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Impact of Service Quality on Customer Satisfaction in Telecom Sector of Pakistan

ABSTRACT

The purpose of this research paper is to investigate the important factors that link with customer satisfaction in telecom sector of Pakistan, which are in the form of service quality and customer satisfaction. A research field was conducted. The questionnaire was taken from existing constructs in the relevant field. The majority of respondent belong to non-business mobile users of Pakistan. Answer of the research questions were tested through reliability test and statistical analysis. The service quality dimensions namely billing system, pricing structure and customer services have positive significant influence on customer satisfaction. Future study could examine inertia, trust and the attractiveness of alternatives. Moreover, future research can take place as the mediating role of possible switching costs and the inter link between services quality and customer satisfaction. The drives of the customer satisfaction in Telecom sector are very important for mobile operators. The present research is very useful for managers of Telecom sector company to implement the customer satisfaction strategies to improve their business and profit level.

Keywords: Service Quality, Customer Satisfaction, Telecom Sector of Pakistan

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■ Introduction

The Service quality and its consequences is particularly a marketing literature which is work over three decades and it have received extensive academic research. Several researches have work on that, that quality in the service of a particularly is very important toll to increase in customer and have more and more loyal customer (Headley and Miller, 1993; Spreng et al., 1996; Hossain and Leo, 2009; Ilias and Panagiotis, 2010; Kuo et al., 2011). As such when a specific telecom company provide a service quality which meets or more than its expectations result will be in the form of customer satisfaction and loyalty. Schiffman et al. (2012) Service quality is the best toll to find that the customer will stay with their company(loyalty) or stich to competitor. Thus, for a long term success a service provider organization it's very important to expend its business and maintain a large bunch of loyal customer through service quality that meet or exceed customer expectations (Kandampully,1998).

The concept of service quality is common in both service provider and manufacturing sector, remarkable growth in any sector make the service quality very important, essential and attractive. Nearly two-thirds increase in the economy of the world come from service sector (Dibb and Simkin, 2009). Similar example taken from CIA World Factbook (2012) service sector contribution to Nigeria's Gross Domestic Product(GDP) 38 per cent was estimated in 2010, which is being highest industry while agriculture parallel 32 and 30 per cent, in same year respectively. "According to the Bureau of Labor Statistics, the service industry has a great impact in job creation 98 per cent of the total employment which is increase between 2008 and 2018, and throughout the world nearly 80 per cent of worker will be from service sector industry" (Lamb et al., 2012).

A number of empirical studies have shown that its profitable to retain customer then that of acquire new customers (e.g. Hogan et al., 2003; Lee-Kelley et al., 2003). It has been study that a 5 per cent retain customer can cause a ranges of 25 per cent and 85 per cent profitability (Reichheld and Sasser, 1990). The loyal customer doesn't like to change provider because of price and they will also recommend the business to other customer as well (Reichheld and Sasser, 1990; Reichheld and Teal, 1996). Such a customer observation is very important for a company specially working in the

service industries. In such a way that a service provider companies compete with those companies which are work very similar to them, so that they give importance to employing customer retention strategies (Egan, 2004, p. 133). Thus the biggest challenge to them is that how to get the loyalty of existing retain customer. Their aim is that to show the existing level of loyalty, a number of authors have work on customer satisfaction and that is to show the two close concepts' and their close relationship (e.g. Jones and Sasser, 1995; Sheth and Sisodia, 1999).

■ Literature Review

■ SERVQUAL

Parasuraman, et al.'s (1985, 1988) the dimension of service quality is one the common cited components which is used in service quality literature (Othman and Owen, 2001). The SERVQUAL scale is consist of 22-item scale which measure the service quality and their five components as well, on which all other research of service quality cornerstone is built (Sureshchandar et al., 2002). Parasuraman et al. (1985) first develop service quality consist of ten dimensions which were later collapsed and reduce to five (Parasuraman et al., 1988). They use the disconfirmation approach to measure the above dimension. According to SERVQUAL technique finding of service quality is very simple, expectation sources will be subtracted from perception sources. The above resource has some weighted to reflect the importance of each aspect of service quality. The output from one of the measurement tell us about that a company whether its customer expectations exceeded or not. The output from SERVQUAL technique identified that which components of a service company is particularly better or not. In other words, it's also used to monitor the service quality with the passage of time, comparison of the performance with the competitor, comparison of different branches of the same company, or comparison of the customer satisfaction within a specific area in a service industry.

Cronin and Taylor (1992) waited that a service quality is the gap exist between the customer expectation and service provider performance. The argue is that, that the service quality should be the customers' attitude to words the service which is provided, from that

the satisfaction is define as a gap exist between the performance and expectation or discomfort of expectations. The attitude conceptualization argues an importance evaluation on the specific service attributes (Cronin and Taylor, 1992).They suggest that the service quality can only measure my performances. Cronin and Taylor (1992) never use the five dimensions of SERVQUAL, because they don't believe on SERVQUAL but they suggest that perceptions are the better and only prediction to find service quality. Croninand Taylor (1992) simply suggest that the components of SERVQUAL should be expunge, because both expectation and performance should not been use simultaneously. Jain and Gupta (2004) argue that SERVQUAL scale express greater variance overall service quality if it is measure with one single-item scale.

Some academics argue that (see e.g. Etemad-Sajadi and Rizzuto, 2013; Dahiyat et al.,2011; Qin et al.,2010; Buttle, 1996; Carman,1990; Croninand Taylor, 1992,1994). Ford et al.'s (1993) the originators of SERVQUAL is generic for the measurement of service quality. Ford et al.'s (1993) argue that the scale is specific for a specific region it does not work in cross culture. Carman (1990) also argue in the same context that SERVQUAL dimensions, also specific for a specific service industry. All together Carman (1990), CroninandTaylor (1992) and Dahiyatetal. (2011) argue that for a different service setting the modification of instrument is very important. Babakus and Mangold (1992) argue that wording changes in the SERVQUAL technique could be necessary for the input of service settings.

■ **Service Quality**

From about few decades the service quality has a strong effect on business output, satisfaction of customer, loyalty customer and profit, which stick the attention of researcher. Mostly the service quality is measure that how much the level of customer expectation has been matched (Santos, 2003). As example taken from Gronroos (1984) in which he says that "the evaluation from customer will come at that point when customer expect service quality and what he receives". Furthermore, Parasuraman et al. (1988) define service quality in a different way through comparison of a specific firm with the industry "that who a specific service provider firm will provide a service to a customer which he expects and compare with the industry should perform".

A number of instruments has been used to measure the dimensions of service quality. Among that SERVQUAL is the most effective and popular one. SERVQUAL is consist of a series of stages which is consecutive and more refined version. One of the most commonly used version (Parasuraman et al., 1988), of service quality is basically about the gap exist between the customer expectation and its perceptions, and its characteristic in to five dimensions which are reliability, responsiveness, assurance, empathy and tangibles. In the present era the interest of the people in conceptualizing and measuring service quality in telecom sector is increase due to the steep increase of penetration rate in most region around the world and technology rapid advancement. Van der Wal et al. (2002) use the instrument SERVQUAL in African country South Africa to investigate the service quality in telecommunications mobile company. The output of that technique confirmed that the SERVQUAL is best to use to evaluate the service quality in that industry. SERVQUAL was also use by Johnson and Sirikit (2002)in find the service quality in Thai telecommunications sector. That result show that the instrument can be used in different sector namely telecommunications, banking, retailing, health care.

The aim of the research is to develop the service quality conceptualization and measurement model specially in telecom sector (Aydin and Ozer, 2005; Gerpott et al., 2001; Kim et al., 2004; Lee et al., 2001; Lim et al., 2006). The development of models suggests a several diminutions to define and meaning overlap to some extent. According to Choi et al. (2007) the telecom quality measurement dimensions identified can be categorized in network coverage, price structure, convenience, billing system, value added and mobile device.

■ **Customer Satisfaction**

The words customer satisfaction is basically means that the reaction of customer towards the fulfillment of their need and judgement on the fulfillment state (Oliver, 1997). The researcher works a lot and give always a great attention toward the customer satisfaction. However, there are a larger number of consensus that “whether the satisfaction is person feeling of pleasure or disappointment toward company product outcome and relate with the expectation” (Kotler, 2003,

p. 36). So from that context customer satisfaction is clearly related with customer expectations. Specifically, overcome the gap exist between the customer expectations and the greater customer satisfaction can be achieved through the best performance of the product and services (Hutcheson and Moutinho, 1998).

Customer satisfaction can be measure through a single-item scale or through a multi-item construct to support the satisfaction of the each and every components of the service. Cronin and Taylor (1992) customer satisfaction was consist of single-item scale, in which he asked from customer that express the overall feeling about the organization, while on the other side Anderson and Srinivasan (2003) used a scale consist of 6-item to measure the satisfaction of customer in different context of electronic commerce. With the different angle LaBarbera and Mazursky (1983) compare the two methods to achieve the result by using multi-item scale unfortunately it does not work the reliability over time and the respondent response were very poor. The researcher consider that satisfaction of the customer is the fundamental determinants of the loyalty of the customer. Anderson and Sullivan (1993) find out that a satisfied customer have a greater expectation which should be retained and not provide the resistant to switch toward an alternative. While Fornell (1992) write that level of loyalty increase with the increase in the level of satisfaction and the transfer of the customer toward the competitor will be very low. However, the satisfaction level of the customer will be increase in the form of repurchases and have a positive response from the customers (Reichheld and Sasser, 1990; Wirtz, 2003). To conclude research has shown that the satisfaction of customer has a high effect on both attitude and behavioral of loyalty.

In the same context the result has been shown from telecom service literature that satisfaction have a greater effect of loyalty of customer. Example taken from Gerpott et al. (2001) in context of German mobile cellular telecom market, Kim et al. (2004) in Korea and Lee et al. (200) and in France which highlighted that there isa high level of link between loyalty of customer and satisfaction of customer.

■ Research Methodology

■ Research model and questionnaire design

The brief, research approach was conducted to explain and measure the cause-and effect link between customer satisfaction and service quality in telecom sector of Pakistan and to get our research objectives. The concept of research is shown in figure 1. The field research was carryout through interviewer-administered questionnaire. The development of questionnaire was construct through different resent relevant suggestion.

Service quality. The work was influence by the dimensions of Choi et al. (2007), who categorized and summarized the identification of quality facture in telecom sector. The concept of service quality is divided:

- **Network.** According to Kim et al. (2004) and Lim et al. (2006), basically networking is measure through maximum area coverage and clarity of vice factor.
- **Value-added services.** As we know that value-added servicesare considered in the form of intangible objectives such as MMS, GPRS, SMS, games, WAP, ring tones, music, news etc. The different verities of these services, their uses while if they are up-to-date items, according to Kim et al. (2004) the factor which were used to measure.
- **Mobile devices.** The dimension of mobile devices is measure through quality, design and variety offered by the telecom sector companies in markets, it was taken from Kim et al. (2004).

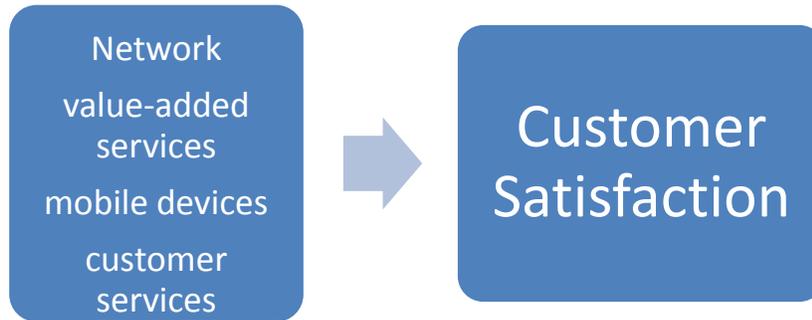


Figure 1. Research conceptual model

- **Customer services.** The customer services are the source of problem solving factor, respectful customer service representatives, help provided by call-centers and consistent advice. These four items were adopted from Lim et al. (2006).
- **Pricing structure.** The different pricing schemes, reasonable price and the degree of freedom to choose pricing scheme are the factor use by Kim et al. (2004).
- **Billing system.** This dimension consists of billing issues, accurate billing and problem of speed resolution suggested by Lim et al. (2006).

■ **Customer satisfaction**

Customer satisfaction is an item with multi-items scales concept use for measurement of choice of an individual to avoid problem for this concept discussed in relevant literature review section.

Each item was conducted through five-point Likert scale, the possible answer range from (1) Strongly disagree (5) strongly agree, were used for service quality while (1) very dissatisfied (5) very satisfied used for the measurement of customer satisfaction. The survey of respondent was conducted through two additional sections demographics and data related to their telecom use.

■ Sampling

First the questionnaire was pilot-tested by ten mobile users. The result deducted from pilot test was satisfactory, questionnaire items were easy and understandable for rest of the respondent. Some minor mistake was found in questionnaire, which were corrected before the final distribution in the field of research. Not a single respondent was found who hesitated to answer each and every question. The research field was conducted from mobile users living in the urban areas located in Rawalpindi/Islamabad(Pakistan). Satisfaction can be effected by different factors which are not found in the case of residential users. The survey which were conducted took place in May 2017. Randomly approached to respondents at universities, shopping centers and streets. First they were asked through oral question to filter whether they are mobile phone residential users or not. After that they were asked to fill the questionnaire by the provider. Among all the sample of 205 questionnaires were valid.

■ Data Analysis and Results

■ Sample profile

Table 1 and 2 consist a sample demographic characteristic and profile of mobile users respectively. Table 1 show that the sample skewed towards male, young and with high education heaving low monthly income.

Measure	Item	Frequency	%
Sex	Male	111	54.1
	Female	94	45.9
Age	Less than 24	48	23.4
	25-34	78	38
	35-44	44	21.5
	45-54	22	10.7
	More than 54	13	6.3
Education	Primary school	14	6.8
	Secondary School	69	33.7
	University	102	49.8
	Postgraduate	20	9.8
Monthly	Less than	64	31.2

income (Pak Rupees)	20,000		
	20,000-40,000	90	43.9
	40,000-60,000	38	18.5
	More than 60,000	13	6.3
Measure	Item	Frequency	%
Package	Pre-paid	54	26.3
	Contract	151	73.7
Provider	Provider 1	86	42
	Provider 2	70	34.1
	Provider 3	49	23.9
Monthly expensive	Less than 500	26	12.7
	501-1000	47	22.9
	1001-1500	40	19.5
	1501-2000	44	21.5
	2001-2500	30	14.6
	More than 2500	18	8.8
Length of use (months)	Less than 12	36	17.6
	13-24	44	21.5
	25-36	41	20
	37-48	49	32.9
	More than 48	35	17.1
Device change	0 times	22	10.7
	1 times	48	23.4
	2 times	49	23.9
	3 times	48	23.4
	More than 3	38	18.5

Table 2 show the percent of each 3 mobile distributors companies which have their market share in 2017 was 39 %, 34 % and 27% respectively, according to their official announcements. Sample not biased on any of the providers.

■ **Factor that effect structure of service quality**

Exploratory factor analysis was conducted through which latent factors within the service quality scale were identified and also to verify the reliability and validity of some emerging dimensions. The Bartlett sphericity test was conducted to identify the degree to which correlation between the variables (Chi-square = 1778.9, $p < 0.000$) is significant. The Kaiser-Meyer-Olkin value (KMO = 0.69) verified the sample for performing factors analysis which exceeds 0.5 acceptance limitation (Hair et al., 1998; Kaiser, 1974).

One greater factor was extracted from data among six eigenvalues factors, 72.4 % of the total variance accounting (Kaiser, 1974). A normal and varimax rotation was used to extract a simple structure of interpretation (Kaiser, 1958). 0.5 cut-off were used for the selection of scale items. The six factors were used with the labels as: customer services (CUSER), network (NETW), price structure (PRISTR), value-added services (VADS) and the last one billing system (BILLSYS).

■ Reliability

The inter-item analysis which were used to verify the dimensions of service quality and customer satisfaction for the purpose of reliability or internal consistency.

	QF	QC	QD	QE	QB	QA
QA1	0.010	0.089	0.088	0.180	0.157	0.838
QA2	0.012	0.058	0.073	0.131	0.029	0.889
QB1	-0.103	0.169	0.060	0.158	0.758	0.028
QB2	0.101	0.187	0.038	0.028	0.842	0.039
QB3	0.165	-0.058	0.097	-0.039	0.730	0.122
QC1	0.036	0.747	0.099	0.079	0.098	0.131
QC2	0.087	0.942	0.090	0.009	0.095	0.010
QC3	0.055	0.930	0.063	-0.034	0.092	0.018
QD1	0.055	0.157	0.656	0.045	0.038	0.236
QD2	0.040	0.205	0.631	0.197	0.222	0.052
QD3	0.039	0.004	0.874	0.010	0.026	-0.020
QD4	-0.011	-0.030	0.867	-0.015	-0.006	-0.024
QE1	0.263	-0.062	0.104	0.642	0.039	0.157
QE2	0.173	0.112	0.043	0.813	0.048	0.149
QE3	0.079	0.009	0.030	0.851	0.051	0.049
QF1	0.772	0.000	0.022	0.236	0.169	-0.046
QF2	0.938	0.096	0.044	0.145	0.039	0.045

QF3	0.930	0.096	0.041	0.126	-0.023	0.030
Eigenvalues	4.154	2.472	2.038	1.751	1.517	1.094
Percent of total variation	23.077	13.735	11.322	9.729	8.426	6.078
Cumulative percent of total variation	23.077	36.813	48.135	57.863	66.290	72.367

Further, the Cronbach's alpha calculation for each scale, between 0.702 and 0.890 (Cronbach, 1960). The reliability level of all scale over 0.7 which is minimum acceptance level (Nunnally, 1967).

■ Regression analyses

32.8 percent the result of regression analyses. The control variable used for analyses were seven in number length of use, monthly income, age, device change, monthly expenses, education and gender. Table show the direct effect of service quality on customer satisfaction. The dimension of service quality overall was significant.

	Mean	SD	Number of items	Cronbach alpha	KMO*
Service quality					0.69
NETW	3.72	0.711	2	0.758	
VADS	3.52	0.726	3	0.702	
MOBDEV	4.01	0.679	3	0.860	
CUSER	3.47	0.593	4	0.773	
PRISTR	3.41	0.705	3	0.736	
BILLSYS	3.42	0.913	3	0.886	
Satisfaction	3.43	0.881	1	-	

	Dependent variables (Satisfaction) standard beta
<i>Control variables</i>	0.003
Sex	-0.127
Education	-0.045
Monthly income	-0.033
Monthly expenses	-0.040
Length of use	-0.067
Device change	-0.111

<i>Service Quality</i>	
NETW	0.105
VADS	0.044
MOBDEV	0.114
CUSER	0.224***
PRISTR	0.316***
BILLSYS	0.218***
Satisfaction	-
Adjusted R 2	0.358***

This table show the effect of service quality on customer satisfaction, CUSER (standard beta = 0.224, $p < 0.001$), PRISTR (standard beta = 0.216, $p < 0.001$), and BILLSYS (standard beta = 0.218, $p < 0.001$), were found positively significant associate with satisfaction.

■ Discussion

The objective of this research was to measure the effect of service quality on customer satisfaction, in telecom sector of Pakistan. Analysis or result of the research data show that, the quality of services given to customer is the major predictor of the customer satisfaction. Three out of six selected quality dimensions (customer support, pricing structure and billing system) have significant positive effects. Both mobile device sales and value-added services don't expose a significant influence on service quality. This research indicate that mobile users give much more attention to service issues as a core in the form of pricing schemes, customer care, billing and other than the advance phone devices, value-added services as service enhancement issues.

The obtain result from research is much relevant to the research found in literature. It was found that customer support very important for customer satisfaction according to Kim et al. (2004), who work and didn't find any evidence to explain the customer satisfaction effected from mobile devices dimension. According to Lim et al. (2006) price plus have indirect effect on satisfaction of customer through perceive economic value. While Lee et al. (2001) differentiate heavy users and regular users, he found that the level of price structure has less effect on satisfaction of heavy users while more effect on satisfaction of regular users. In a different and previous studies found that value-added services have positive effect on satisfaction (Kim et al., 2004; Lim et al., 2006). According

to Lee et al. (2001) heavy users have a strong attachment to value-added services, thus the level of customer satisfaction increase.

■ Value of work and practical implications

To the best of our knowledge the same and similar kind of research has not been undertaken in Pakistan, the important finding in this research can be used and utilized by a company working in telecom sector to develop practices that will lead in the form of customer satisfaction and customer loyalty as well. Our finding indicate that enhancement tactics can positively affect customer satisfaction. Manager all means to give a high level of care services to customer. Our finding indicates that reasonable prices, different varieties of pricing schemes and given the freedom choice or selection among them, and the accurate billing, resolving billing issues and the billing problem solving need great attention of the managers of different companies.

■ Suggestions for future research

As it is indicated that the sample of survey rather skewed towards particular mobile users. The survey was conducted in a specific area of a country, result to the same research project could be different if survey conduct in different country with having different characteristic. Majority of authors suggest that when the level of costs in markets are high, then a service giving firm can retain customer when they give high satisfaction to customer. They give argument that with the given motivation customer can stay with them in the form of friendly relationship to avoid costs. Future research can take place as the mediating role of possible switching costs and the inter link between services quality and customer satisfaction.

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