The Study of Service Quality and Its Relationship on Customer Satisfaction of Nepal Telecom (NT) in Nepal

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ABSTRACT

The main purpose of this study is to explore the impact of the dimensions of service quality on the perceived performance of Nepal Telecom phone users in Kathmandu valley of Nepal. The study has used the five service quality dimensions of SERVQUAL model. These five dimensions of service quality which were developed by Parasuraman namely tangibles, reliability, responsiveness, assurance, and empathy where used to measure the level of customers satisfaction in Nepal Telecom users. The study uses quantitative approach and done different descriptive and correlation analysis tools. Both descriptive and explanatory analysis is being used in this research. A questionnaire was designed and distributed to 200 respondents using a probabilistic sampling technique. Both descriptive and inferential statistics have been used to find out the mean score and correlation between the service quality dimensions with satisfaction level and to test the hypothesis. According to the findings of the study all the five dimensions of service quality have shown a positive and significant effect on customer satisfaction. Pearson correlation analysis was carried out to examine the relationship between service quality dimensions and customer satisfaction and the results shows that all five dimensions have a strong positive relationship, reliability (0.587) and empathy (0.556) are first two dimensions which have strong and positive significant impact on customer satisfaction. As for the recommendation that has come up for this study is that telecom operator should heavily focus on ways to provide satisfaction to customers so that they stay with their network for longer period of time. Since telecom companies do not provide tangible products, their service quality is usually evaluated by measures of the service-provider's relationship with customers. The main factors of customer satisfactions are network coverage, billing method, customer care center, promotion and value-added schemes, delivery of SMS & MMS quality.

Keywords: Service quality; Customer Satisfaction; SERVQUAL model.
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1. INTRODUCTION

In the age of globalization, achieving the higher level of customer satisfaction is the challenging task in the service sector. Therefore, for this challenging task, many organizations have started to improve their service quality and providing better services to their customers. The telecommunication industry is undergoing rapid changes through globalization and technological development. On top of that customers have access to all the information they want in just a click so customers cannot be tricked anymore. They can switch their service providers at any point of time if they are not satisfied with their mobile services. Hence, it is very important for telecom industry to maintain their service quality to maintain sustainability for longer period of time. Today, it is crucial for telecommunication sector to focus on those activities that result in meeting customer's expectations. It's already a high time that leading companies like Ncell and NTC understand the need of customers and fulfills them so that they become loyal to them for longer period of time. In the telecommunications industry, price is no longer the main factor to choose any services but quality is the key. Customers keep demanding more and expect excellent quality. Monitoring is not enough in today's era. A key element of proactivity means preventing customers from experiencing deterioration of service quality. This study will help in providing insight into customer perception of service quality so that NT can use it as a tool to gain customers satisfaction and loyalty.

Nepal Doorsanchar Company Ltd. popularly known as Nepal Telecom is state owned telecommunication service provider in Nepal with 91.49% of the government share. The company was a monopoly until 2003, when the first private sector operator United Telecom Limited (UTL) started providing basic telephony services. The nationwide reach of the organization, from urban areas to the economically non- viable most remote locations, is the result of all these efforts that makes this organization different from others. Service quality and customer satisfaction have long been recognized as playing a crucial role for success and survival in today's competitive market. Every operator around the world has realized that customer is their lifeblood. Customer

dissatisfaction can prime customers agitate and recruiting a new customer is very difficult and costly in terms of marketing. Because the two concepts of service quality and customer satisfaction have been connected to customer behavioral intentions like purchase and loyalty intention, willingness to spread positive word of mouth, referral and complaint intention by many researchers [1]. In the competitive Telecommunication industry, customer satisfaction is measured as the key of success. Service quality should consider as a key strategic issue for any business success in organizations operating in service industries [2]. Those service providers who establish a high level of service quality hold a high level of customer satisfaction; they also create a sustainable competitive advantage. Research indicates that companies with an excellent customer service record reported a 72% increase in profit per employee, compared to similar organizations that have demonstrated poor customer service; it is also five times higher to interest new customers than to retain present customers [3]. The key to existence of customer satisfaction is to measure customers expectation. On the other hand, with better understanding of customer's perceptions, service industry can control the actions required to meet the customer's needs. So, they can simply satisfy the customer which is directly influence on the overall performance of the service companies. Customer satisfaction is one of the important tools to run a business and to accomplish the mission statement and vision of the business. Indeed, customer satisfaction has great significance for the future of an industries and we can also say that customer satisfaction is the foundation for securing market position. Therefore, to keep customers both satisfied and loyal the company should focus on accomplishing high levels of service quality [4].

Every organization including telecom organizations strive for long lasting success through building long and solid relationship with their customers. Meeting customers' expectations is a challenging task for telecom operators of Nepal because of the increment in the number of educated customers. It is highly required that telecom companies check the level of quality service and understand the critical service quality factors that most effect customer loyalty to achieve greater benefits and big returns. This complicated picture needs ongoing studies by the telecom sector to obtain quantitative results as an output; such results is expected to clarify the real picture of the leading operators of Nepal: NTC and Ncell. From the firm's perspective, it is important to confirm that customers are satisfied with the product they purchase as well as with the way the product is delivered. Customers have definite needs, expectations, and perceptions, but if a company is not able to exceed or at least meet these expectations, the customer becomes dissatisfied and probably does not consider a repurchase [5]. One requirement for customer satisfaction is, therefore, that the company knows their customer's needs and expectations.

The purpose of this study was to analyze the service quality provided by Nepal Telecom (NT) and relating it to the customer satisfaction. The major objective of this thesis is to investigate the impact of service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) on customer satisfaction for NT service using SERVQUAL model. The specific objectives of this thesis are as follows:

- To examine the correlation between the service quality dimensions.
- To examine the relationship between service quality dimensions and customer satisfaction with NT services.
- To identify the service quality dimensions that has significant effect on customer satisfaction.
- To examine the overall satisfaction level of customers with the service quality of NT.

2. LITERATURE REVIEW

Researcher	Year	Service Industry	Dimensions and Analysis	Key Findings
Rifayat Islam	2012	Mobile Operators of Bangladesh	Gap Analysis of customer expectation and management's perception using SERVQUAL model of 200 sample size	there were significant differences between customer's expectation and management's perceptions in all dimensions of service quality [6]
Abdullah, A.G., Arokiasamy, A.R.	2013	Cellular Telecommunication service provider in Malaysia	Gap Analysis using SERVQUAL dimensions of 225 respondents	The results indicate that the most important service quality dimension on customer satisfaction was empathy, which goes to prove that empathy was perceived as a dominant service quality [7]
Sahoo, A. K.	2013	Public and Private Telecom service	Comparative study with 360 customers	This research portrays that the degree of impact of customer satisfaction on customer loyalty is not that high. [8]

Egena, O.	2013	Mobile Telecommunication providers in Nigeria	Correlation Analysis using SERVQUAL model with 532 subscribers	The research result shows that higher customer satisfaction was associated with lower switching intention and a lower customer satisfaction correlates with a higher switching intention among the subscribers.[5]
Ojo, O.	2010	Mobile Telecommunication Network in Nigeria	SERVQUAL Dimensions with 230 respondents	concluded that to ensure customer satisfaction level is high, telecom organization must first of all know the expectations of the customers and how they can meet such expectations [9]
Bhagat, M.	2014	Mobile Telecommunication service in Ahmedabad	Regression Analysis with 200 users	The results of the study found a positive relationship between service quality and customer loyalty, customer satisfaction and customer loyalty [10]
Arslan, M., Iftikhar, M. & Zaman, R.	2014	Pakistan Telecom Sector	Comparative Analysis with 400 respondents	There is a significant relationship between customer satisfaction and service quality dimensions of empathy and reliability. [11]
Hussain	2015	Mobile Telecommunication service of Pakistan	Correlation Matrix and regression analysis with 515 customers	Results support that customer satisfaction is the strongest predictor to determine customer loyalty in mobile telecommunication service market of Pakistan. [12]
Sabir	2013	Telecommunication sector of Pakistan	Comparative analysis with 150 customers	customers give more importance to service quality in telecom service sector. [13]

2.1 SERVQUAL Model

The SERVQUAL Model is an empiric model by Zeithaml, Parasuraman and Berry to compare service quality performance with customer service quality needs. SERVQUAL has been widely used in telecommunication industries in different cultural context with high reliability and validity [14,15,16]. The SERVQUAL instrument has become the most dominant instrument for measuring service quality and it originally comprises 10 dimensions with 97 items but later reduced to 5 dimensions with 22 items in 1991. The five dimensions are tangibles, reliability, responsiveness, assurance and empathy.

- **Tangibles**: It is about the physical evidence of the service.
- **Reliability**: The service dimension of reliability measures the consistency of performance and the dependability of the service.
- **Assurance:** Assurance entails the knowledge and courtesy of employees and their ability to convey trust and confidence.
- **Responsiveness:** Responsiveness concerns the willingness or readiness of employees to provide service [17]
- **Empathy:** Empathy entails caring and provision of individualized attention to customers by personnel of the firm [18].
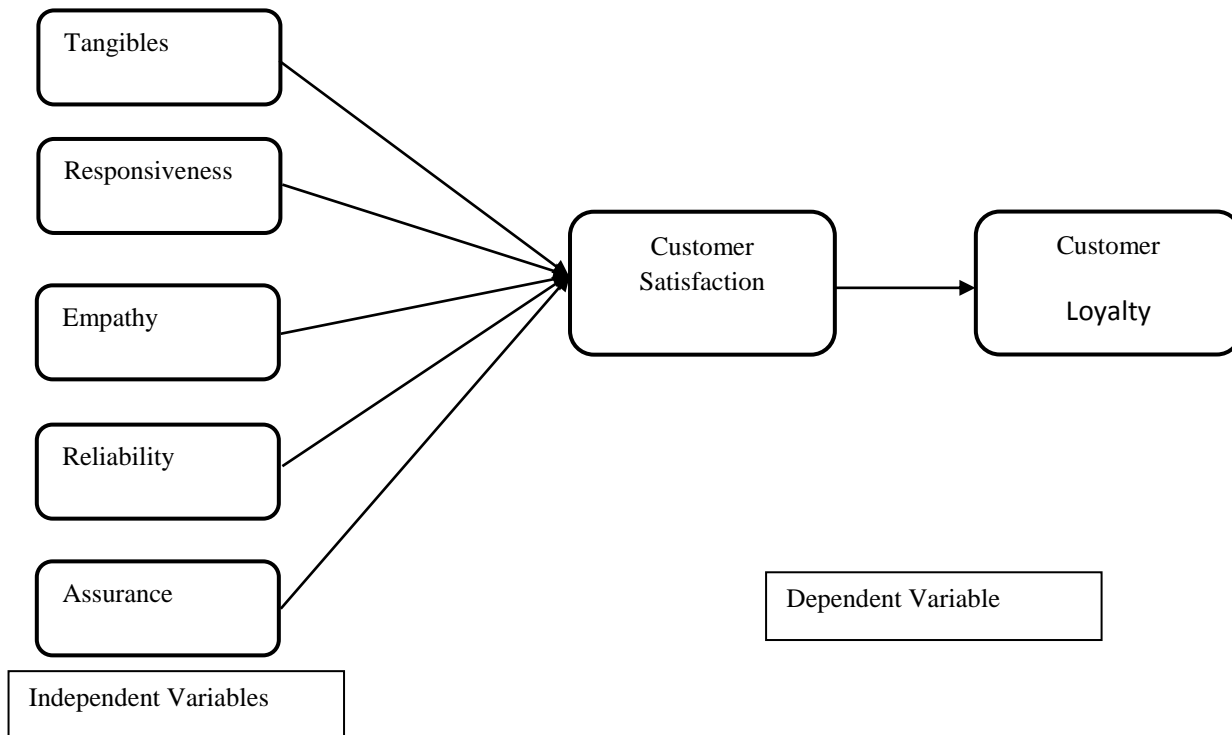
Theoretical Framework

Figure 1 Theoretical Framework of Service Quality Dimensions and Customer Satisfaction

3. RESEARCH METHODOLOGY

3.1 Research Design
A research design provides a framework for the collection and analysis of data. Descriptive (cross-sectional) as well as exploratory research will be carried out to fulfill the objectives of this research.

3.2 Sample Size Determination

Determining an appropriate sample size depends on a number of factors, such as, the purpose of the study, population size, level of precision, level of confidence and risk of selecting a bad sample. To determine the sample size,

$$n = \frac{Z^2 pq}{e^2} \qquad \text{...................................(1)}$$

Here, n is the sample size, Z is the abscissa of the normal curve that cuts of an area at the tails at 95% confidence level, e is the level of precision at 5%, p is 0.5 and q is 1- p = 1-0.5 = 0.5

By putting the values in the formula, the sample size has been calculated as follows:

$$n = \frac{Z^2 pq}{e^2} \quad \text{n} \quad = \frac{(1.96)^2 * 0.5 * 0.5}{(0.5)^2} \qquad \text{n} \quad = \quad 385$$

Hence, the sample size for the study as calculated from the use of [19] formula comes to 385. However, due to time limitation only 300 questionnaires were distributed and among these some are uncompleted and some are incorrectly filled so filtering all those data only 200 complete questionnaires were collected and analyzed using statistical package for social science (SPSS).

3.3 Validity and reliability
Cronbach's alpha is a coefficient of reliability used to measure the internal consistency of a test or scale. For internal reliability (consistency of the research instrument), reliability test for all service quality dimensions was done.

__Table 1__ Cronbach's Alpha value (Reliability analysis)

Dimensions	Cronbach's Alpha value	Number of items
Tangibility	0.732	5
Reliability	0.802	5
Responsiveness	0.854	5
Assurance	0.782	5
Empathy	0.77	5
Overall scale reliability	0.934	25

Therefore, from Table 1 the overall reliability of the scale was found to be 0.934 which is more than 0.6 which indicates the acceptability of the items.

4. RESULT AND DISCUSSION
4.1 Descriptive analysis

This section presented the results and analysis of the descriptive statistics of the variables under investigation in tabular formats.

__Table 2__ Descriptive analysis

Demography	Count	Proportion
Gender		
Male	94	47.0%
Female	106	53.0%
Age		
Age between 18-25 years	28	14.0%
Age between 26 -32 years	82	41.0%
Age between 33 - 50 years	51	25.5%
Above 50 years	39	19.5%
Profession		
Student	34	17.0%
Own Business	36	18.0%
Service	67	33.5%
House Maker	32	16.0%
Retire	31	15.5%
Education Level		
High School	27	13.5%
Bachelor	87	43.5%
Masters and above	86	43.0%
Duration of usage		
1 - 2 years	11	5.5%
2 - 4 years	22	11.0%
4 - 5 years	30	15.0%
above 5 years	137	68.5%

From the table 2 we can see that 53% of respondents are female and 47% of respondents are male. The highest number of the respondents (41%) belong to age group 26-32 because most of the users with this group might be doing services and businesses and for that purpose their usage of mobile and services will be high as well. The age group 18-25 contains least number of respondents (14%) to this research because this group contains the younger generations who might be only be interested in calls and SMS. The number of respondents in the group 33 – 50 years is quite a high (25.5%) because in this age group the users might use mobile for services and business purpose whose frequency of usage of mobile service is high.

Table 3 *Descriptive Statistics*

Dimensions	N	Mean	Standard Deviation
Tangibility	200	3.169	1.102
Reliability	200	2.918	1.083
Responsiveness	200	2.832	1.101
Assurance	200	3.207	1.006
Empathy	200	2.993	1.085
Satisfaction	200	2.69	1.040
Total	200	2.968	1.070

From the table 3, we can see that the mean of tangibility is equal to 3.169 and the mean of assurance is equal to 3.207, which indicates that customers are more satisfied and agree on the tangibles and assurance with the service provided by Nepal Telecom. The mean scores on the dimensions of service quality indicates that respondents are moderately satisfied by empathy and then by reliability and less satisfied on the dimension responsiveness.

4.2 Description of overall customer satisfaction

From table 4, we can see that 6.5% of the respondents are very satisfied, 51.0% of the respondents are satisfied and 14.0% are neutral, 24.5% of the respondents are dissatisfied and the remaining 4.0% are very dissatisfied with the service quality they get from Nepal Telecom. That means Nepal Telecom can satisfy only 57.5 % of customers which can share their satisfaction as satisfied and very satisfied.

Table 4 *Descriptive Statistics of overall customer satisfaction*

Overall Customer Satisfaction level with services provided by NT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Satisfied	13	6.5	6.5	6.5
	Satisfied	102	51.0	51.0	57.5
	Neutral	28	14.0	14.0	71.5
	Dissatisfied	49	24.5	24.5	96.0
	Very Dissatisfied	8	4.0	4.0	100.0
	Total	200	100.0	100.0	

Table 5 *Overall Customer Satisfaction Statistics*

Overall customer satisfaction level of NT service

N	Valid	200
	Missing	0
Mean		2.69
Std. Deviation		1.040

Here, the mean value for customer satisfaction is 2.69 with a standard deviation of 1.040 respectively (Table 5). The mean value for overall customer satisfaction is low that means there is a big gap between what the service should be and what the service

actually is.

4.3 Correlation Analysis

Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. The main result of a correlation is called the correlation coefficient (r). It ranges from -1.0 to +1.0. The closer r is to +1 or -1, the more closely the two variables are related.

Table 6 Correlation value of coefficient

SERVQUAL Dimensions		Customer Satisfaction
Tangibility	Person Correlation	0.529
	Sig. (2-tailed)	.000
Reliability	Person Correlation	0.587
	Sig. (2-tailed)	.000
Responsiveness	Person Correlation	0.526
	Sig. (2-tailed)	.000
Assurance	Person Correlation	0.457
	Sig. (2-tailed)	.000
Empathy	Person Correlation	0.556
	Sig. (2-tailed)	.000

As shown in the objective and theoretical framework, to test the relationship between service quality dimensions and customer satisfaction, correlation analysis is calculated and evaluated. As we can see it on table 6 all the service quality dimensions have a significant positive relationship with customer satisfaction. The main finding is that, there is positive and strong relationship between reliability and customer satisfaction whose values are r = 0.587, < 0.01, empathy and customer satisfaction value are r = 0.556, P < 0.01, tangibility and customer satisfaction value are r = 0.529, p < 0.01 and there is substantial positive correlation among responsiveness and customer satisfaction whose value are r = 0.526, p < 0.01 and then there is a moderate positive correlation among assurance and customer satisfaction with values r = 0.457, P <0.01. Reliability has a very strong positive correlation with customer satisfaction which is 0.587.

4.4 One-way ANOVA and cross tabulation

The One-Way ANOVA compares the means of two or more independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different. One-Way ANOVA is a parametric test. The F test indicates whether the model is significant overall. This means that at least one of the means is different from the others.

Cross-tabulation is one of the most useful analytical tools and is a main-stay of the market research industry. A cross-tabulation is a two (or more) dimensional table that records the number (frequency) of respondents that have the specific characteristics described in the cells of the table. Cross-tabulation tables provide a wealth of information about the relationship between the variables. Using one-way ANOVA and cross tabulation the research hypothesis was tested and the results are as follows:

Table 7 Person's correlation matrix: Dimensions of service quality and customer satisfaction

Service Quality Dimensions	Scale p- value	Alternative Hypothesis	
		Accept	Reject
Tangibility			
Customer service branches are located in convenient places	0.000	H_1	
Info/Messages in recharge card are clear and useful.	0.000	H_2	
Promotional offers are communicated properly	0.000	H_3	
Employees are well dressed and neat in appearance	0.000	H_4	
Billing methods are transparent and clear	0.001	H_5	
Reliability			

Mobile operator keeps its promise on timely service delivery and customer support	0.000	H_6	
Mobile operator shows a sincere interest in solving customer problem	0.000	H_7	
Network coverage of Mobile operator is reliable	0.000	H_8	
Voice clarity is good	0.000	H_9	
Delivery of SMS, MMS, and other services are timely	0.000	H_{10}	
Responsiveness			
Employees are always willing to help	0.000	H_{11}	
Mobile operator gives attention to your problem	0.000	H_{12}	
Mobile operator takes in feedback	0.000	H_{13}	
Mobile operator helpline is easily accessible	0.000	H_{14}	
Employees respond to customer requests even if they are busy	0.000	H_{15}	
Assurance			
Employees can be trusted	0.000	H_{16}	
Customer feels safe doing business with mobile operator	0.000	H_{17}	
Mobile operator protects the confidentiality of customer information	0.001	H_{18}	
Employees have required skill and knowledge to answer your queries	0.000	H_{19}	
Employees are sincere and patient in resolving your problems	0.000	H_{20}	
Empathy			
Mobile operator has convenient periods and terms for activation and recharge	0.000	H_{21}	
Working hours is convenient to customers	0.000	H_{22}	
Mobile operator sincerely apologies to customers for inconvenience caused	0.000	H_{23}	
Employees know and understand customer needs	0.000	H_{24}	
Employees provide individual attention to customers	0.000	H_{25}	
Satisfaction Analysis			
Satisfaction with NT services Vs Age Group	0.145		H_{26}
Satisfaction with NT services Vs Profession	0.142		H_{27}
Satisfaction with NT services Vs duration of usage	0.003	H_{28}	
Satisfaction with NT services Vs Gender	0.723		H_{29}
Satisfaction with NT services Vs Marital Status	0.204		H_{30}
Satisfaction with NT service Vs Switching intension to other mobile service	0.000	H_{31}	

5. CONCLUSION

The results of research show that 'Customer satisfaction' depends on customer care services, promotion schemes and network coverages. It was also found that customers of NT Company are satisfied irrespective of their age group, gender, profession and marital status. Hence, it is not necessary to launch offers keeping in view of age group, gender and marital status. The main factors of customer satisfactions are coverage of network, billing method, recharge card information, promotion and value-added schemes, SMS & MMS quality, customer care services. It was also clear from this research that customer service has impact on service quality perception and customer satisfaction.

From the above analysis, there is positive and strong relationship between reliability (0.587) and customer satisfaction based on Pearson Correlation value. According to mean score and crosstabulation there is stronger relationship between assurance and customer satisfaction. there is significant relationship between years of using NT service, switching intension to other mobile

service and satisfaction level with services provided by NT service. The mean value for overall customer satisfaction is low that shows there is a big gap between what it should be and what it actually is.

6. RECOMMENDATION

In sum, the present findings contribute to our understanding of the effects of service quality of mobile service provider (NT) of Nepal, on the customer's satisfaction, commitment and trustworthiness of NT subscribers towards its operator.

The following are recommendations for NT based on the research done for the relationship between service quality of NT and customer satisfaction:

- Service provider must pay attention on service quality and its five key dimensions: reliability, responsiveness, empathy, assurance and tangibles. Thus, NT should pay attention to staff skill possession, knowledge, attention to customers and their needs, offering of fast and efficient services and general attitude to customer services.
- Customer care is an important area and influences direct impact on customer satisfaction. NT should take efforts for better customer care and better services.
- NT should improve its helpline, since it is the most preferred form of customer service.
- Customer stays happy with the availability of value-added services along with better network coverage.
- NT should also ensure that staffs are knowledgeable of customers' requests and problems.
- NT staff should encourage and welcome suggestions on improving customer satisfaction.
- NT staff should always listen to what customer wants because customers don't buy products or services, they sometimes buy solutions to their problems.
- NT employees can be trained on relationship marketing skills, such training would build a customer-oriented climate in which contact employee can deliver service efficiently and effectively, acknowledging that acquiring and retaining customers is the very essence of marketing.

7. FUTURE AREA OF THE STUDY

This research is based on quantitative methods so in future more research could use qualitative methods to understand the service quality and customer satisfaction. During the data collection the questionnaire should be developed both English as well as in Native language in more understandable and simple words. Similarly, only SERVQUAL dimensions are used in this research but in future it would be motivating if other dimensions like situational and control variables are also added. In this study, only we have included the perceived service quality but in future we could include the expected service quality and find the gap between expected and perceived service quality determining by gap analysis. Since this study focus only on the relationship between service quality and customer satisfaction, further researchers may include other factors that can have a big impact on customer satisfaction and customer loyalty as well.

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