

# SERVICE QUALITY DIMENSIONS AND CUSTOMER SATISFACTION IN MALAYSIAN MOBILE TELECOMMUNICATION MARKET: AN EMPIRICAL INVESTIGATION OF THE MOBILE PHONE MARKET IN MALAYSIA

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## ABSTRACT

*This paper aim to examine the relationship between service quality dimensions and customer satisfaction in Malaysian mobile telecommunication market. The population of this study comprised of Malaysian mobile phone subscribers, the sample size was 112 and it was selected with simple random sampling technique. The data collection method was based on personally administered questionnaires to the respondents. Out of 112 questionnaires, 103 questionnaires were collected, and 9 questionnaires were not returned by the respondents. Moreover, the results of this study show service quality dimensions have positive relation effects on customer satisfaction in Malaysian mobile telecommunication market.*

**Keywords:** *Services Quality, Customer Satisfaction, Telecommunication Sector, Malaysia.*

## INTRODUCTION

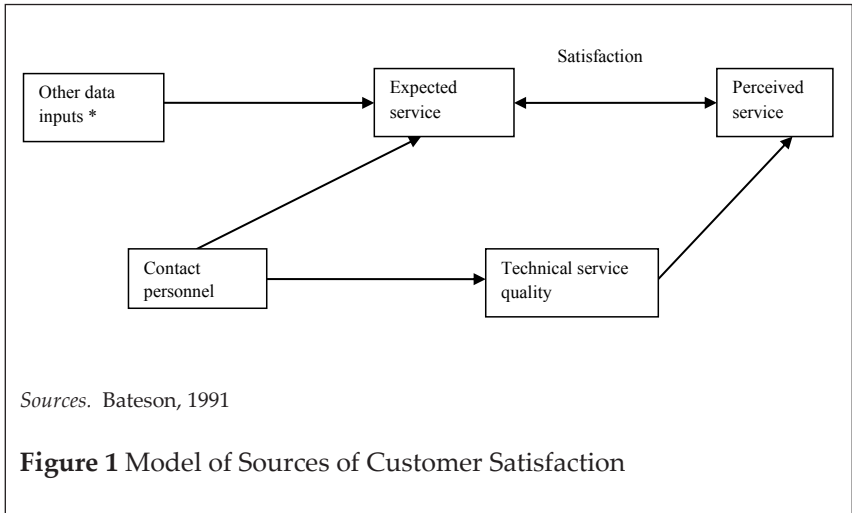
The 21<sup>st</sup> century has seen mobile telecommunication enter a new era of fairly even distribution of the means of communication where the elite minority no longer holds exclusive right of control over mobile telecommunication channel. The world of mobile telecommunication continues to make progress with creative technologies as well as services, seeing that the mobile telecommunication has moved from being just a tool of advancement over the land phone or the cordless phone, to being a necessary device that facilitates both personal as well as business operations of individuals as well as business entities (Edward, George & Sarkar, 2010). With subscriber's totaling over three billion world-wide, the rate of the spread of mobile telecommunication in developing

markets has surpassed that of developed countries (Kalba, 2008). However, in providing satisfactory services, it is crucial to ascertain customers' perception of service quality and their consideration of what is to be regarded as quality, because a fundamental problem faced by most companies is grasping the ways to provide quality service that may lead to customer satisfaction (Lorenzo, et al., 2010). Therefore, researching on perceived service quality and taking a look at its impact on customer satisfaction could assist firms in enduring vigorous rivalry. In the mobile telecommunication, it is highly challenging for operators to distinguish itself from rivals, and the situation is getting even more difficult. Subscribers expectations are getting more advanced and one of the most crucial issues for clients is the quality and reliability of the services rendered to them. This is resting on the fact that many companies allot sizeable amount of resources to gauge and supervise quality so as to achieve satisfy of customer. Consequently, the value of this research arises from its ability to provide important and worthwhile information to all mobile telecommunication network providers in Malaysia specifically and across the world in general with a view to achieving success from satisfying their clients. This study also improves the knowledge of mobile phone including the effect of perceived service quality on all the components of customer satisfaction. On the whole, since there is no survey investigating the effect of perceived service quality on customer satisfaction in industry, this study seeks to achieve that.

## **LITERATURE REVIEW**

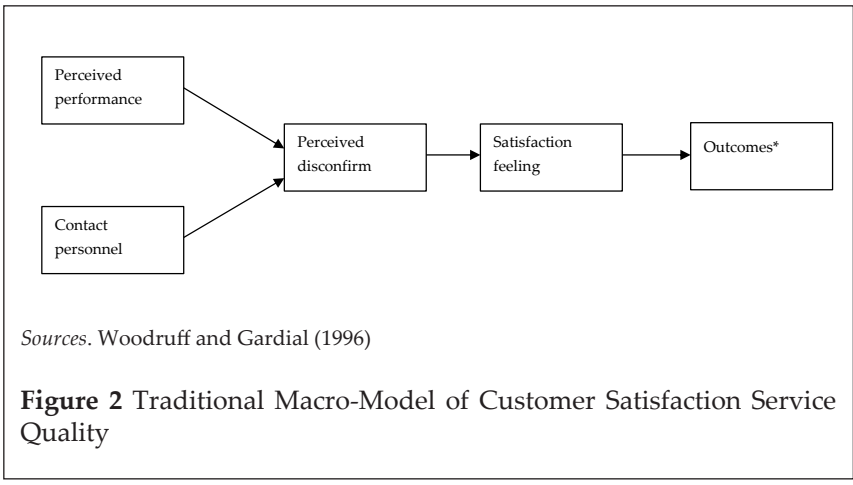
### **Customer Satisfaction**

Customer satisfaction is perceived as a central concept in marketing research (Erevelles & Leavitt, 1992). Oliver (1980) considered satisfaction and dissatisfaction in relation to the degree of fulfillment or the lack of it of the expectations of customers which he called disconfirmation, established that if disconfirmation is positive, it brings about customer satisfaction, similarly, when disconfirmation is negative it triggers dissatisfaction. He opined that customer satisfaction is reached if a product has a positive disconfirmation of customers' anticipation thereby doing better than the initial expectation and the moment the product is able to confirm customers' positive pre-purchase anticipation. Oliver and Swan (1989) came up with their definition of customer satisfaction as a complete psychological position in which there exists a difference between the rising feeling and anticipation, and that anticipation is a



consumers' expected emotion and built up from their earlier purchases. The main goal of service providers and marketers is related; and that simply is the development and provision of services that meet the needs and expectations of customers. In the opinion of Gilbert and Veloutsou (2008), customers' expectations come from the accumulation of their contacts with services provided them in every facet of life. From such contacts customers accrue a generalized service expectation or standard rested upon their daily experiences as consumers. Based on the buildup of these service experiences customers are able to create individual standards used to measure the worth of service quality.

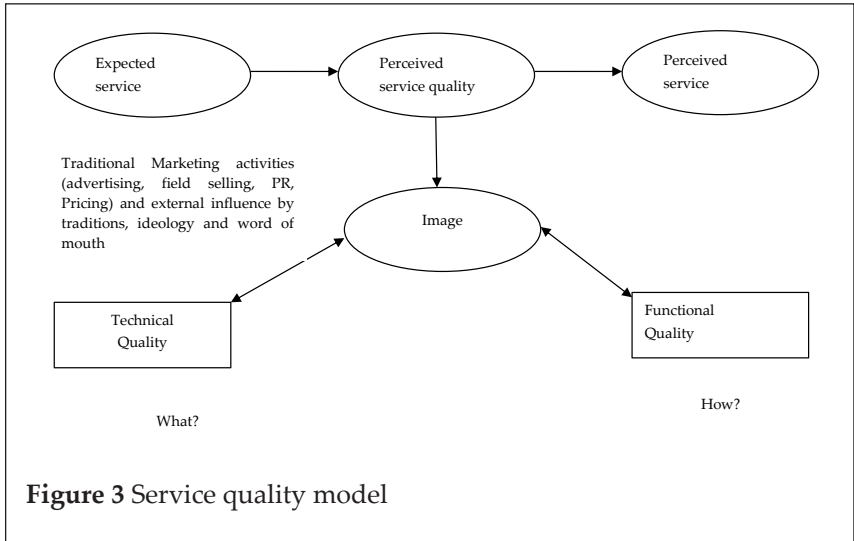
However, the last few decades' consumer satisfaction has been extensively studied in marketing field. Nevertheless, scholars of marketing have not yet; conform to generally accepted definition of satisfaction. Giese and Cote (2000) considered satisfaction as a summary variable intensity over specific time point of determination and limited duration oriented aspects of the centrality of the purchase and or consumption of products. Zahorik, Rust (1992) "Satisfaction has long been recognized as an important hypothetical in models of buyer behavior and models of customer reactions to service design often incorporate it as a variable" (pg 261). Thus, mobile telecommunication should give customer satisfaction first priority to their customer so as unsatisfied customer may switch easily to another operator. According Ranaweera and Prabhu, 1993, "The belief that high level of satisfy for customer led to higher customer retention.



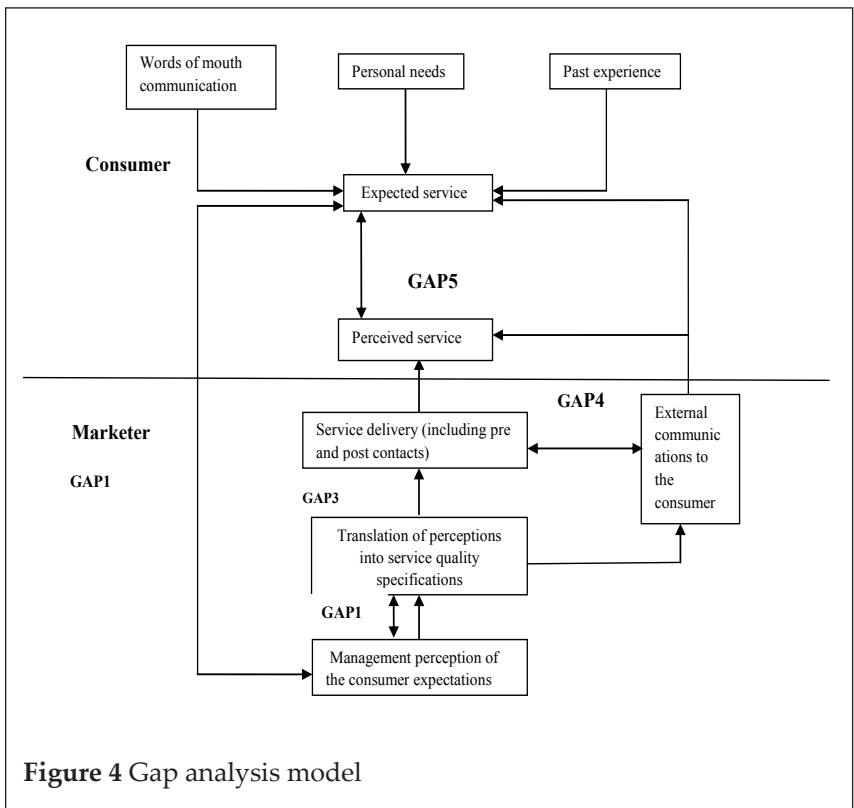
**Figure 2** Traditional Macro-Model of Customer Satisfaction Service Quality

Refers to the differences between the customer previous expectation and his perception after the service experience. The service quality model has continued to develop for more than a quarter of a century, during this period the model has received a significant attention since the findings of the exploratory research by (parasuraman, Berry & Zeithaml, 1985). A gap model of perceived service quality was developed in the study, which disclosed ten dimensions to measured service quality. The ten dimensions were later condensed to five dimensions in 1988. A 22-item questionnaire called SERVQUAL model was developed by Parasuraman et al. (1988). However it has been argued that the SERVQUAL measurement has more practical and logical effect than the previous thought (Parasuraman, Berry & Zeithaml, 1991a; Parasuraman, Zeithaml, Berry, 1994b).

Effective service delivery is an important method for an organization to achieve competitive advantage in today`s service economy (Bowen & Schneider, 1988; Parasuraman et al; 1988; Shem, Yavas, & Bilgin, 1988). Several studies had been conducted over the years and reveal that effective service quality will lead to retention of existing customers and attraction of new ones, enhance profitability, reduce cost, enhanced corporate image and positive word-of-mouth recommendation (Reichheld & Sasser, 1990; Kang & James, 2004; Yoon & Suh, 2004). This is one of the reason why various studies concentrated on customer evaluations, such as customer satisfaction(Jonson,1996;Schmit&Allschied,1995) and service quality( Parasuraman et al,1988; Schneider, White & Paul, 1998). Moreover good service quality will lead to high customer satisfaction and increases customer loyalty (Kumar, et al.2009).

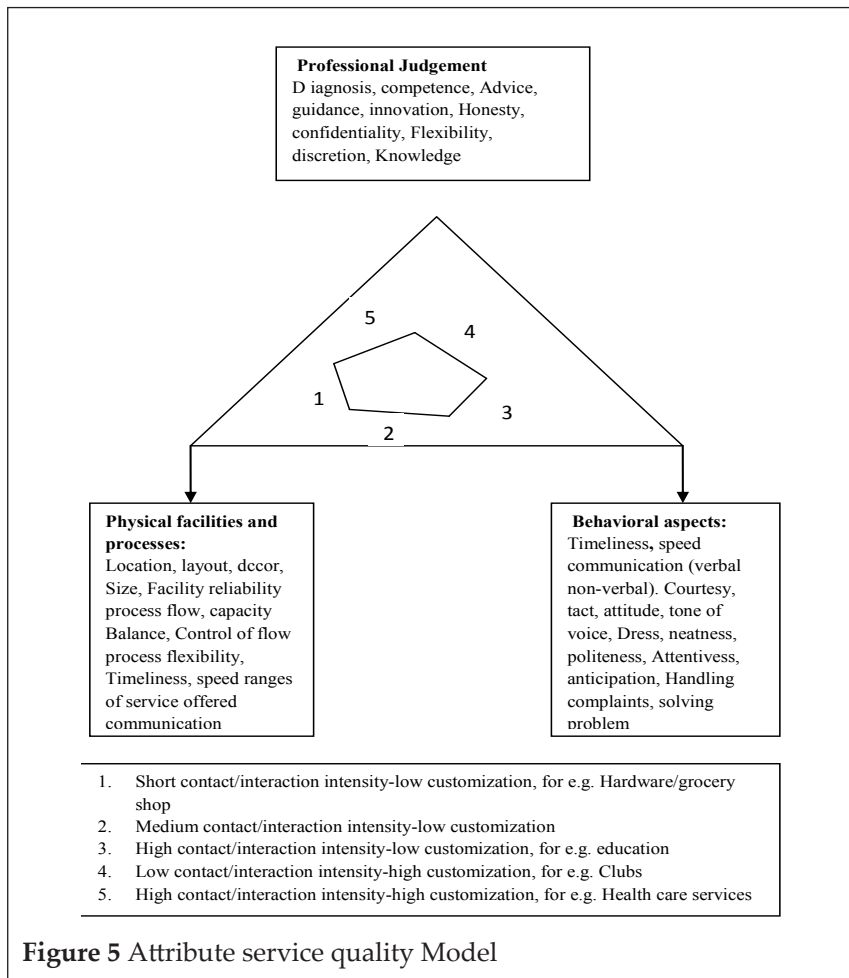


**Figure 3** Service quality model

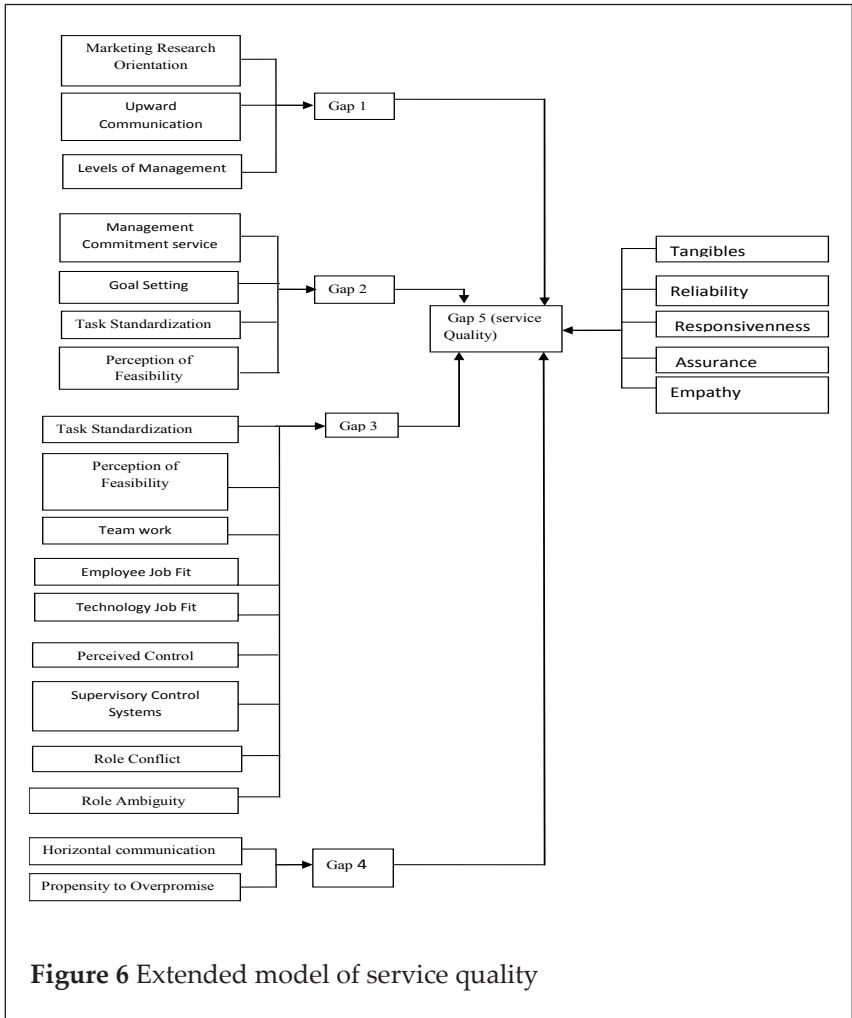


**Figure 4** Gap analysis model

Furthermore, the SERVQUAL model by Parasuraman et al. (1988) is the most popular and generally used scale to measure service quality (Bahia & Nantel, 2000; Kumar, Kee & Mansho, 2009). Even though so many other researchers have successively modified the model, Brown and Bond (1995) emphasized that Parasuraman model is one of the well received and most heuristically valuable contributions to service literature. There were 97 attributes identified by Parasuraman et al. (1985) which were found to have an influence on service quality. Hence all these attributes were merged into ten attributes and later condensed into five dimensions of service quality because they overlap across the ten criteria (Jannadi & Alsaggaf, 2000). These five dimensions of the service quality include: tangibility, reliability, responsiveness, assurance and empathy.



**Figure 5** Attribute service quality Model



**Tangibility:** These are products that have an independent physical existence of service Parasuraman, et al. (1985, 1988) which include: equipment or tools used for service and physical facilities such as computer operating system and credit card. Toelle (2006) examine that customers use tangible cues in assessing the quality of services due to the intangibility of services. Briefly if the customer or consumers notice that the appearance of the physical facilities, equipment and personnel are excellent, then his assumption of the service offering will be positive.

**Reliability:** This is the ability of the service provider to render service dependably and accurately (Parasuraman, et al.1988).This means that the

service firm is able to provide good services at the appropriate time. This dimension is closely related to the Gronroos's concept of technical quality service (toelle, 2006) and the most important factor in the customers assessment of service quality.

**Responsiveness:** This is the willingness to provide service by employees within a very short time e.g. giving prompt service and mailing a transaction slip immediately. In essence this dimension evaluates the level to which the service provider is willing to help customers and provide prompt service.

**Assurance:** This is the knowledge and courtesy of the service providers and their ability to encourage trust and confidence in the brain or minds of their customers. This dimension consist, respect, politeness, friendliness and consideration of the contact resources personnel (Parasuraman, et al, 1985).

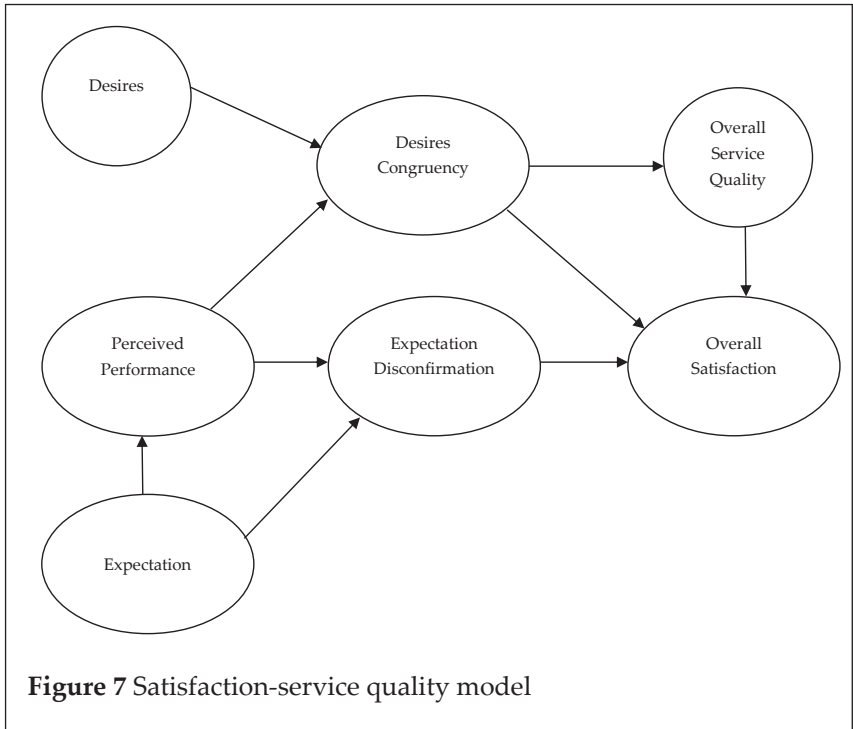
**Empathy:** This has to do with the individualized attention and caring the firm present to its customers (Parasuraman, et al. 1988). This is achieve when the firm make an effort to understand the particular needs and wants of the customer.

### **The Relationship between Service Quality and Customer Satisfaction**

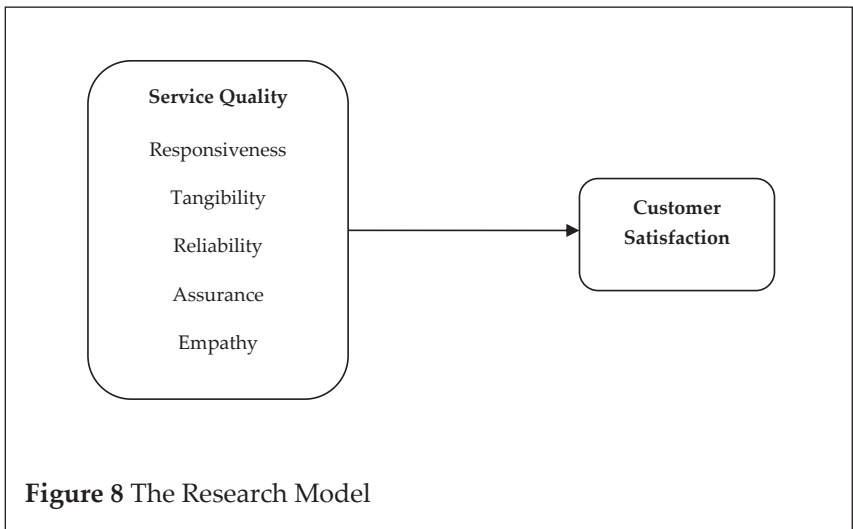
The link between service quality and customer satisfaction has long been researched by scholars. The majority of researchers in this subject have come to a conclusion that quality of service represents an important part of satisfy customer (Hallowell, 1996; Cronin & Taylor., 1992). Furthermore, many scholars found that better quality of service has a connection with customer satisfaction to a large extent (Cronin et al., 2000; Kim & Lee, 2010). In the same vein, quality of Service discovered as a strong predictor of customer satisfaction (Dean, 2002; Ganguli & Roy, 2011).

According to Sureshchandar, Rajendran and Anantharaman (2003), that there is a strong correlation between quality of service as well as customer satisfaction. Several empirical research works also proved that a significantly high level of quality of service correlated with higher level of satisfy customer (Brady & Robertson, 2001; Yang, Wu & Wang, 2009). Zeithaml, Berry & Parasuraman, (1996) indicated that customer's perception of quality of service form the key predictor of customer satisfaction. Proportionately high service quality can attract new customers, retain current customers, and draw customers away from competitors whose service quality is considered less satisfactory (Babakus, Bienstock & Scotter, 2004; Deng, Lu, Wei & Zhang, 2010).





## RESEARCH FRAMEWORK



## **Underpinning theory**

In this study, customer satisfaction was measured by behavioural intention in terms of repurchasing intention, word-of-mouth and first-in-mind. These measures were proven to be useful in previous research (Oliver, 1980; Taylor & Baker, 1994). Therefore, the theory of planned behaviour would be of use in supporting the research framework for understanding customer satisfaction. The theory of planned behaviour (Ajzen, 1985) postulates that intention could be the best determinant of an individual's behaviour. Thus, an individual who has a strong satisfaction led to intention is more likely to engage in the behaviour than one with low intention. In this context, the theory of planned behavior posits the relationship between service quality and customer satisfaction.

## **METHODOLOGY**

### **Sample and procedures**

The population sample for this survey was taken from subscribers in the patronage of the mobile phone companies that operate in Malaysia, registered with the Malaysia Telecommunications Regulatory Commission. Particularly, the research sample was drawn from University Utara Malaysia (UUM) student, on the account that the university has a considerable number of student-base capable of forming required sample for a survey of this kind. The sample size was 112 and it was selected using simple random sampling method. The data collection technique was based on personally administered questionnaires to the respondents. Of the 112 questionnaires distributed, 103 were collected, and 9 questionnaires were not returned by the respondents. Every item in the survey was adapted from past surveys. Each item was followed by five-point scale format, ranging from 5 =strongly agree to 1 = strongly disagree.

Pearson correlation was used to describe the strength and direction of the relationship between two variables (Pallant, 2001). The researcher used multiple regressions in data analysis to ascertain the relationship between independent variable (service quality) and dependant variable (customer satisfaction). In addition, zero miss variable and outliers is normal.

## **ANALYSIS AND RESULTS**

The research questionnaire was designed based on previous empirical literature. The research questionnaire was used as the primary data

collection method. A list of measurement items was developed using input from the review of the literature related to our study. The five service quality was adapted from (Parasuraman, Zeithaml & Berry, 1988). Customer satisfaction adapted from (Walsh, Dinnie & Wiedmann, 2006; Aydin & Özer, 2005). Each of the adapted items were assessed on a five point scale ranging from strongly disagree (1) to strongly agree (5). Researchers chose that a five-point scale is to ensure consistency among variables and to avoid confusion among respondents. Therefore, all items will measured using one to five point Likert scale.

The taste of hypotheses was positive and significant depend the result of analysis in Table 3 that meaning ( $\beta = .464, P, < .05$ ) because support test.

**Table 1** Correlations

Quality	Satisfaction		
.464(**)	1	Pearson Correlation	satisfaction
.000		Sig. (2-tailed)	
103	103	N	
1	.464(**)	Pearson Correlation	quality
	.000	Sig. (2-tailed)	
103	103	N	

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

Based on the table above, the correlation between service quality and customer satisfaction is .46 as a showed on table 1.

**Table 2** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.464(a)	.216	.208	2.27717

a Predictors: (Constant), quality.

Based on the table above, the Service quality is .20% variance of customer satisfaction as a showed on table 2.

**Table 3** Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.545	2.078		6.039	.000
	quality	.139	.026	.464	5.271	.000

a Dependent Variable: satisfaction.

Depend data analysis in table 3 the relationship between independent variable (service quality) and dependent variable (customer satisfaction) is significant positive relations at (t=5.271; p=0.000).

**Table 4** Reliability Statistics

	Cronbach's Alpha
Customer satisfaction	.715
Service quality	.868

Depend data analysis in table 4 customer satisfaction, Cronbach's a .715, service quality, Cronbach's a .868. This means that all the items are significantly important in measuring their constructs, internal consistence reliability values are at least 0.7 (Bagozzi et al., 1991; Hair *et al.*, 2010).

### Findings and Discussion

It can be observed that the gender of the respondents were 51 (49.5%) male respondents and 52 (50.5%) female respondents. The marital status of the respondents, there were 3 (2.9 %) respondent married, in the other side of the marital status, it can be observed that there were 100 (97.1%) respondent unmarried. The age of the respondents were 103 (100 %) respondents between 20-30 years, in the other side of the age, it can be observed that there were 0 (0%). the level of education of the respondents. It can be clearly seen that there were 9 (8.7 %) respondent were high school. 2 (1.9) respondents were diploma, 91(88.3) Bachelor's Degree, 0 (0%) respondents were master, 1(1.0%) respondents was PH.D. Multiple regression analysis was used to test the hypothesized relationships in the proposed model shown in Figure 1. Multiple regression technique enables the simultaneous estimation of relationships in a single framework. Notably, all direct relationships in

the model are estimated simultaneously, and thus the method allows all the interrelationships among the variables to be assessed in the same decision context (Oh, 1999).

## DISCUSSION

As mention before, this paper proposed to examine the relationship between service quality dimensions and customer satisfaction in mobile telecommunication in Malaysia. The research sample was drawn from University Utara, Malaysia (UUM) student, on the account that the university has a considerable number of student-base capable of forming required sample for a survey of this kind. The sample size was 112 and it was selected using simple random sampling method. The data collection technique was based on personally administered questionnaires to the respondents. Of the 112 questionnaires distributed, 103 were collected, and 9 questionnaires were not returned by the respondents.

Effective service quality from an organization is a vital way of achieving competitive advantage in global service economy. Many surveys have been carried out over the years and found that efficient service quality help to retain existing customers while attracting new ones as well as enhancing profitability, reduction in cost, enhanced corporate image and positive word-of-mouth recommendation. On the basis of this and many other factors many studies have focused on customer evaluations, such as customer satisfaction and service quality. Therefore, excellent service quality leads to greater customer satisfaction.

Furthermore, service quality is conceptualized as a multidimensional construct consisting of five dimensions. These dimensions of service quality are: Tangibility (appearance of physical components); Reliability (dependability of service provider and accuracy of performance); Responsiveness (promptness and helpfulness); Assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence); Empathy (caring, individualized attention the firm gives its customers). Therefore, this survey used the service quality dimensions to examine service quality in mobile phone industry in Malaysia with customer satisfaction. The results also indicate that service quality have positive influences on customer satisfaction. Therefore, this result conforms to earlier survey results such as (Turel & Serenko, 2006; Chang & Chong, 2011; Deng, Lu, Wei & Zhang, 2010).

This paper investigated the link between the service quality constructs affecting customer satisfaction. The results reported in this study may be

of value to managers and academia in Malaysia by providing pertinent empirical data about customer satisfaction in one of the service industry, that is, mobile phone industry in Malaysia. The finding of this study also will be useful to the marketing in making better business, decision making in relation to curriculum of business in Mobil telecommunication

### **CONCLUSION, LIMITATIONS & DIRECTION FOR FUTURE STUDIES**

From the moment customer satisfaction was first introduced, the concept has gained significant value in the fields of academic research, institution and corporate management (marketing). Furthermore, this survey discovered service quality as one of the important determinants of customer satisfaction. Students certainly use the mobile phone for numerous purposes including making and receiving calls, SMS messaging service, discussion of academic matters thereby assessing service quality. With regard to the factor that influences customer satisfaction, this study suggests consider service quality as a vital determinant. Mobile phone service companies need to work hard to enhance performance in an attempt to reach greater customer satisfaction. The findings of this study provide valuable implications for both academic research and practitioners on the basis of the insightful review of available literature on some of the antecedents of satisfaction. On the other hand, since there are a lot of other factors that might affect customer satisfaction apart from the chosen ones, it would be practical and important if they are tested in an integrated framework with such framework expanded across industries as well as integrating more important factor that may affect customer satisfaction. Consequently, the link between service quality and customer satisfaction are investigated. To this end, the data were analyzed by multiple regression analysis. Hence, the results of the multiple regression analysis reveal that service quality have positively important relations influences on customer satisfaction.

### **LIMITATIONS & DIRECTION FOR FUTURE STUDIES**

Like any other survey, this study has some limitations that are noteworthy. First, the sample data for the survey were primarily collected from selected mobile phone companies in the University Utara Malaysia. Therefore, this research is based on data from one country so care must be taken when generalizing the outcomes of the survey to other emergent countries. Second, the direct impacts of the independent

variables on the dependent variables cannot easily be concluded. To overcome some of these shortcomings, future surveys should increase the sample size and examine other industries or extend the focus across different firms. Furthermore, future studies should apply longitudinal research design, so that conclusion can be drawn on the direct influence of the independent variables on the dependent variables.

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## Appendix

### Questionnaire Design

#### Demographic Profile

Please tick (ü) the appropriate box to answer the questions.

<b>1.1 Gender</b>	<b>Male</b>		<b>Female</b>	
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<b>1.2 Status</b>	<b>Married</b>		<b>Unmarried</b>	
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<b>1.3 Age</b>	<b>20 – 30</b>		<b>31 – 40</b>	
	<b>41 – 50</b>		<b>Above 50</b>	

<b>1.4 Level of Education</b>	<b>High school</b>		<b>Diploma</b>	
	<b>Bachelor’s Degree</b>		<b>Master’s Degree</b>	
	<b>PhD Degree</b>			

Kindly put a tick √ in the appropriate box and provide elaboration wherever required. These dimensions consisted of seven self-rating items on a five-point Likert scale format, ranging from 1. Strongly disagree 2. Disagree 3. Neither 4. Agree 5. Strongly agree.

Sl. No	Service quality	SD	D	N	A	SA
	Tangibles					
1	The service provider has up-to-date equipment and outlook	1	2	3	4	5
2	The service provider’s physical facilities are visually appealing	1	2	3	4	5

3	The service provider's customer services staff are well dress and appear neat	1	2	3	4	5
<b>Reliability</b>						
4	When a services provider promises to do something by certain time, it does do	1	2	3	4	5
5	When I have problem, a service provider show sincere interest in solving it	1	2	3	4	5
6	The service provider is dependable	1	2	3	4	5
7	The service provider provide its services at the time it promises to do so	1	2	3	4	5
8	The service provider always perform the service right at the first time	1	2	3	4	5
<b>Responsiveness</b>						
9	The service provider tell me exactly when services will be performed	1	2	3	4	5
10	Customer service staff gave me prompt services	1	2	3	4	5
11	Customer service are always courteous with customers	1	2	3	4	5
12	Customer service staffs are always ready to respond to customer requests promptly	1	2	3	4	5
13	Customer service staff have knowledge to answer customer	1	2	3	4	5
<b>Assurance</b>						
14	I can trust the providers customer service staff	1	2	3	4	5
15	I feel save in the transaction with the service provider	1	2	3	4	5
<b>Empathy</b>						
16	Customer services staff are polite	1	2	3	4	5

17	Customer services staff have adequate support from the service provider to do their job well	1	2	3	4	5
18	The service provider gave customer individual attention	1	2	3	4	5
19	The service provider has customers best interest at heart	1	2	3	4	5
20	Customer service staffs understand customer specific needs	1	2	3	4	5
21	Customer service staffs gave their personal interest.	1	2	3	4	5
22	The service provider has operating hours and location convenient to all its customers	1	2	3	4	5
<b>Customer Satisfaction</b>						
1	My mobile phone service provider completely meets my expectations.	1	2	3	4	5
2	My mobile phone service provider meets my pre-purchase expectations.	1	2	3	4	5
3	In my view, my mobile phone service provider is customer-oriented.	1	2	3	4	5
4	If I had the choice, I would again decide in favor of my current telecommunication company	1	2	3	4	5
5	My choice to use this mobile phone service provider was a wise one.	1	2	3	4	5
6	Using this mobile phone service provider has been a good experience.	1	2	3	4	5
7	I am satisfied with this mobile service provider.	1	2	3	4	5