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College of Informatics

Graduate School of Information Management

Master

The Impact of Mobile-Phone Network Service Quality on
Customer Satisfaction in Viet Nam

Student: Tran Huu Viet

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February, 2011

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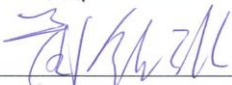
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The Impact of Mobile-Phone Network Service Quality on
Customer Satisfaction in Viet Nam

Student: Tran Huu Viet

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Abstract

This research has proposed a conceptual framework to investigate the effects of customers' perceived service quality and brand awareness on customer satisfaction. To test the conceptual framework by quantitative method, SPSS package (version 17) has been used to analyze the data collected from 288 mobile network's customers operating in Vietnam. The results of the study indicate that service quality and brand awareness are significantly and positively related to customer satisfaction. Also, a positive relation has found between brand awareness and service quality. A clear understanding of the postulated relationships among the studied variables might encourage the mobile service providers to figure out appropriate course of action to win customers' satisfactions by providing better services in order to create a loyal customer base.

Keywords: Service quality, Customer Satisfaction, Brand Awareness, Mobile Telecommunications, Vietnam

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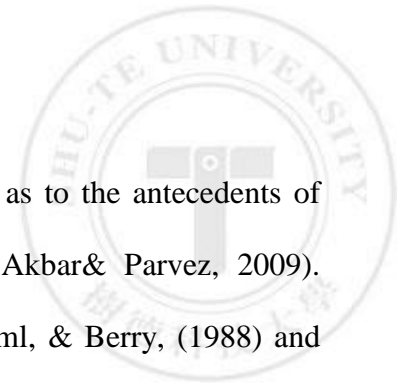
Chapter 1 Introduction

1.1 Background and Motivation

Mobile phones were first introduced in the early 1980s. In the succeeding years, the underlying technology has gone through three phases, known as generations. The first generation (1G) phones used analogue communication techniques: they were bulky and expensive, and were regarded as luxury items. Mobile phones only became widely used from the mid 1990s, with the introduction of second generation (2G) technologies such as the Global System for Mobile Communications (GSM). These use more powerful digital communication techniques, which have allowed their cost to plummet, and have also allowed them to provide a wider range of services than before. Examples include text messaging, email and basic access to the Internet. Third generation (3G) phones still use digital communications, but they send and receive their signals in a very different way from their predecessors. This allows them to support much higher data rates than before, and hence to provide more demanding services such as video calls and high speed Internet access (Christopher, 2008).

However, this study do not want to focus on describing the architecture of a mobile telecommunications or its operation, it just want to know about conditions and critical success factors for successful introduction of mobile network services in Vietnam.

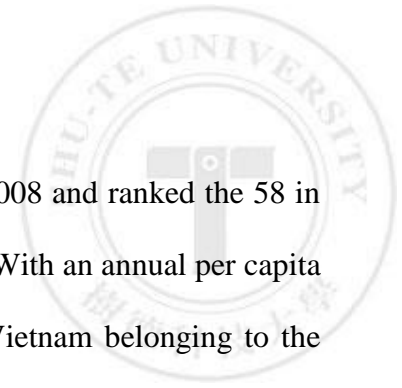
Managing services is becoming one of the biggest challenges in the twenty-first century. Unlike goods, services have some characteristics that make them very special, mainly on the view of the customer. Most services cannot be counted, measured or verified (Foi, 2008).



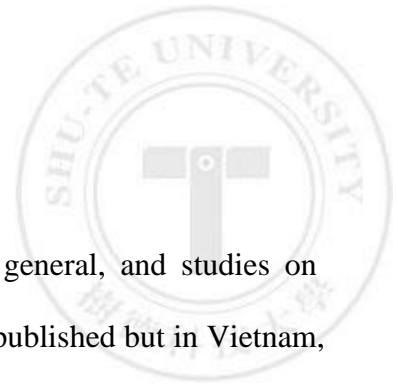
In mobile services, several studies have been conducted as to the antecedents of customer satisfaction (Gerpott, Rams, & Schindler, 2001; Akbar& Parvez, 2009). Cronin & Taylor (1992); Oliver (1993); Parasuraman, Zeithaml, & Berry, (1988) and Gronroos (1984) also contributed their great work in conceptualizing service quality and customer satisfaction. Their contribution plays a very important role not only for marketing research but also for other fields like mobile services.

Brand factor is also focused by many studies, it is recognized that a strong brand is a very valuable asset of a firm (Aaker & Jacobson, 2001) and in order to build a strong brand a comprehensive understanding of brand-related consumer behavior will improve productivity (Keller, 1993). However, brand assets are difficult and expensive to develop, maintain, and adapt (Aaker, 2004).

Vietnam was an important potential market for business for several reasons. Vietnam was known for a new emerging country in Asia. It was a member of the Asia Pacific Economic Cooperation, a regional forum whose work is primarily in the area of economic cooperation (APEC, 2008), and World Trade Organization the only international body dealing with the rules of trade between nations (WTO, 2008). The area of the country was more than 331,000 square kilometers. Vietnam territory was divided into three parts: the north, the middle, and the south. China borders it to the north, Laos and Cambodia to the west, the East Sea to the east and the Pacific Ocean to the east and south. Vietnam was also a transport junction from the Indian Ocean to the Pacific Ocean (VNAT, 2008). Vietnam's population is about 86 million. More than 60 percent of the population was under the age of 30, representing a powerful new consumer force (Vietnam Overview, 2008). Gross domestic product (GDP) was 87.6



billion U.S. dollars with the real growth rate 6.18 percent in 2008 and ranked the 58 in the world. Vietnam was a predominantly agricultural country. With an annual per capita income of just 790 U.S. dollars, the World Bank considers Vietnam belonging to the low-income group of developing countries (per capita gross national income under 950 U.S. dollars) (WB, 2008). However, Vietnam was not recognized as a least developed country by the United Nations (UN, 2008). While differentiation is somewhat difficult in mobile telecommunications service because these are somehow homogeneous, the need of reinforcing the brand in the mind of the customer cannot be overstated. In 2008, the number of existing customers of mobile telecommunications services in the country reached 86.85%. Currently the structure of the market saw seven major telecommunications companies operating in Vietnam; in the order of market share, Viettel Telecom (34.9%), Mobifone (29%), Vinaphone (28.3%), S-fone (6.5%), EVN Telecom (1.3%), Vietnam Mobile and Beeline. (Ministry of Information and Communications counts at December 2008; Viet Nam mobile and Beeline attend mobile service market in 2009 (MIC, 2009). But the aggressive competition has forced the incumbent telecommunications companies or mobile operators to reconfigure their strategy and business to sustain or improve their competitive advantage. In this emerging market customers are not that loyal to one particular private telecommunication company. Hence, the major private telecommunication companies forced to consider how to create a loyal customer base that will not be eroded even in the face of fierce competition (Akbar& Parvez, 2009).



1.2 Statement of Problem

In the world, many studies mobile network service, in general, and studies on quality, service satisfaction and loyalty, in particular, has been published but in Vietnam, this topic has not been widely mentioned and discussed in any official research. The author want to investigate the role of some key factors like brand awareness, perceived service quality and customer satisfaction.

The Vietnamese mobile telecommunications is “over flooded”, therefore the companies need to make sure that they retain their customers through a set of tools, including the “satisfaction” to their brands.

1.3 Purpose of the Study

Based on the background and motivation, the first purpose of this research is to understand the relationship among Service quality, Customers Satisfaction and Brand Awareness in mobile network providers.

Based on the above mentions, the purposes of this research are:

1. To understand the relationship between Service Quality and Customer Satisfaction.
2. To assess the relationship between Brand Awareness and Customer Satisfaction.
3. To test the impact of Brand Awareness in the relationship with Service Quality.

1.4 Significance of the Study

The aim of this study was to understand the influence of brand awareness service quality and customer satisfaction in mobile network providers in Viet Nam. There are few research available in the area of mobile telecommunications or there just only



provides little insights to the Viet Nam environment. This study wants to contribute something to fill this gap or enrich mobile academic literature.

1.5 Structure of the Thesis

This paper is organized as the following:

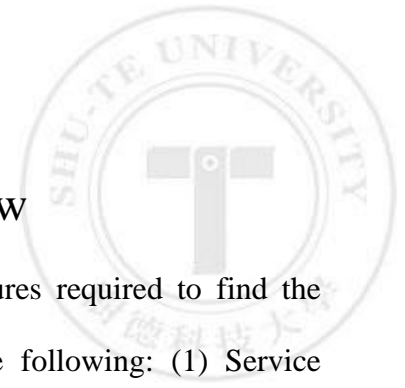
Chapter 1: Introduces the growth of mobile service. Backgrounds and motivations, research problems and research questions are described in this chapter as well.

Chapter 2: Reviews relevant literatures on consumer characteristics and the theoretical models for explaining the adoption of mobile service in Vietnam.

Chapter 3: Present the research model and research methods.

Chapter 4: Gives a description of the data, hypotheses testing.

Chapter 5: Provides the conclusions, limitations and suggestions for further researches.



Chapter 2 Literature Review

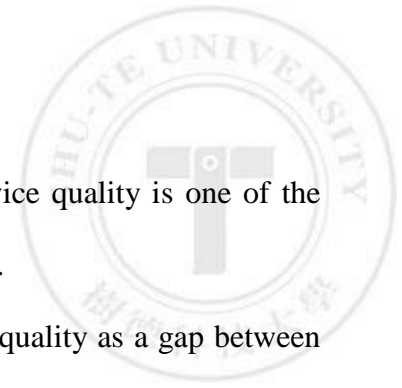
This chapter covers comprehensive and relevant literatures required to find the answer for research problems. These are presented as the following: (1) Service quality; (2) Customer satisfaction; (3) Brand awareness (4) The relationship between service quality and customer satisfaction; (5) The relationship between brand awareness and customer satisfaction; (6) Brand awareness as an independent variable in the relationship with service quality.

2.1 Service Quality

The primary objective of the service provider is identical to that of the tangible goods producer, i.e. to develop and provide offerings that satisfy customer needs, thereby ensuring their own economic survival. To achieve this objective, service providers will need to understand how customers evaluate the quality of their service offerings, how they choose one organization in preference to another and on what basis they give their long-term patronage (Ray, 1998).

The definition of quality may vary from person to person and from situation to situation (Ladda & Hwei, 2007). The definitions of service quality vary only in wording but typically involve determining whether perceived service delivery meets, exceeds or fails to meet customer expectations (Cronin and Taylor, 1992; Oliver, 1993; Zeithaml, Berry and Parasuraman, 1993).

There are a number of different “definitions” as to what is meant by service quality. Traditionally, service quality has been conceptualized as the difference between customer expectations regarding a service to be received and perceptions of the service



being received (Parasuraman, Zeithaml, & Berry, 1988). Service quality is one of the most dominant themes of research in services (Fisk et al.,1993).

Parasuraman et al. (1985, 1988, 1991) defined perceived quality as a gap between consumers' expectations and consumers perceptions regarding the service. Parasuraman et al. (1985) define a set of gaps occurring at different stages of the service design and provision, which altogether result into the ultimately relevant gap between consumers' expectations prior to the service delivery and consumer perceptions during the service delivery. This gap was first defined for 10 dimensions or domains of the service provision (access, competence, responsiveness, reliability, courtesy, communication, credibility, security, understanding and knowing the customers, and tangible), which were later reduced to five (responsiveness, reliability, assurance, empathy and tangible) by Parasuraman et al. (1985).

Ten (10) criteria were identified as the following

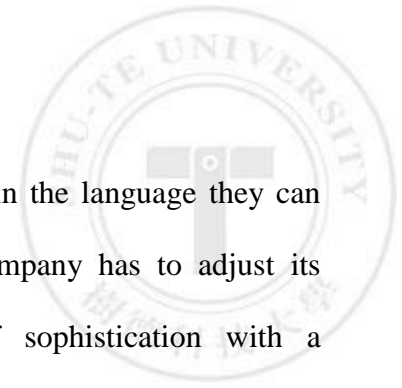
1. Reliability: involves consistency of performance and dependability. It means that the service provider performs the service right on the first time; and it also means that the provider honors its promises.

2. Access: whether the service is accessible and delivered with little waiting.

3. Responsiveness: concerns the willingness or readiness of employees to provide service, it involves timeliness of service.

4. Competence: means possession of the required skills and knowledge to perform the service.

5. Courtesy: involves politeness, respect, consideration and friendliness of contact personnel.



6. Communication: means keeping customers informed in the language they can understand and listen to them. It might mean that the company has to adjust its language for different consumers-increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice.

7. Credibility: involves trustworthiness, believability and honesty. It involves having customers' best interests at heart.

8. Security: is the freedom from danger, risk or doubt.

9. Understanding/knowing the customer: involves making the effort to understand the customer's needs.

10. Tangibles: include the physical evidence of the service (Zeithaml et al., 1990)

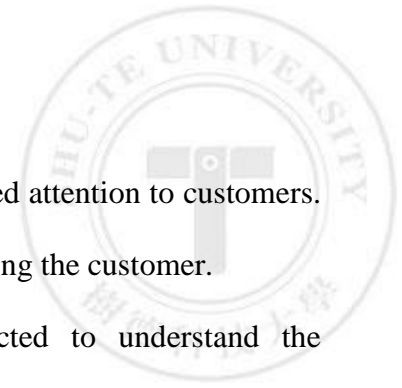
After further research, it is collapsed the 10 components of the service quality into 5 dimensions. Parasuraman, Zeithaml, and Berry (1988, 1990) projected a service quality model that identified perceived service quality into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy:

1. Tangibles involve the appearance of physical facilities, including the equipment, personnel, and communication materials.

2. Reliability involves the ability to perform the promised service dependably and accurately.

3. Responsiveness involves the willingness to help customers.

4. Assurance involves the knowledge and courtesy of employees and their ability to convey trust and confidence. This assurance includes competence, courtesy, credibility and security.

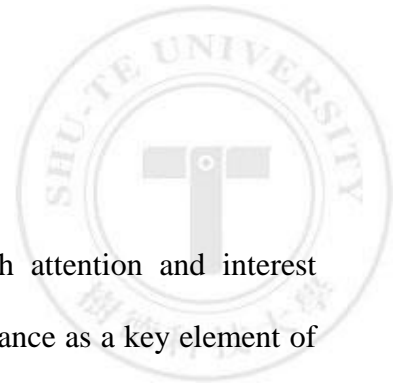


5. Empathy involves the provision of caring, individualized attention to customers. This empathy includes access, communication, and understanding the customer.

Five service quality dimensions above will be selected to understand the customers' perceptions of service quality (Parasuraman, Berry and Zeithaml, 1991, 1994). Service quality will be measured according to how well perceptions of service quality match expectations of service quality. Extensive studies on service quality have proposed the notion that service quality can be measured (Parasuraman et al., 1988, 1991b, 1994) by using the SERVQUAL instrument. Parasuraman and his colleagues (1993, 1994) concluded that the expectation section of the SERVQUAL survey instrument also questioned the perception section to capture the customer's opinions of expectation.

It is a very useful instrument for widely measuring service quality variable because service quality has been debated in different grounds, both in academic field as well as in the practitioners' area. Recently, Lim, Widdows, and Park (2006) identified five distinct dimensions of mobile service quality, and their direct and indirect effects on economic value, emotional value on loyalty intention through satisfaction. These are pricing, network, data, billing and, customer services. Service quality in the telecommunications has mainly been researched on the technical and/or on corporate strategies (Lim et al., 2006).

This study also wants to make use of other's contribution in mobile network services in Vietnam.



2.2 Customer Satisfaction

Customer satisfaction is a term that has received much attention and interest among scholars and practitioners perhaps because of its importance as a key element of business strategy and goal for all business activities especially in today's competitive market (Anderson et al., 1994). This terminology should be understood by going into detail. Many given definitions are as follows:

Satisfaction is pleasure; satisfaction is delighting (Kanji & Moura, 2002). Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product's performance (outcome) in relation to his or her expectation (Kortler & Kevin, 2006).

When satisfaction is more likely to depend on factors that occur over repeated transactions, it is conceptualized as a cumulative outcome or overall satisfaction (Rahim, 2009). Customer satisfaction management is not an end in itself; it is a useful means to achieving several objectives of business organizations (Kotler & Kelvin, 2006)

Businesses monitor customer satisfaction in order to determine how to increase customer base, profits, market shares and survival. They work to make their customers happy and see customer satisfaction as the key to survival and profit (Centre for Study, 2007). Customers really are most important asset for business.

Satisfying our customers is an essential element to staying in business in this modern world of global competition. We must satisfy and even delight our customers with the value of our software products and services to gain their loyalty and repeat business. Customer satisfaction is therefore a primary goal of process improvement programs (Linda, 2002).

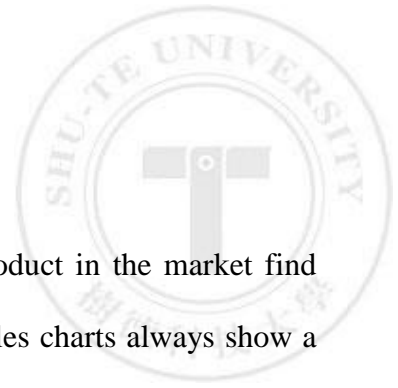


Customer satisfaction is a key factor in the formation of an effective and vibrant organization, with caring, committed and empowered people. This new thrust and innovativeness, is key to competitiveness (Govind, 2009).

Measuring customer satisfaction is a relatively new concept to many companies that have been focused exclusively on income statements and balance sheets. Companies now recognize that the new global economy has changed things forever. Increased competition, crowded markets with little product differentiation and years of continual sales growth followed by two decades of flattened sales curves have indicated to today's sharp competitors that their focus must change. In the new global economy recognize that measuring customer satisfaction is key. Only by doing so can they hold on to the customers they have and understand how to better attract new customers. Customer satisfaction is a critical strategic weapon that can bring increased market share and increased profits (Kevin, 2010).

A lot of factors that drive customer satisfaction need to be examined in order to reliably measure it

Customer satisfaction impacts the behavior of customers in a number of ways. First, Customer satisfaction is found to be a key determinant of customer retention (Zeithaml et al., 1996). Also, increasing customer satisfaction and customer retention leads to improved profits, positive word of mouth and lower marketing expenditures (Reichheld, 1996). In many studies, customer satisfactions is positively correlated with customer re-purchase, likelihood to recommend, positive word of mouth, customer loyal and retention. But, Customer satisfaction is negatively correlated to a large extent, with customer complaints and switching intention (Wang, Hing-Po & Yang, 2004).



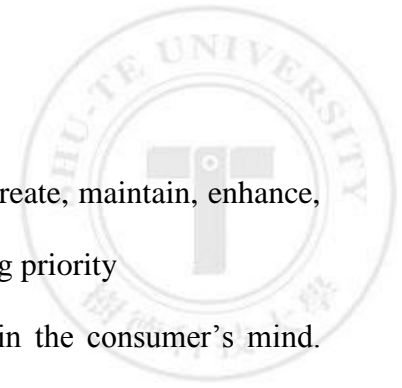
2.3 Brand Awareness

Many companies, especially while introducing a new product in the market find that sales cannot be sustained without constant advertising. Sales charts always show a meteoric rise post-advertising burst. Companies often rerun advertisement on different channels over the year to sustain the **brand awareness** and ensure that the consumers are exposed to the brand. So, what is brand awareness?

Firstly, we need to know about brand, awareness and then this will provide some definitions about brand awareness.

The word brand began simply as a way to tell one person's cattle from another by means of a hot iron stamp. The word evolved to become synonymous with a trademark, where a brand could be thought of is a name, sign, symbol, slogan or anything that is used to identify and distinguish a specific product, service, or business. A legally protected brand name is called a Trademark. The word brand has continued to evolve to encompass identity - in effect the personality of a product, company or service (Wikipedia, 2010). To some, branding might not feel like a tangible aspect of running a business. It can't be seen like a product on the shelf, or counted like a cash drawer at the end of the night. But, branding is the reason people pay three times more for a product at one store over another.

Good branding is the product of a clear vision, and nobody knows more about vision than small business owners. But, with limited resources, creating a brand identity can be tricky. Fortunately, building brand awareness on the Internet doesn't need to take a lot of money or resources (Smallbusiness.yahoo.com, 2010). The study also found many articles which supported for brand awareness. Keller (2003) said the most



distinctive skill of professional marketers was their ability to create, maintain, enhance, and protect brands. Therefore, branding has become a marketing priority

Awareness refers to the strength of a brand's presence in the consumer's mind. Awareness is measured according to the different ways in which consumers remember a brand, ranging from recognition to recall to top of the mind (Drypen.in.com, 2010)

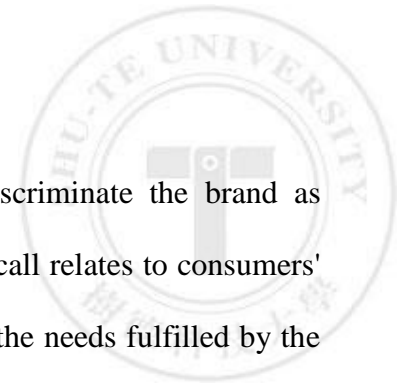
Businessdictionary.com defines brand awareness is the extent to which a brand is recognized by potential customers, and is correctly associated with a particular product. Expressed usually as a percentage of target market, brand awareness is the primary goal of advertising in the early months or years of a product's introduction.

As for Shari Water (2010), brand awareness is a gauge of marketing effectiveness measured by the ability of a customer to recognize and/or recall a name, image or other mark associated with a particular brand.

Brand awareness, in general, means the extent to which a brand associated with a particular product is documented by potential and existing customers either positively or negatively. Creation of brand awareness is the primary goal of advertising at the beginning of any product's life cycle in target markets. In fact, brand awareness has influence on buying behavior of a buyer (Wikipedia, 2010).

Brand awareness is very important, so how to measure it?

Brand awareness consists of brand recognition and brand recall performance (Keller, 1993). Brand recognition refers to the consumer ability to confirm prior exposure to the brand using a given brand as a cue, and brand recall represents the consumer ability to retrieve the brand in a given product category (Keller, 1993).



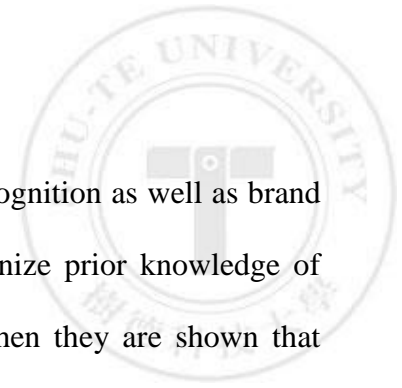
Brand recognition requires that consumers correctly discriminate the brand as having been seen or heard previously (Keller, 1993). Brand recall relates to consumers' ability to retrieve the brand when given the product category, the needs fulfilled by the category, or some other type of probe as a cue (Keller, 1993).

Brand awareness can be measured by showing a consumer the brand and asking whether or not they knew of it beforehand. However, in common market research practice a variety of recognition and recall measures of brand awareness are employed all of which test the brand name's association to a product category cue, this came about because most market research in the 20th Century was conducted by post or telephone, actually showing the brand to consumers usually required more expensive face-to-face interviews (until web-based interviews became possible). This has led many textbooks to conceptualize brand awareness simply as its measures, that is, knowledge that the brand is a member of a particular product category, e.g. soft-drinks. Examples of such measures include:

- Brand recognition - Either the brand name or both the brand name and category name are presented to respondents.
- Brand recall - the product category name is given to respondents who are asked to recall as many brands as possible that are members of the category (Wikipedia, 2010)

Another discussion from Management Study Guide (2010):

Brand awareness is the probability that consumers are familiar about the life and availability of the product. It is the degree to which consumers precisely associate the brand with the specific product. It is measured as ratio of niche market that has former

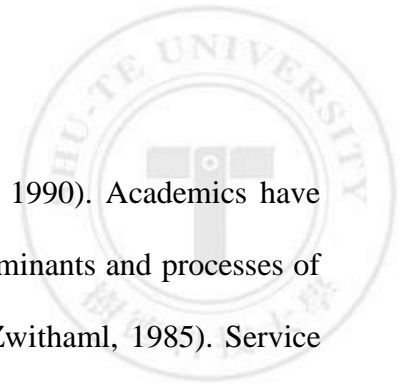


knowledge of brand. Brand awareness includes both brand recognition as well as brand recall. Brand recognition is the ability of consumer to recognize prior knowledge of brand when they are asked questions about that brand or when they are shown that specific brand, i.e., the consumers can clearly differentiate the brand as having being earlier noticed or heard. While brand recall is the potential of customer to recover a brand from his memory when given the product class/category, needs satisfied by that category or buying scenario as a signal. In other words, it refers that consumers should correctly recover brand from the memory when given a clue or he can recall the specific brand when the product category is mentioned. It is generally easier to recognize a brand rather than recall it from the memory.

2.4 The relationship between Service Quality and Customer Satisfaction

Perception of service quality is quite a controversial topic. Quality of service has been studied within the discipline of business management for years; because the market is increasingly competitive and marketing management has transferred its focus from internal performance (such as production) to external interests like customer satisfaction and customers' perceptions of service quality (Gronroos, 1992, Chang et al., 2010). In the summarization of the existing literature about service quality, this article explored the concepts of service, service quality, consumer perception of service quality, and the relationship happens between them.

Service quality and customer satisfaction are important concepts to academic researchers studying consumer evaluations and to practitioners as a means of creating competitive advantage and customer loyalty (Dawn et al., 2002). Many industries are paying greater attention to service quality and customer satisfaction, for reasons such as



increased competition and deregulation (Reichheld & Sasser, 1990). Academics have also been studying quality and satisfaction to understand determinants and processes of customer evaluations (Oliver, 1993; Parasuraman, Berry, & Zeithaml, 1985). Service quality can be assessed by measuring customer's expectations and perceptions of performance level for a range of service attributes (Parasuraman et al., 1993; 1994a; 1994b; Zeithaml et al., 1993).

Customer satisfaction research literature traditionally agrees that service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis. (Lewis & Bernard, 1983)

It isn't fun to have a bad experience with customer service. Sometimes, expectations are not met when you are on the other side of the phone. Studies show strong customer service pays great dividends to an organization's long-term stability and growth (Chris, 2009).

If the customer's expectations are met or exceeded, then the company is perceived to be offering higher service quality. But if on the other hand, the expectations of the customers are not met, the company is on its way not only to face displeased and hostile customers, which in turn leads to defection to competitors.

According to Tam (2004), the nature of the relationship between service quality and customer satisfaction is an intriguing one. Sureshchandar et al, (2003) identified that strong relationships exist between service quality and customer satisfaction.

In a recent study conducted by Ribbink et.al (2004) revealed that this relationship also exists in the e-commerce industry. The following are studies that also support the



direct link between service quality and customer satisfaction (Taylor & Cronin, 1994). Recently, Gallarza and Saura (2006), and Terblanche (2006) confirmed a clear pattern in which satisfaction is the behavioral consequence of quality.

Consistent with these findings, the researchers have hypothesized the following:

H1: Perceived service quality has a positive and significant effect on customer satisfaction.

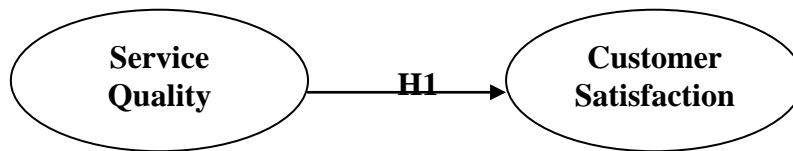
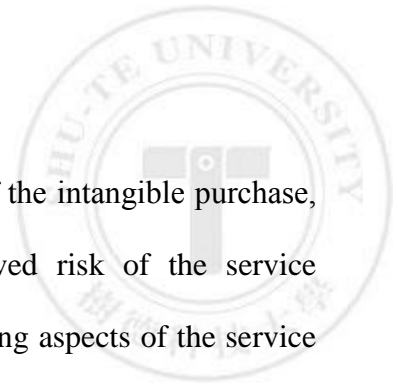


Figure 1. Hypothesis 1

2.5 The relationship between Brand Awareness and Service Quality

Brand awareness means the people are familiar with the product and they are likely to buy it because they organize it. All brands have value just like physical assets. Many companies recognize their brands as more valuable than their physical assets. A powerful brand can create ultimate success and show bizarre things to the business world (Calicut Motors, 2008). If one company wants to get that goal, it needed to concentrate on its products' quality at the very first day it appears in the market. It is no doubt that there exists a relation between service quality and brand awareness.

In the context of a fitness club, an empirical verification of the links among brand and service quality was done and it provides support for the value of measuring brand in relation with service quality (Alexandris et al., 2008)



Strong brands contribute to enhancing customers' trust of the intangible purchase, tangibilizing the intangible goods, and reducing the perceived risk of the service purchase by assisting customers in visualizing and understanding aspects of the service product (Berry, 2000). Based on above this research proposes the following hypothesis:

H2: Brand awareness has a positive and significant effect on service quality.

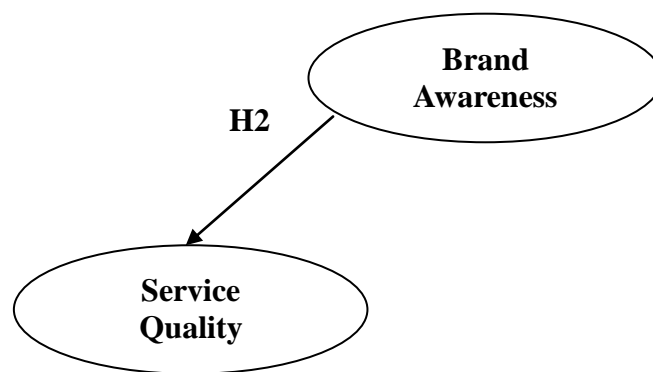
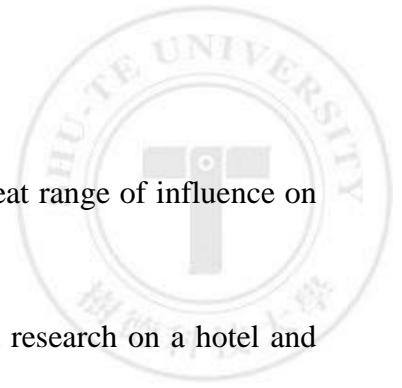


Figure 2. Hypothesis 2

2.6 The relationship between Brand Awareness and Customer Satisfaction

The era is not like a past. Customers are the leaders of the business, not the company. The customer will decide to make a product success or not. So that, every companies are running behind these customers' offerings them large priorities and convincing them.

Brand awareness has key role in determining the behavior of a buyer and it has the final decision. Until a buyer has clear cut of view about the product he never dare to purchase, where as awareness about a particular brand make him to take quick decision and go forward every brand had to try best to put awareness about it. Findings from



Calicut Motors (2008) conclude that brand awareness has a great range of influence on customer's satisfaction for making buying behavior

Also, in other industries, Kim and Kim (2004) conducted research on a hotel and on fast food restaurants, respectively. Their findings show that brand awareness is positively related to hotel financial performance and brand equity of the restaurants, which indirectly implies that a service provider with high brand awareness is likely to satisfy customers who in turn patronize it. When customers are satisfied with the services rendered, their attitude toward the company is improved. This attitude will then affect the consumers' satisfaction with the company (Andreassen & Lindestad, 1998).

Based on above argument, this research proposes the following hypothesis:

H3: Brand awareness has a positive and significant effect on customer satisfaction.

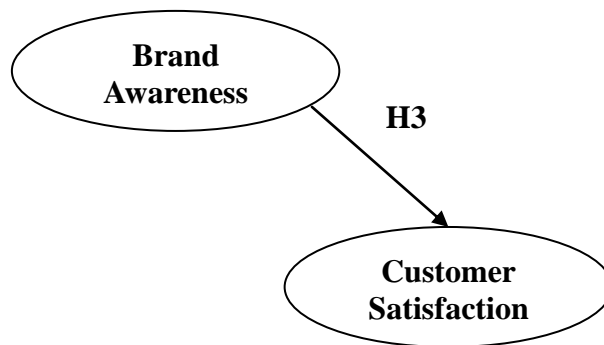


Figure 3. Hypothesis3



Chapter 3 Research Methodology

In order to get the goal of this research, the respondents were asked to fill out the questionnaire about the service provided by their mobile network companies in Vietnam

This chapter includes the following sections: (1) Summary, Research Framework, Hypotheses and Supporting Evidence; (2) Research methodology; (3) Written Questionnaire (4) Sampling Selection and Data Collection.

3.1 Summary, Research Framework, Hypotheses

Quality of services is difficult to measure, unlike goods - that you can see, touch and evaluate physically; but creating measurement for service quality, we need to examine its characteristics. World economies are shifting from goods based economies to services based economies, even the so called “developing countries” are also embarking on service-based industry. Measuring service related issues is not an easy task. Service quality is an very important factor that lead companies to retrieve satisfaction from their customers. Results from many articles also show that the brand name is an important factor for the customers as in one or another way it will lead to customer satisfaction. Based on the supported literature reviews, this study focuses on the issue of consumer perception of the service quality, consumer satisfaction and brand awareness and creates the research frame work as the following:

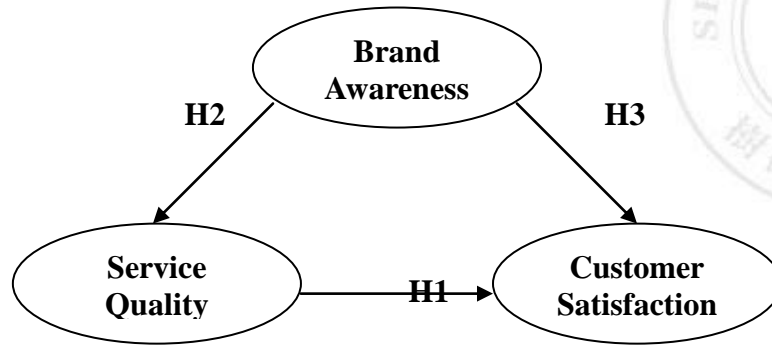


Figure 4. Conceptual research framework and hypotheses

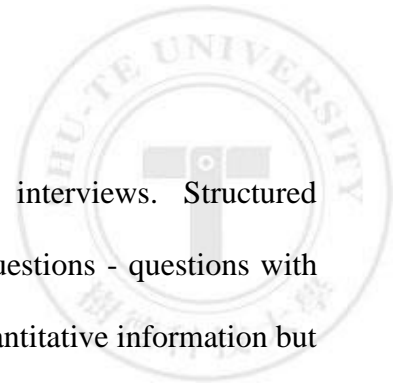
The Table 1 highlights the hypotheses

Table 1. Hypotheses

Item	The Content of Hypotheses
H1	Perceived service quality has a positive and significant effect on customer satisfaction
H2	Brand awareness has a positive and significant effect on service quality
H3	Brand awareness has a positive and significant effect on customer satisfaction

3.2 Research Methodology

Quantitative research refers to the systematic empirical investigation of quantitative properties and phenomena and their relationships. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships (Balnaves & Caputi, 2009). Quantitative research is used to measure how many people feel, think or act in a particular way. These surveys tend to include



large samples - anything from 50 to any number of interviews. Structured questionnaires are usually used incorporating mainly closed questions - questions with set responses. There are various vehicles used for collecting quantitative information but the most common are on-street or telephone interviews. Quantitative research approach employs strategies of inquiry such as experiments and surveys and collects data on predetermined instruments that yield statistical data (Creswell, 2003).

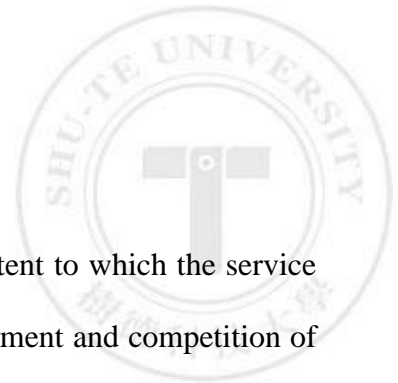
This study used a quantitative approach. In the search for knowledge a quantitative approach uses measurements to describe and explain the phenomena of our reality.

3.3 Written Questionnaire

After an extensive literature review, the instrument included questions to measure all of the constructs in the theoretical model. Items were measured on 5-point Likert-type scales, with anchors of 1 = strongly disagree and 5 = strongly agree. The instrument is comprised of variables such as service quality, brand awareness and customer satisfaction. The service quality variable contains twenty-one items as per SEV performance side; customer satisfaction (CS) includes four items, while brand awareness (BA) contains six items, and, as can be found on Table 2.

Table 2. Variables of the study

Variable	Item
<i>Name</i>	<i>Numbers</i>
Service Quality	Twenty-one (1-21)
Customer Satisfaction	Four (22-25)
Brand Awareness	Six (26-31)



3.3.1 Measurement of service quality

"Quality" in a service organization is a measure of the extent to which the service delivered meets the customer's expectations. The rapid development and competition of service industries has made it important for companies to measure and evaluate the quality of service encounters (Brown and Bitner, 2007).

Measures of service quality may either be hard or soft. Hard measures are those which are quantifiable or objective; for example, computer downtime or the proportion of telephone calls answered. Soft measures are those which are qualitative, judgmental, and subjective and based on perceptual data, for example, customer's satisfaction with speed of service or manager's assessment of staff attitude towards customers. Soft measures of service quality are particularly relevant to the measurement of the quality of intangible aspects of service (Voss, 1985).

As for Parasuraman, Zeithaml and Berry (1991), SERVQUAL is a questionnaire designed to measure the gap between the expectations and perceptions of a customer from a particular service. This questionnaire has five categories: Tangibles, Reliability, Responsiveness, Assurance and Empathy.

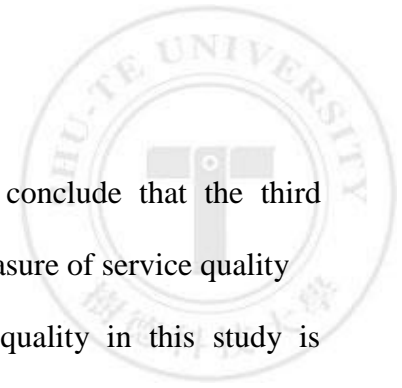
Also, Cronin and Taylor (1992) perform an empirical test with four alternative service quality models.

Service quality = performance - expectations

Service quality = importance \times (performance - expectations)

Service quality = performance

Service quality = importance \times performance

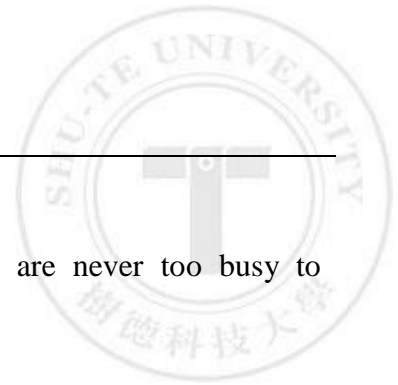


From the results of their empirical investigation they conclude that the third measure (performance only) performs better than any other measure of service quality

Based on the literatures, the measurement of service quality in this study is composed of 21 items, from 1 to 21 (Appendix A) and only about the performance side.

Table 3. The sub-instrument of service quality

Items of Service Quality
1- My mobile telecommunications company has modern-looking equipment.
2- My mobile telecommunications company physical facilities are visually appealing.
3- My mobile telecommunications company employees are neat-appearing.
4- Materials associated with the service (such as pamphlets or statements) are visually appealing at my mobile telecommunications company
5- When my mobile telecommunications company promises to do something by a certain time, it does so.
6- When I have a problem; my mobile telecommunications company shows a sincere interest in solving it.
7- My mobile telecommunications company performs the service right the first time.
8- My mobile telecommunications company provides its services at the time it promises.
9- My mobile telecommunications company insists on error-free records.
10- Employees of my mobile telecommunications company tell me exactly when the service will be performed.
11- Employees of my mobile telecommunications company give me prompt service.
12- Employees of my mobile telecommunications company are always willing to help



me.

13- Employees of my mobile telecommunications company are never too busy to respond to my requests.

14- The behavior of employees of my mobile telecommunications company instills confidence in customers.

15- I feel safe in my transactions with my mobile telecommunications company

16- Employees of my mobile telecommunications company are consistently courteous with me.

17- Employees of my mobile telecommunications company have the knowledge to answer my questions.

18- My mobile telecommunications company gives me individual attention.

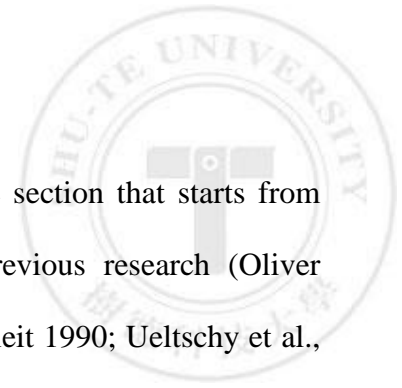
19- My mobile telecommunications company has operating hours convenient to all its customers.

20- My mobile telecommunications company has employees who give me personal attention.

21- Employees of my mobile telecommunications company understand my specific needs

3.3.2 Measurement of customer satisfaction

We all know customer satisfaction is essential to the survival of our businesses. How do we find out whether our customers are satisfied? The best way to find out whether your customers are satisfied is to ask them.



Measurement of customer satisfaction is included in the section that starts from item 23 to 26. The measure was mainly adapted from previous research (Oliver 1981,1993, 1997; Brady & Robertson 2001; Eroglu & Machleit 1990; Ueltschy et al., 2004).

These items can be found on Table 4.

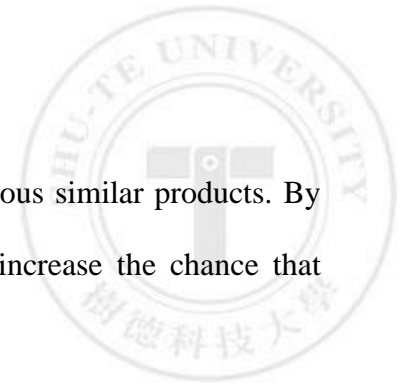
Table 4. The sub-instrument of customer satisfaction

Items of Satisfaction
1- I am satisfied with the level of service I receive from my mobile telecommunications company
2- I am contented with the services of my mobile telecommunications company
3- I like the services of my mobile telecommunications company
4- I feel very delighted with the services of my mobile telecommunications company

3.3.3 Measurement of Brand Awareness

In memory theory, brand awareness is positioned as a vital first step in building the “bundle” of associations which are attached to the brand in memory (Stokes, 1985). Without brand awareness occurring, no other communication effects can occur. For a consumer to buy a brand they must first be made aware of it. Brand attitude cannot be formed, and intention to buy cannot occur unless brand awareness has occurred (Rossiter & Percy 1987; Rossiter et al. 1991).

Brand awareness is a measure of how many people in a target market know that a brand exists. Companies work hard to promote and maintain brand awareness,



especially when they make products that compete with numerous similar products. By having a memorable brand that stands out, a company can increase the chance that consumers will.

Brand awareness has two components and the measurement of brand awareness should be developed based on these two.

The first is brand recall, which refers to whether or not people can name a brand or are vaguely familiar with it. Brand recall can be measured in two different ways. People can be asked to name a list of brands associated with a particular product or idea or they can be prompted with specific brands and asked if they are familiar.

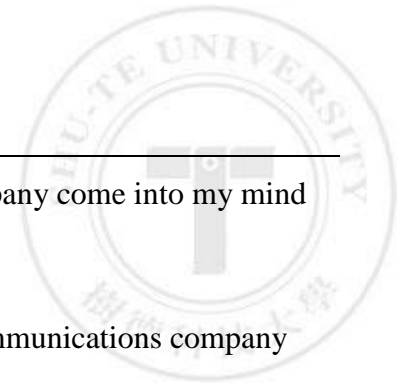
Brand recognition is the other facet of brand awareness. Recognition refers to how well people connect a brand with products, ideas, taglines, and other attributes.

When companies study brand awareness, they look at both positive and negative perceptions of the brand. In this case, bad publicity is still publicity, and even when people have negative opinions about a brand, they are still aware of it. Understanding negative perceptions can also allow a company to address those perceptions with targeted marketing campaigns and other steps. Such campaigns may change consumer opinions and promote positive brand recognition (Wisegeek.com, 2010).

Brand awareness measurements were also taken from previous studies (Keller, 1993; Yoo, Donthu & Lee, 2000). There are 6 items in the table 5 about two components of brand awareness: brand recall and brand recognition.

Table 5. The sub-instrument of brand awareness

Items of Brand Awareness



1-Some characteristics of my mobile telecommunications company come into my mind quickly

2- When I see the logo, I immediately recall my mobile telecommunications company

3- The only difference between the mobile telecommunications companies price.

4-My mobile telecommunications company has a name that is easy to recognize

5-When I am exposed to cues of service provider, it is easy to recognize it

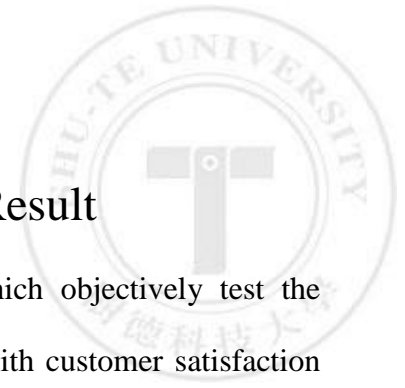
6- I am aware of my mobile telecommunications company

3.3.4 Respondents' background information

In the third section of questionnaire, the respondents were asked to provide information about their demographics. This background information includes questions on their gender, age, place of living, their mobile telecommunications company and history of their mobile phone used. Demographic information was to understanding of respondents' characteristics and was not used for hypothesis testing in this study.

3.4 Sampling Selection and Data Collection

The subjects of this study are customers of mobile companies in Vietnam. Testing the above hypotheses, totally 350 hard-copies of the questionnaire was delivering randomly.



Chapter 4 Data Analysis and Result

The purpose of this chapter is to present findings which objectively test the proposed linkage between brand awareness, service quality with customer satisfaction and relationship between service quality and customer satisfaction.

This section reports: (a) descriptive statistics about respondents' characteristics and the testing variables (b) analytical techniques are presented; followed by (c) hypotheses testing; and (d) summary.

4.1 Data Collection

The survey instrument was administered to the target sample via an online survey system. All group members' email addresses were available from the target website, so an online survey would be much faster and more economical than the traditional mail survey. The questionnaire was distributed to students, teachers, civil servants, business people, housewives in Hanoi, Ho Chi Minh City and some provinces of northern Vietnam.

This study collected 158 replies from 350 the hard copies (45%) and 130 feedback online. According to Anderson and Gerbing (1988), a sample size of 150 or more is sufficient to gain parameter estimates with small standard errors and provide a converged and proper solution for models. To ensure standard errors small enough to be of practical use, the study targeted a sample size of at least 250 usable questionnaires, this target was in fact exceeded.

Since members' email addresses were available from the target group, an online survey (used by Google Documents) would be much faster and more economical than the traditional mail survey. Upon approval by the major advisor, the survey instrument

was administered to the target sample via the online survey system. An invitation email that includes a URL unique to people on recipient list was sent to them.

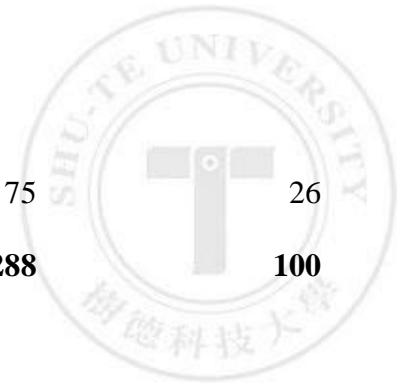
4.2 Descriptive Statistics about Characteristics of Respondents

The sample comprised of 288 customers of mobile telecommunications companies operating in Viet Nam. Of the 288 respondents 120 were females, accounting for 41.7% of the total, while 168 were males, accounting for 58.3% of the total.

The Table 6 below shows the characteristics of respondents of this study.

Table 6. Respondents' demographics

Variables	Frequency	Percentage (%)
<i>Gender</i>		
Male	168	58.3
Female	120	41.7
Total	288	100
<i>Age</i>		
Under 22	39	13.6
22 -->35	165	57.3
36 -->50	75	26.0
More than 50	9	3.1
Total	288	100
<i>Place of living</i>		
Ha Noi	165	57.3
Ho Chi Minh city	48	16.7



Other	75	26
Total	288	100

Mobile Telecommunications Company (*)

Mobifone	99	27.50
Vinaphone	141	39.17
Viettel Mobile	111	30.84
Sfone	3	0.83
Viet Nam Mobile	3	0.83
Other	3	0.83
Total	360	100

History of mobile phone used

Under 1 year	3	1.04
From 1-3 year	42	14.58
Over 3-5 year	30	10.42
More than 5 year	213	73.96
Total	288	100

(*): (Total=360 because someone used more than 1 mobile phone)

4.3 Descriptive Statistics of Testing Variables

After analyzing data using descriptive statistics relating to testing variable data, general analysis were conducted including frequency, percent, mean and standard deviation.

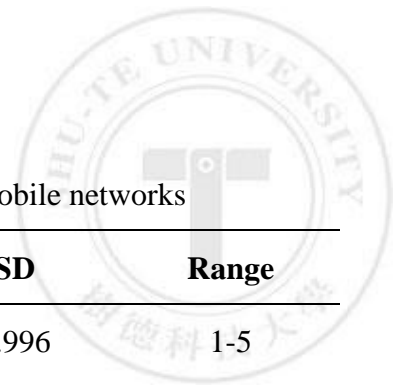
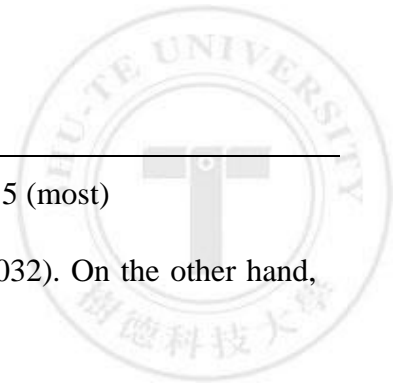


Table 7. Descriptive statistics for service quality in mobile networks

Descriptive Items	N	Mean	SD	Range
SEV1	288	3.16	0.996	1-5
SEV2	288	3.21	1.071	1-5
SEV3	288	3.19	0.901	1-5
SEV4	288	3.19	1.087	1-5
SEV5	288	3.17	1.079	1-5
SEV6	288	3.19	0.896	1-5
SEV7	288	3.42	1.036	1-5
SEV8	288	3.16	1.017	1-5
SEV9	288	3.48	1.032	1-5
SEV10	288	3.38	0.859	1-5
SEV11	288	3.48	1.032	1-5
SEV12	288	3.21	1.011	1-5
SEV13	288	3.27	1.017	1-5
SEV14	288	3.47	0.951	1-5
SEV15	288	3.51	1.046	1-5
SEV16	288	3.46	0.980	1-5
SEV17	288	3.42	1.036	1-5
SEV18	288	3.51	1.046	1-5
SEV19	288	3.42	0.960	1-5
SEV20	288	3.35	0.990	1-5
SEV21	288	2.74	0.994	1-5



Note: Scales of Service Quality (SEV) range from 1 (least) to 5 (most)

In Table 7, the highest mean of SEV11 was 3.48 (SD=1.032). On the other hand, the lowest mean of SEV21 as 2.74 (SD=0.994)

Table 8. Descriptive statistics for customer satisfaction in mobile networks

Descriptive Items	N	Mean	SD	Range
CS1	288	2.94	0.965	1-5
CS2	288	2.94	0.968	1-5
CS3	288	2.95	0.969	1-5
CS4	288	2.95	0.960	1-5

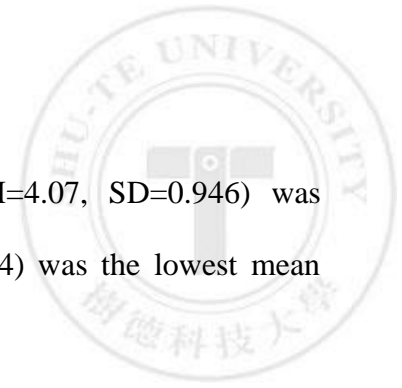
Note: Scales of Customer Satisfaction (CS) range from 1 (least) to 5 (most)

According to Table 8, the highest mean among the items of Customer Satisfaction (CS) were CS3 and CS4 (M=2.95). The lowest mean were CS1 and CS2 (M=2.94)

Table 9. Descriptive statistics for brand awareness in mobile networks

Descriptive Items	N	Mean	SD	Range
BA1	288	4.07	0.946	1-5
BA2	288	3.96	1.080	1-5
BA3	288	3.23	1.037	1-5
BA4	288	3.22	1.044	1-5
BA5	288	3.50	0.991	1-5
BA6	288	3.30	0.872	1-5

Note: Scales of Brand Awareness (BA) range from 1 (least) to 5 (most)



To measure the Brand Awareness variable, BA1 (M=4.07, SD=0.946) was reported the highest mean, whereas BA4 (M=3.22, SD=1.044) was the lowest mean were in Table 9.

4.4 Analyzing the Research Hypotheses

4.4.1 Reliability - Cronbach's Alpha

Cronbach's Alpha is widely used as a measure of reliability. Thus, in this research, we reported all the Cronbach's alpha of all scales in Table 10. All the reliabilities have reached the acceptable percentage 0.7.

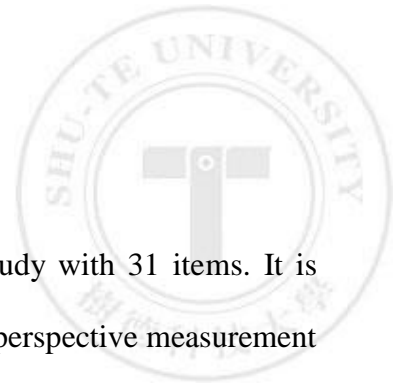
Table 10. Scale reliabilities

Scale	Number of Items	Reliabilities
Service Quality	21	0.941
Customer Satisfaction	4	0.993
Brand Awareness	6	0.823

a. Service Quality: was measured with 21 items regarding the quality of mobile network service provided by Vietnamese mobile network providers. The Cronbach's alpha (α) for this scale was 0.941

b. Customer Satisfaction: was measured with 4 items concerning the respondent's satisfaction about their mobile phone service. The Cronbach's alpha (α) for this scale was 0.993

c. Brand Awareness: was measured with 6 items, these items measure how much customer aware of their providers. The Cronbach's alpha (α) for this scale was 0.823.



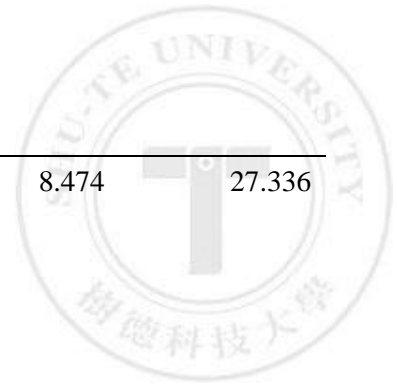
4.4.2 Factor Analysis

There are totally 3 constructs being developed in this study with 31 items. It is necessary to test the relationships between constructs and their perspective measurement items. Thus, we first used Factor Analysis and then reported the results of the Extraction of Component Factors in the Table 11. All the Eigen values are greater than 1; the total variances are explained nearly 60% and considered to be accepted.

Factor analysis with VARIMAX rotation was employed because VARIMAX method maximizes the sum of variances of required loadings of the factor matrix. Some variables have low loading so they should be eliminated. From this Table 10, we can see that the rest loadings are far from 0.5 these indicate that clear positive or negative associations between the items and the factor respectively.

Table 11. Factor analysis and loading validity

Rotated Component Matrix				
Components	Name of Items	Loading	Eigen value	Variance Explained



Service Quality		8.474	27.336
	SEV1	.567	
	SEV2	.513	
	SEV3	.517	
	SEV4	.730	
	SEV5	.715	
	SEV6	.517	
	SEV7	.706	
	SEV8	.610	
	SEV9	.675	
	SEV10	.632	
	SEV11	.675	
	SEV12	.632	
	SEV13	.715	
	SEV14	.628	
	SEV15	.770	
	SEV16	.632	
	SEV17	.706	
	SEV18	.770	
	SEV19	.562	
	SEV20	.605	
	SEV21	.513	
Customer Satisfaction		5.602	45.406
	CS1	.911	
	CS2	.917	
	CS3	.915	
	CS4	.909	
Brand Awareness		4.002	58.314
	BA1	.817	
	BA2	.662	
	BA3	.546	
	BA4	.502	
	BA5	.770	
	BA6	.557	

Extraction Method: Principle Component Analysis



Rotation Method: Varimax with Kaiser Normalization

4.4.3 Simple Regression for Hypotheses Testing

Simple regression analysis is the study of how a dependent variable is related to independent variables.

Simple regression is used to examine the relationship between independent or predictor variable and the dependent or criterion variable. To test the hypothesis, this study adopted a significance level of 5%; it means that when the p-value is less than 0.05, then the independent variables have a significance effect on the dependent variables. Otherwise, they don't have significant relationships.

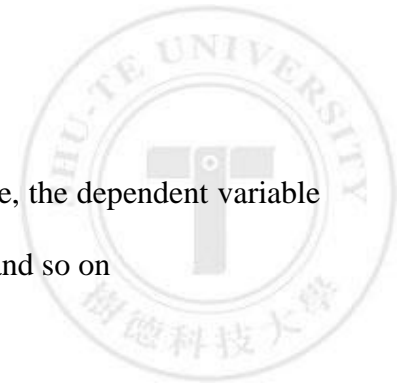
(1) Explaining Customer Satisfaction (H1)

In the first regression, CUSTOMER SATISFACTION is considered dependent variable and SERVICE QUALITY is the independent variable. The following simple regression will be used to test hypothesis H1. For this, we build the following simple regression:

$$\text{CUSTOMER SATISFACTION} = \beta_0 + \beta_1 * \text{SERVICE QUALITY} \quad (1)$$

The result, presented in Table 12 and 13, shows support the hypothesis H1. SERVICE QUALITY is a significant predictor of CUSTOMER SATISFACTION. Further, the significant change in Adjust R-Square ($R^2 = 0.291$) indicates that 29.1 % of the variance in CUSTOMER SATISFACTION was explained by the SERVICE QUALITY. The linear regression is estimated as the following:

$$\text{CUSTOMER SATISFACTION} = 0.551 + 0.719 * \text{SERVICE QUALITY}$$



If the variable SERVICE QUALITY there is 1 unit change, the dependent variable CUSTOMER SATISFACTION will have 0.719 units change, and so on

Table 12. Model summary for Linear Regression (3)

Model	R Square	Adjust R Square	F-test	
			F	Sig.
1	.293	.291	118.564	.000

Predictor: (Constant), SEVnew

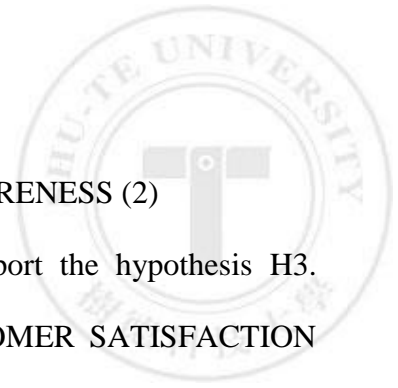
Table 13. Coefficient of Linear Regression Model (3)

Model		Unstandardized		Standardized	t	Sig.
		Coefficient		Coefficients		
		β	Std. Error	Beta		
1	Constant	.551	.225		2.448	.015
	SEVnew	.719	.066	.541	10.889	.000

Dependent Variable: CSnew

(2) Explaining Customer Satisfaction (H3)

In the second regression, CUSTOMER SATISFACTION is also considered dependent variable and BRAND AWARENESS is the independent variable. The following simple regression will be used to test hypothesis H3. For this, we build the following simple regression:



$$\text{CUSTOMER SATISFACTION} = \beta_0 + \beta_1 * \text{BRAND AWARENESS} \quad (2)$$

The result, presented in Table 14 and 15, shows support the hypothesis H3. BRAND AWARENESS is a significant predictor of CUSTOMER SATISFACTION. Further, the significant change in Adjust R-Square ($R^2 = 0.114$) indicates that 11.4 % of the variance in CUSTOMER SATISFACTION was explained by the BRAND AWARENESS. The linear regression is estimated as the following:

$$\text{CUSTOMER SATISFACTION} = 1.365 + 0.440 * \text{BRAND AWARENESS}$$

If the variable BRAND AWARENESS there is 1 unit change, the dependent variable CUSTOMER SATISFACTION will have 0.440 units change, and so on

Table 14. Model summary for Linear Regression (3)

Model	R Square	Adjust R Square	F-test	
			F	Sig.
1	.117	.114	37.696	.000

Predictor: (Constant), SEVnew

Table 15. Coefficient of Linear Regression Model (3)

Model		Unstandardized		Standardized	t	Sig.
		Coefficient	Std. Error	Coefficients		
		β	Std. Error	Beta		
1	Constant	1.365	.264		5.169	.000
	BAnew	.440	.072	.342	6.140	.000



Dependent Variable: CSnew

(3) Explaining Service Quality (H2)

In the last regression, SERVICE QUALITY is considered dependent variable and BRAND AWARENESS is the independent variable. The following simple regression will be used to test hypothesis H2. For this, we build the following simple regression:

$$\text{SERVICE QUALITY} = \beta_0 + \beta_1 * \text{BRAND AWARENESS} \quad (3)$$

The result, presented in Table 16 and 17, shows support the hypothesis H2. BRAND AWARENESS is a significant predictor of SERVICE QUALITY Further, the significant change in Adjust R-Square ($R^2 = 0.249$) indicates that 24,9% of the variance in SERVICE QUALITY was explained by the BRAND AWARENESS. The linear regression is estimated as the following:

$$\text{SERVICE QUALITY} = 1.568 + 0.489 * \text{BRAND AWARENESS}$$

If the variable BRAND AWARENESS there is 1 unit change, the dependent variable SERVICE QUALITY will have 0.489 units change, and so on

Table 16. Model summary for Linear Regression (3)

Model	R Square	Adjust R Square	F-test	
			F	Sig.
1	.252	.249	95.913	.000

Predictor: (Constant), BAnew

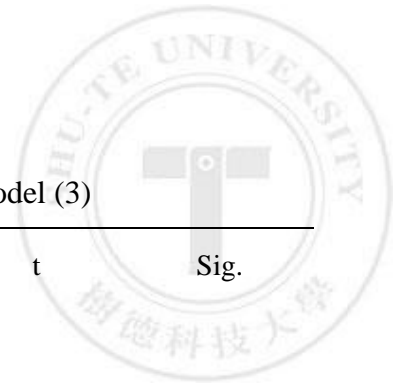


Table 17. Coefficient of Linear Regression Model (3)

Model		Unstandardized		Standardized	t	Sig.
		Coefficient	Std. Error	Coefficients		
		β		Beta		
<hr/>						
1	Constant	1.568	.184		8.514	.000
	BAnew	.489	.050	.502	9.794	.000

Dependent Variable: SEVnew

(4) Summary of Results

Figure 5 shows a summary presentation of results. From the model, it indicates that SERVICE QUALITY (standardized coefficient $\beta=0.541$) was a strong determinant of CUSTOMER SATISFACTION, followed by BRAND AWARENESS (standardized coefficient $\beta=0.342$). In addition, BRAND AWARENESS (standardized coefficient $\beta = 0.502$) is the significant determinant for SERVICE QUALITY. The test results for all hypotheses are shown in Table 12, 13, 14, 15, 16, 17.

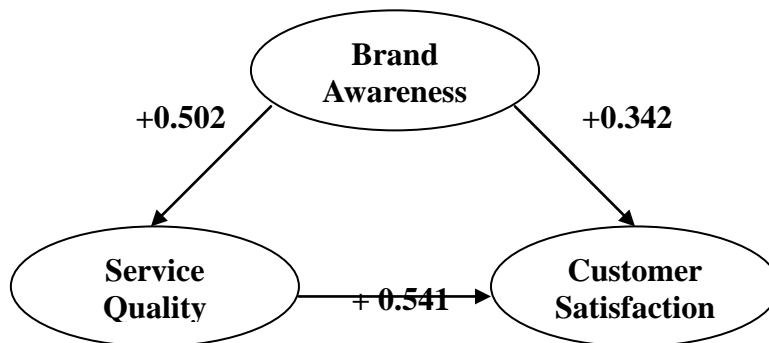


Figure 5. Results of research model



Chapter 5 Conclusion, Limitations and Future Research

Firstly, this chapter provides a summary of purpose and results of this study. Secondly, it will talk about limitations of the study and the third, discussions are offered and directions for future research are indicated.

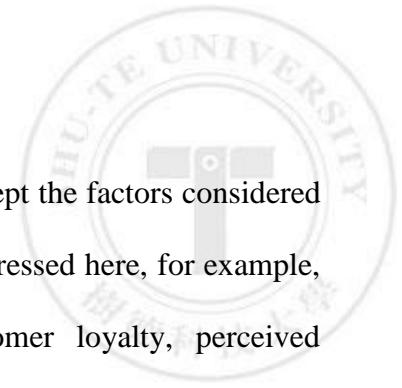
5.1 Conclusions

Finally, we can conclude the findings of this research. First, the following relationships were supported by the sample test. The independent variables (SERVICE QUALITY, BRAND AWARENESS) are positively related to the dependent variable (CUSTOMER SATISFACTION).

This study mentioned a very hot topic, an important service for our daily life; especially we are now living in the 21st Century. Theoretically, it contributes a lot to academics and practical researches in several aspects. There are few researches alike mentioned about Mobile phone services in Vietnam. This research was conducted in Vietnam and hence enriches the empirical literature in this field, proves the evidence for the existence of related factors. In a sense, this is a response corresponding to the trend of digital economy worldwide. The reported empirical findings indicate that SERVICE QUALITY factor does have meanings when we attempt to understand why some people satisfied while the others reject it. Practically, mobile network providers should take this finding as an example for giving more attention, for an in-depth understanding of customers' personality and for better marketing strategies.

5.2 Limitations

Admittedly, the study reported here suffered from a number of limitations.



Firstly, there is a limitation of the number of factors. Except the factors considered in this research, there are some other factors that were not addressed here, for example, the behavior and statues of the government, fees, customer loyalty, perceived expectation and so forth were not considered.

Secondly, another limitation is related to the sample size. As a general rule, the minimum sample size is to have at least five times as many as the variables to be analyzed. The higher cases-per-variable ratio is helpful to minimize the chance of “over fitting” the data (Hair et al., 2003). In this study, there are 31 items measured; although the data obtained is sufficient ($288 > 31 \times 5 = 155$) but the more we get, the better.

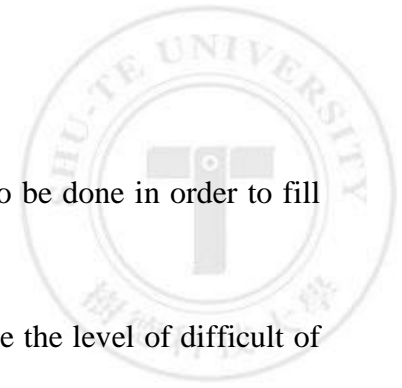
Thirdly, mobile using is very popular in Vietnam. But this research just got replies from some officers in Hanoi, Ho Chi Minh City. The questionnaire should be more widely delivered. This is one of the limitations of the research.

Finally, general liability may be a concern when the findings are interpreted therefore, care should be taken when interpreting the current research findings. It is suggested that a refined design should explore the issues related to mobile network using in a wider context.

5.3 Future Researches

Especially, the author would like to mention the following topics for future research:

Though the research followed the generally accepted academic and scientific procedures, it is to note that the findings of this research only relates to mobile telecommunications services in Vietnam and, might not be generalized into other



industries or settings, meaning that future research will need to be done in order to fill that gap.

The methodology is purely quantitative in nature. While the level of difficulty of conducting a quantitative research is relatively low and therefore somehow used frequently, it might be a good starting point to propose qualitative research in future.

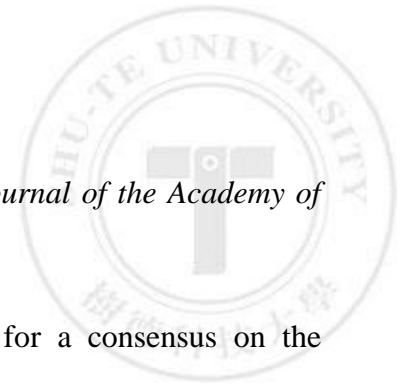
Although sampling error cannot be completely eliminated and always occurs for a random sample, it can be minimized through larger samples. Therefore, selection of a larger sample incorporating the north, central, and South Vietnam is advised in a future study to further reduce sampling error, thereby enhancing external validity. It is also important to survey different cultures in using mobile services.

The service-quality framework known as SERVQUAL comprises a traditional disconfirmatory model and was the first measurement tool to operational service quality. Although it made a contribution to the field of service quality and was very popular among service-quality researchers in many areas, SERVQUAL proved insufficient due to conceptual weaknesses in disconfirmatory paradigm and to its empirical inappropriateness. Service-quality researchers working after SERVQUAL's introduction proposed models containing additional dimensions, yet more fully represent the complexity of the concept of service-quality perception (Chang, Chen & Hsu, 2010). It means that several researchers have approached service quality from perspectives quite different from that of Parasuraman et al. (1988). This can be considered for future research for measuring a hierarchical and multidimensional model of perceived service quality.



References

- [1] Aaker, D. A. (2004). Leveraging the Corporate Brand. *California Management Review*, 46(3), 6-18.
- [2] Aaker, D. A., & Jacobson, R. (2001). The Value Relevance of Brand Attitude in High-Technology Markets. *Journal of Marketing Research*, 38(4), 485-493.
- [3] Akbar1 M.M & Parvez, N (2009). Impact of service quality, trust and customer.
- [4] Alexandris K., Douka S., Papadopoulos P., Kaltsatou A. (2008). Testing the role of service quality on the development of brand associations and brand loyalty. *Managing Service Quality*, 18(3), 239-254
- [5] Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53-66.
- [6] Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- [7] Andreassen, T. W. & Lindestad, B. (1998). Customer loyalty and complex services: the impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management*, 9(1), 7-23.
- [8] APEC, 2008. Asia-Pacific Economic Cooperation. Retrieved May, 2010 from http://www.apec.org/apec/about_apec.html
- [9] Balnaves M. & Caputi P. (2009). Introduction to Quantitative Research methods: An Investigative Approach. Sage Publications Ltd

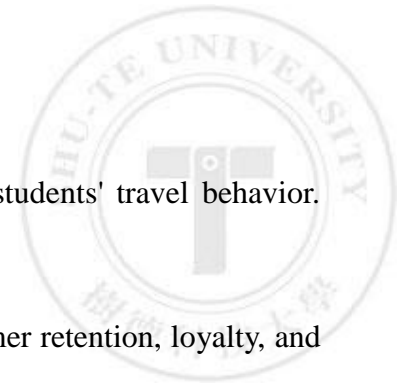


- [10] Berry, L. L. (2000). Cultivating service brand equity. *Journal of the Academy of Marketing Science*, 28(1), 128-137
- [11] Brady, M. K., & Robertson, C. J. (2001). Searching for a consensus on the antecedent role of service quality and satisfaction: an exploratory cross-national study. *Journal of Business Research*, 51(1), 53-60.
- [12] Chang C.M., Chen C.T. & Hsu C.H. (2010). A Review of Service Quality in Corporate and Recreational Sport/Fitness Programs. *The sport Journal*, 13(2).
- [13] Creswell, J.W. (2003) *Research design: qualitative, quantitative, and mixed methods approaches* (2nd Edition), Thousand Oaks, CA: Sage Publications.
- [14] Drypen.in.com (2010). Brand awareness, a brand building concept. Retrieved May,2010 from <http://drypen.in/branding/brand-awareness-a-brand-building-concept.html>
- [15] Brown, S. W., & Swartz, T. A. (1989). A gap analysis of professional service quality. *Journal of Marketing*, 53(2), 92-98.
- [16] Brown, S.W., Bitner, M.J.(2007). *Mandating a Service Revolution for Marketing. The Service-Dominant Logic of Marketing: Dialog, Debate and Directions*, M.E.Sharpe, Armonk, NY.
- [17] Managementstudyguide (2010). *Building brand awareness* Retrieved May, 2010 from: <http://www.managementstudyguide.com/brand-awareness.htm>
- [18] Calicut motors (2008). Influence of brand awareness on buying behavior with special reference to marut ritz at indus motors calicut.
- [19] Centre for the Study of the Social Policy (2007). *Customer Satisfaction: Improving quality and access to services and supports in vulnerable*

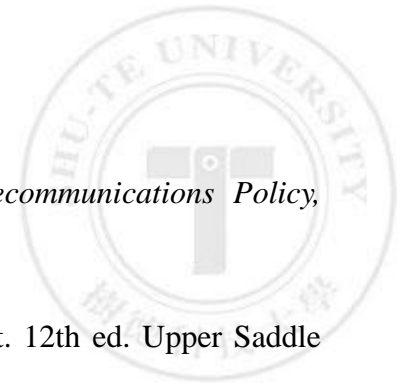


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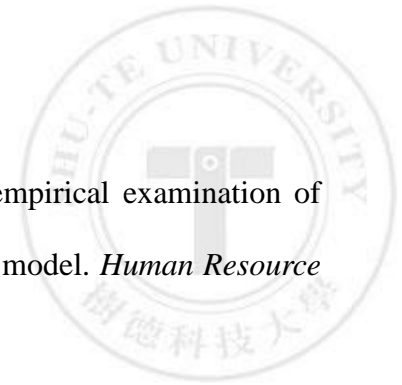
- [20] Chris M. M. (2009). *What are the Benefits of Good Customer Service?* Retrieved May, 2010 from http://www.ehow.com/about_5082152_benefits-good-customer-service.html
- [21] Christopher C. (2008). *Essential of UMTS*. Cambridge University Press, UK
- [22] Cronin, J. J., & Taylor, S. A. (1992). Measuring Service Quality - a Reexamination and Extension. *Journal of Marketing*, 56(3), 55-68.
- [23] Cronin, J.J. & Taylor, S.A. (1992). Measuring service quality: a reexamination and extension. *Journal of Marketing*, 56, 55-68.
- [24] Dabholkar, P. A., Shepherd, C. D., & Thorpe, D. I. (2000). A comprehensive framework for service quality: an investigation of critical conceptual and measurement issues through a longitudinal study. *Journal of Retailing*, 76(2), 139-173.
- [25] Businessdictionary (2010). *Definition of brand awareness* .Retrieved May, 2010 from: <http://www.businessdictionary.com/definition/brand-awareness.html>
- [26] Eroglu, S. A., & Machleit, K. A. (1990). An Empirical Study of Retail Crowding: Antecedents and Consequences. *Journal of Retailing*, 66(2), 201-221.
- [27] Fisk, R. P., Brown, S. W., & Bitner, M. J. (1993). Tracking the Evolution of the Services Marketing Literature. *Journal of Retailing*, 69(1), 61-103.
- [28] Foi, D. (2008). *The Influence of Brand Awareness on the Relationship between Service Quality and Customer Satisfaction in Mobile Telecommunication*. Master thesis: Meiho University, Taiwan.
- [29] Gallarza, M. G. & Saura, I. (2006). Value dimensions, perceived value,



- satisfaction and loyalty: an investigation of university students' travel behavior. *Tourism Management*, 27(3), 437-452.
- [30] Gerpott, T. J., Rams, W., & Schindler, A. (2001). Customer retention, loyalty, and satisfaction in the German mobile cellular telecommunications market. *Telecommunications Policy*, 25(4), pp. 249-269.
- [31] Govind J. (2009). Customer Satisfaction In General Insurance Industry. A Step Towards Competitiveness. *Journal of Risk & Insurance Pravartak*, 4(3)
- [32] Gronroos, C. (1984). A Service Quality Model and its Marketing Implications. *European Journal of Marketing*, 18(4), pp. 36-44.
- [33] Gronroos, C. (1992). Service Management: A Management Focus for Service Competition. IN Lovelock, C.H. *Managing Services: Marketing, Operations, and Human Resources* (Eds.). Englewood Cliffs, NJ: Prentice Hall, 9-16.
- [34] Hair, J. F., Bush, R. P., & Ortinau, D. J. (2003). *Marketing Research: Within a Changing Environment*. Mc Graw-Hill Irwin.
- [35] Kanji, G. & Moura, P. (2002). Kanji's business scorecard, *Total Quality Management*, Vol. 13 No. 1., 13-27
- [36] Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1-22.
- [37] Keller, K. L. (2003). *Strategic Brand Management: Building, Measuring, and Managing Brand Equity* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- [38] Kevin C. (2010). Measuring and managing Customer Satisfaction. Retrieved May, 2010 from <http://www.qualitydigest.com/sept00/html/satisfaction.html>
- [39] Kim, H. S., & Yoon, C. H. (2004). Determinants of subscriber churn and customer



- loyalty in the Korean mobile telephony market. *Telecommunications Policy*, 28(9-10), 751-765.
- [40] Kotler, P. & Kevin L.K (2006). *Marketing Management*. 12th ed. Upper Saddle River, NJ: Pearson Prentice Hall
- [41] Ladda V. & Hwei. C.W (2007). The impact of Service Quality And Customer Decision Factors On Brand Equity. *International Business & Economics Research Journal*, 6(3)
- [42] Lewis, Robert C. & Bernard H. Booms (1983). The Marketing Aspects of Service Quality. *Emerging Perspectives on Services Marketing*, L. Berry, G.
- [43] Lim, H., Widdows, R., & Park, J. (2006). M-loyalty: winning strategies for mobile carriers. *Journal of Consumer Marketing*, 23(4), pp. 208-218.
- [44] Linda W. (2002). *Software Customer Satisfaction*. The Westfall Team. McGraw-Hill.
- [45] Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*, 57(3), 25-48.
- [46] Oliver, R. L. (1993). A conceptual model of service quality and service satisfaction: compatible goals, different concepts. *Advances in Services Marketing and Management*, 2, 65-85.
- [47] Oliver, R. L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*: McGraw Hill.
- [48] MIC, 2009. Ministry of information and communications of the socialist republic of Vietnam: Mobile networks in Vietnam
- [49] Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991a). Perceived service

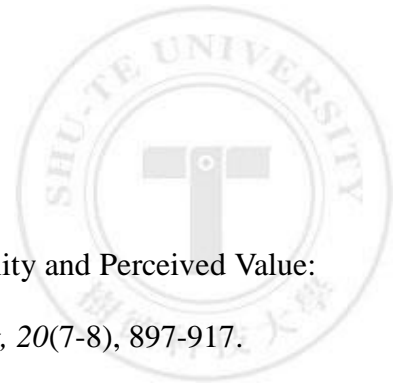


quality as a customer-based performance measure: an empirical examination of organizational barriers using an extended service quality model. *Human Resource Management*, 30(3), 335-364.

- [50] Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991c). Understanding Customer Expectations of Service. *Sloan Management Review*, 32(3), pp. 39-48.
- [51] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual-Model of Service Quality and Its Implications for Future-Research. *Journal of Marketing*, 49(4), 41-50.
- [52] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual - a Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64(1), 12-40.
- [53] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994a). Reassessment of Expectations as a Comparison Standard in Measuring Service Quality - Implications for Further Research. *Journal of Marketing*, 58(1), 111-124.
- [54] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994b). Alternative Scales for Measuring Service Quality - a Comparative-Assessment Based on Psychometric and Diagnostic-Criteria. *Journal of Retailing*, 70(3), 201-230.
- [55] Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1988). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64,1, 12-40.
- [56] Rahim, M (2009). Service Quality, Customer Satisfaction and Loyalty towards JKR. Malaysia (Master thesis dissertation, University of Malaya 2009)
- [57] Ray K. (1998). Service quality to service loyalty: A relationship which goes



- beyond customer services . *Total quality management*, 9(6), 431± 443
- [58] Reichheld, F. F. (1996). Learning from customer defections. *Harvard Business Review*, 74(2), 56-69.
- [59] Reichheld, F.F.& Sasser, W.E. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, 105-111.
- [60] Rossiter JR & Percy L (1987). *Advertising and Promotion Management*. Singapore.
- [61] Rossiter JR; Percy L & Donovan RJ (1991). A better advertising planning grid. *Journal of Advertising Research*, 11-21.
- [62] Ribbink, D., Riel, C.R., Liljander, V, and Streukens, S. (2004), “Comfort your online customer: Quality, trust and loyalty on the internet”, *Managing Service Quality*, 14(6), pp. 446-456.
- [63] Smallbusiness.yahoo.com (2010). Seven ways to build brand awareness Retrieved May, 2010 from http://smallbusiness.yahoo.com/r-article-a-70121-m-6-sc-45-7_ways_to_build_br_and_awareness-i
- [64] Shari Waters (2010). Brand awareness. Retrieved May, 2010 from http://retail.about.com/od/glossary/g/brand_awareness.htm
- [65] Sureshchandar, G, Rajendran, C. & Anantharaman, R. (2003). Customer perceptions of service quality in the banking sector of a developing country: a critical analysis. *International Journal of Bank Marketing*, 21(5):233-242
- [66] Stokes RC (1985). The Effects of Price, Package Design, and Brand Familiarity on Perceived Quality. In J Jacoby& J Olson (eds.). *Perceived Quality*. Lexington:



Lexington Books.

- [67] Tam, J. L. M. (2004). Customer Satisfaction, Service Quality and Perceived Value: An Integrative Model. *Journal of Marketing Management*, 20(7-8), 897-917.
- [68] Taylor, S. A. & Cronin Jr, J. J. (1994). Modeling patient satisfaction and service quality. *Journal of Health Care Marketing*, 14(1) 34-44.
- [69] Terblanche, N. S. (2006). The relationship between customer satisfaction and loyalty: An application of the American Customer Satisfaction Index in the South African fast food industry. *Management Dynamics*, 15(2), pp. 31-42.
- [70] Ueltschy, L. C., Laroche, M., Tamilia, R. D., & Yannopoulos, P. (2004). Cross-cultural invariance of measures of satisfaction and service quality. *Journal of Business Research*, 57(8), 901-912.
- [71] Vietnam Overview (2008.). Retrieved August 18, 2009 from http://www.vietnamtourism.gov.vn/english/index.php?option=com_content&task=category§ionid=1&id=1&Itemid=50
- [72] VNAT, 2008. *Vietnam cultural profile*. Vietnam national administration of Tourism
- [73] Voss C. (1985,). *Field Service Management*.
- [74] Wikipedia (2010). What is brand awareness?. Retrieved May, 2010 from http://en.wikipedia.org/wiki/Brand_awareness
- [75] Wisegeek (2010). *What is brand awareness?*. Retrieved May, 2010 from <http://www.wisegeek.com/what-is-brand-awareness.htm>
- [76] WTO, 2008. Retrieved from <http://www.wto.org>
- [77] WB, 2008. World bank's Business Annual Reports: Economic development in Vietnam



- [78] Wang Y., [Hing-Po L.](#), [Yang Y.](#) (2004). An Integrated Framework for Service Quality, Customer Value, Satisfaction: Evidence from China's Telecommunication Industry. *Information Systems Frontiers* 6(4): 325-340 (2004)
- [79] Yoo, B., Donthu, N., & Lee, S. (2000). An Examination of Selected Marketing Mix Elements and Brand Equity. *Journal of the Academy of Marketing Science*, 28(2), 195-211.
- [80] Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60(2): pp. 31-46.
- [81] Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1993). The Nature and Determinants of Customer Expectations of Service. *Journal of Academy of Marketing Science*, 21(1), 1-12.



Appendix 1: Survey Questionnaire

PART I – GENERAL INFORMATION

Please answer the following questions about you.

1. Your gender is

- Male
- Female

2. Your age is

- Under 20
- 20-25
- 26-35
- More than 36

3. You are living in

- Hanoi
- Ho Chi Minh city
- Other place

4. Who is your current service provider?

- MOBIFONE
- VINAPHONE
- VIETTEL MOBILE
- SFONE



- VIET NAM MOBILE
- Other

5. How long have you been using the mobile phone?

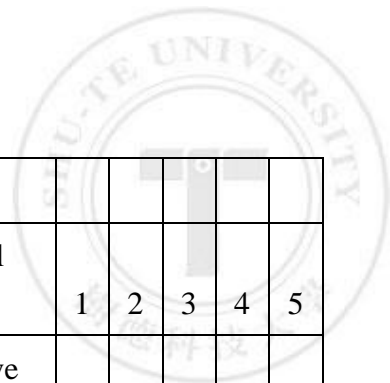
- Less than 1 year
- From 1-3 year
- Over 3-5 year
- More than 5 year



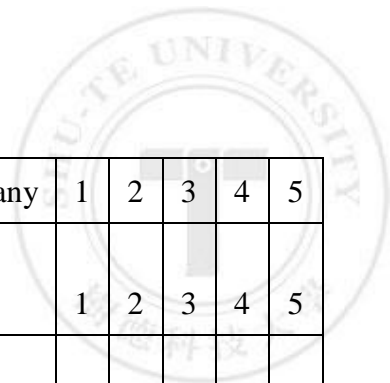
ABOUT YOUR TELECOMMUNICATIONS COMPANY

The following set of statements relate to your feelings about your mobile phone network. There are not right or wrong answers, if you feel the statement truly reflect the situation of your mobile telecommunications company, **circle** the number 5. If you feel the statement does not reflect the situation in your mobile telecommunications company at all, **circle** 1.

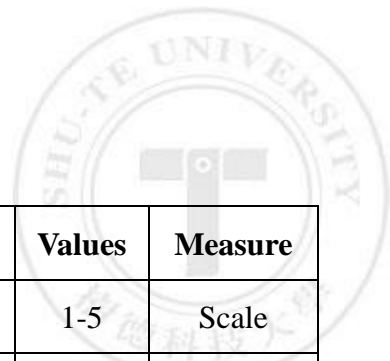
	Strong disagree	Disagree	Neutral	Agree	Strong agree
Self efficacy					
1. My mobile telecommunications company has modern-looking equipment.	1	2	3	4	5
2. My mobile telecommunications company physical facilities are visually appealing.	1	2	3	4	5
3. My mobile telecommunications company employees are neat-appearing.	1	2	3	4	5
4. Materials associated with the service (such as pamphlets or statements) are visually appealing at my mobile telecommunications company	1	2	3	4	5
5. When my mobile telecommunications company promises to do something by a certain time, it does so	1	2	3	4	5
6. When I have a problem, my mobile telecommunications company shows a sincere interest in solving it	1	2	3	4	5
7. My mobile telecommunications company performs the service right the first time	1	2	3	4	5
8. My mobile telecommunications company provides its services at the time it promises	1	2	3	4	5
9. My mobile telecommunications company insists on error-free	1	2	3	4	5



records					
10. Employees of my mobile telecommunications company tell me exactly when the service will be performed	1	2	3	4	5
11. Employees of my mobile telecommunications company give me prompt service	1	2	3	4	5
12. Employees of my mobile telecommunications company are always willing to help me	1	2	3	4	5
13. Employees of my mobile telecommunications company are never too busy to respond to my requests	1	2	3	4	5
14. The behavior of employees of my mobile telecommunications company instills confidence in customers	1	2	3	4	5
15. I feel safe in my transactions with my mobile telecommunications company	1	2	3	4	5
16. Employees of my mobile telecommunications company are consistently courteous with me	1	2	3	4	5
17. Employees of my mobile telecommunications company have the knowledge to answer my questions	1	2	3	4	5
18. My mobile telecommunications company gives me individual attention	1	2	3	4	5
19. My mobile telecommunications company has operating hours convenient to all its customers	1	2	3	4	5
20. My mobile telecommunications company has employees who give me personal attention	1	2	3	4	5
21. Employees of my mobile telecommunications company understand my specific needs.	1	2	3	4	5
22. I am satisfied with the level of service I receive from my mobile telecommunications company	1	2	3	4	5
23. I am contented with the services of my mobile telecommunications company	1	2	3	4	5

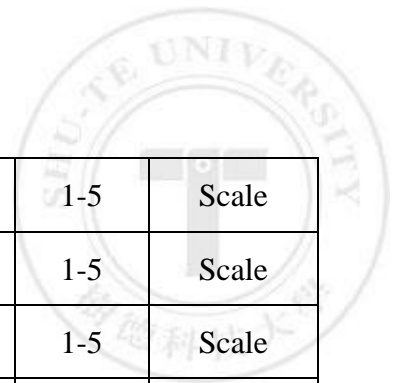


24. I like the services of my mobile telecommunications company	1	2	3	4	5
25. I feel very delighted with the services of my mobile telecommunications company	1	2	3	4	5
26. Some characteristics of my mobile telecommunications company come into my mind quickly	1	2	3	4	5
27. When I see the logo, I immediately recall my mobile telecommunications company	1	2	3	4	5
28. The only difference between the mobile telecommunications companies is price	1	2	3	4	5
29. My mobile telecommunications company has a name that is easy to recognize	1	2	3	4	5
30. When I am exposed to cues of my mobile telecommunications company, it is easy to recognize it	1	2	3	4	5
31. I am aware of my mobile telecommunications company	1	2	3	4	5



CODING SHEEY

Code	Quest. No.	Description	Values	Measure
Q1	Question 1	Item 1 SEV	1-5	Scale
Q2	Question 2	Item 2 SEV	1-5	Scale
Q3	Question 3	Item 3 SEV	1-5	Scale
Q4	Question 4	Item 4 SEV	1-5	Scale
Q5	Question 5	Item 5 SEV	1-5	Scale
Q6	Question 6	Item 6 SEV	1-5	Scale
Q7	Question 7	Item 7 SEV	1-5	Scale
Q8	Question 8	Item 8 SEV	1-5	Scale
Q9	Question 9	Item 9 SEV	1-5	Scale
Q10	Question 10	Item 10 SEV	1-5	Scale
Q11	Question 11	Item 11 SEV	1-5	Scale
Q12	Question 12	Item 12 SEV	1-5	Scale
Q13	Question 13	Item 13 SEV	1-5	Scale
Q14	Question 14	Item 14 SEV	1-5	Scale
Q15	Question 15	Item 15 SEV	1-5	Scale
Q16	Question 16	Item 16 SEV	1-5	Scale
Q17	Question 17	Item 17 SEV	1-5	Scale
Q18	Question 18	Item 18 SEV	1-5	Scale
Q19	Question 19	Item 19 SEV	1-5	Scale
Q20	Question 20	Item 20 SEV	1-5	Scale
Q21	Question 21	Item 21 SEV	1-5	Scale



Q22	Question 22	Item 1 CS	1-5	Scale
Q23	Question 23	Item 2 CS	1-5	Scale
Q24	Question 24	Item 3 CS	1-5	Scale
Q25	Question 25	Item 4 CS	1-5	Scale
Q26	Question 26	Item 1 BA	1-5	Scale
Q27	Question 27	Item 2 BA	1-5	Scale
Q28	Question 28	Item 3 BA	1-5	Scale
Q29	Question 29	Item 4 BA	1-5	Scale
Q30	Question 30	Item 5 BA	1-5	Scale
Q31	Question 31	Item 6 BA	1-5	Scale