

## **Factors determining the Customer Satisfaction & Loyalty: A Study of Mobile Telecommunication Industry in Bangladesh**

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### **Abstract**

*With the ever increasing popularity of mobile telecommunication, the evaluations of antecedents of customer satisfaction and loyalty have become very important for Mobile Telecom Operators (MTOs) and at the same time for researchers also. A thorough literature survey was carried out in order to identify the factors that influence customer satisfaction & loyalty. Based on literature review, a conceptual research model was developed for identifying the relationship between service quality and customer satisfaction as well as service quality, switching cost, and trust with customer loyalty. The study has collected the perceptions of 300 pre-paid mobile subscribers from three operators (Grameen Phone, Bangla-link, and Aktel) through self administered survey questionnaire. The result shows that a significant linear relationship exists between service quality and customer satisfaction. The result also shows that service quality, switching cost, and trust are significant predictors of customer loyalty. In the context of service oriented organization, among these three antecedents, trust is the most significant predictor of customer loyalty.*

**Keywords:** Mobile Telecom Operators; Service Quality; Customer satisfaction; Customer loyalty

### **Background**

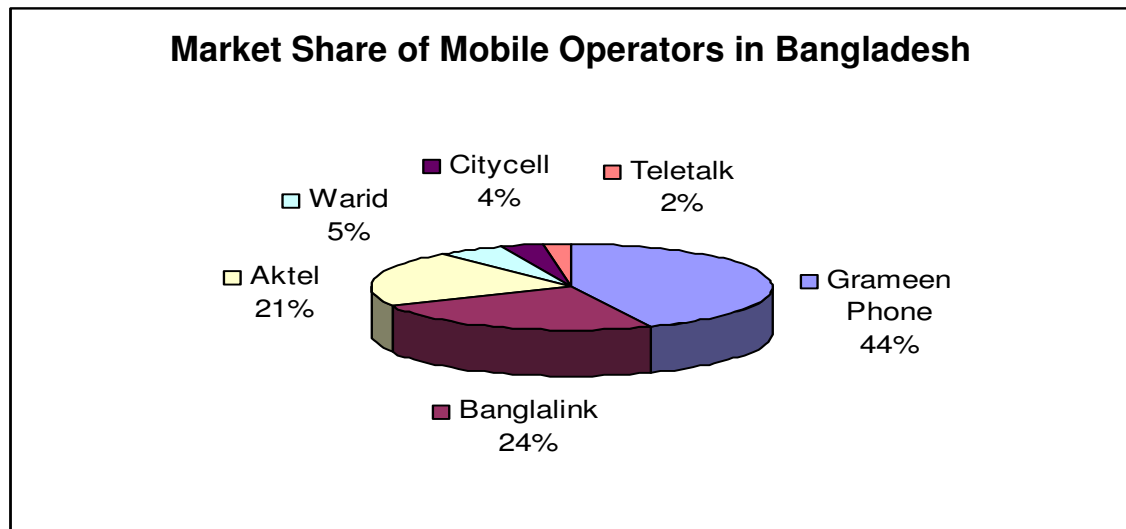
The mobile sector in Bangladesh is developing rapidly, with a number of licensed private operators. The country has 50.4 million subscribers (upto August 2009) in total with a 10% penetration rate (The Wikipedia). The table below represents the competitive industrial market structure of Bangladesh Cell phone market in terms of subscriber (Market share).

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**Figure 1:** Market Share of Mobile Operator (Source: The Daily Samakal, November 22, 2009, p 18)

In November 28, 1996 GrameenPhone was offered a cellular license in Bangladesh by the Ministry of Posts and Telecommunications. By this act, the voyage of the GSM-based mobile phone company was started. In the mobile telecommunication industry, the pioneer was the City Cell who is using the CDMA technology. Though the CDMA technology is stronger than GSM technology, the industry is dominated by the operators using GSM technology. Nowadays, total number of mobile operators (both GSM and CDMA) in Bangladesh is six namely GrameePhone, Banglalink, Aktel, Warid, City Cell, and Teletalk. The industry is flourishing with increasing number of subscribers every year.

### Problem Statement

The GSM mobile telecommunication sector in Bangladesh is very much competitive and this competitive trend is increasing. So, the subscribers now have various alternatives to choose according to their convenience. Therefore, to maintain the leading position in the market, mobile operators have to identify the factors related to customer satisfaction and loyalty.

### Literature Review

Many researchers are paying greater attention to service quality and customer satisfaction, for reasons such as increased competition (Reichheld & Sasser 1990). Academics have also been studying quality & satisfaction to understand determinants and processes of customer evaluation (Oliver 1997; Parasuraman, Zeithaml, & Berry, 1988).

Academic literature suggests that customer satisfaction is a function of the discrepancy between a customer's prior expectation and his or her perception regarding the purchase (Churchill & Surprenant, 1982; Yi, 1990). When an experience is better than the customer expected, there is

positive disconfirmation of the expectation, and a favorable customer evaluation is perceived. Service quality is defined similarly as a comparative function between consumer expectations and actual customer perception (Parasuraman et al., 1995). In the service quality literature, it is referred to as the “SERVQUAL Model.” It has five generic dimensions or factors that are stated as follows:

- **Reliability:** Ability to perform the promised service dependably and accurately.
- **Responsiveness:** Willingness to help customers and provide prompt service.
- **Assurance:** Employees’ knowledge and courtesy and their ability to inspire trust and confidence.
- **Empathy:** Caring, individualized attention given to customer
- **Tangibles:** Appearance of physical facility, equipment, personnel and written materials.

The term *quality* and *satisfaction* are used interchangeably (both in industry and academia), as if two are essentially one evaluative construct. (Bitner, 1990; Zeithaml, 1996). In more recent studies, Spreng and Mackoy (1996) addressed the relationship between service quality and customer satisfaction by using the model developed by Oliver et al (1992). The model integrates the two constructs and suggests that among other things, perceived service quality is an antecedent to satisfaction. The following hypothesis is therefore proposed.

**H1: *There is a positive relationship between the levels of perceived service quality and the level of satisfaction.***

Reichheld (1993) defined loyalty as the willingness to make a personal sacrifice in order to strengthen a relationship. The ACSI (The American Customer Satisfaction Model, adapted from Fornell et al., 1996) model’s operationalization of the loyalty construct is inline with the general definition since it captures financial and quality sacrifices users make when staying with a specific service provider. In the mobile services context, loyalty is defined as a favorable attitude towards a specific service provider that leads to a combination of repurchase likelihood of additional services from the same providers and price tolerance towards their services.

Hence, the researchers have focused on discussions of the determinants of customer loyalty. From the perspective of antecedents and consequences of loyalty, Boulding et al. (1993) found positive relationships between service quality and repurchase intentions and willingness to recommend. Moreover, Rust and Zahorik (1993) related service quality perceptions to consumer loyalty in banking, Crosby and Stephens (1987) investigated loyalty in the insurance industry. This conclusion is based on strong evidence in the literature of a relationship between the service quality and customer loyalty. It is therefore proposed that

**H2: *Customers’ perceived service quality has a positive effect on customer loyalty.***

The marketing literature identifies a specific manifestation of switching cost, termed “brand loyalty.” Brand loyalty may be due to real switching costs, decision biases (e.g., the “Status Quo Bias”), or uncertainty in the quality of other brands. According to Porter (1998), switching cost is the cost involved in changing from one service provider to another. In many markets, consumers face non-negligible costs of switching between different brands of products or services. As classified by Klemperer (1995), there are at least three types of switching costs: transaction costs, learning costs, and artificial or contractual costs. Transaction costs are costs that occurred to start a new relationship with a provider and sometimes also include the costs necessary to terminate an

existing relationship. Learning costs represents the effort required by the customer to reach the same level of comfort or facility with a new product as they had for an old product. Artificial switching costs are costs created by deliberate actions of firms and are very common in the marketplace: frequent flyer programs, repeat-purchase discounts, and “click through” rewards are all examples. Fornell (1992), without proposing a formal definition of the concept, provides a list of factors that can constitute such barriers (i. e., if they are prevalent they will hinder customers to defect from a relationship): search costs, transaction costs, learning costs, loyal customer discounts, customer habit, emotional cost, cognitive effort and financial, social and psychological risk. It has been suggested that the degree of switching costs may have an influence on customer loyalty in a given industry (Anderson and Fornell, 1994; Dick and Basu, 1994; Fornell, 1992). Andreasen (1982; 1985) found empirical support for the effect of high switching costs on customer loyalty in relation to medical services. In addition to customer uncertainty and structure of the market, the level of competition and loyalty programmes (e.g. membership programmes, customer clubs, seasonal tickets in theatres and opera houses) may increase the perceived and actual cost of switching (Gummesson, 1995). In other words, in the presence of switching cost, customers who might be expected to select from a number of functionally identical brands display brand loyalty (Klemperer, 1987). In conclusion, it appears that there is a positive relationship between the level of switching costs and customer loyalty in services. The following hypothesis is therefore proposed.

***H3: The higher the level of switching cost, the higher the level of customer loyalty.***

The concept of trust has gained considerable attention in marketing research as it has been shown to positively affect customer loyalty (Sirdeshmukh, et al, (2002). Rousseau et al. defines trust as a “psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another”. Doney and Cannon (1997) added that trust can be built by a capability process, i.e. that the trustor estimates the ability of the trustee to fulfill his promises. Morgan and Hunt (1994) also suggest that brand trust leads to brand loyalty, because trust creates exchange relationships that are highly valued. Thus, loyalty or commitment underlies the ongoing process of continuing and maintaining a valued and important relationship that has been created by trust (Chaudhuri and Holbrook, 2002). It may be suggested that trust will contribute to both commitment and loyalty. Therefore, following hypothesis has been formulated:

***Hypothesis 4: Trust will positively affect loyalty.***

## **Conceptual Framework**

This paper developed a conceptual framework (see Figure 1), the first aim of which is to examine the predictive ability as well as the nature and strength of relationship between service quality and customer satisfaction, and secondly service quality, switching cost and trust with customer loyalty. All constructs were conceptualized to fit better into the current study setting. Summaries of the operational definitions of measured variables are given below:

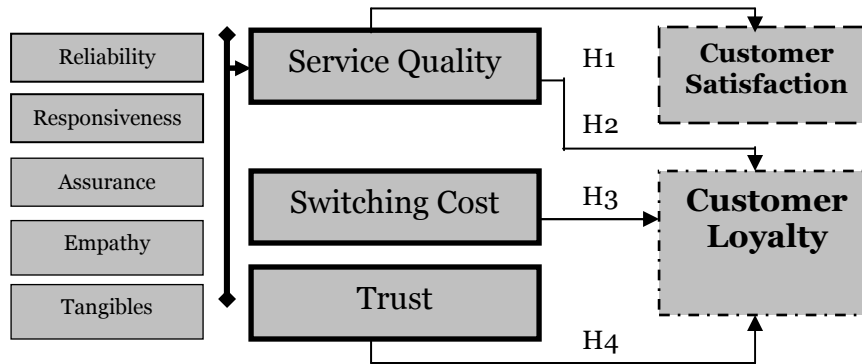


Figure 2: Conceptual Research Model

### Research Questions

The following research questions can be addressed from the research problem-

- ◆ Is there any relationship between service quality (reliability, responsiveness, assurance, empathy, and tangibles) and customer satisfaction?
- ◆ Is there any relationship between service quality (reliability, responsiveness, assurance, empathy, and tangibles) and customer Loyalty?
- ◆ Is there any relationship between switching cost and customer loyalty?
- ◆ Is there any relationship between trust and customer loyalty?

Consistent with previous studies that employed the conceptual model, a number of hypotheses are suggested:

- H1: There is a linear relationship between service quality and customer satisfaction.  
 H2: There is a linear relationship between service quality and customer Loyalty.  
 H3: There is a linear relationship between switching cost and customer loyalty.  
 H4: There is a linear relationship between trust and customer loyalty.

### Methodology of the Study

The study combined of both primary and secondary data. The secondary data have been collected from published literature, journals, brochures, company information etc. The primary data has been collected through a survey questionnaire. Mobile subscribers were the target population because they were homogeneous in their use of services. Their opinions were mainly sought because they would be best able to evaluate existing levels of services. Data had been collected from 300 pre-paid customers of 3 selective Mobile Operators in Bangladesh, such as: GrameenPhone, Banglalink, and Aktel on a convenience basis. Five point Likert-type scale ranging from (1) “strongly disagree” to (5) “strongly agree” was used to collect the opinion from the respondents against all the items in the questionnaire. A pilot test was conducted on 30 customers to assess the semantic content and readability of the questionnaire. Problems or difficulties, such as ambiguity of wordings, misunderstanding of technical terms, were reported for further modification.

### **Significance of the Study**

In this study the research is deductive, in that it moves from theory to practice. The purpose of the study was to present the relationship between service quality, switching cost and trust with customer satisfaction and customer loyalty in GrameenPhone. The finding of this study will help the management to improve and enhance the customer satisfaction & loyalty with GrameenPhone services in Bangladesh. Assessing various dimensions (i.e. service quality, switching cost & Trust) will assist the management for better understanding of their affect on customer satisfaction & loyalty. Finally, the company can better allocate its resources to provide superior services to its customers.

### **Limitations of the Study**

The study was limited by a number of factors. Firstly, the research was limited only in Dhaka city. Secondly, the sample was drawn on the basis non-probability sampling. Third, only selective mobile operators are considered for the study. The researcher could not be able to incorporate mobile operators and Experts opinion of telecommunication in Bangladesh as sources of information. Finally, the attributes that influence user's perception towards mobile phone services were found from published studies in developing countries. These findings are likely to be different from the context of Bangladesh.

### **Reliability & Validity of the Study**

**Reliability:** In order to examine whether the constructs were internally consistent of the current scale or not; a reliability assessment was carried out using Cronbach's alpha. A low value of Cronbach's alpha indicates the sample of items performs poorly in capturing the construct that motivated the measure and vice visa. For this study, cronbach's alpha coefficient was calculated as 0.7806, exceed the minimum standard (0.70) suggested by Nunnally (1978), which indicates that the scale is quite reliable.

**Validity:** To ensure content validity, a thorough examination was made of the relevant literature. A pre-test was conducted to review the questionnaire for validity (measuring what is intended), completeness (including all relevant variable items), and readability (making it unlikely that surveyed subjects will misinterpret a particular question).

### **Analysis & Findings**

**Regression Analysis:** To test the above mentioned four hypotheses, linear regression analyses were used. Referring to hypothesis 1, the result (Table-1) of regression analysis shows that a significant ( $p= 0.000$ ) linear relationship exists between the service quality and customer satisfaction. Thus, the service quality is the significant predictor of customer satisfaction. It also indicates that 10.2 percent of the variation in the customer satisfaction can be explained by the variable service quality.

**Table-1: Linear Relationship between Service Quality and Customer Satisfaction**

Model Summary					
R		R Square	Adjusted R Square	Std. Error of the Estimate	
.324(a)		.105	.102	.52530	
ANOVA (b)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.674	1	9.674	35.056	.000(a)
Residual	82.232	298	.276		
Total	91.905	299			
a Predictors: (Constant), Service Quality					
b Dependent Variable: Satisfaction					

The regression analysis of hypothesis 2 indicates that a significant ( $p= 0.000$ ) linear relationship exists between the service quality and customer loyalty. Hence, the service quality is the significant predictor of customer loyalty (Table-2). Though the service quality is a significant predictor of customer loyalty, the explaining power of this variable is quite low. Only 4.6 percent of the variation in the customer loyalty can be explained by the variable service quality.

**Table-2: Linear Relationship between Service Quality and Customer Loyalty**

Model Summary					
R		R Square	Adjusted R Square	Std. Error of the Estimate	
.221(a)		.049	.046	.55786	
ANOVA (b)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.778	1	4.778	15.352	.000(a)
Residual	92.740	298	.311		
Total	97.518	299			
a Predictors: (Constant), Service Quality					
b Dependent Variable: Customer Loyalty					

Referring to hypothesis 3, the result (Table-3) of regression analysis shows that a significant ( $p= 0.000$ ) linear relationship exists between the switching cost and customer loyalty. Thus, the switching cost is the significant predictor of customer loyalty. The table also indicates that though the switching cost is a significant predictor of customer loyalty, the explaining power of this variable is quite low - only 5.4 percent of the variation in the customer loyalty can be explained by the variable switching cost.

**Table-3: Linear Relationship between Switching Cost and Customer Loyalty**

Model Summary					
R		R Square	Adjusted R Square	Std. Error of the Estimate	
.238(a)		.057	.054	.55558	
ANOVA (b)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.535	1	5.535	17.932	.000(a)
Residual	91.983	298	.309		
Total	97.518	299			
a Predictors: (Constant), Switching Cost					
b Dependent Variable: Customer Loyalty					

The regression analysis of hypothesis 4 indicates that trust is the significant ( $p=0.000$ ) predictor of customer loyalty (Table-4). Thus, a significant linear relationship exists between the variables trust and customer loyalty. In addition, this table indicates that 38.1 percent of the variation in the customer loyalty can be explained by the variable trust.

**Table-4: Linear Relationship between Trust and Customer Loyalty**

Model Summary					
R		R Square	Adjusted R Square	Std. Error of the Estimate	
.619(a)		.383	.381	.44933	
ANOVA (b)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	37.352	1	37.352	185.000	.000(a)
Residual	60.166	298	.202		
Total	97.518	299			
a Predictors: (Constant), Trust					
b Dependent Variable: Loyalty					

## Conclusion

Mobile Telecommunication Operators (MTOs) are growing rapidly in Bangladesh. Based on the experience of industry growth in the recent years, the researchers expect to see a Mobile operator's explosion in the near future. It already becomes a part of our life. Businesses as well as researchers can no longer afford to ignore it. The present research is one of a very few attempts to deal with the subject. This paper contributes to this area by building a research model of customer satisfaction & loyalty for MTOs and proposing four validated hypotheses. Moreover, a survey method was used to examine these hypotheses. The result shows that there is a significant linear relationship between service quality and customer satisfaction. The result also shows that service quality, switching cost, and trust variables are significant predictors of customer loyalty. In the context of service oriented organization, the antecedents such as trust is seems to be most important predictors of customer loyalty. Therefore, from this study mobile telecom operators



(MTOs) can get the indications on which of the issues they have to pay more attention to hold the market share, to raise it and to increase the usages.

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