

# IMPACT OF SERVICE QUALITY, TRUST, AND CUSTOMER SATISFACTION ON CUSTOMERS LOYALTY

By  
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## ABSTRACT

*This research has proposed a conceptual framework to investigate the effects of customers' perceived service quality, trust, and customer satisfaction on customer loyalty. To test the conceptual framework, structural equation modeling (SEM) has been used to analyze the data collected from 304 customers of a major private telecommunication company operating in Bangladesh. The results of the study indicate that trust and customer satisfaction are significantly and positively related to customer loyalty. Customer satisfaction has found to be an important mediator between perceived service quality and customer loyalty. A clear understanding of the postulated relationships among the studied variables might encourage the mobile service provider(s) to figure out appropriate course of action to win customers' trust by providing better services in order to create a loyal customer base.*

## Introduction

In the past three decades, due to liberalization and privatization the entire telecommunications industry has become a dynamic service industry subject to increasing competition with huge growth potential (Graack, 1996). In recent years, in some Asian countries the number of mobile subscribers even passed the number of fixed-line subscrib-

ers (Fink, Matto, & Rathindran, 2003). Hence, the strategic behavior of telecommunications companies has attracted so much attention in recent years, both in the academic literature and in the popular press. In Bangladesh the scenario is not much different as its socioeconomic profile offers the industry a tremendous opportunity to expand.

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Currently the number of telecommunications companies operating Bangladesh is six (five private and one state-owned); but the aggressive competition has forced the incumbent telecommunications companies or mobile operators to reconfigure their strategy and business to sustain or improve their competitive advantage.

In this emerging market customers are not that loyal to one particular private telecommunication company. Hence, the major private telecommunication companies forced to consider how to create a loyal customer base that will not be eroded even in the face of fierce competition. Therefore, the these telecommunication companies must realize the necessity of studying and understanding various antecedents (viz. service quality, switching cost, trust, corporate image, and customer satisfaction) of the customer loyalty which might help them to develop a loyal customer base (Sharp & Sharp, 1997).

As reported in the relevant literature high quality service helps to generate customer satisfaction, customer loyalty, and growth of market share by soliciting new customers, and improved productivity and financial performance (Lewis, 1993; Andereson, Fornell, & Lehmann, 1994). Hackl, Scharitzer, and Zuba (2000) had substantiated the point by adding that customer satisfaction is a prerequisite of customer retention and loyalty. Corbitt, Thanasankit, and Yi (2003) have investigated the effect of trust on customer loyalty in telecommunication sector and found trust has a strong effect on customer loyalty.

The objective of this study is to analyze

a conceptual framework empirically that considers the interrelationships of customers' perceived service quality, trust, and customer satisfaction and customer loyalty in the context of a group of customers of a major private telecommunication company in Bangladesh.

## **Review of Literature**

### ***Service Quality***

Traditionally, service quality has been conceptualized as the difference between customer expectations regarding a service to be received and perceptions of the service being received (Grönroos, 2001; Parasuraman, Zeithaml, & Berry, 1988). In some earlier studies, service quality has been referred as the extent to which a service meets customers' needs or expectations (Lewis & Mitchell, 1990; Dotchin & Oakland, 1994). It is also conceptualized as the consumer's overall impression of the relative inferiority or superiority of the services (Zeithaml, Berry, & Parasuraman, 1990).

### ***Service Quality Dimensions***

Parasuraman et al. (1988) identified five dimensions of service quality (viz. reliability, responsiveness, assurance, empathy, and tangibles) that link specific service characteristics to consumers' expectations.

(a) Tangibles - physical facilities, equipment and appearance of personnel;

(b) Empathy - caring, individualized attention;

(c) Assurance - knowledge and cour-

tesy of employees and their ability to convey trust and confidence;

(d) Reliability - ability to perform the promised service dependably and accurately; and

(e) Responsiveness - willingness to help customers and provide prompt service.

After a comprehensive review of service quality studies, Asubonteng, McCleary, and Swan (1996) concluded that the number of service quality dimensions varies in different industries. For example, Kettinger and Lee (1994) identified four dimensions in a study of information systems (IS) quality, which did not have tangible dimension. Cronin and Taylor (1992) developed a one-factor measurement instrument instead of the five-factor measures proposed by Parasuraman et al. (1988).

Besides SERVQUAL, Sureshchandar, Rajendran, and Anantharaman (2003) have identified five factors of service quality from the customers' perspective. Those are: a) Core service or service product, b) Human element of service delivery, c) Systematization of service delivery: non-human element, d) Tangibles of service, and e) Social responsibility. After a close inspection it could be safely concluded that the newly defined construct of service quality by Sureshchandar et al. (2003) has some resemblance with the definition provided by Parasuraman et al. (1988). For this study the researchers have employed the five dimensions of service quality proposed by Parasuraman et al. (1988).

## ***Trust***

In business trust is viewed as one of the most relevant antecedents of stable and collaborative relationships. Researchers had established that trust is essential for building and maintaining long-term relationships (Rousseau, Sitkin, Burt, & Camerer, 1998; Singh & Sirdeshmukh, 2000). Morgan and Hunt (1994) stated that trust exists only when one party has confidence in an exchange partner's reliability and integrity. While defining trust Moorman, Deshpande, and Zaltman (1993) referred to the willingness to rely on an exchange partner in whom one has confidence. According to Lau and Lee (1999), if one party trusts another party that eventually engenders positive behavioral intentions towards the second party.

From Anderson and Narus (1990) it can be safely deduced that if one party believes that the actions of the other party will bring positive outcomes to the first party, trust can be developed. Doney and Cannon (1997) added that the concerned party also must have the ability to continue to meet its obligations towards its customers within the cost-benefits relationship; so, the customer should not only foresee the positive outcomes but also believe that these positive outcomes will continue in the future. The definition provided by Morgan and Hunt (1994) has been used for this study.

## ***Customer Satisfaction***

Customer satisfaction is a well known and established concept in several areas like marketing, consumer research, economic psychology, welfare-economics, and economics.

The most common interpretations obtained from various authors reflect the notion that satisfaction is a feeling which results from a process of evaluating what has been received against what was expected, including the purchase decision itself and the needs and wants associated with the purchase (Armstrong & Kotler, 1996). Bitner & Zeithaml (2003) stated that satisfaction is the customers' evaluation of a product or service in terms of whether that product or service has met their needs and expectations. According to Boselie, Hesselink, and Wiele (2002) satisfaction is a positive, affective state resulting from the appraisal of all aspects of a party's working relationship with another. The definition provided by Boselie et al. (2002) has been used for this study.

### ***Customer Loyalty***

As identified by the researchers that customer loyalty as a construct is comprised of both customers' attitudes and behaviors. Customers' attitudinal component represents notions like: repurchase intention or purchasing additional products or services from the same company, willingness of recommending the company to others, demonstration of such commitment to the company by exhibiting a resistance to switching to another competitor (Cronin & Taylor, 1992; Narayandas, 1996; Prus & Brandt, 1995), and willingness to pay a price premium (Zeithaml, Berry, & Parasuraman, 1996). On the other hand, the behavioral aspect of customer loyalty represents- actual repeat purchase of products or services that includes purchasing more and different products or services from the same com-

pany, recommending the company to others, and reflecting a long-term choice probability for the brand (Feick, Lee, & Lee, 2001). It can be concluded that customer loyalty expresses an intended behavior related to the product or service or to the company. Pearson (1996) has defined customer loyalty as the mind set of the customers who hold favorable attitudes toward a company, commit to repurchase the company's product/service, and recommend the product/service to others. The researchers have used the definition of Pearson (1996) for this study.

### ***Relationship between Service quality and Customer Satisfaction***

Over the past few years there has been a heightened emphasis on service quality and customer satisfaction in business and academia alike. Sureshchandar et al, (2003) identified that strong relationships exist between service quality and customer satisfaction while emphasizing that these two are conceptually distinct constructs from the customers' point of view.

Spreng and Mackoy (1996) also showed that service quality leads to customer satisfaction while working on the model developed by Oliver (1997). In a recent study conducted by Ribbink et.al (2004) revealed that this relationship also exists in the e-commerce industry. Consistent with these findings, the researchers have hypothesized the following:

*Hypothesis 1:* Customers' perceived service quality has a positive effect on customer satisfaction.

### ***Relationship between Service quality and Customer Loyalty***

In various studies the relationship between service quality and customer preference loyalty had been examined (Boulding, Kalra, Staelin, & Zeithaml, 1993; Cronin & Taylor, 1992). In their study Cronin and Taylor (1992) focused solely on repurchase intentions, whereas Boulding et al. (1993) focused on the elements of repurchasing as well as the willingness to recommend. In the study by Cronin and Taylor service quality did not appear to have a significant (positive) effect on repurchase intentions (in contrast to the significant positive impact of satisfaction on repurchase intention), whereas Boulding et al. (1993) found positive relationships between service quality and repurchase intentions and willingness to recommend. Therefore, following hypothesis has been proposed:

*Hypothesis 2:* Customers' perceived service quality has a positive effect on customer loyalty.

### ***Relationship between Trust and Customer Loyalty***

A number of researchers have advocated that trust is fundamental in developing customer loyalty (Moorman, Deshpande, & Zaltman, 1993; Morgan & Hunt, 1994). The importance of trust in explaining loyalty is also supported by authors like Lim and Razzaque (1997), Garbarino and Johnson (1999), Chaudhuri and Holbrook (2001), Singh and Sirdeshmukh (2000), and Sirdeshmukh, Singh, and Sabol (2002). However, in a market with suitable alternatives lack of trust might lead to nega-

tive loyalty. Corbitt, Thanasankit, and Yi (2003) have pointed out that a strong positive effect of trust on customer loyalty in case of telecommunications sector. Therefore, following hypothesis has been formulated:

*Hypothesis 3:* Trust has a positive effect on customer loyalty.

### ***Relationship between Customer Satisfaction and Customer Loyalty***

Several authors have found a positive correlation between customer satisfaction and loyalty (Anderson & Sullivan, 1993; Bolton & Drew, 1991; Fornell, 1992). Numerous studies in the service sector have also empirically validated the link between satisfaction and behavioral intentions such as customer retention and word of mouth (Anderson & Sullivan, 1993; Bansal & Taylor, 1999; Cronin & Taylor, 2000). Hart and Johnson (1999) have added that one of the conditions of true customer loyalty is total satisfaction. Hence, the researchers have hypothesized the following:

*Hypothesis 4:* Customer satisfaction has a positive effect on customer loyalty.

## **Conceptual Framework**

Based on the literature review, a two-level analysis has been employed to draw causal inferences regarding the postulated relationship among the studied variables. The first level investigated whether customer satisfaction has been mediating the relationship between customers' perceived service quality and customer loyalty, and the direct relationship between trust and customer loyalty. At the second level, the researchers

have tried to investigate both direct and mediated (indirect) relationship between customers' perceived service quality, and customer loyalty where customer satisfaction has been identified as a mediating variable, and also the direct relationship between trust and customer loyalty.

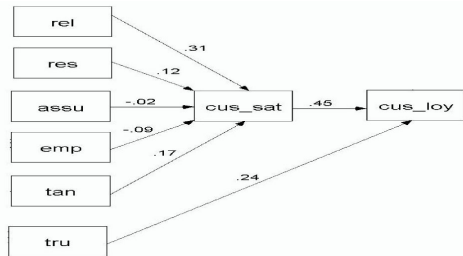


Figure 1: Hypothesized model 1 with results

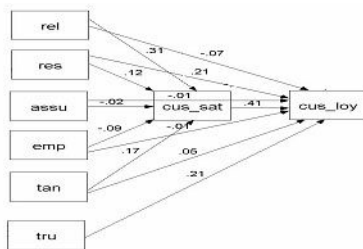


Figure 2: Hypothesized model 2 with results

**Measures**

Structured questionnaires comprised of four sections have been used to collect data. For all of these variables the previous researchers used 5 points Likert scale. Therefore, the researchers have also used 5 points Likert scale to measure all of these variables. Service quality has been measured by using 21 items developed by Zeithaml, Berry, and Parasuraman (1996). This scale of service quality has reported reliability ranging from 0.75- 0.93.

The trust has been measured by using 5 items adapted from Morgan and Hunt (1994) and the reported reliability is 0.86. Customer satisfaction has been measured by using 3 items adopted from the American Customer Satisfaction Index study (NQRC, 1995) and Feick, Lee, and Lee (2001), and the reported reliability of this scale is above 0.77. The customer loyalty has been measured by using 5 items developed by Narayandas (1996), and the reported reliability of this scale is above 0.88.

**Methodology**

**Sample**

Data have been collected from 304 subscribers/customers of a major private telecommunication company of Bangladesh and the response rate was 90%. The average age of the respondents was 29 years. 59 % respondents were male and 41 % were female.

**Data Analysis**

To assess direct and indirect relationships among the studied variables the researchers have followed a two-step procedure using confirmatory factor analysis and structural equation modeling (Anderson & Gerbing, 1988). Amos 5.0 has been used to perform these analyses.



In the Model 1 of Table I all paths from the service quality to customer satisfaction have been examined. The paths from customer satisfaction to customer loyalty, and trust to customer loyalty have also been examined. In Model 2 all paths from perceived service quality to customer loyalty, paths from perceived service quality to customer loyalty as mediated through customer satisfaction, and trust to customer loyalty have been examined.

## Results

### *Descriptive Statistics and Correlations Matrix*

The Descriptive statistics and the Reliability coefficients of the studied variables are presented in Table II. The reliability coefficient or alphas for the different constructs were computed using the reliability procedure in SPSS (version 12.0). The reliabilities of all the constructs used in this study found to be above the standard set by Nunnally (1978), which is 0.50-0.60.

**Table I: Summary of Theoretical Models**

Model	Theoretical Models
Model 1	Paths from customers' perceived service quality to customer satisfaction; customer satisfaction, and trust to customer loyalty.
Model 2	Paths from customers' perceived service quality to customer satisfaction, and customer loyalty; customer satisfaction, and trust to customer loyalty.

**Table II: Reliability Coefficient and Descriptive Statistics of Customers' Perceived Service Quality (Reliability, Responsiveness, Assurance, Empathy, Tangibility), Trust, Customer Satisfaction, and Customer Loyalty**

Scales	Number of items	Alpha	M	SD
Reliability	5	0.73	4.30	0.46
Responsiveness	3	0.60	4.34	0.49
Assurance	4	0.67	4.32	0.49
Empathy	4	0.75	4.28	0.60
Tangibility	5	0.69	4.35	0.45
Trust	5	0.53	4.41	0.32
Customer satisfaction	3	0.53	4.35	0.43
Customer Loyalty	5	0.69	4.53	0.39

Note: n = 304

Mean scores have been computed by equally weighting the mean scores of all the items. On a five-point scale, the mean scores of customers' perceived service quality of that private telecommunication company range from 4.28- 4.35 indicate that customers' perceive that quality of service being offered by the mobile service provider is quite high. The mean score of trust is 4.41 (sd = 0.53), which suggests that the customers find the service provider trustworthy. The mean score of customer satisfaction is 4.35 (sd = 0.43) implies that the customers of the private telecommunication company are highly satisfied. The mean score of customer loyalty is 4.53 (sd = 0.39). Apparently it seems that the customers are very loyal to the service provider.

The bivariate correlation procedure has been subject to two tailed tests of statistical significance at two different levels- highly significant ( $p < .01$ ) and significant ( $p < .05$ ). Correlation Matrix presented in Table III support all hypothesized positive relationships among the studied variables with high statistical significance. The variables significantly (statistically) and positively correlated with reliability were customer satisfaction ( $r = 0.40, p < .01$ ), and customer loyalty ( $r = 0.24, p < .01$ ). Responsiveness is found to be significantly and positively correlated with customer satisfaction ( $r = 0.29, p < .01$ ), and customer loyalty ( $r = 0.35, p < .01$ ).

**Table III: Correlation Matrix for Service quality (Reliability, Responsiveness, Assurance, Empathy, and Tangibility), Trust, Customer satisfaction, and Customer loyalty**

	REL	RES	ASSU	EMP	TAN	TRU	CUS_SAT	CUS_LOY
REL	-	.51**	.46**	.51**	.48**	.15**	.40**	.24**
RES		-	.54**	.64**	.48**	.23**	.29**	.35**
ASSU			-	.64**	.45**	.11*	.21**	.19**
EMP				-	.55**	.12*	.23**	.22**
TAN					-	.13*	.32**	.26**
TRU						-	.14*	.31**
CUS_SAT							-	.48**
CUS_LOY								-

Note: \* $p < .05$ , \*\* $p < .01$ .



Assurance has been found to be significantly and positively correlated with customer satisfaction ( $r = 0.21, p < .01$ ), and customer loyalty ( $r = 0.19, p < .01$ ). Empathy is found to be significantly and positively correlated with customer satisfaction ( $r = 0.23, p < .01$ ), and customer loyalty ( $r = 0.22, p < .01$ ). Tangibility is found to be significantly and positively correlated with customer satisfaction ( $r = 0.32, p < .01$ ), and customer loyalty ( $r = 0.26, p < .01$ ). Trust has been found to be positively and significantly correlated with customer loyalty ( $r = 0.31, p < .01$ ). Customer satisfaction, and customer loyalty are found to be positively and significantly correlated ( $r = 0.48, p < .01$ ).

### Confirmatory Factor Analyses

The Comparative Fit Index (CFI), and Goodness of Fit Index (GFI; Hair, Anderson, Tatham, & Black, 2003), Normed Fit Index (NFI), and Root Mean Square Error of Approximation (RMSEA; Steiger, 1990) have been used in judging the model fit. The Comparative Fit Index is a recommended index of overall fit (Gebring & Anderson, 1993), Goodness of Fit Index measures the fitness of a model compare to another model (Hair, Anderson, Tatham, & Black, 2003), Normed Fit Index measures the proportion by which a model is improved in terms of

fit compared to the base model (Hair, Anderson, Tatham, & Black, 2003), and RMSEA provides information in terms of discrepancy per degree of freedom for a model (Steiger, 1990). As suggested in the literature (Bollen, Long, & Scott, 1993; Joreskog & Sorbom, 1993; Kline, 1998) model fit should be assessed by employing several indices. The accepted thresholds for these indices are  $\chi^2/df$  ratio should be less than 3; the values of GFI, RFI, NFI, and CFI should be greater than 0.90; and RMSEA is recommended to be up to 0.05, and acceptable up to 0.08 (Gefen, Straub, & Boudreau, 2000; Hair, Anderson, Tatham, & Black, 2003).

### Structural Equation Analysis

Table IV shows that the results of measurement models to test the hypothesis with regard to model paths. The first model has examined the causal links of customers' perceived service quality and customer loyalty as mediated through customer satisfaction, and it has also examined the relationship between trust and customer loyalty ( $\chi^2 = 17.03, df = 6$ ). Afterwards, this model has been compared with another model which has examined both the direct and mediated (indirect) causal links between customers' perceived service quality and customer loyalty mediated by customer satisfaction be-

**Table IV: Summary of Results of Measurement Models**

	$\chi^2$	df	$\chi^2/df$	CFI	NFI	GFI	RMSEA
Model 1	17.03	6	2.83	0.987	0.980	0.987	0.076
Model 2	1.396	1	1.396	1.00	0.998	0.999	0.035

Note: RMSEA = root mean square error of approximation; GFI = Goodness-of-Fit Index; NFI= Normed Fit Index; CFI = Comparative Fit Index

sides examining the direct relationship between trust and customer loyalty ( $\chi^2 = 1.396$ ,  $df = 1$ ). The results show that the second model fits the data better. The changes or improvements in  $\chi^2/df$  (2.83 to 1.396); NFI, GFI, and CFI (0.980, 0.987, and 0.987 to 0.998, 0.999, and 1.00 respectively); and RMSEA (0.076 to 0.035) reflect this insight.

**Path Analysis**

Considering the pattern of significance for the parameters estimated in Model 1, only reliability has been found to be significantly related to customer satisfaction in the hypothesized direction. Moreover, customer satisfaction and trust are significantly related to customer loyalty.

In case of model 2, no significant relationships have been found in the identified paths among responsiveness, assurance, empathy, and tangibility and customer satisfaction, and customer loyalty although some of the relationships are found to be in the hypothesized directions. However, reliability and customer satisfaction are found to be significantly related. In addition, customer satisfaction and trust are found to be significantly related to customer loyalty in the hypothesized direction.

**Table V: Standardized Path Coefficients for the Models**

Path			Model 1	Model 2
rel	g	cus_sat	.31***	.31***
res	g	cus_sat	.12	.12
assu	g	cus_sat	-.02	-.02
emp	g	cus_sat	-.09	-.09
tan	g	cus_sat	.17	.17
rel	g	cus_loy		-.07
res	g	cus_loy		.21
assu	g	cus_loy		-.01
emp	g	cus_loy		-.01
tan	g	cus_loy		.05
tru	g	cus_loy	.24***	.21***
cus_sat	g	cus_loy	.45***	.41***

Note- \*\*\*  $p < .001$

## **Discussion**

The present study is noteworthy for a special reason. As to the knowledge of the researchers no such study has been done previously on the subscribers of any telecommunication company in Bangladesh to examine whether customers' perceived service quality, trust, and customer satisfaction can engender customer loyalty. Specially, the researchers have tried to investigate whether the postulated causal relationships among the studied variables vary in two measurement models for the same group of subscribers. Researchers hope that such study might induce the mobile service providers to chalk out appropriate course of action to create a loyal customer base by ensuring judicious use of valuable marketing resources. Data supported the proposed model 2, where direct paths from customers' perceived service quality and trust to customer loyalty; and indirect paths from customers' perceived service quality to customer loyalty as mediated through customer satisfaction have been examined.

In general, the results have supported most of the hypothesized relationships. Customer satisfaction performs an important mediating role between service quality and customer loyalty is supported by this research. Hence, the management should primarily focus on customer satisfaction for which service quality is an important antecedent. Because the impact of perceived service quality on preference loyalty is considerably strong leading to a more favorable disposition towards the service provider and increased commitment to re-patronize.

Customer satisfaction alone can not

achieve the objective of creating a loyal customer base. In both models trust has come out to be an important antecedent of customer loyalty. While determining the imperatives of 'how to win customers' trust' the service provider(s) must focus on both present and future time frame. The construct of trust contains belief in the brand or company, which provides the customers an assurance of positive outcomes not only for the present but also for the future. As illustrated in the literature, the customers must be led to believe that the company will not behave opportunistically for sake of its own interest; otherwise they will switch their allegiance.

The findings of this study have to be interpreted considering few limitations. First, data were collected only from the subscribers of one private telecommunication company; so the results might not hold true for other telecommunication companies. Second, data collection was limited to the subscribers of that private telecommunication company who live in Dhaka metropolitan area; so the findings should not be generalized for all the subscribers of the entire country. Third, the current study was a cross-sectional study but to determine the causal paths of the studied variables a longitudinal study would have been more appropriate (Poon, 2004). In addition, the current study not being an experimental one it was not possible to eliminate or withhold the influence of unidentified and undesired extraneous variables from the study. Hence, future researchers might consider the recommended studies to draw causal inferences more confidently and safely. Finally, theoretically other variables

like price perception, corporate image, switching cost etc. influence customer loyalty, and including such variable(s) in the study would have made the research models more robust and interesting. In future research additional variables should be incorporated.

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