



AN EMPIRICAL ASSESSMENT OF SERVICE QUALITY AND ITS RELATIONSHIP WITH CUSTOMER LOYALTY EVIDENCE FROM THE TELECOM SECTOR OF PAKISTAN

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ABSTRACT

An attempt has been made to address the service quality gaps in the telecom sector of Pakistan as well as interrelations of service quality attributes with customer loyalty. Based on applicability and suitability in different industries, SERVQUAL scale has been used in this study to measure the current service level of telecom companies operating in Pakistan and areas where gaps exist in their service quality. Convenient sampling has been used and data collected through questionnaire with sample size of 146 respondents from Bahauddin Zakariya University, Multan, which then analyzed by SPSS 16. Results showed that gaps exist between customer perceptions and their expectations. Major gap exist in network dimension followed by responsiveness and reliability. A correlation analysis was carried out showing positive significant relationships between service quality attributes and customer loyalty. Managerial implications and future research directions are discussed.

Key Words: Service quality, Customer loyalty, SERVQUAL

INTRODUCTION

Quality has become a strategic tool for measuring business performance in today's dynamic environment. Most of the researchers recognized quality as achieving operational efficiency and improved business performance (Zeithaml and Anderson, 1984; Babakus and Boller, 1992; Garvin, 1983; Phillips et al., 1983). Both in case of goods or services sector, management is keen to investigate the gaps in expected and perceived quality. However, in service sector, service quality

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is not easily measurable due to its unique characteristics that make them different from goods. It becomes significantly essential to measure service quality in the service industries when there is remarkable growth and strong competition among the service firms (Brown and Bitner, 2007). Telecom sector in Pakistan is rapidly growing and is one of the most potential sectors that contribute largely in the country's GDP. According to Pakistan Telecommunication Authority (PTA, 2012), telecom sector has participated nearly Rs. 363 billion to the national economy during the year 2012 which showed an increase of 5.4 percent compared to last year. Potential of this sector also reveals from the view that foreign direct investment in this sector remarkably increased during the period of 2003-2006 from 21.8 percent to 54.1 percent. According to the report, foreign direct investment (FDI) by the telecom companies is more than 30 percent of the total foreign direct investment in the country during last six years. According to the World Economic Forum's Global Information Technology Report 2010-11, Pakistan ranked no. 1 in the internet and telephony competition. The total of mobile subscribers reached more than 119.8 million at the end of May 2012 (PTA, 2012). However, the mobile market over the years has come more stable due to intense competition in the market. Market shares are now more balanced among the five operators (Mobilink, Telenor, Ufone, Warid and Zong) with almost insignificant changes over the years. At the end of March 2012, Mobilink had a market share of 30.25 percent followed by Telenor with 24.80 percent and Ufone with 19.54 percent. Now the companies are focusing on the quality of services which they are providing to retain their customers. Steenkamp (1989) is of the view that for increased market share, customer retention is one of the factors. Acquiring new clients costs approximately seven times higher to the mobile operators as compared to retaining the existing one (Yankee, 2001). Therefore, it became more viable for us to study service quality in this sector due to its valuable impact in the country's economy as well as tough market competition.

Currently, the mobile operators are not only concentrating to catch new customers for their financial performance but also striving to retain the existing ones. Most of the researchers have linked sustainable growth with customer retention. (Fornell and Wernerfelt, 1987; Reichheld and sasser, 1990; Peters, 1988). Number of studies have been conducted on service quality and customer satisfaction (Cronin and Taylor, 1992; Jones and Suh, 2000; Prabhu, 2003; Choi et al., 2004). In Pakistan, numerous researchers have conducted research on this issue (Ahmad et al., 2010; Ishaq, 2011; Khan, 2010) but their research was focused either on five dimensions of service quality as described by Parasuraman (1988) or only on perception portion of the model while the pivotal diagnostic role of SERVQUAL model have yet been ignored. Therefore, this study aims to measure the gap between perceived service quality by customer and their expectations. Moreover, five service quality components (tangibility, reliability, responsiveness, assurance and empathy) as presented by Parasuraman et al., (1988) as well as two more dimensions; network aspect and convenience have been studied to measure interrelations with customer loyalty in Pakistani context as the later two dimensions considered appropriate for telecom industry. Keeping this in view, the study is designed to assess the level of service quality as perceived by mobile users in Pakistan. The specific objectives of the study are:

- Identifying difference between expected and perceived service as experienced by the users.
- Measuring relationship of service quality and customer loyalty in telecom sector of Pakistan.
- To find the major gap areas where companies are lagging.

Scope of this study is to identify areas where the firms are under performing as compared with customer expectations by using SERVQUAL model which managers must account for retaining customers and their sustainable growth in telecom industry in Pakistan.

LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESIS

There are multiple definitions of quality as defined by different authors. Two of the most popular definitions of quality include ‘conformance to requirements’ (Crosby, 1984) and ‘fitness for use’ (Juran, 1988). Initially, the word ‘quality’ was associated with the goods sector. As the Japanese define quality as the ‘zero defects’ (Crosby, 1979). It is somewhat different to understand quality in the services sector as compared with goods sector due to three inherent characteristics of the services: Intangibility, inseparability and heterogeneity. Most of the services are intangible (Bateson, 1977; Berry, 1980; Lovelock, 1981). It is not much easy for the firms to understand how consumers perceive and evaluate their service quality due to intangibility of the services. Moreover, heterogeneity of services makes this understanding more difficult especially when it is highly labor content. Booms and Bitner (1981) identified that it is difficult to assure consistency of behavior from services personnel because what the consumer actually receiving may be entirely different from those which the firm intends to deliver. Service literature viewed quality as overall assessment (Bolton and Drew, 1991; Carman, 1990). However, attention towards service quality was laid down in the mid eighties by Parasuraman, Zeithaml and Berry (1985). They were among the pioneer researchers who empirically investigated the concept of quality with the services sector. According to them service quality was measured as the difference of customer perception to the performance of service quality minus Customer expectation for the service quality. Service quality can also be defined according to both what and how a product or service is delivered. Gronroos (1990) distinguishes between “technical quality” and “functional quality”. Technical Quality is concerned with what the outcome of the delivered product or service while the functional quality is concerned with how the product or service has been delivered.

Parasuraman et al, (1988) have presented a model known as SERVQUAL to measure quality in the service sector. Initially they provided a list of ten determinants (access, communication, competence, courtesy, credibility, reliability, responsiveness, security, understanding and tangibles) of service quality after in-depth interviews with executives and focus group interviews from the four service sectors – Banks, Credit cards, Repairing and Maintenance and Long Distance Telephone Company. In a later article that year (Berry et al, 1985) they added, “Although the relative importance of the categories would vary from one service industry to the next, we believe

the determinants of service quality in most (if not all) consumer service industries are included in this list”.

In later years, Parasuraman et al, (1988) found a high degree of correlation between communication, competence, courtesy, credibility and security on one hand and between access and understanding on the other hand. So, they introduced two broad dimension assurance and empathy making a five fold model (tangibles, reliability, responsiveness, assurance and empathy) which they used as the basis for their service quality measurement tool, SERVQUAL. These dimensions can be defined as:

- **Tangibility:** Physical facilities, equipment and appearance of service firm’s employees.
- **Reliability:** performing the promised services at stated level.
- **Responsiveness:** providing prompt services and willingness to help customers.
- **Assurance:** knowledge and courtesy of employees and their ability to inspire trust and confidence in the firm.
- **Empathy:** caring and personalized attention to its customers.

They suggested that the service quality should be measured as the difference or gap between consumer expectations about the service and the actual perceived performance (i.e. the disconfirmation paradigm). SERVQUAL is basically based on disconfirmation model presented by Oliver (1980). Oliver (1980) proposed three types of disconfirmation:

Positive disconfirmation – when perceptions exceed the customer expectation that results in high customer satisfaction.

Negative disconfirmation – when perceptions left behind the expectations that results in customer dissatisfaction.

Zero disconfirmation – when perceptions equal the expectations.

The concept of measuring level of service quality in terms of expectations and perceptions using SERVQUAL gap score has been proved very useful. Parasuraman et al., (1988), argued that SERVQUAL can be used in any kind of service industry after some industry specific modification. Further, they argued, it is a diagnostic tool for managers about firm performance. Largest the negative gap score indicating poor performance while, if in some cases, the gap turn out to be positive indicating that expectation are not just being met but exceeded. This also will be an indication for managers to review whether they may be over supplying that particular feature of the service or should continue with the same.

After SERVQUAL, presented by Parasuraman et al, (1988), much of the criticism levied against it. For example, Carman (1990) argued that the five dimensions of SERVQUAL could not be generic measure for every service industry. He found that some of the items loaded differently when compared to cross industry analysis. As mentioned earlier, Parasuraman et al, (1988) combined

understanding and access component into single component i.e empathy due to high correlation count between them. Caraman (1990) finds it inappropriate combination in his research. Cronin and Taylor (1992) also criticized the SERVQUAL model due to its operational deficiencies. They argued that only perception portion can best describe the satisfaction level of customers as compared to difference score of perception minus expectations. As a result, they developed an alternative measurement tool named 'SERVPERF' in which they nullify the expectation portion of the original SERVQUAL model. They argued that only the performance dimension can better predict the behavioral intention of the customers. Brown et al, (1993) found support for SERVPERF model. They argued that the difference score has some operational problems. So, they claimed superiority of 'non difference score' over the 'difference score' measure. Future researchers commented that cultural difference is also an important aspect which cannot be ignored that shapes the customers' expectations about any service quality (Donthu and Yoo, 1998; Kettinger et al., 1994; Mattila, 1999). Hence the relevancy of SERVQUAL model in different cultures is also an issue.

In spite of all controversy issues, SERVQUAL has been widely used in service industries with some modifications for the suitability of that industry. Many researchers have found support for the wide spread use of SERVQUAL (Chebat et al., 1995; Furrer et al., 2000; Zeithaml and Bitner, 2003). In addition, web of science revealed that both, SERVQUAL and SERVPERF, have received more than 46 percent of its citation within the five years during year 2002 to 2007 [cited in Carrillat et al., (2007)]. This shows that conceptual arguments by Cronin and Taylor's (1994) in favor of SERVPERF model, have not affected the popularity and usage of SERVQUAL model among scholars. In telecom industry, SERVQUAL model extensively being used in different cultural context with high reliability and validity (Hoffman and Bateson, 2001; Tyran and Ross, 2006; Stafford et al., 1998). Van der Wal et al., (2002) also used SERVQUAL model with some modifications in mobile telecommunication in South Africa and scale reliability of 0.95 has been observed in modified instrument. Berry et al., (1994) argued that SERVQUAL is an effective tool for an organization that is focusing on quality improvements. In his paper, Carrillat et al., (2007), concluded that SERVQUAL is a better tool for diagnostic measure. His meta analytic research comprises on 17 years of research across 5 continents. Consequently, SERVQUAL is a better tool for measuring and improving service quality in the area where an organization lacking in meeting the desired customer expectations. Thus, in this study we used the SERVQUAL model after adding two more dimensions, network and convenience, being important in the telecom industry.

SERVICE QUALITY AND CUSTOMER LOYALTY

Customer loyalty has been increasingly investigated by firms as it results in decreased operating cost and repeated purchases. Different approaches to loyalty have emerged over time from behavioral perspective, attitudinal and integrated approaches (Oh, 1995). As a behavior (hard core loyalty or probability of repeat purchases), it is measured as a minimum differential needed for

switching (Raju et al., 1990). As an attitude (brand preference, intention-to-buy, commitment), it is mainly focusing on brand recommendation (Boulding et al., 1993), willingness to pay a price premium (Zeithaml et al., 1996; Narayandas, 1996) and resistance to superior products (Narayandas, 1996). And as integrated approach which takes account of both behavioral and attitudinal variables (Kim et al., 2004). Peppers and Rogers (1993) in their study found that doing business with existing customers saves money on a variety of recruitment cost like advertising cost, personal selling and explaining business procedures to new clients. Thus, customer retention becomes an important source of long-term business success (Rust and Zahorik, 1993). Henkel et al. (2006) found in his study in the telecom sector that satisfied customers have high extent of usage and intentions to repurchase in future. Teich (1997) said that loyalty is not a one time process but developed over a period of time from a satisfying consistent record of meeting and sometimes even exceeding customer expectations. Tax et al. (1998) found that customer loyalty is the result of fewer customer complaints. It is not necessary a loyal customer would be a satisfied customer as loyalty is a multi-dimensional construct and includes both positive and negative responses (Zeithaml et al., 1996).

Hypothesis of the study are:

On basis of given literature, study hypotheses can be drawn:

- H1:** There is positive significant relationship between overall service quality and Customers' Loyalty
- H2:** Tangibles are positively and significantly related with the Customers' Loyalty
- H3:** Reliability is positively and significantly related with the customers' Loyalty
- H4:** Responsiveness is positively and significantly related with Customers' Loyalty
- H5:** Assurance is positively and significantly related with Customers' Loyalty
- H6:** Empathy is positively and significantly related with the Customers' Loyalty
- H7:** Network is positively and significantly related with the Customers' Loyalty
- H8:** Convenience is positively and significantly related with the Customers' Loyalty

RESEARCH METHODOLOGY

Instrument Development

The measurement scale was adopted from Negi (2009). The instrument contained 27 items out of which 21 taken from the original 'SERVQUAL' scale as presented by Parasuraman et al., (1988) after some modifications covering tangibles (4 items), reliability (5 items), responsiveness (4 items), assurance (4 items) and empathy (4 items) while scale for two more dimensions, network and convenience, has been developed by Negi each containing 3 items. No negatively worded questions were asked. The customer loyalty scale was adopted from Zeithaml et al., (1996).

However, unlike original SERVQUAL instrument that administer questionnaire with perceptions and expectations separately in two parts, the study elicited only one list of statements and two portions of measurement to eliminate the lengthy and confusing impact of having two separate

sections. Both expectations and perceptions were measured on 5 point Likert rating scale. Expectation are assessed with end anchors 1 (least important) and 5 (most important) and perceptions with end anchors 1 (least satisfied) and 5 (most satisfied). Customer loyalty was also measured using 5 point Likert rating scale ranging from 1 (not at all likely) to 5 (extremely likely).

Sample and Data Collection

Since youth is the major user of mobile telecom, so this study is conducted on youth of university education. The basic reason for selecting this sample is because it covers majority portion of young mobile phone users. Moreover, they are more vigilant for any change or promotional activities by telecom companies and it is more difficult to retain them. Therefore, convenience sampling is preferred over simple random sampling as it serves the researcher purpose more efficiently as well as more feasible in term of time and cost. Total of 220 questionnaires were distributed among the students of Bahauddin Zakariya University, Multan. The questionnaires were distributed directly (by researcher) to students and through third party (indirectly by friends in different departments). 167 questionnaires were returned out of which 21 questionnaires were ignored due to incomplete responses found in these questionnaires making a total response rate of 66.36%. There were 54.8% male and 45.2% female respondents with an average age bracket 21 – 25 years.

Instrument for Data Analysis

Software of statistical package for social sciences (SPSS-version 16) has been used in both of descriptive and inferential statistics to analyze.

DATA ANALYSIS AND FINDINGS

Cronbach's alpha was calculated for all items of service quality to check the reliability of the instrument and shown to be 0.887 as compared with reliability of 0.956 in the original scale which indicates the measure is composite reliable and internally consistent as it exceeds the acceptable cut off point of 0.70 recommended by Nunnally (1978). The five items of the loyalty scale showed reliability of 0.772 as compared with reliability ranging from 0.93 to 0.94 across the four companies in the original scale. Descriptive statistics were applied to measure means of perceptions, expectations and demographic profile of respondents. The difference scores between perceptions and expectations (P - E) per each item and dimension were computed to identify the service quality gap(s) and correlation analysis has been carried out among seven dimensions of the modified SERVQUAL instrument and customer loyalty to check the hypothesis.

Demographics of the Respondents

The demographical profile of respondents was shown in table below. Gender found to be almost equally distributed as the male respondents (54.8) are only 4.8% more than the female respondents (45.2%). The great majority (51.4%) fell in younger age i.e. up to 25 years, about one fourth (27.4%) fell above age 30 years and remaining 21.2% in age bracket (26-30 years). Mostly students

(38.4%) studying in masters program followed by bachelor (22.6) and almost half of the remaining studying in each of the M.Phil and PhD programs. Moreover, majority of the respondents (45.2%) using mobile service over 6 years followed by 43.2% who are using from 4 to 6 years. While only minor of the respondents (11.6%) using mobile service up to three years.

Table-1. Personal Profile of Respondents:

| CHARACTERISTICS | FREQUENCY | PERCENTAGE |
|-------------------------------|-----------|------------|
| GENDER | | |
| Male | 80 | 54.8 |
| Female | 66 | 45.2 |
| AGE (Years) | | |
| Less than 20 Years | 15 | 10.3 |
| 21 - 25 years | 60 | 41.1 |
| 26 - 30 years | 31 | 21.2 |
| Above 30 years | 40 | 27.4 |
| EDUCATION | | |
| Bachelor | 33 | 22.6 |
| Master | 56 | 38.4 |
| M.Phil | 29 | 19.9 |
| PhD | 28 | 19.2 |
| SERVICE USAGE IN YEARS | | |
| Up to 3 years | 17 | 11.6 |
| 4 - 6 years | 63 | 43.2 |
| Above 6 years | 66 | 45.2 |

MEASURES OF PERCEPTIONS, EXPECTATIONS AND GAP SCORES

As described by Parasuraman, (1988), the higher (towards positive) the perception minus expectations score, the higher will be the level of perceived service quality. The table shows each items score under perception, expectations and the gap (P-E) categories. The perception score ranges from as low as 3.15 (Empathy) to as high as 3.43 (Assurance) on a five point likert scale. It also reveals from the table that the telecom companies are performing maximum in tangible dimension as there is minimum gap score between consumer perceptions and their expectations showing that they have updated equipment (3.64), physical facilities are visually appealing (3.48), employees dressed properly (3.71) and appearance of physical facilities are in line with the type of service provided (3.25). When we go through the gap score column, we see network dimension carry the maximum gap score (-0.73) means customer expectations are as high as (4.13) while their perceptions are as low as (3.40). Maximum gap in this dimension lies under item (N2) stating service provider have not a wider network coverage (-0.88) followed by (N3) call drops problem (-0.86) and voice quality (-0.61). Likewise, customers expectations scores range from 3.78 (Reliability) to 4.13 (Network) issue. It is evident from the table that the mobile service quality didn't meet customer expectations due to all negative score resulted from the gap between perceptions and expectations. However, this does not mean that customers are dissatisfied as the mean score of each dimension as well as each measurement item is above 3 which indicates the

customer are more towards satisfaction (five point likert scale). Also from the table, the top most five areas where the telecom companies are poorly performing are discussed. First, it is item fourth (RS4) of responsiveness dimension with a maximum gap score of (-0.89) stating that employees will never be too busy to respond customers' requests promptly. Secondly, item number two (N2) with gap score of (-0.88) stating service provider will have wider network coverage followed by item number three (N3) with gap score of (-0.86) stating

Table-2. Perception (P), expectation (E) and service quality (SQ) gap scores:

| SERVQUAL Dimensions/ Items | Mean (P) | Mean (E) | SQ Gap |
|-----------------------------------|-----------------|-----------------|---------------|
| TENGIBLES | 3.41 | 3.88 | -0.47 |
| T1 | 3.64 | 4.04 | -0.40 |
| T2 | 3.48 | 3.84 | -0.36 |
| T3 | 3.71 | 4.23 | -0.52 |
| T4 | 3.25 | 3.84 | -0.59 |
| RELIABILITY | 3.16 | 3.78 | -0.62 |
| RL1 | 3.33 | 3.96 | -0.63 |
| RL2 | 3.25 | 3.96 | -0.71 |
| RL3 | 3.14 | 3.60 | -0.46 |
| RL4 | 3.39 | 3.98 | -0.59 |
| RL5 | 3.47 | 4.05 | -0.58 |
| RESPONSSIVENES | 3.23 | 3.92 | -0.69 |
| RS1 | 3.31 | 3.97 | -0.66 |
| RS2 | 3.35 | 4.10 | -0.75 |
| RS3 | 3.25 | 3.88 | -0.63 |
| RS4 | 3.17 | 4.06 | -0.89 |
| ASSURANCE | 3.43 | 3.93 | -0.50 |
| A1 | 3.29 | 3.79 | -0.50 |
| A2 | 3.20 | 3.85 | -0.65 |
| A3 | 3.53 | 4.01 | -0.48 |
| A4 | 3.59 | 4.17 | -0.58 |

| | | | |
|--------------------|-------------|-------------|--------------|
| EMPATHY | 3.15 | 3.76 | -0.61 |
| E1 | 3.27 | 3.94 | -0.67 |
| E2 | 3.07 | 3.66 | -0.59 |
| E3 | 3.08 | 3.66 | -0.58 |
| E4 | 3.40 | 4.12 | -0.72 |
| NETWORK | 3.40 | 4.13 | -0.73 |
| N1 | 3.65 | 4.26 | -0.61 |
| N2 | 3.40 | 4.28 | -0.88 |
| N3 | 3.41 | 4.27 | -0.86 |
| CONVENIENCE | 3.40 | 3.96 | -0.56 |
| C1 | 3.49 | 4.05 | -0.56 |
| C2 | 3.26 | 3.90 | -0.64 |
| C3 | 3.64 | 4.17 | -0.53 |

Note: Table values are rounded off after two values of decimal.

service provider's network support no call drops are two network items where companies are lagging behind. Fourth, item number two (RS2) again of responsiveness dimension with gap score of (-0.75) which states that employees will give prompt services to customers. Finally, item fourth (E4) of empathy dimension carrying gap score of (-0.72) stating that service provider will have operating hours convenient to all its customers are the top most five areas where telecom companies are lagging behind. Similarly, bottom five areas where companies performance is near to customer expectations which are T2 (gap score -0.36, physical facilities at service provider will be visually appealing) followed by T1 (gap score -0.40, service provider will have up-to-date equipment), RL3 (gap score of -0.46, service provider will be dependable), A3 (gap score -0.48, employees providing services will be courteous) and A1 (gap score -0.50, the behavior of customer will instill confidence in customers).

Customer Loyalty Score

The average score of customer loyalty has shown to be 3.31 of a five point likert scale with end anchors 1 (not at all likely) to 5 (extremely likely) which indicates that the customer are loyal to their service provider as well. Since customers rated currently providing service quality by telecom companies above average in all dimensions of the modified SERRVQUAL model indicating they perceive service quality by service providers satisfactory that turns into their loyalty. The highest average score (3.63) allocated to item two (CL2) of customer loyalty scale stating that the

customers are loyal with their service provider and they recommend their carrier to someone who seeks their advice followed by third item (CL3) with average score of 3.56 stating that users encourage their friends and relatives to do business with their carrier.

Table-3. Customer loyalty score:

| Customer loyalty | Code | Mean |
|---|------|------|
| Overall Customer Loyalty | OCL | 3.31 |
| Say positive things about XYZ to other people | CL1 | 3.20 |
| Recommend XYZ to someone who seeks your advice | CL2 | 3.63 |
| Encourage friends and relatives to do business with XYZ | CL3 | 3.56 |
| Consider XYZ your first choice to buy cellular services | CL4 | 3.46 |
| Do more business with XYZ in the next few years | CL5 | 3.34 |

To measure the second objective of the study, a correlation analysis between the variables have been performed as correlation coefficient is the useful way to sum up the relationship between two variables that contains a single value between -1 and +1 (Welkowitz et al., 2006). The correlation matrix has been shown in table below. It is evident from the table that the overall service quality has positive significant relationship with customer loyalty. Moreover, relationship of all seven variables with each other and with loyalty has been shown in the table. All variables showing significant relationship with each other as well as significantly correlated with customer loyalty except one dimension of service quality which is showing positive relationship with loyalty but the relationship is insignificant. Thus one dimension (network) out of two incorporated in the modified SERVQUAL model have shown positive significant relationship with customer loyalty. So, managers of the telecom company must understand the network component while evaluating the customer retention with their company.

Table-4. Correlation Matrix:

| | Mean (P-E) | SD | (T) | (RL) | (RS) | (A) | (E) | (N) | (C) | (L) |
|----------------------------|------------|------|---------|---------|---------|---------|---------|---------|-------|-------|
| Tangibles (T) | -0.47 | 0.63 | 1.000 | | | | | | | |
| Reliability (RL) | -0.62 | 0.71 | 0.543** | 1.000 | | | | | | |
| Responsiveness (RS) | -0.69 | 0.77 | 0.402** | 0.523** | 1.000 | | | | | |
| Assurance (A) | -0.50 | 0.74 | 0.426** | 0.519** | 0.587** | 1.000 | | | | |
| Empathy (E) | -0.61 | 0.69 | 0.498** | 0.499** | 0.610** | 0.611** | 1.000 | | | |
| Network (N) | -0.73 | 0.83 | 0.285** | 0.376** | 0.541** | 0.524** | 0.586** | 1.000 | | |
| Convenience (C) | -0.56 | 0.78 | 0.318** | 0.391** | 0.458** | 0.428** | 0.511** | 0.595** | 1.000 | |
| Loyalty | 3.31 | 0.69 | 0.262** | 0.331** | 0.183* | 0.249** | 0.211* | 0.248** | 0.059 | 1.000 |

| | | | | | | | | | | |
|---------------------|------|------|---------|---------|---------|---------|---------|---------|---------|---------|
| (L) OSQ (OSQ) | 0.60 | 0.55 | 0.639** | 0.725** | 0.791** | 0.782** | 0.820** | 0.763** | 0.717** | 0.291** |
|---------------------|------|------|---------|---------|---------|---------|---------|---------|---------|---------|

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

* Correlation is significant at the 0.05 level (2-tailed).

OSQ – Overall Service Quality

Hypotheses Results

On the basis of above correlations analysis, results of our study hypothesis are shown in table 4.

Table 4: Hypotheses results:

| Study Hypothesis | Description | Results |
|------------------|---|---------------|
| H1 | There is positive significant relationship between overall service quality and Customers' Loyalty | Supported |
| H2 | Tangibles are positively and significantly related with Customers' Loyalty | Supported |
| H3 | Reliability is positively and significantly related with customers' Loyalty | Supported |
| H4 | Responsiveness is positively and significantly related with Customers' Loyalty | Supported |
| H5 | Assurance is positively and significantly related with Customers' Loyalty | Supported |
| H6 | Empathy is positively and significantly related with Customers' Loyalty | Supported |
| H7 | Network is positively and significantly related with Customers' Loyalty | Supported |
| H8 | Convenience is positively and significantly related with Customers' Loyalty | Not Supported |

DISCUSSION AND MANAGERIAL IMPLICATION

The primary objective of the study is to find the gap between expected service of customers and what they actually receiving in the telecom sector of Pakistan. The results concerning gap score between perceptions minus expectations, as measured by five point likert scale, indicate that the major gap (-0.73) lies with the network dimension (results consistent with the findings by Negi, 2009) followed by responsiveness (-0.69), reliability (-0.62), empathy (-0.61), convenience (-0.56), assurance (-0.50) and tangibles (-0.47). This shows that performance of mobile service quality fall below what customers expects from an excellent mobile telecom company. So, telecom companies should enhance their network coverage to shorten this gap as well as improvement required in responsiveness area which is the second big gap after network aspect. On the other side, overall perception score is above average indicates that unfulfilling customer expectations does not lead them towards dissatisfaction. However, in customer loyalty scale maximum marks allocated to item

CL2 followed by CL3 which both are words of mouth and as they considered the most powerful tool for marketing so, managers of the telecom companies should provide such a service to their clients that become the voice of their customers.

On the other part of the study, relationship of all dimensions of service quality with loyalty has been investigated. The correlation analysis indicates significant relationship among all dimensions of service quality as well as with loyalty except the convenience which showed positive but insignificant relationship with loyalty. Further, the overall service quality has significantly correlated with customer loyalty.

Finally, the top five and bottom five areas of service quality gaps has been identified. The managers of telecom companies should enhance their major weak areas of RS4 with gap score (-0.89) stating that employees will never be too busy to respond customer's request promptly followed by N2 with gap score of (-0.88) stating service provider will have wider network coverage and N3 with gap score of (-0.86) stating service provider's network support no call drops. Fourth, item number two (RS2) again of responsiveness dimension carry the gap score of (-0.75) which states that employees will give prompt services to customers. And finally, item fourth (E4) of empathy dimension emerged as the fifth largest gap area having gap score of (-0.72) stating that service provider will have operating hours convenient to all its customers. We see that among all five major gap areas, two fall under each of network and responsiveness dimension. So, these areas must be improved to bridge this gap. While, bottom five areas are those where the gap between customer perceptions and their expectations are minimum and these are T2 (gap score -0.36, physical facilities at service provider will be visually appealing) followed by T1 (gap score -0.40, service provider will have up-to-date equipment), RL3 (gap score of -0.46, service provider will be dependable), A3 (gap score -0.48, employees providing services will be courteous) and A1 (gap score -0.50, the behavior of customer will instill confidence in customers). Here, among five bottom five areas, two fall under each of tangibles and assurance. So, managers can continue with existing facilities, if can't improve, with these areas.

LIMITATIONS AND DIRECTIONS TO FUTURE RESEARCHES

The study was designed to get maximum information from the representative sample. However, the sample size was small as well as the information has been collected only from students of same university. The convenient sampling technique was reliable but it should extend to other universities of the country as well. Moreover, the convenient sampling technique can't be used for generalizability. For this purpose, simple random sampling technique is essential to determine the generalizability of results. Further, it should be better to collect data on expectations of customers before they encounter the service i.e. before their subscription and use.

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