#### Sany Sanuri Mohd. Mokhtar

Chairperson of Quality at Quality Management Centre and Senior Lecturer at the College of Business, University, Utara Malaysia (UUM). PhD in Marketing and Quality Management. Sany was formerly a deputy director of Quality Management Institute, UUM.

#### Ahmed Audu Maiyaki (corresponding author)

 Ph.D. Candidate in Marketing at the College of Business, Universiti Utara Malaysia. Lecturer at Bayero University Kano, Nigeria.
 T 11 008, Maybank Residential Hall Universiti Utara Malaysia, 06010 Sintok College of Business, Universiti Utara Malaysia
 <u>Email: aamaiyaki@yahoo.com</u>

#### Norzaini bt Mohd Noor

Masters degree holder from UUM. Researcher on service quality and service marketing.

#### Abstract

The paper explores the relationship between service quality and customer satisfaction on customer loyalty with regards to mobile phone usage among the postgraduate students of a university in Northern Malaysia. The sample consists of 341 students randomly selected from the population frame provided by the university. The respondents are made of up students from various part of the world such Asia, Middle-east and Africa. The results show that both service quality and customer satisfaction significantly affect the level of customer loyalty of mobile phone users in Malaysia. Hence, all the hypotheses except one have been supported. It was therefore, recommended that mobile service providers should pay special attention to their service quality and the factors that drive customer satisfaction. Suggestion for future research was also offered. **Key words:** Service quality, Customer satisfaction, Loyalty, Mobile communication, Malaysia.

Over the last few years, the number of mobile phones has increased at an exponential rate globally. This increase is more pronounced in the developed countries. The reasons for this are numerous, low acquisition price and availability of the equipment contributes in no small measure to its widespread usage. Furthermore, the number of mobile phones in the world has already passed the number of fixed land lines and the revenue from mobiles phones will soon exceed that of fixed land lines. In the era of improved mobile communication technology, vast amount of changes are generated in facilitating communication and the transfer of information from business to business, business to customers, employers to employees among others. Consequently, the utilization of mobile phones in communication and information transfer leads to providing more and more added value services (Steenderen, 2002). Despite the various information services provided through mobile phone services nowadays, detail assessments need to be made in order to understand the needs and requirements of the mobile phone users.

Service quality and customer satisfaction are inarguably the two core concepts that are at the crux of the marketing theory and practice (Spreng & Mackoy, 1996). In today's world of intense competition, it is generally believed that the key to sustainable competitive advantage lies in delivering high quality service that will in turn result in satisfied customers. The prominence of these two concepts is further manifested by the root of theoretical and empirical studies on the topic that have emanated over the past few years. Therefore, there is no doubt about the importance of service quality and customer satisfaction as the ultimate goals of service providers. To this end therefore, the study seeks to understand the nature of mobile phone use among respondents at a higher learning institution and investigate their perceptions on the mobile phone applications in the context of services quality.

## **Literature Review**

#### Service Quality

Parasuraman, Berry and Zeithaml (1991) defined service quality as "the extent of discrepancy between customer's expectations or desires and their perceptions." After indepth interviews of executives and a few focus groups in four service categories, Parasuraman, Zeithaml and Berry (1985) developed a service quality model, which identify five gaps between customers and marketers. The gap model of service quality was first developed by Parasuraman et al. (1985). According to Ueno (2010) the authors observe that the service quality gaps model is the conceptualisation of service quality as the gap between customer expectations on the services and perceptions of the service performance. Furthermore, based on the gap model there are four major discrepancies contributing to service quality gaps, and each of the four gaps in turn contributes to the existence of gap 5 (Ueno, 2010).

**Gap 1:** The first gap is between consumer expectations and management perceptions of consumer expectations. In the Parasuraman et al. (1985) study, the authors found that privacy or confidentiality during transactions emerged as a pivotal quality attribute in every banking and securities brokerage focus group; however this considerations was mentioned rarely by the executives. Parasuraman et al. (1985) concluded that the lack of understanding of this gap will have an impact on the consumer's evaluation of the service quality.

**Gap 2:** The second gap is between management perceptions of customer expectation and service quality specifications. Even though the executives attempt to match or exceed customer expectations, they find it difficult to deliver what the customer expects (Parasuraman et al., 1985). The authors indicated that one of the reasons for this is the difficulty in establishing specifications to deliver a fast response consistently because of a lack of trained service personnel and the wide range of function demand.

**Gap 3:** The third gap is between service quality specifications and service actually delivered. High service quality cannot be guaranteed even when there are guidelines for carrying out excellent services. Parasuraman et al. (1985) indicated that the employees of a service company play an important role on the service quality and the employee's performance cannot always be standardized.

**Gap 4:** The fourth gap is between service delivery and what is communicated to customers about the service. Parasuraman et al. (1985) contended that promising more than can be delivered has a detrimental effect on customer because it raises the initial expectations but lowers perception quality.

**Gap 5:** The fifth gap is between the customer's perceptions of service quality and their expectations of service quality. Parasuraman et al. (1985) discovered that the key to service quality is to meet or exceed the expectations of customers.

Subsequently, based on the gap model in their exploratory study, Parasuraman et al. (1985) came up with ten dimension of service quality namely: reliability, responsiveness, competence, access, communication, courtesy, credibility, security, understanding and tangibles. However, these ten dimensions of service quality were collapsed into 5 dimensions due to overlaps. The five dimension of service quality according to Parasuraman, Zeithaml and Berry (1988) are: tangibility, reliability, assurance, responsiveness and empathy. Although, criticisms have been made against the measurement of service quality "SERVQUAL" developed by Parasuraman et al. (1988), their contribution in the area of service quality continue to be significant for over quarter a century.

#### **Customer Loyalty**

Loyalty of customers is considered to be a function of satisfaction and that loyal customers contribute to company profitability by spending more on company products and services, via repeat purchasing, and by recommending the organization to other consumers (Bowen & Chen, 2001: Fecikova, 2004). To further understand the behavior of loyal customers, recent research has attempted to integrate the concept of customer commitment (Fullerton, 2005: Zins, 2001). For the most part, these recent studies have been built upon customer commitment as a key mediator of the relationship between the customer's evaluations of a firm's performance and the customer's intentions regarding the future relationship with the firm (Fullerton, 2005).

Customer loyalty expresses an intended behavior related to the service or the company. This includes the likelihood of future renewal of service contracts, how likely it is that the customer changes patronage, how likely the customer is to provide positive word-of-mouth, or the likelihood of customers providing voice. If real alternatives exist or switching barriers are low, management discovers the organization's inability to satisfy its customers via two feedback mechanisms: exit and voice (Hirschman, 1970). Exit implies that the customers stop buying the company's services while voice is customer complaints expressing the consumers' dissatisfaction directly to the company. Customers' exit or change of patronage will have an impact on the long-term revenue of the company. Effects caused from changes in the retention rate are exponential (not linear) with regard to effects on the long-term revenue. Even a marginal reduction/increase in retention rate has significant effects on future revenue (Andreassen, 1995; Reichel & Sasser, 1990).

Three conceptual perspectives have been suggested to define customer loyalty: the behavioral perspective, the attitudinal perspective and the composite perspective (Bowen & Chen, 2001: Zins, 2001). The behavioral perspective, "purchase loyalty", strictly looks at repeat purchase behavior and is based on the customer's purchase history. The emphasis is on past -rather than on- future actions. Moreover, no other loyal behavioral actions such as price tolerance, word of mouth, or complaint behavior can be interpreted (Zins, 2001). Concentrating on the behavioral aspect of loyalty could overestimate true loyalty (Zins, 2001). The attitudinal perspective, in contrast, allows gain in supplemental understanding of loyal behavior (Zins, 2001). The customer loyalty is approached as an attitudinal construct. An Attitude denotes the degree to which a consumer's disposition towards a service is favorably inclined. This inclination is reflected by activities such as the customers recommending service providers to other consumers or their commitment to repatronize a preferred service provider (Gremler & Brown, 1996). Based on a favorable attitude towards a service provider, customers may develop "preference loyalty" (De Ruyter, Wetzels & Bloemer, 1998). Lastly, the composite perspective combines attitudinal and behavioral definitions of loyalty. The composite perspective might be considered as an alternative to affective loyalty since using both attitude and behavior in a loyalty definition arguably increases the predictive power of loyalty (Pritchard & Howard, 1997).

Under all these conditions, protecting the existing customer base and retaining existing customer loyalty

appear to be the crucial competitive advantage. Customer loyalty is a key component for a brand's long-term viability (Krishnamurthi & Raj, 1991). Oliver (1991) defines it as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistency in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts of having the potential to cause switching behavior." Though there are many more definitions of customer loyalty, it seems clear that there are two basic varieties: stochastic and deterministic. Fournier and Yao (1997) observe that there is a need for a complete definition of brand loyalty, identify six necessary conditions: a biased (i.e. random) behavioral response (i.e. purchase), expressed over time by some decision-making unit, with respect to one or more alternative brands out of a set of such brands, as a function of psychological processes (such as decision making or evaluation).

No matter how customer loyalty is defined, in order to gain it, any operator needs to:

- Increase subscriber satisfaction by raising offered service quality (for example, Anderson and Sullivan, 1993; Brady and Robertson, 2001; Kristensen, Martensen & Gronholdt, 2000; Fornell, Johnson, Anderson, Cha & Bryant, 1996; Oliver, 1980);
- Ensure subscribers' trust in the firm (see, for example, Fournier, 1998; Gundlach, Achrol & Mentzer, 1995; Morgan and Hunt, 1994; Lau and Lee, 1999); and
- Establish a cost penalty for changing to another service provider, making that a comparatively unattractive option (Fornell, 1992) and expand is application (Eber, 1999; Jones, Beatty & Mothersbaugh, 2002; Bloemer, De Ruyter & Peeters, 1998; Lee, Lee & Feick, 2001).

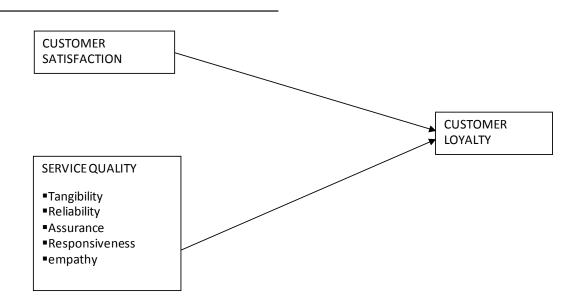
#### **Customer Satisfaction and Customer Loyalty**

Several authors have found a positive correlation between customer satisfaction and loyalty (Anderson & Sullivan, 1993; Bearden & Teel, 1980; Bolton & Drew, 1991; Fornell, 1992). Customers may be loyal because of high switching barriers or lack of real alternatives. Customers may also be loyal due to their satisfaction and thus want to continue the relationship. History has proven that most barriers to exit are limited with regard to durability; companies tend to consider customer satisfaction the only viable strategy in order to keep existing customers.

Based on Coyne (1989), there are two critical thresholds affecting the link between satisfaction and loyalty. On the high side, when satisfaction reaches a certain level, loyalty increases dramatically; at the same time, when satisfaction declined to a certain point, loyalty dropped equally dramatically (Oliva, Oliver & MacMillan, 1992).

Managers of the company should realize that having satisfied customers is not good enough they must have extremely satisfied customers. Moreover, a small increase in customer satisfaction can results boosted customer loyalty dramatically.

## **Conceptual model**



## Hypothesis

From the theoretical framework discussed above, six hypotheses were developed for this research as follows:

H1: There is a significant relationship between tangibility and customer loyalty

H2: There is a significant relationship between reliability and customer loyalty

H3: There is a significant relationship between responsiveness and customer loyalty

H4: There is a significant relationship between assurance and customer loyalty

H5: There is a significant relationship between empathy and customer loyalty

H6: There is a significant relationship between customer satisfaction and customer loyalty.

# Methods

The population of the study consists of all international students in Universiti Utara Malaysia amounting to 3012 see appendix. The population is made up of students from various countries, most them come from Asia, Middle east and Africa in that other. This enables responses from people with different perceptions due to perhaps cultural variation. Based on Sekaran's (1992) recommendation, 350 respondents were randomly selected from across all the 71

courses run in the University. Similarly, the sample selection is also in line with the suggestion of Krejcie and Morgan (1970) that the good sampling number for this population size is round 341 respondents. The questionnaire used in this study consists of four sections which seek information from the respondents on: their demographic characteristics, service quality of mobile providers, customers' level of satisfaction and finally, the extent of customer loyalty. The items are measured based on 7-point Likert-type rating scale. Ultimately, the data collected was analysed using Statistical Package for Social Sciences (SPSS) version 12 for windows. More specifically, descriptive statistics, reliability test and regression analysis were run.

## Results

## Service Quality of Mobile Service Provider and Customer Loyalty

The positive coefficient for the service quality dimensions of tangibility, reliability, responsiveness and assurance suggests that high service quality leads to higher level of customer loyalty. However, the empathy dimensions had negative coefficient, meaning decreasing level of customer loyalty with high empathy element of service quality. In other words, higher empathy results in decreasing client loyalty. Additionally, among the variables, only tangibility, assurance and empathy have significant values and thus, significantly contributed to the explanation of the dependent variable. To this end, hypotheses H1, H2, H3 and H4 are supported and hypothesis H5, rejected. Overall, this study concluded that mobile service provider service quality elements affects client loyalty by explaining 48 percent of the variance in the Dependent Variable (loyalty) which is quite respectable considering the nature of the research – consumer behaviour.

## Table I: Regression results of Service Quality and Customer Loyalty of mobile service provider

Model	Unstandardized Coefficients		Standardized Coefficient		C.a.
	В	Std. Error	Beta	t	Sig.
1 Constant}	0.482	0.320		1.507	0.133
Tangibility	0.398	0.062	0.365	6.394	0.000
Reliability	0.103	0.089	0.074	1.154	0.249
Responsiveness	0.035	0.101	0.024	0.346	0.730
Assurance	0.519	0.089	0.376	5.866	0.000
Empathy	-0.147	0.055	-0.131	-2.673	0.008

Dependent variable: customer loyalty R<sup>2</sup> 0.486 Adjusted R<sup>2</sup> 0.478

#### Customer Satisfaction and Customer Loyalty

Table II shows the regression results indicating the relationship between client satisfaction and client loyalty. The  $R^2$  value of 0.711 indicates that over seventy percent of client satisfaction is associated with client loyalty. Meaning that over 70% of the variance in the dependant variable (loyalty) is accounted for by customer satisfaction. In other words the positive significant coefficient suggests higher client satisfaction on mobile service provider results into higher level of client loyalty to the mobile provider. To this end therefore, hypothesis H6 is equally supported.

Table II: Regression results of customer satisfaction and customer loyalty of mobile service provider

Model	Unstandardized Coefficients		Standardized Coefficient		Ci.a.
	В	Std. Error	Beta	ſ	Sig.
1 Constant}	0.458	0.169		2.708	0.007
CS	0.916	0.032	0.843	28.910	0.000

Dependent Variable: Customer Loyalty R<sup>2</sup> 0.711 Adjusted R<sup>2</sup> 0.710

# **Discussion and Conclusion**

The study found that the customer satisfaction plays an important role to enhance the level of customer loyalty. This means the higher the level of customer satisfaction the more loyal the customer of mobile phone become and the reverse is the case. This result is consistent with the findings of Cronin & Taylor (1992). The implication for the management of mobile phone service providers is that they should strive to ensure high level of customer satisfaction which will eventually leads to customer loyalty. Ensuring customer satisfaction could perhaps be achieved by identifying, focusing and improving the factors that clients consider in determining their level of satisfaction with a particular mobile service provider. The fact that this is beyond the scope of this study, we hereby recommend that future research investigate the factors determining customer satisfaction for a particular mobile service.

Furthermore, the findings also indicate that service quality has influence on customer loyalty with regards to the service delivery of mobile service providers. In fact, the findings of this studies show that service quality explained customer loyalty with values less than that of customer satisfaction i.e. 58% as against 71%. The implication of this for mobile service providers is that the elements of customer satisfaction are very important in determining the level of customer loyalty to a particular service provider. However, considering the large values of r square for both service quality and customer satisfaction there is need to pay particular attention by mobile service providers to elements of service quality and customer satisfaction. As a limitation of this study, it does not investigate the relationship between service quality and satisfaction. Therefore, the future research could explore the interrelationships between service quality and customer satisfaction.

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