the best choice of mobile phone	1	2	3	4	5	6
45	The brand provides wide variety of designs	1	2	3	4	5	6
46	Designs of this brand are suitable for me	1	2	3	4	5	6
47	Designs of the brand have distinctive features	1	2	3	4	5	6
48	Designs of the brand are trendy and fashionable	1	2	3	4	5	6

***“Thank you for your kind cooperation and valuable time”***



Responden yang dihormati :

Anda telah terpilih untuk mengambil bahagian dalam penyelidikan yang bertajuk **FAKTOR YANG MEMPENGARUHI KESETIAAN JENAMA DI KALANGAN PENGGUNA TELEFON BIMBIT**. Sila jawab dengan jujur dan teliti semua item dalam soal selidik ini kerana ia akan mempengaruhi keputusan kajian. Maklumat yang diperoleh daripada soal selidik ini **DIANGGAP SULIT** dan akan digunakan semata-mata untuk tujuan akademik.

Terima kasih di atas masa yang diberikan oleh anda di dalam menjawab kajian ini.

Penyertaan anda amat dihargai ..

Yang Benar,

Siti Noor Aishah Binti Mohd Sidik

Matric No: 813385

MSc. UUM (Management)

## **Bahagian A : PROFIL DEMOGRAFI**

**Arahan: Sila tandakan “√” untuk pilihan anda pada ruang yang disediakan**

1. Jantina : ( ) perempuan ( ) Lelaki
  
2. Kumpulan Etnik : ( ) Melayu ( ) Cina ( ) India ( ) Lain-lain, Sila nyatakan...
  
3. Umur: ..... Tahun
  
4. Agama: ( ) Islam ( ) kristian ( ) Buddha  
( ) Hindu ( ) Lain-lain, Sila nyatakan.....
  
5. Tahap pengajian di UUM:  
( ) Ijazah.....  
( ) Masters .....
  
( ) PHD .....  
6. Kolej: ( ) COB ( ) CAS ( ) COLGIS

7. Adakah anda mempunyai telefon bimbit?

Ya- Jika ya sila jawab soalan seterusnya.

Tidak – Jika tidak, jawapan anda berakhir disini, terima kasih

8. Apakah jenama telefon bimbit anda? **(Pilih satu sahaja)**

Samsung  Sony Ericsson  Nokia  Blackberry  Apple

HTC  Motorola  Lain-lain, sila nyatakan.....

9. Berapa lama anda menggunakan telefon pada soalan 8?

..... Tahun

**Bahagian B : FAKTOR YANG MEMPENGARUHI KESETIAAN JENAMA  
(REPUTASI JENAMA, KECEKAPAN JENAMA, HARGA, PERBELANJAAN  
PENGIKLANAN DAN REKA BENTUK)**

Arahan: Sila bulatkan nombor yang paling menggambarkan pendapat anda terhadap jenama telefon bimbit yang anda gunakan sekarang. Jawapan anda hendaklah berpandukan kepada jenama telefon bimbit pada soalan 8

Sangat Tidak Bersetuju	Tidak Bersetuju	Agak Tidak Bersetuju	Agak Bersetuju	Bersetuju	Sangat bersetuju
1	2	3	4	5	6

No	Item	1	2	3	4	5	6
1	Saya menganggap diri saya setia kepada jenama ini	1	2	3	4	5	6
2	Saya rasa ini adalah satu-satunya jenama produk yang saya perlu	1	2	3	4	5	6
3	Ini adalah satu-satunya jenama yang saya lebih gemar untuk beli atau guna	1	2	3	4	5	6
4	Jika jenama ini tidak terdapat di kedai apabila saya memerlukannya, saya akan membelinya pada masa yang lain	1	2	3	4	5	6
5	Jika seseorang membuat komen negatif tentang jenama ini, saya akan mempertahankannya	1	2	3	4	5	6
6	Saya sering memberitahu rakan-rakan saya kebaikan jenama ini	1	2	3	4	5	6
7	Walaupun banyak jenama lain sedang dijual, saya	1	2	3	4	5	6

	masih membeli jenama ini						
8	Saya selalu berfikir tentang jenama ini berbranding jenama lain apabila ingin membeli telefon bimbit	1	2	3	4	5	6
9	Saya sentiasa mendapati diri saya konsisten membeli jenama ini berbranding jenama lain	1	2	3	4	5	6
10	Saya rasa lebih setia pada jenama ini berbranding jenama lain	1	2	3	4	5	6
11	Jenama ini mempunyai reputasi yang baik	1	2	3	4	5	6
12	Orang lain telah memberitahu saya bahawa jenama ini adalah dipercayai	1	2	3	4	5	6
13	Jenama ini mempunyai reputasi berfungsi dengan baik	1	2	3	4	5	6
14	Adalah penting bagi saya untuk membeli jenama dengan reputasi yang baik	1	2	3	4	5	6
15	Orang yang saya kenal berfikir baik tentang jenama ini	1	2	3	4	5	6
16	Saya menganggap jenama ini sebagai jenama paling baik dari segi reputasi jenama	1	2	3	4	5	6
17	Saya menganggap jenama ini jenama yang paling diiktiraf secara terbuka dari segi reputasi jenama	1	2	3	4	5	6
18	Saya menganggap jenama ini paling dipercayai dari segi reputasi jenama	1	2	3	4	5	6
19	Jenama ini adalah yang terbaik untuk kategori produk ini	1	2	3	4	5	6
20	Jenama ini berfungsi lebih baik daripada jenama lain	1	2	3	4	5	6
21	Jenama ini lebih berkesan berbranding jenama lain	1	2	3	4	5	6
22	Jenama ini memenuhi keperluan saya berbranding daripada jenama lain	1	2	3	4	5	6
23	Jenama ini dapat menyelesaikan tugas saya lebih	1	2	3	4	5	6

	baik daripada jenama lain.						
24	Peningkatan harga tidak menghalang saya untuk membeli jenama ini	1	2	3	4	5	6
25	Jenama ini memberikan nilai terbaik untuk wang	1	2	3	4	5	6
26	Jenama yang saya gunakan, mengenakan harga yang berpatutan	1	2	3	4	5	6
27	Secara perbandingan jenama yang saya gunakan mengenakan harga yang rendah	1	2	3	4	5	6
28	Jenama ini menawarkan nilai terbaik untuk harga yang saya bayar	1	2	3	4	5	6
29	Kebiasaanya, saya menerima sebarang perubahan harga pada jenama ini	1	2	3	4	5	6
30	Jenama ini ditawarkan pada harga yang berpatutan	1	2	3	4	5	6
31	Jenama ini diiklankan secara intensif	1	2	3	4	5	6
32	Kempen-kempen iklan untuk jenama ini sering dilihat	1	2	3	4	5	6
33	Kempen-kempen iklan untuk jenama ini kelihatan sangat mahal, berbanding dengan kempen untuk jenama pesaing	1	2	3	4	5	6
34	Saya rasa pengiklanan, secara amnya, sangat baik	1	2	3	4	5	6
35	Secara umum, saya suka kempen pengiklanan yang dibelanjakan untuk jenama ini	1	2	3	4	5	6
36	Pendapat saya mengenai pengiklanan jenama ini adalah sangat tinggi	1	2	3	4	5	6
37	Saya rasa jenama ini diiklankan secara intensif berbanding dengan jenama pesaing	1	2	3	4	5	6
38	Jenama ini mempunyai kepelbagaian imej berbanding dengan jenama lain	1	2	3	4	5	6
39	Produk ini mempunyai imej yang bersih	1	2	3	4	5	6
40	Jenama ini diterima umum	1	2	3	4	5	6



41	Jenama ini sentiasa memperbaharui teknologi untuk meningkatkan perkhidmatan	1	2	3	4	5	6
42	Jenama ini amat sesuai dengan gaya hidup saya	1	2	3	4	5	6
43	Secara keseluruhan jenama ini memberi nilai yang baik untuk harga yang saya bayar	1	2	3	4	5	6
44	Jenama ini menawarkan pilihan terbaik untuk telefon bimbit	1	2	3	4	5	6
45	Jenama ini menyediakan pelbagai reka bentuk	1	2	3	4	5	6
46	Reka Bentuk jenama ini adalah sesuai untuk saya	1	2	3	4	5	6
47	Reka Bentuk jenama mempunyai ciri-ciri yang tersendiri	1	2	3	4	5	6
48	Reka Bentuk jenama ini terbaru dan bergaya	1	2	3	4	5	6

***“Terima kasih di atas kerjasama anda”***

## APPENDIX B

### RELIABILITY FOR PILOT TEST

#### a) Brand Loyalty

**Case Processing Summary**

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.950	10

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I consider myself loyal to this brand	33.66	80.270	.779	.945
I feel this is the only brand of this product I need	34.22	82.053	.708	.948
This is the one brand I would prefer to buy or use	34.00	80.367	.834	.942
If this brand is not available in the store when I need it, I will buy it another time	34.06	82.098	.689	.949
If someone makes a negative comment about this brand, I would defend it	34.26	84.604	.673	.949
I often tell my friends how good this brand is	34.12	81.863	.790	.944
Although another brand is on sale, I still buy this brand	34.04	79.672	.822	.943
I always think of this brand over other brand when I consider buying mobile phone	34.00	79.878	.846	.942
I always find myself consistently buying this brand over the other brands	34.02	78.836	.910	.939
I feel more loyal to this brand than the other brands	34.00	81.469	.819	.943

## b) Brand Reputation

**Case Processing Summary**

		N	%
Cases	Valid	49	98.0
	Excluded <sup>a</sup>	1	2.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.893	8

- a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This brand has a reputation for being good	29.98	23.145	.847	.861
Other people have told me that this brand is reliable	30.10	24.844	.801	.868
This brand is reputed to perform well	30.00	27.417	.620	.885
It is important that I buy a brand with a good reputation	29.51	29.338	.317	.909
People I know think highly of this brand	30.27	25.116	.658	.882
I consider this brand as most favourable brand in terms of brand reputation	30.29	24.208	.790	.868
I consider this brand as most publicly recognized brand in terms of brand reputation	30.08	24.827	.691	.878
I consider this brand as most reliable brand in terms of brand reputation	30.20	25.416	.657	.881

### c) Brand Competence

**Case Processing Summary**

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.940	5

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This brand is the best one for this category of products	16.12	11.700	.818	.931
This brand performs better than other brands	16.20	11.796	.870	.921
This brand more effective than other brands	16.20	11.633	.875	.920
This brand meets my needs better than other brands	16.04	12.366	.800	.933
This brand accomplishes its task better than other brands	16.16	12.382	.838	.927

d) Price

**Case Processing Summary**

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.788	7

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Increases of price not hamper me to purchase	25.14	12.531	.427	.782
The brand provides goods rate for money	24.68	12.998	.421	.780
The brand I use, charge fair prices	24.42	12.208	.639	.739
Comparatively the brand I use charge low price	24.66	12.066	.597	.745
The brand offers good value for price I paid	24.48	12.296	.635	.740
I usually accept any changes in price of the brand	24.76	13.043	.444	.775
The brand is offered at reasonable price	24.54	13.151	.484	.767

### e) Advertising Spending

**Case Processing Summary**

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.940	7

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The brand name is advertised intensively	24.94	30.588	.743	.936
The ad campaigns for this brand are frequently seen	24.80	28.367	.867	.924
The ad campaigns for this brand seem very expensive, compared to campaign for competing brands	25.26	30.564	.665	.943
I think advertising is, in general, very good	24.84	29.607	.841	.927
In general, I like the advertising campaigns for this brand spending	24.96	30.447	.803	.931
My opinion about this brand advertising is very high	25.06	28.711	.879	.923
I think this brand is intensively advertised, compared to competing brand	25.10	29.357	.829	.928

## f) Brand Image

**Case Processing Summary**

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.853	7

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This brand has a differentiated image in comparison with the other brand	26.24	16.431	.593	.839
This brand has a clean image	26.10	16.867	.612	.834
This brand is well established	25.98	16.836	.718	.818
The brand always upgrades its technology to improve its services	26.02	16.796	.665	.825
The brand fits very well with my lifestyle	25.96	17.631	.749	.819
Overall this brand delivers a good value for the price I pay	25.88	17.700	.673	.827
This brand offers the best choice of mobile phone	26.10	18.786	.386	.866

## g) Design

**Case Processing Summary**

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.782	4

a. Listwise deletion based on all variables in the procedure.

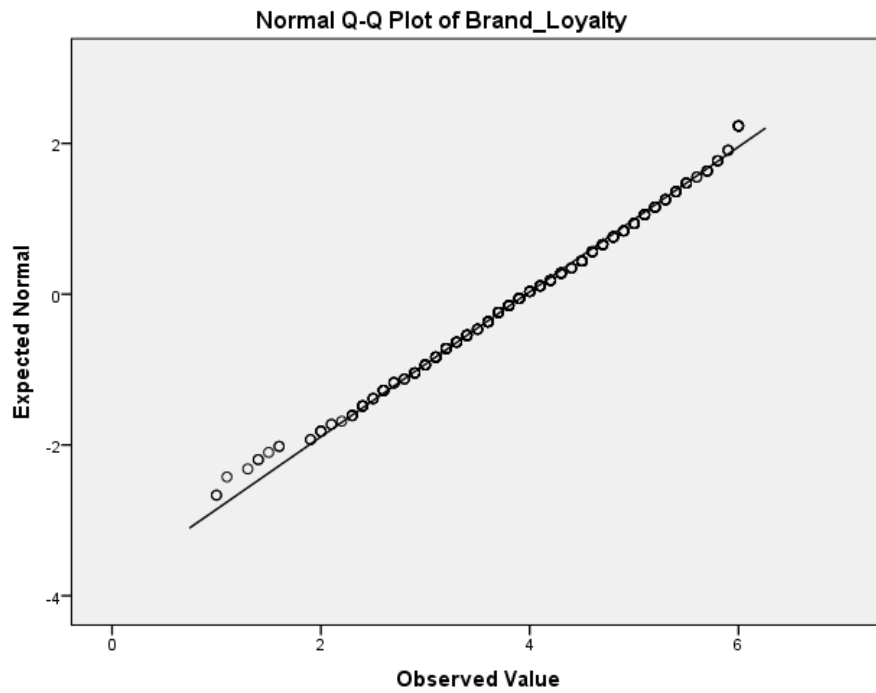
**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The brand provides wide variety of designs	13.62	3.955	.687	.678
Designs of this brand are suitable for me	13.40	4.041	.639	.702
Designs of the brand have distinctive features	13.58	4.738	.486	.776
Designs of the brand are trendy and fashionable	13.58	3.759	.563	.751

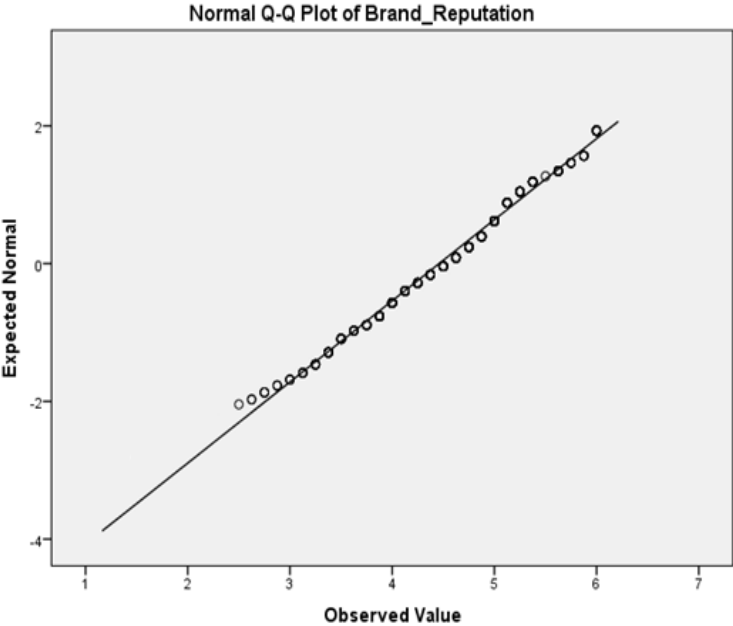


**APPENDIX C**  
**NORMALITY TEST**

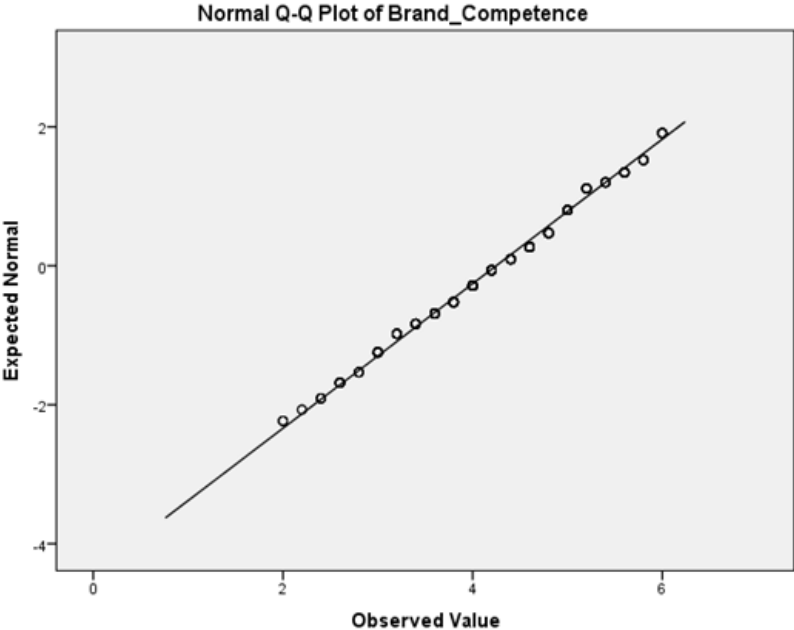
**a) Brand Loyalty**



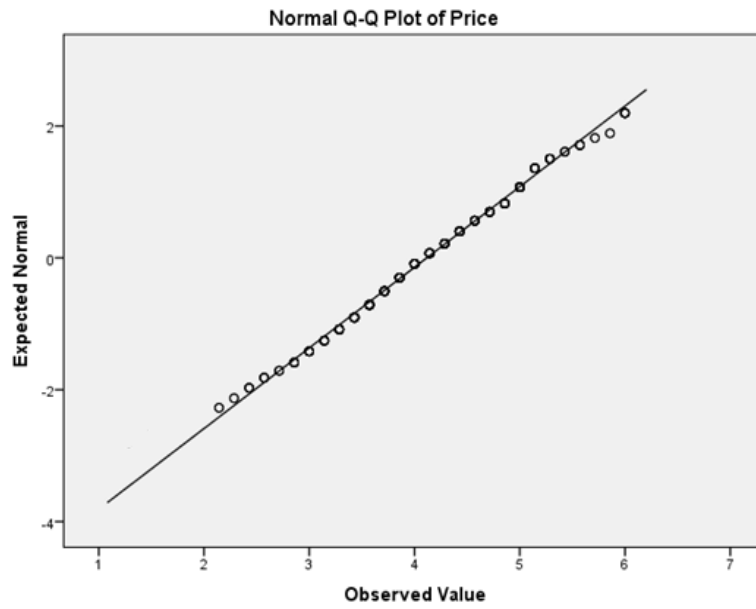
**b) Brand Reputation**



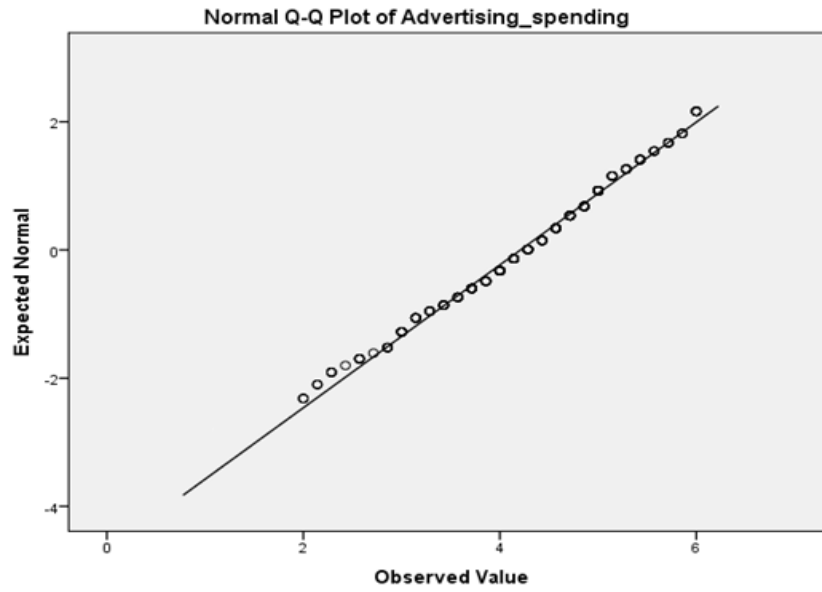
**c) Brand Competence**



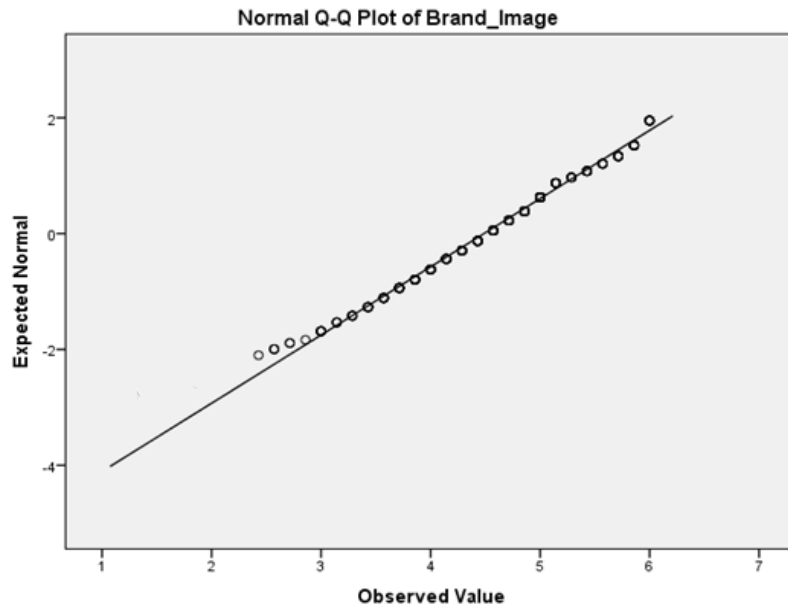
**d) Price**



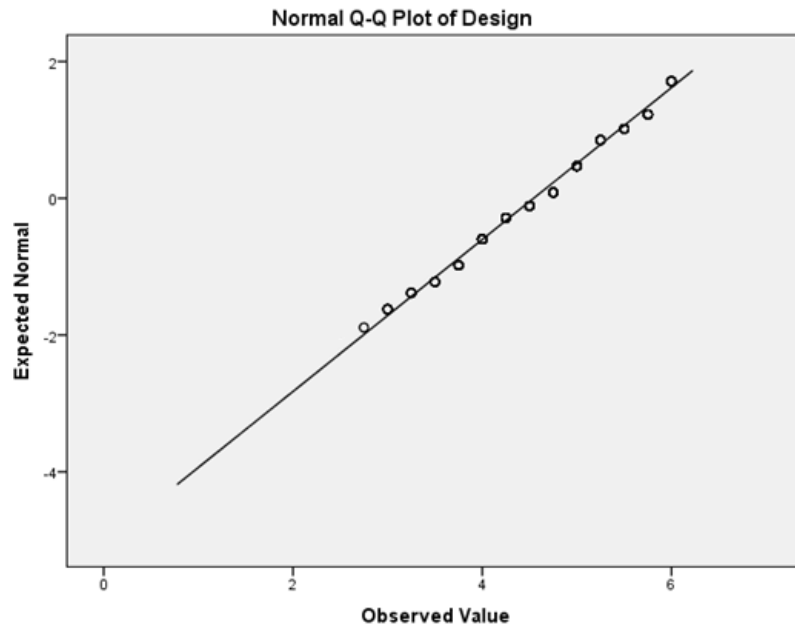
**e) Advertising Spending**



**f) Brand Image**



**g) Design**



**APPENDIX D**  
**RELIABILITY FOR REAL TEST**

**a) Brand Loyalty**

**Case Processing Summary**

		N	%
Cases	Valid	389	99.7
	Excluded <sup>a</sup>	1	.3
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.948	10

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I consider myself loyal to this brand	35.44	88.268	.766	.944
I feel this is the only brand of this product I need	35.82	88.380	.787	.943
This is the one brand I would prefer to buy or use	35.61	87.023	.819	.941
If this brand is not available in the store when I need it, I will buy it another time	35.80	88.123	.734	.945
If someone makes a negative comment about this brand, I would defend it	35.87	91.030	.698	.947
I often tell my friends how good this brand is	35.71	90.201	.731	.945
Although another brand is on sale, I still buy this brand	35.74	87.302	.809	.942
I always think of this brand over other brand when I consider buying mobile phone	35.67	87.983	.823	.941
I always find myself consistently buying this brand over the other brands	35.76	87.905	.824	.941
I feel more loyal to this brand than the other brands	35.73	86.785	.832	.941

## b) Brand Reputation

**Case Processing Summary**

		N	%
Cases	Valid	389	99.7
	Excluded <sup>a</sup>	1	.3
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.930	8

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This brand has a reputation for being good	31.16	34.926	.817	.916
Other people have told me that this brand is reliable	31.26	35.435	.782	.919
This brand is reputed to perform well	31.15	36.703	.774	.920
It is important that I buy a brand with a good reputation	30.76	38.874	.536	.936
People I know think highly of this brand	31.29	36.048	.727	.923
I consider this brand as most favourable brand in terms of brand reputation	31.35	34.253	.833	.914
I consider this brand as most publicly recognized brand in terms of brand reputation	31.31	34.956	.786	.918
I consider this brand as most reliable brand in terms of brand reputation	31.35	34.743	.809	.916

### c) Brand Competence

**Case Processing Summary**

		N	%
Cases	Valid	390	100.0
	Excluded <sup>a</sup>	0	.0
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.939	5

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This brand is the best one for this category of products	16.97	15.246	.802	.931
This brand performs better than other brands	17.01	14.666	.860	.921
This brand more effective than other brands	17.02	14.922	.878	.918
This brand meets my needs better than other brands	16.90	14.870	.840	.925
This brand accomplishes its task better than other brands	17.04	15.292	.804	.931

**d) Price**

**Case Processing Summary**

		N	%
Cases	Valid	390	100.0
	Excluded <sup>a</sup>	0	.0
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.891	7

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Increases of price not hamper me to purchase	25.03	23.788	.652	.881
The brand provides goods rate for money	24.69	23.866	.738	.869
The brand I use, charge fair prices	24.52	24.728	.740	.870
Comparatively the brand I use charge low price	24.85	24.891	.649	.880
The brand offers good value for price I paid	24.53	24.286	.738	.869
I usually accept any changes in price of the brand	24.81	24.942	.606	.886
The brand is offered at reasonable price	24.48	25.037	.717	.873



### e) Advertising Spending

**Case Processing Summary**

		N	%
Cases	Valid	390	100.0
	Excluded <sup>a</sup>	0	.0
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.928	7

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The brand name is advertised intensively	25.09	30.482	.718	.923
The ad campaigns for this brand are frequently seen	25.19	29.133	.777	.917
The ad campaigns for this brand seem very expensive, compared to campaign for competing brands	25.38	29.588	.715	.923
I think advertising is, in general, very good	25.15	29.750	.753	.919
In general, I like the advertising campaigns for this brand spending	25.29	29.012	.818	.913
My opinion about this brand advertising is very high	25.35	28.969	.800	.915
I think this brand is intensively advertised, compared to competing brand	25.35	28.414	.826	.912

## f) Brand Image

**Case Processing Summary**

		N	%
Cases	Valid	390	100.0
	Excluded <sup>a</sup>	0	.0
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.923	7

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This brand has a differentiated image in comparison with the other brand	27.15	26.633	.678	.919
This brand has a clean image	26.97	26.032	.758	.911
This brand is well established	26.73	27.146	.754	.912
The brand always upgrades its technology to improve its services	26.85	25.767	.762	.910
The brand fits very well with my lifestyle	26.90	25.810	.821	.904
Overall this brand delivers a good value for the price I pay	26.89	26.166	.786	.908
This brand offers the best choice of mobile phone	26.96	26.420	.757	.911

## g) Design

**Case Processing Summary**

		N	%
Cases	Valid	390	100.0
	Excluded <sup>a</sup>	0	.0
	Total	390	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.905	4

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The brand provides wide variety of designs	13.68	7.658	.756	.888
Designs of this brand are suitable for me	13.58	7.580	.787	.877
Designs of the brand have distinctive features	13.61	7.616	.809	.870
Designs of the brand are trendy and fashionable	13.63	7.225	.795	.874

**APPENDIX D**  
**DESCRIPTIVE STATISTIC**

**FREQUENCY TABLE**

**a) Gender**

		<b>Gender</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
	Female	213	54.6	54.6	54.6
Valid	Male	177	45.4	45.4	100.0
	Total	390	100.0	100.0	

**b) Ethnic Group**

		<b>Ethnic group</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
	Malay	255	65.4	65.4	65.4
	Chinese	80	20.5	20.5	85.9
Valid	Indian	26	6.7	6.7	92.6
	others	29	7.4	7.4	100.0
	Total	390	100.0	100.0	

**c) Age**

**Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-25 years old	343	87.9	87.9	87.9
26-30 years old	38	9.7	9.7	97.7
above 30 years old	9	2.3	2.3	100.0
Total	390	100.0	100.0	

**d) Religion**

**Religion**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Muslim	265	67.9	67.9	67.9
Christian	36	9.2	9.2	77.2
Buddhist	61	15.6	15.6	92.8
Hindu	25	6.4	6.4	99.2
Others	3	.8	.8	100.0
Total	390	100.0	100.0	

**e) Level of study**

**Level of study at UUM**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Degree	296	75.9	75.9	75.9
Masters	56	14.4	14.4	90.3
Phd	38	9.7	9.7	100.0
Total	390	100.0	100.0	

**f) College**

College					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	COB	242	62.1	62.1	62.1
	CAS	44	11.3	11.3	73.3
	COLGIS	104	26.7	26.7	100.0
	Total	390	100.0	100.0	

**g) Mobile phone brand name**

What is your mobile phone brand name?					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Samsung	195	50.0	50.0	50.0
	Sony	66	16.9	16.9	66.9
	Nokia	54	13.8	13.8	80.8
	Blackberry	18	4.6	4.6	85.4
	Apple	19	4.9	4.9	90.3
	HTC	10	2.6	2.6	92.8
	Motorola	3	.8	.8	93.6
	Others	25	6.4	6.4	100.0
	Total	390	100.0	100.0	

## h) Duration using Mobile phone

How long has you been using the mobile phone in question 9

	Frequency	Percent	Valid Percent	Cumulative Percent
less than 1 years	25	6.4	6.4	6.4
1-2 years	205	52.6	52.6	59.0
3-5 years	112	28.7	28.7	87.7
6-10 years	44	11.3	11.3	99.0
over 10 years	4	1.0	1.0	100.0
Total	390	100.0	100.0	

**APPENDIX E**  
**DESCRIPTIVE**

**a) Descriptive (Mean and Standard Deviation for all variable)**

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Brand_Loyalty	390	1.00	6.00	3.9674	1.03994
Brand_Reputation	390	1.38	6.00	4.4590	.84916
Brand_Competence	390	1.00	6.00	4.2472	.96095
Price	390	1.29	6.00	4.1168	.81768
Advertising_spending	390	1.00	6.00	4.2095	.89736
Brand_Image	390	1.29	6.00	4.4868	.84897
Design	390	1.00	6.00	4.5423	.89995
Valid N (listwise)	390				



## b) Brand Loyalty

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
I consider myself loyal to this brand	390	1	6	4.24	1.281
I feel this is the only brand of this product I need	390	1	6	3.86	1.249
This is the one brand I would prefer to buy or use	390	1	6	4.07	1.290
If this brand is not available in the store when I need it, I will buy it another time	390	1	6	3.88	1.339
If someone makes a negative comment about this brand, I would defend it	390	1	6	3.81	1.195
I often tell my friends how good this brand is	390	1	6	3.97	1.204
Although another brand is on sale, I still buy this brand	390	1	6	3.95	1.285
I always think of this brand over other brand when I consider buying mobile phone	390	1	6	4.01	1.223
I always find myself consistently buying this brand over the other brands	390	1	6	3.93	1.226
I feel more loyal to this brand than the other brands	390	1	6	3.95	1.286
Brand_Loyalty	390	1.00	6.00	3.9674	1.03994
Valid N (listwise)	390				

### c) Brand Reputation

#### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
This brand has a reputation for being good	390	1	6	4.50	1.053
Other people have told me that this brand is reliable	390	1	6	4.40	1.041
This brand is reputed to perform well	390	1	6	4.52	.923
It is important that I buy a brand with a good reputation	390	1	6	4.90	.960
People I know think highly of this brand	390	1	6	4.37	1.040
I consider this brand as most favourable brand in terms of brand reputation	390	1	6	4.32	1.102
I consider this brand as most publicly recognized brand in terms of brand reputation	390	1	6	4.35	1.084
I consider this brand as most reliable brand in terms of brand reputation	390	1	6	4.32	1.081
Brand_Reputation	390	1.38	6.00	4.4590	.84916
Valid N (listwise)	390				

## d) Brand Competence

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
This brand is the best one for this category of products	390	1	6	4.27	1.069
This brand performs better than other brands	390	1	6	4.22	1.096
This brand more effective than other brands	390	1	6	4.21	1.043
This brand meets my needs better than other brands	390	1	6	4.33	1.086
This brand accomplishes its task better than other brands	390	1	6	4.20	1.061
Brand_Competence	390	1.00	6.00	4.2472	.96095
Valid N (listwise)	390				

## e) Price

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Increases of price not hamper me to purchase	390	1	6	3.79	1.188
The brand provides goods rate for money	390	1	6	4.13	1.074
The brand I use, charge fair prices	390	1	6	4.30	.965
Comparatively the brand I use charge low price	390	1	6	3.96	1.046
The brand offers good value for price I paid	390	1	6	4.29	1.021
I usually accept any changes in price of the brand	390	1	6	4.01	1.094
The brand is offered at reasonable price	390	1	6	4.34	.950
Price	390	1.29	6.00	4.1168	.81768
Valid N (listwise)	390				

## f) Advertising Spending

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
The brand name is advertised intensively	390	1	6	4.37	1.005
The ad campaigns for this brand are frequently seen	390	1	6	4.27	1.089
The ad campaigns for this brand seem very expensive, compared to campaign for competing brands	390	1	6	4.09	1.111
I think advertising is, in general, very good	390	1	6	4.32	1.048
In general, I like the advertising campaigns for this brand spending	390	1	6	4.18	1.058
My opinion about this brand advertising is very high	390	1	6	4.12	1.082
I think this brand is intensively advertised, compared to competing brand	390	1	6	4.12	1.113
Advertising_spending	390	1.00	6.00	4.2095	.89736
Valid N (listwise)	390				

## g) Brand Image

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
This brand has a differentiated image in comparison with the other brand	390	1	6	4.26	1.076
This brand has a clean image	390	1	6	4.44	1.056
This brand is well established	390	1	6	4.68	.930
The brand always upgrades its technology to improve its services	390	1	6	4.56	1.083
The brand fits very well with my lifestyle	390	1	6	4.51	1.016
Overall this brand delivers a good value for the price I pay	390	1	6	4.51	1.011
This brand offers the best choice of mobile phone	390	1	6	4.45	1.012
Brand_Image	390	1.29	6.00	4.4868	.84897
Valid N (listwise)	390				

## h) Design

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
The brand provides wide variety of designs	390	1	6	4.49	1.018
Designs of this brand are suitable for me	390	1	6	4.58	1.007
Designs of the brand have distinctive features	390	1	6	4.56	.981
Designs of the brand are trendy and fashionable	390	1	6	4.54	1.072
Design	390	1.00	6.00	4.5423	.89995
Valid N (listwise)	390				

**APPENDIX F  
INDEPENDENT SAMPLES T-TEST**

**a) Gender**

**Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Brand_Loyalty	Female	213	4.0136	1.01937	.06985
	Male	177	3.9119	1.06442	.08001



**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Brand_L	Equal variances assumed	1.996	.158	.962	388	.337	.10175	.10578	-.10622	.30973
	Equal variances not assumed			.958	368.705	.339	.10175	.10620	-.10709	.31059

## APPENDIX G

### ONE-WAY ANOVA

#### a) Ethnic group

##### Descriptives

Brand\_Loyalty

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Malay	255	3.9627	1.02199	.06400	3.8367	4.0888	1.00	6.00
Chinese	80	3.9613	1.10092	.12309	3.7163	4.2062	1.10	5.80
Indian	26	3.8385	1.14929	.22539	3.3743	4.3027	1.30	6.00
Others	29	4.1414	.95076	.17655	3.7797	4.5030	2.10	6.00
Total	390	3.9674	1.03994	.05266	3.8639	4.0710	1.00	6.00

##### Test of Homogeneity of Variances

Brand\_Loyalty

Levene Statistic	df1	df2	Sig.
.419	3	386	.739

##### ANOVA

Brand\_Loyalty

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.319	3	.440	.405	.750
Within Groups	419.378	386	1.086		
Total	420.696	389			

## b) Age

### Descriptives

Brand\_Loyalty

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
20-25 years old	343	3.9612	1.03880	.05609	3.8509	4.0715	1.00	6.00
26-30 years old	38	4.1237	1.03856	.16848	3.7823	4.4651	1.90	6.00
above 30 years old	9	3.5444	1.07134	.35711	2.7209	4.3680	1.90	5.00
Total	390	3.9674	1.03994	.05266	3.8639	4.0710	1.00	6.00

### Test of Homogeneity of Variances

Brand\_Loyalty

Levene Statistic	df1	df2	Sig.
.001	2	387	.999

### ANOVA

Brand\_Loyalty

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.551	2	1.276	1.181	.308
Within Groups	418.145	387	1.080		
Total	420.696	389			

### c) Religion

#### Descriptives

Brand\_Loyalty

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Islam	265	3.9743	1.01859	.06257	3.8511	4.0975	1.00	6.00
Christian	36	4.0556	1.03135	.17189	3.7066	4.4045	2.30	5.80
Buddhist	61	3.9115	1.11611	.14290	3.6256	4.1973	1.10	5.70
Hindu	25	3.8760	1.15660	.23132	3.3986	4.3534	1.30	6.00
Others	3	4.2000	.96437	.55678	1.8044	6.5956	3.10	4.90
Total	390	3.9674	1.03994	.05266	3.8639	4.0710	1.00	6.00

#### Test of Homogeneity of Variances

Brand\_Loyalty

Levene Statistic	df1	df2	Sig.
.333	4	385	.855

#### ANOVA

Brand\_Loyalty

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.854	4	.214	.196	.940
Within Groups	419.842	385	1.090		
Total	420.696	389			

**d) Level of education**

**Descriptives**

Brand\_Loyalty

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Degree	296	3.9807	1.02765	.05973	3.8632	4.0983	1.00	6.00
Masters	56	4.0125	.97683	.13053	3.7509	4.2741	1.40	6.00
Phd	38	3.7974	1.22375	.19852	3.3951	4.1996	1.00	5.90
Total	390	3.9674	1.03994	.05266	3.8639	4.0710	1.00	6.00

**Test of Homogeneity of Variances**

Brand\_Loyalty

Levene Statistic	df1	df2	Sig.
1.581	2	387	.207

**ANOVA**

Brand\_Loyalty

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.265	2	.633	.584	.558
Within Groups	419.431	387	1.084		
Total	420.696	389			

**e) Mobile phone Brand name**

**Descriptives**

Brand\_Loyalty

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
					Samsung	195		
Sony	66	4.1439	1.06122	.13063	3.8831	4.4048	1.90	6.00
Nokia	54	3.8259	.92434	.12579	3.5736	4.0782	1.30	6.00
Blackberry	18	3.8278	1.14214	.26920	3.2598	4.3957	2.00	6.00
Apple	19	4.9053	.91072	.20893	4.4663	5.3442	2.50	6.00
HTC	10	4.1100	1.28621	.40673	3.1899	5.0301	1.60	5.80
Motorola	3	2.8667	.46188	.26667	1.7193	4.0140	2.60	3.40
Others	25	3.5880	1.31508	.26302	3.0452	4.1308	1.00	6.00
Total	390	3.9674	1.03994	.05266	3.8639	4.0710	1.00	6.00

**Test of Homogeneity of Variances**

Brand\_Loyalty

Levene Statistic	df1	df2	Sig.
1.533	7	382	.154

**ANOVA**

Brand\_Loyalty

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.961	7	3.994	3.885	.000
Within Groups	392.735	382	1.028		
Total	420.696	389			

**APPENDIX H**  
**PERSON CORRELATION**

**a) Person correlation (all variable )**

		Correlations						
		BL	BR	BC	P	AS	BI	D
BL	Pearson Correlation	1	.742**	.775**	.707**	.545**	.705**	.628**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	390	390	390	390	390	390	390
BR	Pearson Correlation	.742**	1	.790**	.674**	.636**	.806**	.708**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	390	390	390	390	390	390	390
BC	Pearson Correlation	.775**	.790**	1	.704**	.597**	.788**	.702**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	390	390	390	390	390	390	390
P	Pearson Correlation	.707**	.674**	.704**	1	.561**	.704**	.673**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	390	390	390	390	390	390	390
AS	Pearson Correlation	.545**	.636**	.597**	.561**	1	.711**	.644**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	390	390	390	390	390	390	390
BI	Pearson Correlation	.705**	.806**	.788**	.704**	.711**	1	.839**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	390	390	390	390	390	390	390
D	Pearson Correlation	.628**	.708**	.702**	.673**	.644**	.839**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	390	390	390	390	390	390	390

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

**BL (Brand Loyalty), BC (Brand Competence), P (price), AD (Advertising Spending), BI (Brand Image), D(Design)**

**b) Person Correlation brand reputation**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Brand_Reputation	4.4590	.84916	390

**Correlations**

		Brand_Loyalty	Brand_ Reputation
Brand_Loyalty	Pearson Correlation	1	.742**
	Sig. (2-tailed)		.000
	N	390	390
Brand Reputation	Pearson Correlation	.742**	1
	Sig. (2-tailed)	.000	
	N	390	390

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



**c) Person correlation brand competence**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Brand_Competence	4.2472	.96095	390

**Correlations**

		Brand_Loyalty	Brand Competence
Brand_Loyalty	Pearson Correlation	1	.775**
	Sig. (2-tailed)		.000
	N	390	390
Brand_ Competence	Pearson Correlation	.775**	1
	Sig. (2-tailed)	.000	
	N	390	390

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

**d) Person correlation Price**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Price	4.1168	.81768	390

**Correlations**

		Brand_Loyalty	Price
Brand_Loyalty	Pearson Correlation	1	.707**
	Sig. (2-tailed)		.000
	N	390	390
Price	Pearson Correlation	.707**	1
	Sig. (2-tailed)	.000	
	N	390	390

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

**e) Person correlation advertising spending**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Advertising_spending	4.2095	.89736	390

**Correlations**

		Brand_Loyalty	Advertising_spending
Brand_Loyalty	Pearson Correlation	1	.545**
	Sig. (2-tailed)		.000
	N	390	390
Advertising_Spending	Pearson Correlation	.545**	1
	Sig. (2-tailed)	.000	
	N	390	390

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

**f) Person correlation brand image**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Brand_Image	4.4868	.84897	390

**Correlations**

		Brand_Loyalty	Brand_Image
Brand_Loyalty	Pearson Correlation	1	.705**
	Sig. (2-tailed)		.000
	N	390	390
Brand_Image	Pearson Correlation	.705**	1
	Sig. (2-tailed)	.000	
	N	390	390

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

**g) Person correlation design**

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Design	4.5423	.89995	390

**Correlations**

		Brand_Loyalty	Design
Brand_Loyalty	Pearson Correlation	1	.628 **
	Sig. (2-tailed)		.000
	N	390	390
Design	Pearson Correlation	.628 **	1
	Sig. (2-tailed)	.000	
	N	390	390

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

## APPENDIX I

### MULTIPLE REGRESSIONS

**Descriptive Statistics**

	Mean	Std. Deviation	N
Brand_Loyalty	3.9674	1.03994	390
Brand_Reputation	4.4590	.84916	390
Brand_Competence	4.2472	.96095	390
Price	4.1168	.81768	390
Advertising_spending	4.2095	.89736	390
Brand_Image	4.4868	.84897	390
Design	4.5423	.89995	390

**Correlations**

		BL	BR	BC	P	AS	BI	D
Pearson Correlation	Brand_Loyalty	1.000	.742	.775	.707	.545	.705	.628
	Brand_Reputation	.742	1.000	.790	.674	.636	.806	.708
	Brand_Competence	.775	.790	1.000	.704	.597	.788	.702
	Price	.707	.674	.704	1.000	.561	.704	.673
	Advertising_spending	.545	.636	.597	.561	1.000	.711	.644
	Brand_Image	.705	.806	.788	.704	.711	1.000	.839
	Design	.628	.708	.702	.673	.644	.839	1.000
Sig. (1-tailed)	Brand_Loyalty	.	.000	.000	.000	.000	.000	.000
	Brand_Reputation	.000	.	.000	.000	.000	.000	.000
	Brand_Competence	.000	.000	.	.000	.000	.000	.000
	Price	.000	.000	.000	.	.000	.000	.000
	Advertising_spending	.000	.000	.000	.000	.	.000	.000
	Brand_Image	.000	.000	.000	.000	.000	.	.000
	Design	.000	.000	.000	.000	.000	.000	.
N	Brand_Loyalty	390	390	390	390	390	390	390
	Brand_Reputation	390	390	390	390	390	390	390
	Brand_Competence	390	390	390	390	390	390	390
	Price	390	390	390	390	390	390	390
	Advertising_spending	390	390	390	390	390	390	390
	Brand_Image	390	390	390	390	390	390	390
	Design	390	390	390	390	390	390	390

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Design, Advertising_spending, Price, Brand_Reputation, Brand_Competence, Brand_Image <sup>b</sup>		Enter

a. Dependent Variable: Brand\_Loyalty

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.823 <sup>a</sup>	.677	.672	.59535

a. Predictors: (Constant), Design, Advertising\_spending, Price, Brand\_Reputation, Brand\_Competence, Brand\_Image

b. Dependent Variable: Brand\_Loyalty

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	284.945	6	47.491	133.988	.000 <sup>b</sup>
	Residual	135.751	383	.354		
	Total	420.696	389			

a. Dependent Variable: Brand\_Loyalty

b. Predictors: (Constant), Design, Advertising\_spending, Price, Brand\_Reputation, Brand\_Competence, Brand\_Image

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	-.604	.181		-3.347	.001	-.959	-.249					
Brand_Reputation	.312	.067	.255	4.639	.000	.180	.445	.742	.231	.135	.279	3.585
Brand_Competence	.407	.059	.376	6.957	.000	.292	.522	.775	.335	.202	.288	3.468
1 Price	.328	.057	.258	5.775	.000	.216	.440	.707	.283	.168	.423	2.367
Advertising_spe nding	5.811E -005	.049	.000	-.001	.999	-.096	.096	.545	.000	.000	.475	2.104
Brand_Image	.056	.085	.046	.655	.513	-.112	.224	.705	.033	.019	.174	5.759
Design	-.033	.064	-.029	-.520	.603	-.158	.092	.628	-.027	-.015	.279	3.589

a. Dependent Variable: Brand\_Loyalty



**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	Brand_Loyalty	Predicted Value	Residual
39	-3.372	2.00	4.0076	-2.00760
44	-4.404	1.40	4.0217	-2.62168
301	-3.305	2.70	4.6679	-1.96791

a. Dependent Variable: Brand\_Loyalty

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.3691	5.8579	3.9674	.85587	390
Std. Predicted Value	-3.036	2.209	.000	1.000	390
Standard Error of Predicted Value	.035	.231	.074	.029	390
Adjusted Predicted Value	1.3986	5.8501	3.9685	.85388	390
Residual	-2.62168	1.61060	.00000	.59074	390
Std. Residual	-4.404	2.705	.000	.992	390
Stud. Residual	-4.429	2.740	-.001	1.004	390
Deleted Residual	-2.65159	1.72568	-.00104	.60492	390
Stud. Deleted Residual	-4.541	2.763	-.002	1.009	390
Mahal. Distance	.361	57.745	5.985	6.787	390
Cook's Distance	.000	.128	.003	.011	390
Centered Leverage Value	.001	.148	.015	.017	390

a. Dependent Variable: Brand\_Loyalty