FACTORS INFLUENCING PERCEPTION OF INTERNATIONAL STUDENTS TOWARDS MOBILE OPERATORS

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ABSTRACT

Mobile phones often recognized as an invention technology that facilitate interaction among students. The number of international students studying in Malaysian institution of higher education is continuously growing. The vast numbers of international students in Malaysia has contributed not only to the country's education sector, but the telecommunication industry as well. This research examines the influence of international call rate, promotion and service quality on perception international students towards mobile service providers in Malaysia. This study focuses on international students in UUM. A total of 360 questionnaires was distributed to international students in UUM, Sintok. 271 completed questionnaires were to test the hypotheses listed in this research. The study has demonstrated that there exist a relationship between factors as international call rate, promotion, service quality and level of perception of international students. The findings offer this several implications on how managers of mobile phone service providers can target international students, as well as use it as feedback to improve strategy marketing programs.

Keywords: Perception, international students, international call rate, promotion, service quality
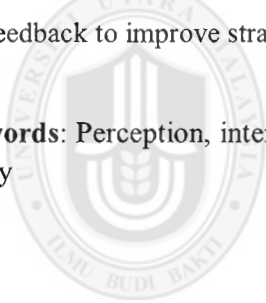
ABSTRAK

Telefon bimbit sering dikenal pasti sebagai teknologi ciptaan yang memudahkan interaksi di kalangan pelajar. Jumlah pelajar antarabangsa yang melanjutkan pelajaran di peringkat institusi pengajian tinggi Malaysia meningkat secara berterusan. Sejumlah besar pelajar antarabangsa di Malaysia turut menyumbang bukan sahaja dari segi sektor pendidikan negara, malahan industri telekomunikasi juga. Penyelidikan ini dijalankan untuk mengkaji kadar yang mempengaruhi panggilan antarabangsa, promosi dan kualiti perkhidmatan terhadap persepsi pelajar antarabangsa berdasarkan perkhidmatan mudah alih di Malaysia. Kajian ini fokus kepada pelajar antarabangsa dalam UUM. Sebanyak 360 set soal selidik diagihkan kepada pelajar antarabangsa dalam UUM, Sintok. Sebanyak 271 set soal selidik telah dijawab untuk menguji hipotesis yang telah tersenarai dalam penyelidikan ini. Kajian telah menunjukkan bahawa wujud satu hubungan antara faktor sebagai kadar panggilan antarabangsa, promosi, kualiti perkhidmatan dan tahap persepsi pelajar antarabangsa. Hasil dari kajian ini menunjukkan beberapa implikasi tentang bagaimana pengurus pembekal perkhidmatan telefon mudah alih boleh mempengaruhi pelajar antarabangsa, serta menggunakan maklum balas untuk meningkatkan strategi pemasaran.

Kata kunci: Persepsi, pelajar antarabangsa, kadar panggilan antarabangsa, promosi, kualiti perkhidmatan

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In the name of Allah, the Most Gracious and Most Merciful

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CHAPTER ONE

INTRODUCTION

1.1. Background of study

The services sector has witnessed great development in the last two decades, it has provided a direct contribution to national economies, and telecommunications sector is one of those sectors that have seen significant growth. Telecommunications is seen to be a social and economic enabler(Chowdhury, Parvin, Weitenberner, & Becker, 2010), which led to emergence of mobile phone service providers market as one of the developing industries in the world.

According to Haque, Rahman et al (2010) mobile phone has an important role in exchanging information across the countries. For example, a social interactions between and among individuals, groups, organizations, and the governments are provided by mobile phone and that consequently makes and operates an international environment broadly networked. Moreover, it considered as an alternative to fixed landline networks for many developing countries. However, Verbeke, Dejaeger, Martens, Hur, and Baesens (2012) pointed out that in the past decade has seen the rapid development of mobile phone users over the world Asia is constantly on the represent in the global broadband market in conditions of both fixed and mobile broadband services.

According to the survey that has been conducted in BuddeComm website (www.budde.com) Asia owns almost half of the world's mobile subscribers and a wide

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array of these customers are actually accessing broadband services via their mobile telephone. Due The growth rate in the use of telecommunication facilities, the number of telephone subscribers has increased tremendously (Haque, Khatibi et al. 2007).

Worth observing is that the telecommunication business in Malaysia has also significantly growing sector (Ramalingam, Karim, Piaralal, & Singh, 2015) keeping appropriate rate with international advancements. Cell phones have become indispensable for people and moved beyond their fundamental role of communication.

In Malaysia, there are three major companies in the market, which are DiGi, Maxis, and Celcom. Where a sharp competition are locked by the mobile operators: Celcom, with 12.3 million subscribers had the largest market share of the mobile market (31.3%) by mid-2015, Maxis very closely followed with 31%. Digi followed in third place with 30% market share as reported by Malaysian Communications And Multimedia Commission (MCMC) (www.skmm.gov.my, 2015). this expansion is aided by convenience, affordability and easy adaptation with changing lifestyles in various countries (Chang & Chong, 2011)

Since there are many Malaysian mobile service provider in the market, customers have various choices of mobile operators. Nowadays, customers have become smarter and take into account various factors before selecting a mobile operator. Solomon, Bamossy et al. (2013) argued that Customers are increasingly willing to purchase things that offer them hedonic value as well as the functional value. They often believe that most brands perform similarly, so they weigh a product's aesthetic qualities heavily when they select a brand.

In fact, young consumers are increasingly dependents on their operators' mobile phone services. It viewed as a basic living necessity and critical communications medium. In some cases, wireless is the only means of reliable communications in under developed parts of the world (Geser, 2004) .

International students are an important part of the Malaysian telecommunication market. During the last decade the number of students has increased markedly in tertiary education outside their country of citizenship, which reflected the expansion of tertiary education systems in the world and the globalization of economies and societies. The expansion of tertiary education outside has fuelled its contribution of foreign students. Thus, the number of international students in local universities is expected to jump to 200,000, or a 100 per cent increase by 2020(Kamaruddin Saiful Bahri & Hashim, 2016).

The aspect of studying abroad will give some countries a marketing advantage in enrolling fee-paying international students (Russell, 2005), which is considered important in countries which education is a major export industry like Malaysia. Indeed, the country's economy will generate a total of RM19 billion according to the forecast (Kamaruddin & Hashim, 2016). Therefore, understanding and analyzing the preferences of international students would be really important and beneficial to mobile service provider marketers.

Consumer perception is essential to businesses since it can influence buyer behavior, which eventually the profitability of a business is affected. Subsequently, many businesses spend large amounts of resources to influence consumer perceptions (Limbongan, Saerang, & Mekel, 2014).

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the importance that has been given to customers' perception in telecommunication business and the current development of cellular phone business in Malaysia, arise a critical researches initiatives that require attention to understand the customers' perception towards mobile operators, and factors influencing the selection of mobile cellular providers. The research has set as its objective in the examination of the influencing factors of international student' perception in their decision to select mobile phone cellular, to determine factors that formulating customers' perception of the mobile service providers.

This research highlights the factors considered by international students to shape their preference for Mobile services providers. Further, the study evaluates the impact of influences on subscription choice for a specific mobile provider, and provides a guideline to the marketers of mobile service providers to increase their subscriber base.

1.2. Problem Statement

The telecommunications system has been an increasingly fast communication medium regenerate worldwide interface interactions. The telecommunications market in Malaysia has been privatized in all sides of the industry and this has resulted in a general opening of the market with a significant number of new licenses granted (Budde.com.au, 2012).

Since, presently mobile telecommunication sector is witnessing global transformation with the liberalization of the industry. Which thus, enlarges a furious competition. However, mobile providers have to deal with market and understanding the perception of

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the customers are becoming much more essential for gaining sustainable competitive advantage. Thus, it has opened many opportunities for the potential consumers to appreciate various choices among the mobile service providers.

Moreover, due to sharp competition, Rahman, Haque, and Ahmad (2010) argued that mobile operators are worry that consumer spending will be affect due the global economic rescission, and eventually, their profit. Therefore, most telecom's executive officers are not able to provide predictions concerning to the trend of market. Consequently, International students can be a great opportunity for mobile operators to enhance their business.

Malaysia attract several students from different part of the world, The instability of the Internet services in the developing countries where majority of international student come from, make use of phone calls unavoidable for their communication.

International students have different background (Mazzarol & Soutar, 2002),which creates difficulties for mobile operators to interpret their needs and to offer the necessary products and services. Furthermore, in a competitive market like Malaysia, service providers are required to compete on both price and quality of services and it is necessary for the service providers to match the customer's requirements and expectations in price and service quality (Melody, 2001). For this reason, as an international student, it is necessary that good and cheap service are provided by mobile operators. Low international call price charges, plans, and among the different operators, this study is reveal that which provider is best for international students.

In other hand, international students need necessary information about the mobile service providers before they take decision to buy a certain mobile cellular. Most customers keep improving knowledge of the products they select and continually synthesize all the information they have about a company to form their choice. Moreover, international students as foreigners customers, are interested to maintain communication with their, friends and families round the clock (Haque, Rahman et al. 2010).

There are several factors that affect the customer options in choosing mobile cellular providers, mobile service operators tend to confuse to understand customer perception. Thus, it seems extremely important that needs, wants, criteria and the perceptions of the international student to be recognized by mobile service providers who are competing in the sector.

In general, (Mazzarol & Soutar, 2002) reported that cost in host country has become a serious issue for international students. Consequently, it is passionately vital for mobile cellular providers have to find out about the international students perception's about the price difference charges locally or internationally (Paulrajan & Rajkumar, 2011), promotion, service quality and other important factors that may play an important role in choosing the mobile operator (Haque, Rahman, & Rahman, 2010).

The use of customer perception is required for company to figure out what their customers looking for. Customers continuously evaluate the perceived benefits before they intend to buy a certain product or service (Li, Huang, Tan, & Wei, 2013). They also take into account user costs, lost opportunity to use other offers, potential switching costs, service quality and promotion. Furthermore, the costs of international calls are a intense

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worry to consumers and businesses which are being incompetently addressed by the industry(Sutherland, 2001) ,international students as customers often value these added benefits when they make a decision to purchase (Kumasey, 2014). Hence, it really important for mobile providers to understand the international students' need when marketing to their customers (Pandian, Baboo, & Mahfoodh, 2016).

It is well noted that many international students at Universiti Utara Malaysia use different cellular mobile service operators, which have been chosen based on their perception toward certain characteristic that offer by mobile service providers which considered as critical factors. Consequently, the purpose of this research is to shed light on determining those factors that influencing perception of international students and their perception to select mobile operator.

Several researches have been done about factors influencing customer perception (Agyekum, Haifeng, & Agyeiwaa, 2015; Gautam & Kumar, 2011; Paulrajan & Rajkumar, 2011; Rahman, Haque, & Ahmad, 2011), where different outcome effects were identified by the researchers. Therefore, due to inconsistence results, this study will seek add more contribution on this field, in order to identify factors that may have been playing a vital role in choosing the mobile service providers such as price of international call rate, promotion, service quality.

Several studies have been conducted about consumers' perceptions and their regenerating ideologies towards the mobile cellular providers and their services (Hassan, Ahmad, & Aminuddin, 2013). Yet few of them sought studies about perception of international

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student toward mobile service providers, since they are attractive potential customers since and they can generate RM19 billion on Malaysian economy (Kamaruddin & Hashim, 2016), as well as to mobile telecommunication providers, as saturated market and struggling from declining revenue from RM24.3billion to RM23.9billion (Amir, 2015).

Therefore, the major objective of this study is to cautiously examine the influence of international price call, promotion and service quality that affecting the international student's perception to select mobile telecommunication service, particularly in the context of University Utara Malaysia.

1.3. Research questions

In the attempt to determine factors that influence perception of international students to choose mobile operators, this study will seeks to answer the following questions:

1-Does price of international calls affect the perception of international students in choosing mobile operators?

2-Does promotion affect the perception of international students in choosing mobile operators?

3-Does service quality affect the perception of international students in choosing mobile operators?

1.4. Research objective

In order to determine factors influencing perception of international students towards mobile operators, this study set following objectives:

1-To determine the effect of price of international calls on the perception of international students in choosing mobile operators.

2- To determine the influence of promotion on the perception of international students in choosing mobile operators.

3-To determine the effect of service quality on the perception of international students in choosing mobile operators.

1.5. Scope of the study

This study is to cautiously examine the factors that affect perception to select mobile telecommunication service. Due of the time constraints, international students in north of Malaysia were chosen as sample of study particularly in the context of UUM environment as area of study due of the time constraints. The study only included information of limited variables price, promotion, quality services which are considered as an important factors.in addition we will focus on four major companies have been operating in Malaysia namely Celcom, Digi,U mobile and Maxis.

1.6. Significant of the study

The findings in the study will provide a report of international students' perception towards mobile operators, this study suggests significant practical and theoretical

contributions in the area of students. The study is significant in that it provides an insight into one of the most important issues in Malaysian mobile operators, and it can outline what the factors that affecting the international student' perception in choosing their mobile service provider. Furthermore, this study aims to examine the effect of price, promotion, quality services on international student's perception among mobile service users in University Utara Malaysia.

This research also is very important in several ways. It can contribute to the body of knowledge by examining some different variables and implementing them on new areas as well as in understanding culture. In addition, international students can realize the best mobile service provider as a result of their input to the research work. This, in turn, can inform the mobile service providers, who in turn, who in turn can provide more services that are competitive. This will enable the international students to choose the best mobile service provider.

By knowing the perception of International student in Malaysia towards mobile service providers, Mobile operators could actually design or set up different marketing strategies and be able to design packages for the International students based on their perception. In short, mobile service providers could use the findings from this study to enhance their observation on the International student in Malaysia as their potential customers.

This study also can assist mobile operators in making different strategies and policies to attract more International student users by knowing the International student level of perception towards services.

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1.7 Organization of study

This study, designed to examine the perception of international student towards Malaysian mobile operators, comprises five chapters, starting with chapter one and ending with chapter five.

Chapter one follows on form background of study, problem statement, research question, research objectives, significance of the study, then the scope of the study, organization of study. Chapter two discusses the literature review on which information gathered from previous and current researches that are related to this study. Chapter three discusses the methodology that includes the research design, population and sampling of the study, measurement of variables used in this study and data analysis technique. Chapter four brings out the analysis on findings and interpretation on data to response the objectives of the study. Lastly, a summary of results is obtained at the end of this chapter. Chapter five discusses the summary of the findings, limitations, suggestions for future research.
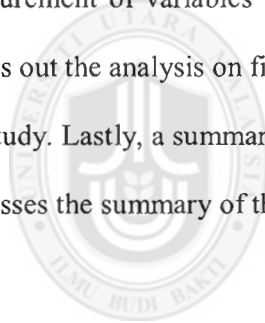
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter includes relevant articles, journals, books and other sources that are related to perception of price, promotion, service quality in choosing mobile cellular provider. However, literature on perception of selection mobile operators contains numerous features by different researchers across the globe.

2.2 Student as Customer

Nowadays, considering student as customers is not a new issue, since preceding scholars utilized the similar term to confirm the status of the student as a customer (Dominici & Palumbo, 2013; Douglas, McClelland, & Davies, 2008). According to Qurush, Shaukat, and Hijazi (2010) and Trivellas and Dargenidou (2009) students are considered as a primary service recipient or customers. Quintal, Wong, Sultan, and Yin Wong (2012)and Sumaedi, Bakit, and Metasari (2011) indicated that in higher education institution's student are considered as central and essential service recipient or customer.

Based on this, the Higher Education Funding Council for England (HEFCE) introduces a survey that enables several students to read themselves as customers and shoppers (Brown & Mazzarol, 2009). The higher education also views students as their primary customer and seek to maximize their satisfaction based on educational and administrative services

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provided (Rasli, Shekarchizadeh, & Iqbal, 2012). For this reason, students became the "customer" and therefore, as fee payers, it should understand their reasonable demands and views and acted upon (William, 2002).

2.3 Customer Perception

First, the increased attention given on customers in the academic literature has supported emerging managerial initiatives focused on customer perception. Customer perception defines the way that customer generally view or feed about certain product and services(Alam, Roy, & Akther, 2016).While Solomon et al. (2013) identify perception as the procedure by which these stimuli are selected, organized and interpreted. Therefore, the implication of customer perception is mostly used in the sense of how the quality of the service offers are perceived by customers.

More broadly, customer perception is the customers' overall picture of the firm as well, including external influences, expectations, company image, service quality, etc. Customers build after-purchase perceptions based on the functioning of such merchandise and service provided by the supplier. Moreover, mobile service providers have to find out how customers are perceived its' offerings. It is important to distinguish the current customer purchasing and features are looking for. This information might has better value if it can be in comparison with the customer's perception of competitive services (Kathuria & Jain, 2009).

However, Brocato, Voorhees, and Baker (2012) found that other customer perceptions are the key pillars upon which managers can stimulate customer to-customer contact. In

addition, it is essential that customer's perception must be overseen to such that he believes that real value for his money has been receiving (Tripathi & Siddiqui, 2010). The finding is consistent with findings of past studies by (Nelson, Todd, & Wixom, 2005; Wixom & Todd, 2005) who state that precision, comprehensiveness and suitability are the key factors of information quality delivered by mobile cellular providers. when consumer's experiences surpass their expectations, consumer satisfaction both with situational and individual factors will effect customer loyalty (Wilson, Zeithaml, Bitner, & Gremler, 2012).

In other hand, Ferreira (2008) reported that is five subjects has arisen from the study outcomes concerning consumer perception: product , people, information, simplicity and brands. Three deduction of customer perception expanded into, shaping positive perception of the product or service; building a positive linking between customers and product or service; structuring information that can multiple cultures understand it.

Another key feature of consumer perceptions and it impact on choices contains the extent of risk that being presented which is perceived by customer when they make purchase decision. The issue concerning on how much risk the customers perceive or feels is run when they are subscribers of a particular company.

Perceived risk has been generally described as functioning of two influences. Firstly, the extent of uncertainty of the information to customer, the lack of information about a product or knowledge could intensify the perception of risk. Secondly, factor is the degree of the consequences of buying (Foxall, Goldsmith, & Brown, 1998).However, it is clearly

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noticed from the literature above that several researchers have sought to understand the concept of customer perception and its effect during the last few decade.

2.4 Service quality

In the recent years, service quality has been considered as one of the major interesting concern for academics, because as the telecommunication markets have become more competitive (Kushwah and Bhargav 2014). It get more attention due to the role that play it in order to attract and maintain customers. Due to its importance, Service quality is increasingly recognized as a crucial factor in distinguishing services and building competitive advantage. Bansal and Taylor (2015) noted that service quality has been defined as "The consumer's overall impression of the relative inferiority and superiority of the organization and its services". Service quality explained as the superiority of the service with the overall judgment of an individual and explicated it as containing assessments of the result and the procedure of the service act (Gautam, 2015).

In another study,Osotimehin, Hassan, and Abass (2015) reported that Service quality is described also as a cause of difference between competences and expectations along the essential quality dimension. Alam et al. (2016); Parasuraman, Zeithaml, and Berry (1988) define service quality as the outcomes from comparing expectation of customers with perception performance of services. Therefore, customer who use a service and evaluates the service quality are very crucial to firms that are aiming to improve their marketing strategies (Jain & Gupta, 2004). Fulfilling the target customer's needs is the essence of building perceived quality.Boshoff and Gray (2004) Tu, Lin, and Chang (2011) found that

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giving more attention to service quality may distinguish between companies in terms of opportunities of getting competitive advantages. However, from various definitions provided by scholars, it is clearly that service quality has been attracted attention of scholars to investigate this subject.

In other hand, Customer service quality helped build the essential competitive advantage by being an effective differentiating factor (Rahman, Haque et al. 2011). In their study Üner, Güven et al.(2015) advocated that service quality be among the most significant factors that may influence the perception of Customer in choosing mobile operators. Whereas discussion in general about service quality,Gautam (2015) reported that service quality perception among mobile telecommunication services customers witnessed rise of employee performance as key determinant.

Service quality constitutes an important plank of service marketing (Kushwah & Bhargav, 2014). Considering Perception of service quality as perceived quality of service acquired by a customer when using the present mobile service providers. This implies that telecom providers will have to reduce the gap in customer perceptions as well as expectations about their service quality if they want to compete globally. The image of firm as low quality service provider can come from Under promising. Even though the exceed of customer's expectations. The low service quality image of the firm will to some extent continue the same is true as well as the different way around. The great image of service Provider Company will be given by great expectation of service. (Hamer, 2006). Gautam (2015) suggests that mobile telecommunication services providers must have to reorient

themselves in order to the concept of quality service will be implanted the in the mind of customer by customer service parameters and further in terms of growth.

Due the sharp competition among mobile providers companies, Osotimehin et al. (2015) argue that It is essential to assess customer's perception of the service quality of service providers in the sector. To this end, telecom providers ought constantly evaluate and reassess the way how customers perceive their services and execute fitting corrective action for maintaining the current customers and attracting new customers(Kushwah & Bhargav, 2014).

Osotimehin, Hassan et al (2015) reported that customers seek for quality whether they are receiving a service or purchasing goods. Customer need to buy goods and services that fulfill their needs or goals with minimum of stress (Fang, Wen et al. 2016). Indeed, the different definitions reveal that service quality has given a lot of attention due to the importance of this factor and its influence on overall business. Parasuraman, Zeithaml et al. (1985), Taner and Antony (2006) posit that service quality is not easy for customers to be evaluated compared to goods quality since it is intangible . Service quality have been evaluated by customer both on the result of the service and the procedure of service delivery. Therefore, it sounds a major concern for the telecommunication service providers, especially for the mobile service operators that quality of service should be provided constantly, due to continually shifting in market competition and compositions characteristics (Haque, Ahmed et al. 2010). Oyeniyi and Joachim (2008) examined the relationship between customer service and customer retention in telecommunication

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industry in Nigeria and found that if retention has not been achieved, customer loyalty may be lost.

Ther are intense   interest among executives in service businesses about service quality and believe that high quality must be pays off, makes real customers and leads to effectiveness (Taner and Antony 2006). Zainuddin, hairolnezam Kahmis et al.(2014) argue that "perceived the quality of the service given is good based on their judgment on the knowledgeable characteristic and courtesy". In general, service quality is viewed as a essential factor for productivity, and thereby a firm's success.

2.5 International call rate

Numerous studies consider price perception as one of the key decision factor of consumers in purchasing process (Kurtuluş & Okumuş, 2010). Kotler and Armstrong (2010) define price "as the amount of money has been charged for a product or service, or the entirety of the values that customers exchange for the benefits of getting or using the goods or services". Price has also recognized as a serious factor that may affect choice of mobile phone, particularly among younger people, they tend to compare prices ad rates that giving by providers (Mokhlis & Yaakop, 2012). It can determine the level of acceptance as the greatest price charged that a customer is willing to pay for the product or service (Monroe, 1990).

Several studies have been done to examine the role of price as a feature of performance. Fornell, Johnson, Anderson, Cha, and Bryant (1996) reported in their study that price perceptions inflence satisfaction of customers in a macroeconomic level containing seven

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industry sectors. while Voss, Parasuraman, and Grewal (1998) also found that price perceptions affect satisfaction in an experimental setting involving a hotel check-in process. Furthermore, a study by Paulrajan and Rajkumar (2011) found that price charges significantly affect consumers' perception choice in selecting mobile cellular provider, which termination charges is a significant part in mobile competition of the telecommunications sector(Gans & King, 2000).

price perceptions expected to play an increased role to determine satisfaction and intention to return (Liu & Arnett, 2000).customers are more likely to rely on objective product attributes to form an overall perception of price(Greenleaf, Johnson, Morwitz, & Shalev, 2015). However, Hodge (2005) noted that Steady development of the international call traffic and interest for an improved international call rate in Africa as a whole is an opportunity. Furthermore, in telecommunication industry, customers have preconceived ideas associated with the price charges and features of telecommunications services (Alam et al., 2016).In addition (Mokhlis & Yaakop, 2012) indicated that students in Malaysian university are like to students from different parts of the world which might be liable to financial crisis. Which is not even adequate to cover their financial expenses, let alone it was sufficient to expend for expensive mobile phones. Because of this reason, price can be a crucial factor that determine selection of mobile operator. In addition, a careful exanimating characteristics of foreign customer and their buying behavior is crucial in choosing a suitable pricing strategy for a certain foreign market (Theodosiou & Katsikeas, 2001).

A study done by Dziwornu (2013) revealed that mostly price affect consumers' choice of buying mobile phone, as the consumers are expected to relate the price charged and quality of product. This is what gives the idea that the customer has ability to compare difference charges and prices for services or product offered. Similarly, Yaacob et al. L. Ferguson and Scholder Ellen (2013) in their study on transparency in pricing and its effect on perceived price fairness, argued that the price might be judged by consumer, based on derived value, the price relative to different prices that competitors offer it or paid by other customers, and or the equity of the price-setting practice. Similarly. brands' perceived value and brands' quality have perceived price as a key identification by mobile phone customers, whereby advanced technology is indicated by high price, design, and improved features (Calık & Ersoy, 2008; Kabadayi, Aygun, & Cipli, 2007). Therefore, it can be expected that there is a relationship between selection of cellular mobile phones and price.

However, the role of price is crucial in telecommunication sector. Particularly, for the mobile service operators (Kollmann, 2000). The author argued that the basic commercial success for the mobile providers determined by income from the total of call minutes, which need to be measured at all levels. The finding is consistent with findings of past studies Sathish, Kumar, Naveen, and Jeevanantham (2011) indicating that call rates have an essential role in switching the service provider .

In general, a price-dominated mass market lead, Draganska and Jain (2006) stated that a basic system for a firm spreading their service or product is to distinguish their offerings. the possible subscriber will come to at a maximum price at which he will be able to buy

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into the mobile service. This price signifies the value of the telecommunication system, which the potential subscribers have expected to materialize through the buying and continued use. If the provider's sell price is equivalent to or lower than this price was formed by the potential subscriber, a purchase will complete and vice versa.

Hong and Rappaport (1986) pointed that the call initiation rate is consistently disseminated over the mobile service area. Prices also be different with the call receivers' network, the price is normally low if receiver belongs to same provider of network as the caller, rather than if the receiver of a call belongs to the different provider of network. Doyle and Smith (1998) argue that a direct use of economic standards would show that in the lack of collusion between the two firms, access charges will be set in excess of cost and as a result cost will also exceed in the last prices. Similarly, in international level, call charges remain expensive if there is no contracts among telecommunication companies.

On the other hand, there is a wide range of types of tariffing, that is, flat rates, two part tariffs (a mixture of linear and flat rates), linear tariffs,, or even multiple part tariffs that rise the difficulty of comparing prices (Singh & Sirohi, 2015). In the same way with previous research, Armstrong and Wright (2009)found that due to technological and geographical reason , telecommunication companies charge customers different prices.

Trebing (2001) explained that there are three types of strategies to set the price of behavior. Firstly, is limited entry pricing, which company use it to protect its market share. Secondly, is the highly charges access for new competitors, thirdly, is rely sales to write off ancient plant or standard investment counter to captive customers. The author reported

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that limit entry pricing includes set low prices in highly flexible markets to get interest or maintain great part of customers along with dominant purchasing power while maintaining high prices in inflexible markets. However, it would be attractive for a mobile telephone provider to be prepared to provide several services reliant on the area from which the call initiates and/or where it terminates. Such services may for instance comprise locality-dependent pricing schemes (Linkola, 2003).for example, call charges gathering the international calls from other countries. Telkom will gain calls that are more international. Thus, adding profit and recovering the equipment capital cost (Hodge, 2005).

Intense competitiveness market require mobile services to compete on quality and price of services as well as . Additionally it is essential that consumers' requirements and expectations in price and service quality will be met by the mobile services (Melody, 2001). Nowadays, due to the sharp competition, the mobile service providers tend to introduce new and valuable services as well as competitive prices to attract largeness of customers (Haque et al., 2010). However, the price does not limited only to price of a SIM card. It may include also the price of recharge voucher, call rate, SMS charge, the internet charge, price of phones are contained (Adeleke & Suraju, 2012) .

In addition, a network provider with lower price charge may has a high trend to attract a maximum new subscribers which can lead to remarkable market position and financial performance. For this reason, the success of the telecommunication providers in a market place basically depends on maintaining practice and pricing policies (Kollmann, 2000). To sum up, the abliity to improve pricing strategies of mobile service providers, is by more precise forecasts price sensitivity levels of its customers (Munnukka, 2008).

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2.6 Promotion

Both practitioners and academics regard promotion as one of the most visible marketing activities. Usually, companies have attempted to establish favorable, unique, and strong associations with a product through messages to consumers (Keller, 2003) .According to Rowley (1998) organization use promotion as one of the medium to communicate with consumers with respect to their product offerings. Promotions' effect on profitability was conceptualized many years (Neslin & Shoemaker, 1983). Freo (2005) argues that consumers' purchasing behaviour and decisions towards that particular brand have been influenced by Promotions, especially during the sales promotion period.

Kotler, Keller, Ancarani, and Costabile (2014) identify promotion as the set of activities that communicate about the services or products and its potential merits to the target customers and eventually persuade them to buy. The authors also state it is an important tool for majority of companies, especially when new markets have penetrated to attract more or new customers. The growth in promotional expenditures are also reflected the fact that the value and importance of advertising and promotion have been recognized by marketers around the world (Belch & Belch, 2003).

Generally, The promotion aims to ensure that consumers are aware of the company and its products are made available to consumers by the organization (Root, 1994). More specifically, the objectives of any promotional strategy are: increase sales, maintaining or improving market share, create a favorable climate for future sales, create or increase brand recognition inform and may will make market more cultivated , build a competitive

advantage, improve promotional efficiency relative to competitor's products or market position. (Rowley, 1998). According to Alvarez Alvarez and Vázquez Casielles (2005) promotion is a set of incentives that are offered sporadically, and it strengthens publicity activities to promote the buying of a specific product.

However, several different objects to create a better sale impact are contained in promotional offer, for example, samples, contests, premiums, coupons, discounts, frequent-buyer programs and point-of-purchase displays. All the promotion techniques intend to have a direct influence on purchasing behavior and perception towards the company or service providers.

Consumers' perceptions of a company and its various brands are a synthesis of the bundle of messages that are received or contacts they have, such as, price, package design, websites, direct-marketing efforts, publicity media advertisements, sales promotions, point-of-purchase displays, and even the type of store where company sells product or service (Belch & Belch, 2003).

According to Solomon et al. (2013) differences in the perception and valorization of the concept of 'performance' has led to different responses to the same advertisement in countries such as the US, Germany, France, Spain and Thailand. They add also that the general image and design of the store is vital to the perception of the goods were displayed there. While Kirmani (1990) found companies that use consumers' impressions of advertising costs as cues to brand quality under direct exposure to advertise for a new product.

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Contingencies in consumer's decision environments have been created through sales promotions such as rebates coupons, and price reductions, create that could active personally relevant values and goals (Suh & Youjae, 2006). Therefore, of promotion will reaches the objectives to a greater extent when it is done sporadically, when the consumer does not expect it. As result, Company must plans promotional actions well, organizes it systematically, and integrates it generally into the subject corporation's strategic marketing plan.

2.6 Summary

In this chapter, discussions were made about the definition of factors that influence international students to select mobile operators. Then, the chapter discusses and explain the aspects of the factors that influence international students in choosing mobile operators, such as price, promotion, and service quality.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter clarifies the methods used to conduct this study. An appropriate research methodology is crucial for the credible completion of the research project. In this chapter, the method, instrument used and variables are determined. Furthermore, in this chapter also discusses on the questionnaires development, data collection procedure, measurement of variables and as well as explained detail type of data analysis procedures. This study takes on a quantitative methodology based on questionnaire to achieve its objectives.

It starts with the research framework along with the appropriate hypotheses, research design, and the convenient approach to achieve the research objectives. Then the chapter highlights the sampling technique pertinent and selected appropriate method as well as the data collection procedure.

3.2 Theoretical Framework

The Theoretical framework is a conceptual model that explain how the relationship between several factors or matters that have been identified as important for the study area. According to sakaran (2013) a theoretical framework is the basis on which the whole research project is based to identify a logical relation estimated at between two or more variables expressed in the form of statements that can be tested. A theoretical framework

enables the researcher to hypothesize as well as to test the relationship between variables involved and understanding of the related investigation area.

This research seeks the important variables in a situation and found the relationships among them in the theoretical framework. The primary interest to researchers is dependent variable which can be affected by independent variable either in a positive or negative manner (sakaran 2013).

This research utilizes four variables inclusive of three independent and one dependent variable as shown in Figure 3.1. The dependent variable in this study is international students in order to measure perception towards mobile service providers where price, service quality and promotion are applied as Independents variables.

Figure 3.1 *Research Framework*

Independent Variables   Dependent Variable
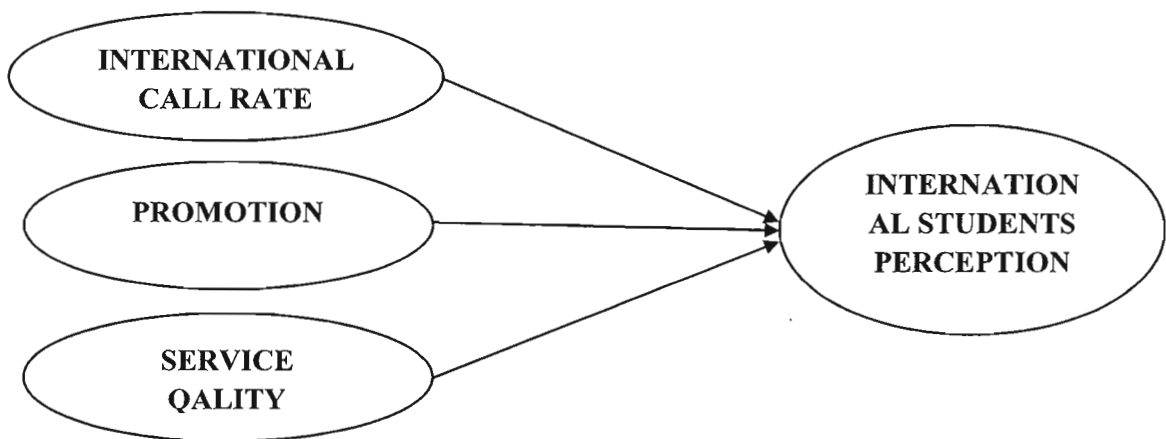
3.3 Hypotheses

According to Creswell (2011) "hypotheses are statements in quantitative research in which the investigator makes a prediction or a conjecture about the outcome of a relationship among attributes or characteristics". Which make researcher able to obtain reliable information on what kinds of relationships exist among the variables operating in problem statement (Sakaran 2013).

In this study several hypotheses have been built that are related to the objectives of the study which need to be tested.

This study selects four variables, namely perception of international students as dependent variable, international call rate, promotion and service quality as independent variables. Therefore, the hypothesis of this study are:

H1- There is an effect of price on the perception of international students in choosing mobile operators.

H2- There is an effect of promotion on the perception of international students in choosing mobile operators.

H3- There is an effect of service quality on the perception of international students in choosing There mobile operators.

3.4 Research Design

Quantitative content analysis research involves a process in which decisions about research design provide the link between conceptualization and data analysis (Riff, Lacy, & Fico, 2014). Contain analysis designed to test how multitude factors affects a particular contain variable. Furthermore, it can be described as effect of independent variable and dependent variable. According to (Creswell, 2012) a Dependent variable is an attribute or characteristic that depends or is influenced by the independent variable. While an independent variable is an attribute or a feature that influences or affects a result or a dependent variable .This study aims to examine the relationship between independent variables, which are price of international calls, promotion, and service quality with the dependent variable, which is the perception of international students. This study uses questionnaire survey design instruments were adapted from the existing literature and applying quantitative research, which is well known on business research since it enables researchers to collect quantitative data on many types of research questions (sakaran 2013). Collecting numerical data from international students mobile phone subscribers in Universiti Utata Malaysia and analyze the data by using statistical method SPSS software. Individual mobile phone subscribers are the unit of analysis for the present study. This study considers each subscriber's response as an individual data source.

For this study, likers scales were used to collect the responses from respondents on each question since this scale is widely used and tested in both marketing and social sciences research.

3.5 Operational Definition

Perception

Perception of customer can be defined as the process, by which an individual select, organizes and interpret information inputs to create meaningful picture of sevice or product (Kotler & Armstrong, 2010). It can also cosider as set of process by which an individual becomes aware of and interpret information about service or product. International students are can be as the main central receiver of the service as an customer (Sumaedi et al., 2011).

Service quality

Parasuraman et al. (1988) define service quality as "the results from the comparison of customer's expectation with perceived performance of services". Service quality is one of the most important factors to form perception about product or service.

International call rate

Kotler and Armstrong (2010) describe price as "the amount of money charged for a product or service, or the sum of the values that customers exchange for the benefits of having or using the product or service".

Promotion

Promotion is one of the medium which organization can use it to communicate with consumers with respect to their product offerings (Rowley, 1998). International students may build an image or perception trough promotion.

3.6 Measurement of Variables

Questionnaire development is an essential element in this study, but there are several limitation to set the questions. This study use the questions to collect the information to address issue that had been clearly stated. Hence, a questionnaire need to be clear and avoid ambiguous questions.

A reasonable sequence need to be appeared in questionnaire that can convince the respondent and also increasingly the respondent confidence will be given, as well as trust in both the questionnaire and the surveyor. Thus, the process of questionnaire development have to start by identifying the using information related to develop the question such as the predictors that had been identified in the earlier stage of the study process. Then, it continue by selecting the best out of the questions. Therefore, the questionnaire could directly target the respondent's perceptions of being a mobile service subscribers.

The survey questionnaire for the current study is drawn from the previous researches as it is detailed in the table 3.1 below .the questionnaire is contains two sections which is section A and section B. in section A the demographic variables and personal information and switching to perception that are measured. While, in section B independent variables are measured differently. The methods used for each section are discussed as below:

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A.   Multiple Choice Questions: For section A, the general question is about the respondent's gender, their ages, and which current study program they are following

B.   Likert Scale: In section B, likert scale will be used this study for the independent and dependent variables to measure the response of likelihood of international students to the statements in the questionnaire. The five point of scale which starting with strongly disagree to strongly agree. In the end of the questionnaire, the participants were randomly assigned to rate their overall perception towards the mobile phone operator by rating eleven items. The responses of these measurement were scored using a 5 point rating scale as mentioned above (1 = Strongly disagree, 2 = Disagree, 3 = Neither, 4= Agree, 5= Strongly agree).

As part of rigorous processing data collection, the researcher also come with details information about the questionnaire instrument to use it in the proposed study. With the exception of demographic information, all other variables included in this study are measured using multiple items adapted from past studies. However, in order that they are fit for the current study, some changes on wording were made on these borrowed items. Table 3.1 summarizes the variables and the total number of items used to measure the each of the variables.

Table 3.1

Source of Measurement

section	variable	Number of items	reliability	Source of scale
A	PERCEPTION OF CUSTOMER	8	0.848	(Rahman et al., 2011)
B	PRICE OF INTERNATIONAL CALLS	6	0.836	(Haque et al., 2010)
C	SERVICE QUALITY	7	0.920	(Cronin Jr & Taylor, 1992)
D	PROMOTION	7	0.930	(d'Astous & Jacob, 2002)

3.6.1 Customers Perception Measures.

In this research, customer perception is measured using an existing scale adopted from the study of (Rahman, Haque et al. 2011).the items were adopted, it showed Cronbach's alpha of 0.848 in their study which is a good internal consistency for the construct. The items are presented in Table 3.2 below.

Table 3.2

Items for Customer Perceptions Measures

NO	Items	Alpha
1	My operator understand specific needs of his customers.	
2	As a whole its my pleasure with my operators.	
3	My operators is very attractive compared with others,	
4	I have feelings of belongingness with my current operator.	.848
5	I Recommended my operators is best as service provider to someone who seeks my advice.	
6	I consider my operator as a first choice.	
7	Do more usage with a service provider in the next few years.	
8	Switch to a competitor if I experience with problem a telecom services.	

3.6.2 International Price Calls Measures.

To measure price of international calls perceptions variable, six items are utilized from the study of (Haque, Rahman et al. 2010) with some modification on wording. All items are measured using a five-point Likert scale. Table 3.2 below shows the items used to measure price of international calls perceptions with reliability coefficient of 0.836 as represented in table below.

Table 3.3

Items for International Price Calls Measures

NO	Items	Alpha
1	International call rate/minute play an important role in my mind of selecting an operator's services.	
2	International student use of the calls rate/minute as tool for selecting criteria of an operator's services.	
3	I judge the international calls rate my operator with other operators.	0.836
4	The international calls rate of my operator's charge meets my expectations.	
5	The international calls rate of my operator's is good value for money comparing to other operators.	
6	The international calls rate of my operator's of is clear understandable.	

3.6.3 Service Quality Measures.

Service quality is measured using the items adapted from the study of (Cronin Jr & Taylor, 1992). All items are measured on a five-point Likert scale. For this variable, the reliability coefficient reported was 0.92. The total number of items used to measure the service quality is shown in Table 3.4 below

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Table 3.4

Items for Service Quality Measures

NO	Items	Alpha
1	My current mobile phone service provider has up-to-date equipment.	
2	When my current mobile phone service provider promises to do something By certain time, it keeps its promise.	
3	When I have a problem, my service provider shows sincere interest in solving it.	
4	My current mobile phone service provider provides its services at the time it promises to do so.	0.920
5	The staff at my current mobile phone service provider are always willing to help customers.	
6	The staff at my current mobile phone service provider customer service are always ready to respond to customer requests promptly.	
7	The staff at my current mobile phone service provider are polite.	

3.6.4 Promotion Measures.

Items for measuring the promotion variable are adapted from the study (d'Astous & Jacob, 2002). This scale consists of seven items and all items are measured using a five-point Likert scale.

Table 3.5

Items for promotion measure

NO	Items	Alpha
1	The mobile operator promotion offer looks complicated.	
2	The mobile operator promotion offer great value.	
3	My mobiles operator promotion offer gives me the impression of getting more than my money worth	
4	The mobile operator promotion offer is dishonest.	0.930
5	The mobile operator promotion offer pleases me.	
6	The mobile operator promotion offer is of quality.	
7	The mobile operator promotion offer interests me.	

3.7 Sampling

3.7.1 Population

According to sakaran (2013) the target population must be defined in terms of elements, geographical boundaries, and time. The target population of this study is international students in Universiti Utara Malaysia which are undergraduate and post-graduate international students from different countries in three colleges: Government and International Studies and College of Law, College of Arts and Sciences, and the college of business. According to of UUM"s Academic Affairs Department (HEA), as of October 2016, the lists of international students are 2544.

3.7.2 Sample size

A sample size can be referred to the number of parts to be totaled in the study. Additionally, if a comparison between a large and small sample was made, the larger sample will offer more reliable results if compared to the smaller sample. However, the population target of this study was defined as international student in Universiti Utara Malaysia. The sample size taken from the target population respondents, the estimation of the number of the respondents selected from the university and randomly distributed the questionnaire among international students. The population of the study consists of 2544 international students in UUM then the sample size of 335 is to be used.(Krejcie & Morgan, 1970).(table3.5 appendix 1).

3.8 Data Collection Procedure

The intent of the strategy method is to develop better measurements. in quantitative research; preferably the sample of population target would be generalized (Creswell 2012). Covering maximum of participants in the sample of the study will provide clear information about population of study. Generally, in this there is one procedure for data gathering, which is the primary data system. Data gathering method is an essential part in this study, the primary data were used as the method of data collection. Sakaran (2013) state that primary data can be accomplished such as form of telephone interviews, focus groups, face-to-face interviews, and questionnaire and so on.

In order to get valuable finding, surveys are useful and compelling to answer research questions through data collection and following analysis of the correct population target (sakaran 2013). There are three types of data collection methods that can be used to collect data through a questionnaire, which are administered personally, mailed to the respondents, or electronically distributed. For this study Primary data were collected by hand from the respondents is especially made for the reason out of explaining and responding to the objectives of this study.

However, due to time constraints, the sample research will only consist of international students, particularly in public university of the northern state of Malaysia (UUM), In this study, a basic random sampling technique is used in which every component in the population has the same possibility of being selected.

In this study, 360 respondents were completed the survey questionnaires at three colleges at the university of Utara. Based on the logic of this method, the researcher administered the questionnaire to the respondent by face-to-face and they also responses spontaneously. Moreover, the participants in this study have varieties of social-demographic background. Indeed, administration questionnaires were conducted from 4th to 8th November2016. Indeed, the data collection begins by explaining the purpose of this study to the respondent then requires the respondent to fill up the questionnaire. Each respondent is requisite to spend about 15 to 20 minutes to fill the questionnaire together with a researcher's monitor. Remarkably, most respondents were worthwhile and sympathetic to fill up the questionnaire. Nonetheless, all questionnaires were returned and interestingly, we had all 360 distributed questionnaires. Furthermore, the researcher did not allow local students to participate in this survey because this study is mainly ponder on those are international students in Universiti Utara Malaysia. Consequently, total 360 questionnaires were distributed and 300 were collected, where a total of 271 was usable questionnaires were used in data analysis and 29 are non-usable questionnaires due to incomplete information.

3.9 Data Analysis Techniques

After data are acquired, through questionnaires, it need to be coded and keyed in, and edited (Sakaran2013), the data of this study were analyzed utilizing the Statistical Package of Social Science (SPSS) programming as well as Smart PLS3 to obtain a more comprehensive analysis of the study. In fact, there are several technique to analyse data. Namely, descriptive test was led to perceive the data about the methods, filtering the data before data analysis and taking the proper data analysis in order to identify data entry errors and to inspect how properly the data meets the statistical expectations. Conduct a

Test of the relationship between the dependent and independent variable reliability. According Creswell (2012) reliability test helps to check for internal consistency of the scales, recognize respondent feedback in the survey, and ensure that all items contained in the questionnaire are correlated with measurements. Coefficient alpha is calculated to measure the reliability of a survey based on internal consistency. If the alpha coefficient is low, it indicates that the test is done too short or the items are very little in common. In order to predict scaling reliability for each factor, Cronbach's alpha coefficient must be counted for each indicated factor.

Joseph F Hair, Black, Babin, Anderson, and Tatham (2006) summarized that if the value of alpha coefficient is below than 0.6, than it represent that the strength of the association among the instrument is poor, if this value is between 0.6 to 0.7 than it shows moderate strength of association while if the value of alpha coefficient range from 0.7 to 0.8, it represents a good strength of association and a very good association .is shown if the alpha coefficient value ranges 0.8 to 0.9. Same like 0.9 shows the excellent strength of association among the instrument. The tables 3.6 below explain the level of acceptability of the instrument used.

Table 3.6

Explain the Level of Acceptability of the Instrument Used

Alpha Coefficient Range	Strength of Association
< .6	Poor
.7 < .8	Good
.8 < .9	Very good
.9	Excellent

Multiple correnallity is a technique that normally used in a data analysis to analyze data when included several independent variables with one dependent variable, correlation analysis explains the relationship between independent variables, which is to can help the researcher to comprehend how much the independent variables are affect the dependent variables.

3.10 Summary

This chapter outlines the research methodology employed in this study. The research model and hypotheses developed were clarified clearly. Similarly, the method of data collection, as well as questionnaire design was explained accordingly. The source of the data collection, and sample size, sampling technique was also covered. Aside from that, the variable measurements of the study were also discussed and finally, the chapter serve as a basis for the next chapters of the research, which is data analysis.

CHAPTER FOUR

FINDING

4.1 Introduction

In this chapter the results of data analysis are presented. SPSS (Statistical Package for Social Sciences) and PLS 3 provides Descriptive and inferential statistical results were obtained. This chapter begins by presenting main results after initial analysis of survey response and data screening. After that, the evaluation of the model's quality result o by PLS is offered by precisely reporting important findings on the measurement and structural models, which contain construct, convergent and discriminant validity, reliability analysis, predictive relevance of the model.

4.2 Analysis of Survey Response

4.2.1 Reponses Rates

In this study the sample size is 335 elements, the distribution of the questionnaire used the self-administered method, 360 questionnaires in UUM library, as well as distributed at students accommodations in UUM. However, for the entire questionnaire collected only 300 questionnaire are returned back to the researcher, which nearly presents a percentage of 83.33 percent of rates of respondent's return. Johnson and Owen (2003) in their report state that the adequate response rate is 32.6 percent. Based on that, in this study, 75.27 percent rate of response is sufficient. In fact, out of these responses only 271 were found to be satisfactorily completed. according to Joseph F Hair, Black, Babin, and Anderson (2010) it is better for researchers to delete the item respondent if it found missing data is

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more that 50%. Based on their recommendation, twenty nine questionnaires were rejected because they were more than 50% incomplete. As result, researcher set aside 29 questionnaires were not suitable and completely filled.

Table 4.1
Questionnaires' Response Rate

Response Rate	Frequency/Rate
Number of distributed questionnaires	360
Returned questionnaires	300
Not returned questionnaire	60
Unusable returned questionnaire	29
Usable questionnaire	271
Respond rate	83.33
Valid respond rate	75.27

4.2.2 Demographic Profile of the Participants

This part presents the participants' demographic profile. The demographic characteristics in this study include gender, age, level of education, nationality, marital status, college of study, which mobile operator they use,. Table 4.5 illustrated that the majority of the participants in the sample were males by 209 participants which represent 77.1 percent, whereas female were 62 representing 22.9 percent , in term of age the participants is construed between 25 and 34 years old by 65.3 percent. In terms marital status, In terms of the marital status of the respondents, more than half of them 59.4 percent are unmarried 39.9 percent are married, while 0.7 percent are widowed . Table 4.5 shows that Master students and PhD Students participates by 38 percent and 40.2 percent respectively while undergraduate represent 21.8 percent in this study. Of the 271 respondents, the majority of the mobile phone subscribers use DiGi by 38.7 percent, followed by U mobile by 24.4 percent, than Maxis by 21.8 percent, and Celcom subscribers represent 8.1 percent. While

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the lowest percentage of respondents use other mobile operators which represent 7 percent

of the participants. . Table 4.2 illustrating more details.

Table 4.2
Profile of Responders

Variables	Frequency	
Gender		
Male	209	77.1
Female	62	22.9
Age		
18-25	74	27.3
26-35	128	47.2
36-45	50	18.5
46-55	17	06.3
56 and above	2	0.7
Level of Education		
Degree	59	21.8
Master	103	38.0
PHD	109	40.2
Marital Status		
Single	161	59.4
Married	108	39.9
widowed	02	0.7
College		
COB	141	52.0
CAS	72	26.6
COLGIS	58	21.4
Mobile Operators		
DiGi	105	38.7
Maxis	59	21.8
Celcom	22	08.1
U mbile	66	24.4
Others	19	07.0

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4.3 Data Coding and Entering

A simply identifiable codes were used to code Items in the questionnaire. This was succeeded by coding the variables separately based on the questionnaire items with one or two or three or four letters and a specific number. For example, a questionnaire from customer perception treatment was coded as CP1 for the first questionnaire item 1 from the customer perception. International call rate was coded as INT call, promotion was coded as Prom. The first item relating to service quality value was coded as SQ1. This data coding ensures that the questionnaires can be easily referred to and mistakes are avoided.

Upon finishing of the above procedure, the researcher entered accordingly all the recovered questionnaires into SPSS version 22.

4.4 Data Screening and Preliminary Analysis

The significance of very good data screening in multivariate allied analysis cannot be an exaggerate, duo to that screening will permit the researcher to assure that the multivariate models' main assumptions are not profaned (Joseph F Hair et al., 2010). At first and before conducting the start data screening, the 300 questionnaires which returned and are usable were encoded and entered into the statistical software Statistical Package for the Social Sciences SPSS. From these 300 usable questionnaires, 29 of them were totally removed for incomplete filling. After that, the remaining of usable questionnaires become 271 and were utilized for the existing data screening.

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According to (Field (2009); Joseph F Hair et al., 2010) state that once coding and entering the data, and transfer it; it must pass to analysis the primary data as the following: (i) missing value analysis, (ii), normality test.

4.4.1 Missing Value Analysis

After the raw data had been entered in the SPSS 22, the next step of action was data cleaning or treatment done by the researcher. This includes checking for errors in the data collected (Byrne, 2013; Pallant, 2007) . These errors appear as form of missing data or out of range information (values that drop outside the range of possible scaled values). It was therefore essential for the researcher to verify on these and handle them accordingly. From the 271 obvious SPSS datasets, a randomly 33 missing data were missing. For the replacement of these 33 missing values in a nearby point substitution to replace the missing value, the method was applied as suggested by Tabachnick and Fidell (2007). it is recommended that missing values be taken with imputation by replacing missing values using the remaining values of the data. To acquire accurate model particulars, the mean is used for the imputation (Lemieux & McAlister, 2005; sakaran, 2013). Using the mean to replace missing values as well as leads to more consistent results than case-wise removal (Parwoll & Wagner, 2012). This is for the reason that for pre-treated data that is intended to be transferred to the PLS path modeling software, case-wise removal will delete useful information, which will in turn cause to lower efficiency, and as a result is not recommended (Temme, Kreis, & Hildebrandt, 2006). Based on this recommendation, a few items of missing values which were detected were replaced accordingly by utilizing the mean values of the items (in total, there were 33 missing values). This was completed as the number of missing values did not pose any statistical issue to the analytical part of

this study. The following Table 4.3 illustrates the total randomly missing values' numbers

of this research

Table 4.3
Result of Missing Values Detecting/Replacing

	N		Minimum	Maximum
	Valid	Missing		
CP1	270	1	1	5
CP2	270	1	1	5
CP3	269	2	1	5
CP4	269	2	1	5
CP5	269	2	1	6
CP6	267	4	1	6
CP7	270	1	1	5
CP8	271	0	1	5
INT call1	271	0	1	5
INT call2	271	0	1	5
INT call3	269	2	1	5
INT call4	268	3	1	5
INT call5	270	1	1	5
INT call6	271	0	1	5
Prom1	270	1	1	5
Prom2	271	0	1	5
Prom3	270	1	1	5
Prom4	269	2	1	5
Prom5	270	1	1	5
Prom6	270	1	1	5
Prom7	271	0	1	5
SQ1	271	0	1	5
SQ2	271	0	1	5
SQ3	267	4	1	5
SQ4	271	0	1	5
SQ5	269	2	1	5
SQ6	269	2	1	6
SQ7	271	0	1	7

Note.
N. = Number
Total number of missing Values: 33

4.4.2 Descriptive Statistics

A descriptive analysis has been conducted to describe the overall situation of customer perception, international call rate, promotion and service quality, are used on mobile phone operator subscribers. The Table 4.4 reports the mean, standard deviation, maximum and minimum values of the constructs.

Table 4.4

Descriptive StatisticDescriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
CPMean	271	1,38	5	3,4608	0,68829
INTMean	271	1	5	3,3801	0,85326
PromMean	271	1,43	5	3,2019	0,64533
SQMean	271	1,71	5	3,5177	0,74473
Valid N (listwise)	271				

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
CPMean	271	1,38	5	3,4608	0,68829	-0,342
INTMean	271	1	5	3,3801	0,85326	-0,571
PromMean	271	1,43	5	3,2019	0,64533	-0,152
SQMean	271	1,71	5	3,5177	0,74473	-0,1
Valid N (listwise)	271					

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Table 4.4 shows that the lowest value of most of the constructs is 1.00 and the highest value is 5.00, which Likers use it as the lowest and highest levels this study. In addition, the data demonstrates that service quality has a maximum mean value of 3.51 with the standard deviation of 0.74. On the other hand, customer loyalty has a minimum mean value of 3.20 with the standard deviation 0.64. In general, these results indicate that the respondents tend to exhibit high levels of service quality with their operator. Overall, the mean score of the constructs range between 3.20 to 3.51. Hence, it shows that there is a moderate level of responses by the subscribers on the constructs.

4.5 Data Analysis

Since the constructs have been determined and proper items have been adapted and modified from adopted instruments, an appropriate data analysis method was selected. SPSS version 22 has been utilised for the preliminary analysis, particularly for the description of the sample of the study. As well as used to compute the variables, which were used to define the level of customer perception among the study respondents. In addition, SPSS has used to compute the mean for each of the items representing the constructs. For the main analyses, the PLS path modelling technique method has been used. The researcher decided to use the PLS path modelling technique because some researchers adduce it in the behavioural sciences, marketing and management research(Joe F Hair, Sarstedt, Ringle, & Mena, 2012; Henseler, Ringle, & Sinkovics, 2009). Firstly, the technique is best appropriate when assumptions of multivariate normality and interval data cannot be made in the scale, and when the researcher is mainly concerned with prediction of the dependent variable (Joe F Hair et al., 2012; Hulland & Business, 1999) Secondly, the higher strength and direction of the relationship among

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variables compared to correlation coefficients can be estimated by PLS parameter. It also avoids parameter estimation biases common in regression analysis (Calantone, Graham, & Mintu-Wimsatt, 1998). Thirdly,PLS offers powerful framework for predicting models with latent variable and system of simultaneous equation with measurement errors(Henseler et al., 2009) and it has minimum requirement regarding to sample size and usually realises high levels of statistical power(Reinartz, Haenlein, & Henseler, 2009).

4.5.1 Model Specification

The original study model included 28 reflective measurement items (manifest variable or indicator) for four variables (latent variables) international call rate, promotion and service quality as independent variables and international students' perception as dependent variable.
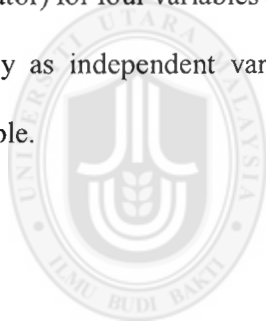
Figure 4.1:

*The Resear*ch Model
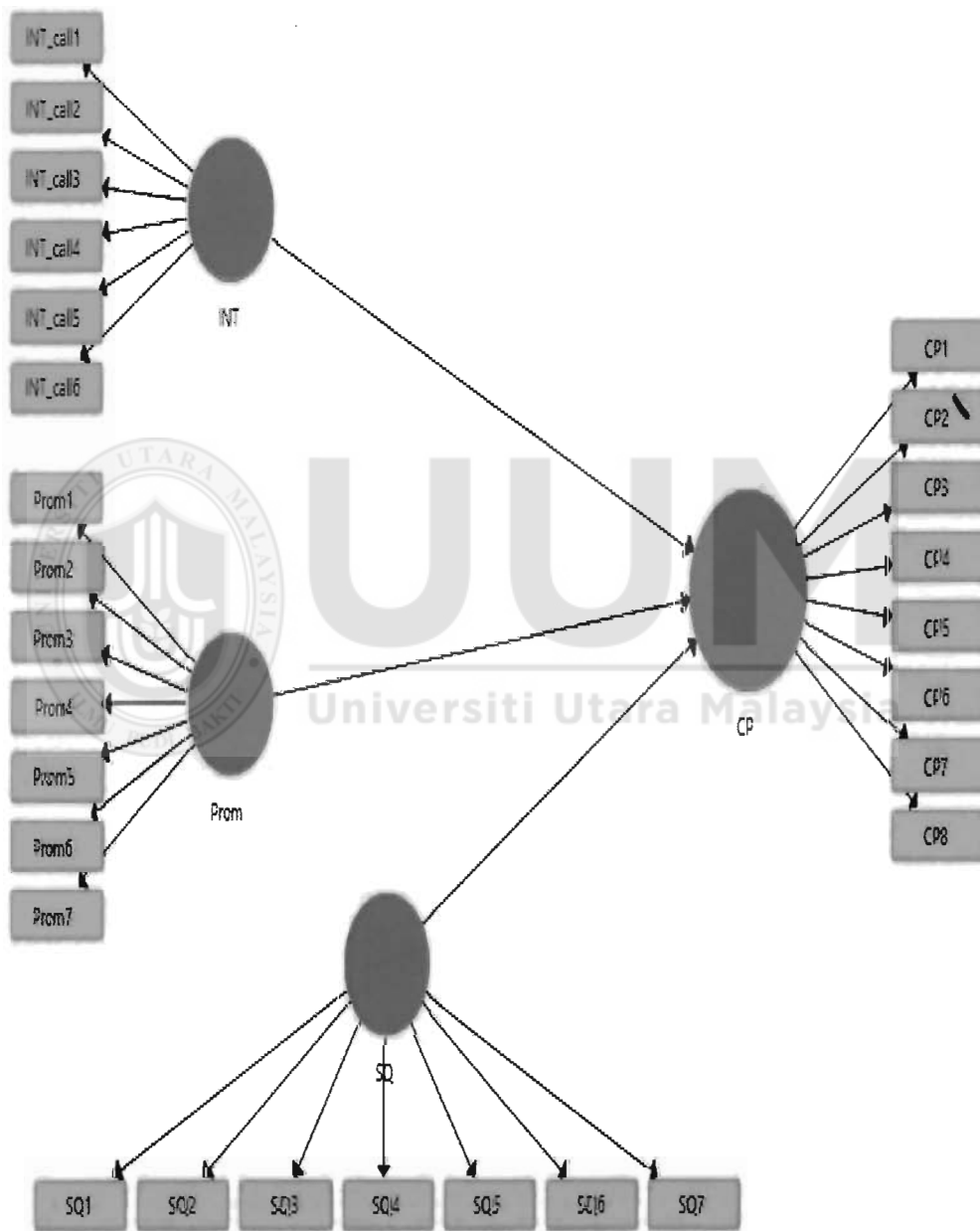
4.5.2 Assessment of the Measurement Model

Based on the previous study's recommendations, the measurement model's quality in this research was evaluated by utilizing the next criteria: (i) indicator reliability, (i) internal consistency reliability, (iii) convergent validity, and (v) discriminant validity for reflective and formative construct.

Figure 4.2 describes the results of the measurement model for the complete research model for the reliability and validity of the constructs, whereas the results of reflective measurement models are presented in Table 4. 5.

Figure 4.2

Result of Measurement model
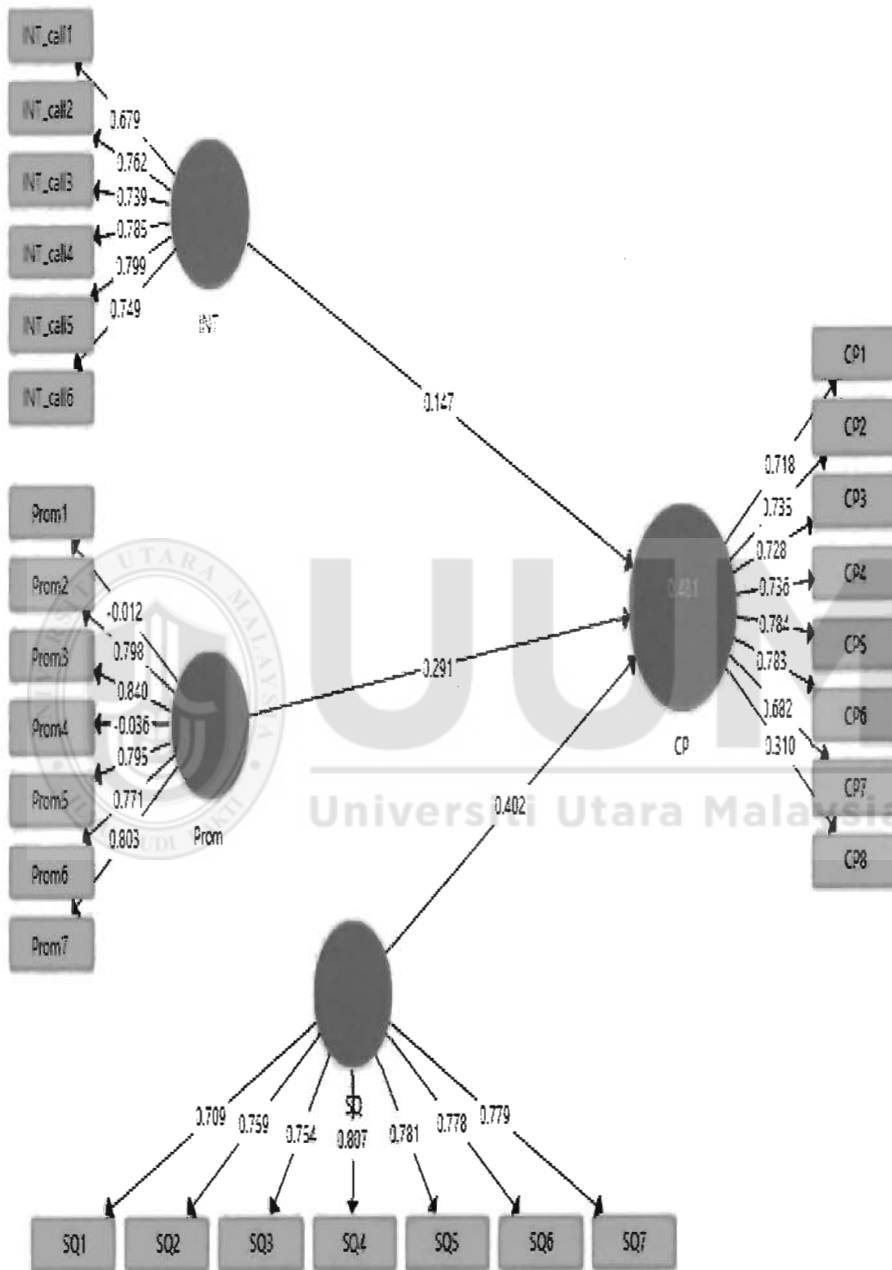
4.5.3 Construct Validity

Construct validity confirms how well the results obtained from the use of the measure fit the theories around which the test is designed(sakaran, 2013). The issue to be addressed here is if the instrument clarifies or has a solid relationship with the concepts. The researcher examined the factor loadings and cross-loadings to make sure if there are issues with any specific item. A cut-off value of 0.5 (being significant) as suggested by Hair et al. (2010) was used as part of this test. According to Hair et al. (2010); and Chin (1998), in order to verify the construct validity of the measurement model, researchers may use factor loading of the items. Particularly, for the reason to measure a specific construct, all items intended for that had better be loaded notably on the construct, which they are intentionally constructed to measure.

When we test the model for the first time we must pay attention to that result that the average variance extracted of the variable customer perception it was 0.481, and for variable of promotion it was 0.459. While, both of standardized loadings of item CP8, Prom1 and Prom 4 were 0.310, -0.012 and -0.036 respectively; these values are not acceptable. Consequently, in order to improve the value to be acceptable, we removed these three items and the results illustrated in the next Figure 4.3 and Table 4.6.

Figure 4.3

Measurement model (PLS Algorithm Results)
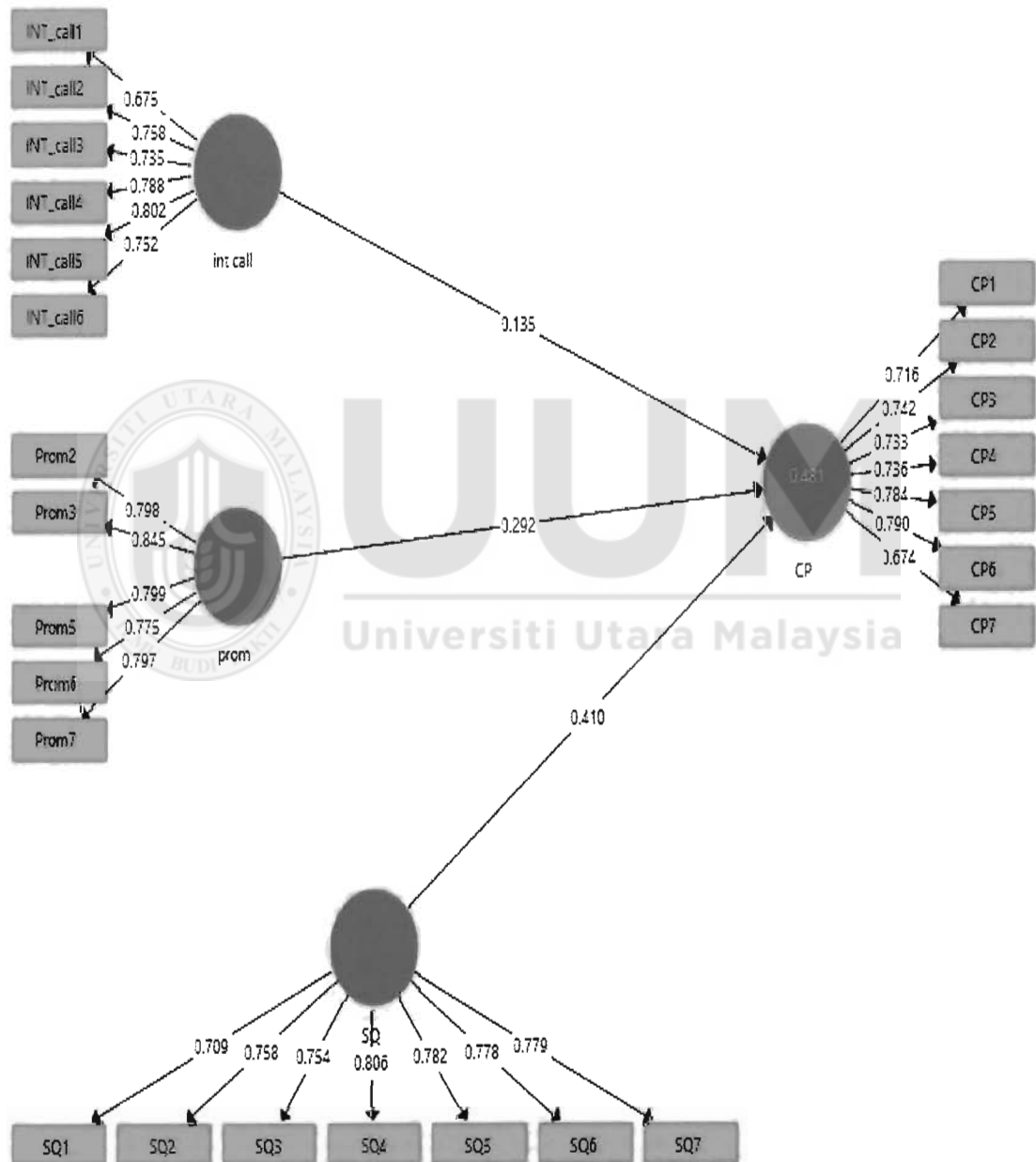
Table 4. 5
Result of Reflective Measurement Model

Construct	Items	Std, Loading	Crombach Alpha	CR	AVE
Custmers' Perception	CP1	0.716	0.862	0.894	0.548
	CP2	0.742			
	CP3	0.733			
	CP4	0.736			
	CP5	0.784			
	CP6	0.790			
	CP7	0.674			
International call rate	INTcall1	0.675	0.849	0.887	0.567
	INTcall2	0.758			
	INTcall3	0.735			
	INTcall4	0.788			
	INTcall5	0.802			
	INTcall6	0.752			
Promotion	Prom2	0.798	0.863	0.901	0.645
	Prom3	0.845			
	Prom5	0.799			
	Prom6	0.775			
	Prom7	0.797			
Service quality	SQ1	0.709	0.883	0.909	0.588
	SQ2	0.758			
	SQ3	0.754			
	SQ4	0.806			
	SQ5	0.782			
	SQ6	0.778			
	SQ7	0.779			

Note.

AVE= Extracted Average Variance; CR= Composite Reliability; Std= Standardized

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First of all, as pointed out in table 4.5 the standardized loadings of the reflective construct as whole are very good, all are above of the value 0.4 the threshold value which suggested by F. Hair Jr, Sarstedt, Hopkins, and G. Kuppelwieser (2014). Hence, the reliability indicator was highly agreeable in reflective measurement model with standardized loadings ranging from 0.674 to 0.845.

Secondly, by exanimating the composite reliability coefficients the internal consistency reliability was established (Henseler et al., 2009). Bagozzi and Yi (1988) mention that if a composite reliability's value indicates 0.7 and above, that is means that the internal consistency reliability is extremely satisfying and favourable. All the composite reliability coefficients of the reflective constructs were well above of 0.7 the threshold value recommended, thereby suggesting acceptable internal consistency reliability, were ranged from 0.887 to 0.909.

Thirdly, if the Average Variance Extracted (AVE) value is 0.50 or above, then the convergent validity is considered acceptable (Bagozzi and Yi, 1988). The AVE values of the reflective constructs were ranged from 0.548 to 0.645. Subsequently, it established satisfactory convergent validity for reflective measurement model.

Therewith, discriminant validity for reflective constructs was confirmed by testing the loadings and cross loadings. In specific, with a view to achieve satisfactory discriminant validity, the loading of every indicator must be more major than all of its cross-loadings. As displayed in Table 4.6, whole standardized loadings were well on their respective constructs without cross-loadings on the remaining latent variables. Therefore, in this

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research the reflective measurement model accomplished a satisfactory discriminant validity.

Table 4.6
Cross Loading

	CP	int call	prom	SQ
CP1	**0.716**	0.388	0.422	0.504
CP2	**0.742**	0.381	0.398	0.442
CP3	**0.733**	0.217	0.411	0.471
CP4	**0.736**	0.231	0.429	0.406
CP5	**0.784**	0.301	0.509	0.474
CP6	**0.790**	0.304	0.428	0.515
CP7	**0.674**	0.402	0.351	0.419
INT_call1	0.221	**0.675**	0.144	0.258
INT_call2	0.294	**0.758**	0.181	0.299
INT_call3	0.295	**0.735**	0.228	0.302
INT_call4	0.421	**0.788**	0.504	0.346
INT_call5	0.325	**0.802**	0.379	0.349
INT_call6	0.332	**0.752**	0.326	0.343
Prom2	0.510	0.402	**0.798**	0.417
Prom3	0.535	0.362	**0.845**	0.501
Prom5	0.381	0.269	**0.799**	0.372
Prom6	0.386	0.286	**0.775**	0.404
Prom7	0.444	0.326	**0.797**	0.474
SQ1	0.486	0.341	0.425	**0.709**
SQ2	0.478	0.375	0.453	**0.758**
SQ3	0.461	0.314	0.427	**0.754**
SQ4	0.502	0.304	0.440	**0.806**
SQ5	0.457	0.305	0.398	**0.782**
SQ6	0.476	0.288	0.378	**0.778**
SQ7	0.496	0.348	0.398	**0.779**

Note.
CP= Customer Perception, INT call= international call rate, Prom= Promotion, SQ= Service Quality,

The standard bootstrapping procedure with 5000 bootstrap samples was applied in this current research to output the beta values, standard errors, and t-values for both the effect model. The assessments of the effect structural model were illustrated in Figure 4.4 and Table 4.7.

Figure 4.4
PLS Bootstrapping Results
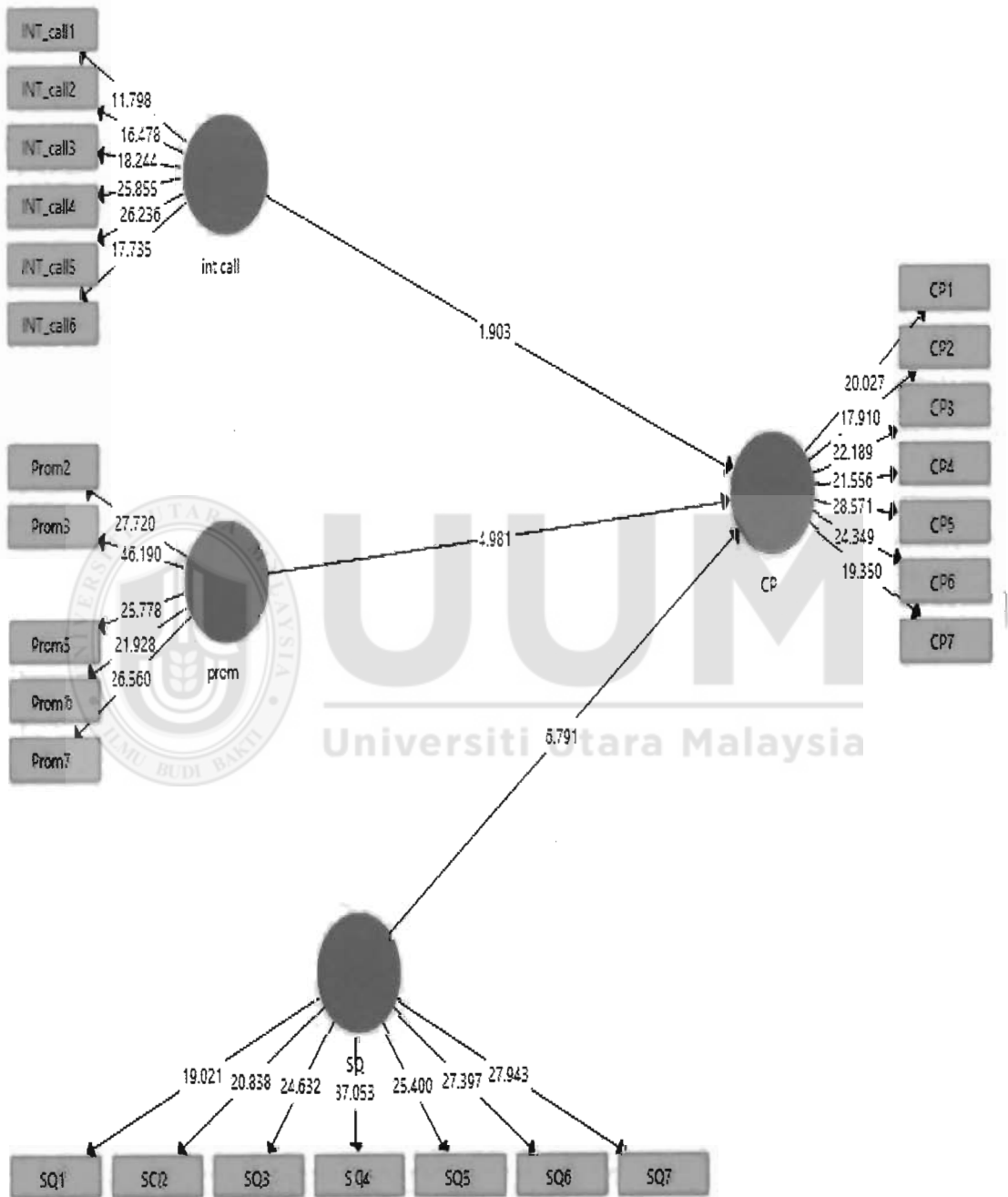
Table 4.7
Hypothesis Testing

Hypothesis	Relationsship	Std. Beta	Std. Error	T-Value	P-Values	Result
	INT_ -> CP	0.137	0.071	1.903	0.057	Supported
	Prom -> CP	0.297	0.059	4.981	0.000	Supported
	SQ -> CP	0.410	0.060	6.791	0.000	Supported

Endogenous latent variable customer perception: $R^2 = 0.481$; Falk and Miller (1992) state

the minimum level accepted for the endogenous latent variable R^2 was 0.10. According to

Wegner (2011), R^2 values for endogenous latent variables are assessed as follows:

When R^2 lies closer to 0 (or 0%), it indicates a weak level.

When R^2 closer with center 50 (or 50%), it indicates a moderate level.

When R^2 lies closer to 1 (or 100%), it indicates a strong level.

The tested model showed that R^2 value was 0.481 which means that international call rate,

promotion and perception account 48% of the variance of customer perception.

The results in table 4.5 indicated that international call rate has significant effect on the

customer perception ($\beta = 0.137$, t= 1.903, p= 0.057). Therefore, if the international call rate

increase by 1 percent the customer perception increase by 0.137 percent at 1 percent

significance level. Hence, hypothesis one was supported.

Promotion has a significant effect on the customer perception ($\beta = 0.297$, t= 4.981, p=

0.000). Therefore, if the promotion increase by 1 percent the customer perception increase

by 0.297 percent at 1 percent significance level. Hence, hypothesis two was supported.

Service quality has a significant effect on the customer perception ($\beta = 0.410$, $t = 6.791$, $p = 0.000$). Therefore, if the service quality increase by 1 percent the customer perception increase by 0.410 percent at 1 percent significance level. Hence, hypothesis three was supported.

4.6 Summary of Findings:

After present all the findings, we summarise the hypothesis testing in the following table:

Table 4.8
Summary of Hypotheses Testing

Hypotheses	Statements	Results
H1	There is an effect of international call rate on the perception of international students in choosing mobile operators.	supported
H2	There is an effect of promotion on the perception of international students in choosing mobile operators.	supported
H3	There is an effect of service quality on the perception of international students in choosing mobile operators.	supported

4.7 Summary of the chapter

In this chapter, after we evaluated the structural model, we presented the key findings of this research. More specifically, this study has been shown some of hypotheses were rejected and others were accepted. In the next chapter, will discuss the findings.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter aims to clarify reasonably the findings demonstrated in the previous chapter, particularly for the hypotheses tested. These findings will be presented according to the hypothesized relationship according with the research objectives that were exhibited in the preceding sections. The following examined variables; International call rate, promotion and service quality are comprised in the discussion. The discussions of each variable of all findings to address the hypotheses will be covered. The discussions will also be presented in the line to the order of the research objectives in chapter one. In addition, valuable recommendations are proposed for operators, while limitations and suggestions for future studies are also highlighted. Finally, a conclusion of what the whole study entails is made to summarize the research.

5.2 Discussion

The aim of this study is to examine the factors that influence international perception towards mobile operators in UUM. This study include three independent variables which are international call rate, promotion and service quality with dependent variable which is international student's perception.

The purpose of this study is to attain three major objectives. First objective is to determine the effect of price of international calls on the perception of international students in choosing mobile operators. Second objective is to determine the influence of promotion on the perception of international students in choosing mobile operators. Third objective is to determine the effect of service quality on the perception of international students in choosing mobile operators.

The significant path relationships between factors involved in determining perception of international students the results. The findings indicates that perception of international student towards Malaysian mobile operators are significant.

The results showed that reliability and validity were strong in assessing the unique variance of each construct. One of the other main objectives this study was to examine a more consistent model of international student's perception towards the operators in the telecom market. This was fulfilled by investigating the relationship with three factors including: international call rate, promotion, service quality. The expounding power of the three variables to predict international student's perception is reflected in the R^2 with 48%. The first objective of this study were supported, The price or call rate of an operator was considered a substantial factor that influences international student's perception towards an operator, international call rate plays an important role on perception of international students to choose mobile service providers. since cost considered as primary issue for international students(Mazzarol & Soutar, 2002).

It is also observed that service quality proved to be significant predictors of perception toward mobile operators as highlighted by Osotimehin et al. (2015) on mobile cellular provider in Nigeria. Service quality enhance relationship between mobile service providers and their customers, as well as, effective services gives positive perception on service quality delivered by mobile cellular companies, and encourage them to increase use as well as the need to utilize other services offered by service provider. This result is in line with previous researches such as (Gautam, 2015; Iqbal, Zia, Bashir, Shahzad, & Aslam, 2008).

In addition, promotion has significant effect on international student's perception, offers presented by mobile providers seek to ensure that consumers are aware about their firm and its products that the company makes available for them. The efforts that makes to influence perception of international student's enhance reputation of the company and give them a competitive advantage.

Furthermore, from the result of structural equation modeling. In addition, this study concluded that international students' mobile phone operator's subscribers believed that the price of international call rate, promotion and service quality were considered a significant factor that influences consumers' perception towards an operator.

5.3 Research Contribution

This research intended to in one of the most issue that are related to international students. Due to the globalization, international students can be as additional source of income for

Malaysian mobile service providers. An understanding of direct effect of the main factors such as international call rate, promotion, service quality that affect international student perception in mobile cellular providers will give the managers of mobile operators in a better position to design suitable strategies to deal with marketing practices that will enhance the benefit of the operators.

The contribution of this study from the theoretical perspectives is to identify how the international all rate, promotion and service quality affects perception in choosing mobile operators. However, these study contribute to the literature by examining the factors stated in the context and develop a theoretical framework that examine the relationship between the three factors mentioned above with mobile operators.

The result also provides a new dimension in understanding the perception to choose mobile operators and its determinant. Further, the study also provides additional knowledge for the variables and how are related to the international student perception to choose mobile operators. As for the literature point of view, the study provides a new evidence from Malaysia particularly on the variable that has not been together tested earlier.

In addition, the research regarding international student's perception towards mobile operators is limited compared to the research that was implemented on mobile cellular selection criteria. Due to reason, this study could contribute to a research paper in Malaysia, which will come with some information for future researchers interested in carrying out a study on telecommunication industry, particularly on mobile service

providers. Furthermore, this study likewise helps to authorize the previous instruments concerning the perception as well as the determinants that may give an effect towards the perception. The finding benefits managers and academicians a much stronger basis for recommending strategies to ensure better understanding international students' perception.

The findings are also beneficial to the policy maker whereby the results might become feedbacks for them in formulating related policies. As for mobile operators, the results provides insight to the determinant factors of international students in mobile cellular in Malaysia.

As mentioned earlier, predictors as international call rate promotion and service quality have remarkable effect on international student's perception, these effects would help mobile cellular providers to meet this target and fulfill their needs. In addition, the results are important to the mobile operators, especially in structuring their strategies to attract more customers to their companies.

5.4 Limitations of the study

As of whole studies, this study has several limitations that should be noted. First, the respondents of this research are confined to the international students in Universiti Utara Malaysia only. Hence, the finding cannot be generalized to all international students in Malaysian factors that affect their perception in choosing mobile operators.

Second, as this study is limited to international students in Universiti Utara Malaysia, the results do not represent the perception of towards mobile operators of international students of a developed country. This exploratory study could be developed in the future research through more empirical research with different level and size of respondents, which included other place in Malaysia through cross-country researches.

5.5 Suggestions

Likewise, companies that desire to grow their businesses should continually implement fresh and creative ideas and present interesting offers in order to retain and attract more customers. Therefore, it is imperative that mobile phone providers should take extra effort to improve price of call rate, promotion and service quality level in their efforts to build better perception of international students towards their mobile cellular providers.

In addition, researcher only used respondents from Universiti Utara Malaysia. So it does not reflect the overall population of international student in Malaysia. Hence, it is suggested that future research covers international students from all universities in Malaysia as well as cover all foreigners in Malaysia, so as to provide a more robust result relating to the perception of to choose mobile operators.

5.6 Conclusion

International students' perception were measured and analyzed in this chapter. Students perception considered as a prominent component to measure effectiveness of services provided by mobile operators. The result shows a significant relationship between

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independent variables (international call rate, promotion, service quality) and dependent variables, which is international students' perception. However, once done it will help mobile service providers to upgrade their services based on student feedback.

REFERENCES

Adeleke, A., & Suraju, A. A. (2012). The determinants of customer loyalty in Nigeria's GSM market. *International Journal of Business and Social Science, 3*(14).

Agyekum, C. K., Haifeng, H., & Agyeiwaa, A. (2015). Consumer Perception of Product Quality. *Microeconomics and Macroeconomics, 3*(2), 25-29.

Alam, M. A., Roy, D., & Akther, R. (2016). Consumers' Expectation and Perception toward Mobile Telecommunication Usage in Bangladesh. *Asian Business Review, 6*(1), 57-64.

Amir, A. (2015). Malaysia's mobile telcos need to be more innovative in a saturated market.   Retrieved 02/11/2016, 2016, from http://www.thestar.com.my/business/business-news/2015/12/28/telcos-need-to-be-more-innovative-in-a-saturated-market/

Armstrong, M., & Wright, J. (2009). Mobile call termination. *The Economic Journal, 119*(538), F270-F307.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science, 16*(1), 74-94.

Bansal, H. S., & Taylor, S. (2015). *Investigating the relationship between service quality, satisfaction and switching intentions.* Paper presented at the Proceedings of the 1997 Academy of Marketing Science (AMS) Annual Conference.

Belch, G. E., & Belch, M. A. (2003). *Advertising and promotion: An integrated marketing communications perspective*: The McGraw– Hill.

Boshoff, C., & Gray, B. (2004). The relationships between service quality, customer satisfaction and buying intentions in the private hospital industry. *South African Journal of Business Management, 35*(4).

Brocato, E. D., Voorhees, C. M., & Baker, J. (2012). Understanding the influence of cues from other customers in the service experience: A scale development and validation. *Journal of retailing, 88*(3), 384-398.

Brown, R. M., & Mazzarol, T. W. (2009). The importance of institutional image to student satisfaction and loyalty within higher education. *Higher Education, 58*(1), 81-95.

Byrne, B. M. (2013). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*: Routledge.

Calantone, R. J., Graham, J. L., & Mintu-Wimsatt, A. (1998). Problem-solving approach in an international context: antecedents and outcome. *International Journal of Research in Marketing, 15*(1), 19-35.

Calık, N., & Ersoy, F. (2008). Online Shopping Behavior and Characteristics of Consumers in Eskisehir, Turkey: Who, What, How Much and How Often. *The Business Review*, 262-268.

Chang, P. K., & Chong, H. (2011). *Customer satisfaction and loyalty on service provided by Malaysian telecommunication companies*. Paper presented at the Electrical Engineering and Informatics (ICEEI), 2011 International Conference on.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research, 295*(2), 295-336.

Chowdhury, H. K., Parvin, N., Weitenberner, C., & Becker, M. (2010). Consumer attitude toward mobile advertising in an emerging market: An empirical study. *Marketing, 12*(2), 206-216.

Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*: Sage.

70

Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: a reexamination and extension. *The Journal of marketing*, 55-68.

d'Astous, A., & Jacob, I. (2002). Understanding consumer reactions to premium-based promotional offers. *european Journal of Marketing, 36*(11/12), 1270-1286.

Dominici, G., & Palumbo, F. (2013). How to build an e-learning product: Factors for student/customer satisfaction. *Business Horizons, 56*(1), 87-96.

Douglas, J., McClelland, R., & Davies, J. (2008). The development of a conceptual model of student satisfaction with their experience in higher education. *Quality Assurance in Education, 16*(1), 19-35.

Doyle, C., & Smith, J. C. (1998). Market structure in mobile telecoms: qualified indirect access and the receiver pays principle. *Information economics and policy, 10*(4), 471-488.

Draganska, M., & Jain, D. C. (2006). Consumer preferences and product-line pricing strategies: An empirical analysis. *Marketing Science, 25*(2), 164-174.

Dziwornu, R. K. (2013). Factors Affecting Mobile Phone Purchase in the Greater Accra Region of Ghana: A Binary Logit Model Approach. *International Journal of Marketing Studies, 5*(6), 151.

F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review, 26*(2), 106-121.

Ferreira, G. (2008). *Consumer perceptions of global branding and iconization*: Universal-Publishers.

Field, A. (2009). *Discovering statistics using SPSS*: Sage publications.

Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: nature, purpose, and findings. *The Journal of marketing*, 7-18.

Foxall, G. R., Goldsmith, R. E., & Brown, S. (1998). *Consumer psychology for marketing* (Vol. 1): Cengage Learning EMEA.

Freo, M. (2005). The impact of Wal-Mart supercenters on supermarket concentration in US metropolitan areas. Agribusiness,17(1), 105-111.

Gans, J. S., & King, S. P. (2000). Mobile network competition, customer ignorance and fixed-to-mobile call prices. *Information economics and policy, 12*(4), 301-327.

Gautam, V. (2015). Service quality perceptions of customers about mobile telecommunication services: a case of India. *Journal of Global Marketing, 28*(1), 19-31.

Gautam, V., & Kumar, M. (2011). An empirical investigation of factors determining the consumers' choice of mobile service providers. *J. Bus. Res. Turk./Isletme Arastirmalari Dergis, 3*(4), 3-17.

Geser, H. (2004). Towards a sociological theory of the mobile phone. *E-Merging media: communication and the media economy of the future*, 235-260.

Greenleaf, E., Johnson, E. J., Morwitz, V., & Shalev, E. (2015). The price does not include additional taxes, fees, and surcharges: a review of research on partitioned pricing. *Fees, and Surcharges: A Review of Research on Partitioned Pricing (July 21, 2015)*.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis: A global perspective. *Pearson: Upper Saddle River, NJ*.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis 6th Edition. *New Jersey: Pearson Education*.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science, 40*(3), 414-433.

Hamer, L. O. (2006). A confirmation perspective on perceived service quality. *Journal of Services Marketing, 20*(4), 219-232.

Haque, A., Rahman, S., & Rahman, M. (2010). Factors determinants the choice of mobile service providers: Structural equation modeling approach on Bangladeshi consumers. *Business and Economics Research Journal, 1*(3), 17.

Hassan, N., Ahmad, N., & Aminuddin, W. M. W. (2013). Selection of mobile network operator using Analytic Hierarchy Process (AHP). *Advances in Natural and Applied Sciences, 7*(1), 1-5.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in international marketing, 20*(1), 277-319.

Hodge, J. (2005). Tariff structures and access substitution of mobile cellular for fixed line in South Africa. *Telecommunications Policy, 29*(7), 493-505.

Hong, D., & Rappaport, S. S. (1986). Traffic model and performance analysis for cellular mobile radio telephone systems with prioritized and nonprioritized handoff procedures. *IEEE transactions on Vehicular Technology, 35*(3), 77-92.

Hulland, J., & Business, R. I. S. o. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal, 20*(2), 195-204.

Iqbal, A., Zia, M. H., Bashir, S., Shahzad, K., & Aslam, M. W. (2008). *Antecedents and Outcomes of Customer satisfaction in using prepaid cellular service in Pakistan.* Paper presented at the Proceedings of the First International Conference on Business and Technology, Iqra University, Islamabad, Pakistan.

73

Jain, S. K., & Gupta, G. (2004). Measuring service quality: SERVQUAL vs. SERVPERF scales. *Vikalpa, 29*(2), 25-37.

Kabadayi, E. T., Aygun, I., & Cipli, C. (2007). The effects of marketing mix strategies on brand equity: mobile phone sector. *Journal of Global Strategic Management, 2*, 74-81.

Kamaruddin Saiful Bahri, & Hashim, I. (2016). Number Of International Students In Malaysia To Double by 2020 – PM.

Kathuria, L. M., & Jain, M. (2009). Factors Influencing the Selection of a Mobile Phone Service Provider: An Empirical Study among Rural Consumers. *Asia Pacific Business Review, 5*(4), 128-136.

Kirmani, A. (1990). The effect of perceived advertising costs on brand perceptions. *Journal of consumer research, 17*(2), 160-171.

Kollmann, T. (2000). The price/acceptance function: perspectives of a pricing policy in European telecommunication markets. *European Journal of Innovation Management, 3*(1), 7-15.

Kotler, P., & Armstrong, G. (2010). *Principles of marketing*: pearson education.

Kotler, P., Keller, K. L., Ancarani, F., & Costabile, M. (2014). *Marketing management 14/e*: Pearson.

Kumasey, A. S. (2014). Service Quality and Customer Satisfaction: Empirical Evidence

from the Ghanaian Public Service. *European Journal of Business and Management*.

Kurtuluş, K., & Okumuş, A. (2010). Consumers' price perceptions as a segmentation criteria: An emerging market case. *İstanbul Üniversitesi İşletme Fakültesi Dergisi, 39*(1), 21-34.

Kushwah, S. V., & Bhargav, A. (2014). Service quality expectations and perceptions of Telecom sector in INDIA. *International Journal of Advancements in Technology, 5*(1), 1-10.

L. Ferguson, J., & Scholder Ellen, P. (2013). Transparency in pricing and its effect on perceived price fairness. *Journal of Product & Brand Management, 22*(5/6), 404-412.

Lemieux, J., & McAlister, L. (2005). Handling missing values in marketing data: A comparison of techniques. *MSI Reports, 2*, 41-60.

Li, M., Huang, L., Tan, C.-H., & Wei, K.-K. (2013). Helpfulness of online product reviews as seen by consumers: Source and content features. *International Journal of Electronic Commerce, 17*(4), 101-136.

Limbongan, M. Y., Saerang, D. P. E., & Mekel, P. A. (2014). consumer perception, brand experience and purchase intention of chinese mobile phones in manado. *jurnal riset ekonomi, manajemen, bisnis dan akuntansi, 2*(1).

Linkola, J. (2003). Method and apparatus for calculating call charge rates in a mobile telecommunication system: Google Patents.

Liu, C., & Arnett, K. P. (2000). Exploring the factors associated with Web site success in the context of electronic commerce. *Information & management, 38*(1), 23-33.

Mazzarol, T., & Soutar, G. N. (2002). "Push-pull" factors influencing international student destination choice. *International Journal of Educational Management, 16*(2), 82-90.

Melody, W. H. (2001). " Policy Objectives and Models of Regulation", Telecom

Reform Principles, Policies and Regulatory Practices. *Technical University of Denmark,*

Lyngby.: Edited by William H. Melody, Den Private Ingeniorfond,.

Mokhlis, S., & Yaakop, A. Y. (2012). Consumer choice criteria in mobile phone selection: An investigation of malaysian university students. *International Review of Social Sciences and Humanities, 2*(2), 203-212.

Munnukka, J. (2008). Customers' purchase intentions as a reflection of price perception. *Journal of Product & Brand Management, 17*(3), 188-196.

Nelson, R. R., Todd, P. A., & Wixom, B. H. (2005). Antecedents of information and system quality: an empirical examination within the context of data warehousing. *Journal of management information systems, 21*(4), 199-235.

Neslin, S. A., & Shoemaker, R. W. (1983). A model for evaluating the profitability of coupon promotions. *Marketing Science, 2*(4), 361-388.

Osotimehin, K., Hassan, B. A., & Abass, H. (2015). Customers Perception of Service Quality in the Nigerian Telecommunication Sector. *Journal of Economics and Business Research, 21*(1), 144-157.

Oyeniyi, O., & Joachim, A. A. (2008). Customer service in the retention of mobile phone users in Nigeria. *African Journal of Business Management, 2*(2), 26.

Pallant, J. (2007). SPSS survival manual: A step-by-step guide to data analysis using SPSS version 15. *Nova Iorque: McGraw Hill.*

Pandian, A., Baboo, S. B., & Mahfoodh, O. H. A. (2016). Influence of multiculturalism on the study programs in Malaysian public universities: international students' perceptions. *Studies in Higher Education, 41*(7), 1133-1152.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual. *Journal of retailing, 64*(1), 12-40.

Parwoll, M., & Wagner, R. (2012). The impact of missing values on PLS model fitting *Challenges at the interface of data analysis, computer science, and optimization* (pp. 537-544): Springer.

Paulrajan, R., & Rajkumar, H. (2011). Service quality and customers preference of cellular mobile service providers. *Journal of technology management & innovation, 6*(1), 38-45.

Quintal, V. A., Wong, D. H., Sultan, P., & Yin Wong, H. (2012). Service quality in a higher education context: An integrated model. *Asia Pacific Journal of Marketing and Logistics, 24*(5), 755-784.

Rahman, S., Haque, A., & Ahmad, M. I. S. (2010). Exploring influencing factors for the selection of mobile phone service providers: A structural equational modeling (SEM) approach on Malaysian consumers. *African Journal of Business Management, 4*(13), 2885.

Rahman, S., Haque, A., & Ahmad, M. I. S. (2011). Choice criteria for mobile telecom operator: Empirical investigation among Malaysian customers. *International Management Review, 7*(1), 50.

Ramalingam, T., Karim, J. A., Piaralal, S., & Singh, B. (2015). Creativity and innovation (organizational factor) influence on firm performance: An empirical study on Malaysian telecommunication mobile network operators. *American Journal of Economics, 5*(2), 194-199.

Rasli, A., Shekarchizadeh, A., & Iqbal, M. J. (2012). Perception of service quality in higher education: Perspective of Iranian students in Malaysian universities. *International Journal of Academic Research in Management (IJARM), 1*(1).

Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing, 26*(4), 332-344.

Riff, D., Lacy, S., & Fico, F. (2014). *Analyzing media messages: Using quantitative content analysis in research*: Routledge.

Root, F. R. (1994). *Entry strategies for international markets*: Jossey-Bass.

Rowley, J. (1998). Promotion and marketing communications in the information marketplace. *Library Review, 47*(8), 383-387.

Russell, M. (2005). Marketing education: A review of service quality perceptions among international students. *International Journal of Contemporary Hospitality Management, 17*(1), 65-77.

sakaran, R. B. a. u. (2013). *Research Methods for Business: A Skill-Building Approach* (6th Edition ed.): John Wiley & Sons.

Sathish, M., Kumar, K. S., Naveen, K., & Jeevanantham, V. (2011). A study on consumer switching behaviour in cellular service provider: A study with reference to chennai. *Far East Journal of Psychology and Business, 2*(2), 71-81.

Singh, S., & Sirohi, N. J. (2015). Mobile Number Portability: It's Impact on Consumer and Service Providers. *BVIMR Management Edge, 8*(1).

Solomon, M., Bamossy, G., Askegaard, S., & Hogg, M. (2013). Consumer behavior: A European perspective. 5. uud. p. *Harlow: Pearson Education.*

Suh, J.-C., & Youjae, Y. (2006). When brand attitudes affect the customer satisfaction-loyalty relation: The moderating role of product involvement. *Journal of Consumer Psychology, 16*(2), 145-155.

Sumaedi, S., Bakit, I. G. M. Y., & Metasari, N. (2011). The effect of students' perceived service quality and perceived price on student satisfaction. *Management Science and Engineering, 5*(1), 88.

Sutherland, E. (2001). International roaming charges: over-charging and competition law. *Telecommunications Policy, 25*(1), 5-20.

Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics, 5th. *Needham Height, MA: Allyn & Bacon.*

Taner, T., & Antony, J. (2006). Comparing public and private hospital care service quality in Turkey. *Leadership in Health Services, 19*(2), 1-10.

Temme, D., Kreis, H., & Hildebrandt, L. (2006). PLS Path Modeling—A Software Review. Economic Risk, SFB 649.

Theodosiou, M., & Katsikeas, C. S. (2001). Factors influencing the degree of international pricing strategy standardization of multinational corporations. *Journal of International Marketing, 9*(3), 1-18.

Trebing, H. (2001). Emerging Market Structures and Options for Regulatory Reform in Public Utility Industries In: William. *HM (Editor) Telecom Reform: Principles, Policies and Regulatory Practices, Denmark: Schultz DocuCenter, Reprint.*

Tripathi, S. N., & Siddiqui, M. H. (2010). An empirical investigation of customer preferences in mobile services. *Journal of Targeting, Measurement and Analysis for Marketing, 18*(1), 49-63.

Trivellas, P., & Dargenidou, D. (2009). Leadership and service quality in higher education: the case of the Technological Educational Institute of Larissa. *International Journal of Quality and Service Sciences, 1*(3), 294-310.

Tu, Y.-T., Lin, S.-Y., & Chang, Y.-Y. (2011). Relationships among service quality, customer satisfaction and customer loyalty in chain restaurant. *Information Management and Business Review, 3*(5), 270-279.

Verbeke, W., Dejaeger, K., Martens, D., Hur, J., & Baesens, B. (2012). New insights into churn prediction in the telecommunication sector: A profit driven data mining approach. *European Journal of Operational Research, 218*(1), 211-229.

Voss, G. B., Parasuraman, A., & Grewal, D. (1998). The roles of price, performance, and expectations in determining satisfaction in service exchanges. *The Journal of marketing*, 46-61.

William, J. (2002). *The student satisfaction approach: Student feedback and its potential role in quality assessment and enhancement.* Paper presented at the 24th EAIR Forum.

Wilson, A., Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2012). *Services marketing: Integrating customer focus across the firm*: McGraw Hill.

Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information systems research, 16*(1), 85-102.

www.skmm.gov.my. (2015). industry performance report.   Retrieved 20/10/2016, 2015, from   http://www.skmm.gov.my/Resources/Industry/Industry-Performance-Report.aspx

Appendix 1

Table 3.1									
Table for Determining Sample Size of a Known Population									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size   Source: Krejcie & Morgan 1970

Appendix 2: Questionnaire

<div align="center">

SURVEY QUESTIONNAIRE

**FACTOR INFLUENCING PERCEPTION OF INTERNATIONAL STUDENTS
TOWARDS MOBILE OPERATORS**

</div>

Thank you for showing an interest in this research project. Please read this information sheet carefully before deciding whether or not you wish to participate. Participation in the study is entirely up to you.

Purpose: I am Belhimer Messaoud, I am conducting a survey as partial fulfillment of the requirements for the degree of master science of management at the University Utara Malaysia.

Instructions:

Please read the information sheet before completing survey.

Select the answer that best reflects your views. Answer all questions as honestly as possible. There are no correct or best answers.

For all questions please mark (X) in the appropriate box unless instructed to do otherwise.

PART A (DEMOGRAPHIC CHARACTERISTICS)

1. **Gender**   male ( )   female ( )

2. **Age**   ( ) 18-25   ( ) 26-35

     ( ) 36-45   ( ) 46-55   ( ) 56+

3. **Level of Education**
   degree ( )
   master ( )
   PHD   ( )

4. **Nationality**
   (   )

5. **Marital status**
   Single   ( )   Married   ( )
   Widowed ( )   Divorced ( )

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6. **School**

COB ( )   CAS ( )   COLGIS ( )

Mobile operator

DiGi ( )   Maxis ( )   Celcom ( )   U mobile ( )   Other (…………..)

PART B

Please rate each of the following items to indicate the extent to which you agree or disagree with each statement. Use a response scale in.   1 =strongly disagree and 5=strongly agree. Importance notice: ; 1=strongly disagree; 2= disagree; 3 Neither; 4= agree; 5= strongly agree;

CUSTOMERS' PERCEPTIONS

	Items	1	2	3	4	5
1	My operator understand specific needs of his customers.					
2	As a whole its my pleasure with my operators.					
3	My operators is very attractive compared with others					
4	I have feelings of belongingness with my current operator.					
5	Recommended my operators is best as service provider to someone who seeks my advice					
6	I consider my operator as a first choice.					
7	Do more usage with a service provider in the next few years.					
8	Switch to a competitor if I experience with problem a telecom services.					

INTERNATIONAL CALL RATE

No	Items	1	2	3	4	5
1	International call rate/minute play an important role in my mind of selecting an operator's services.					
2	International student use of the call rate/minute as tool for selecting criteria of an operator's services.					
3	I judge the international call rate my operator with other operators.					
4	The international call rate of my operator's charge meets my expectations.					
5	The international call rate of my operator's is good value for money comparing to other operators.					
6	The international call rate of my operator's of is clear understandable.					

PROMOTION

No	Items	1	2	3	4	5
1	The mobile operator promotion offer looks complicated.					
2	The mobile operator promotion offer great value.					
3	My mobiles operator promotion offer gives me the impression of getting more than my money worth					
4	The mobile operator promotion offer is dishonest.					
5	The mobile operator promotion offer pleases me.					
6	The mobile operator promotion offer is of quality.					
7	The mobile operator promotion offer interests me.					

SERVICE QUALITY

No	items	1	2	3	4	5
1	My current mobile phone service provider has up-to-date equipment.					
2	When my current mobile phone service provider promises to do something by certain time, it keeps its promise.					
3	When I have a problem, my service provider shows sincere interest in solving it.					
4	My current mobile phone service provider provides its services at the time it promises to do so.					
5	The staff at my current mobile phone service provider are always willing to help customers.					
6	The staff at my current mobile phone service provider customer service are always ready to respond to customer requests promptly.					
7	The staff at my current mobile phone service provider are polite.					