

Original Article

Factors Affecting Customer Satisfaction with Telecommunication Services in Kathmandu

¹Sajeeb Kumar Shrestha, Ph.D., ²Padam Dongol, Ph.D.

^{1,2}Tribhuvan University, Kathmandu, Nepal.

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Abstract: *This research shows the factors affecting customer satisfaction with mobile telecommunication services in Kathmandu. A descriptive and causal study was constructed for this study. To gather information, a questionnaire survey was conducted using structured questionnaires. The study's participants were customers using mobile telecommunication services. The sample size was 200, chosen using convenience sampling. The data was analyzed using various methods such as reliability analysis, descriptive statistics, correlation analysis, and regression analysis. The study found that perceived value, marketing mix and customer expectation significantly impact customer satisfaction.*

Keywords: *Perceived Value, Marketing Mix, Customer Expectation, Service Quality and Customer Satisfaction.*

I. INTRODUCTION

Oliver (1980) proposed the “expectation inconformity” thesis in his early research on customer satisfaction in conventional sectors, which states that clients will feel satisfied when the actual execution of the service exceeds their expectations. Customers will be dissatisfied if the service does not live up to their expectations. During the previous decade, contentment has been regarded as one of the most important theoretical and customer research topics by Jamal (2004).

Kotler and Keller (2006) argued that “satisfaction is an intimate connection of satisfaction or dissatisfaction that results from evaluating service performances in connection with his or her expectation.” In a very short period of time, mobile telephony has become an increasingly important service, with high penetration rates in most nations. With widespread mobile telecommunications use, the mobile services market is today regarded as the most competitive telecommunications industry segment. The emergence of competitive markets has resulted in decreased prices and increased adoption, variety, and quality of mobile services (Naseer, 2012). Competition in this business demonstrates the importance of consumer pleasure to corporate success and survival. Customer satisfaction has become a critical indicator of corporate success. As a result, today’s corporate manager is very concerned with increasing client satisfaction through high-quality products and services. However, in the twenty-first century, customers communicate in ordinary language. As a result, since the turn of the century, business managers and academic scholars have intensely focused on the aspects contributing to their satisfaction. Customer satisfaction literature states that the customer is the king of marketing and the only determinant of corporate success.

According to the history of telecommunications, the first telecommunication link from Nepal was established between Kathmandu and India in 1913. However, regular communication services did not begin until 1948, when Mohan Akashwani arrived. The Telecommunication Department was later founded in 1959, in accordance with the objective outlined in the First National Five-Year Objective (1955-1960). During the Third Five-year Plan (1966-1970), the Telecommunication Department was renamed the Telecommunications Development Board in 1969 to upgrade and expand telecommunication services. Following the passage of the Communications Corporation Act of 1971, it was formally founded as a fully owned government corporation known as the Nepal Telecommunication Corporation (NTC) in 1975 to provide telecommunications services to Nepalis. After 29 years, NTC was renamed Nepal Doorsanchar Company Limited on April 13, 2004. Nepal Doorsanchar Corporation Limited is a corporation incorporated under the Companies Act of 1996. The corporation is better known to the general public as Nepal Telecom (NT), a registered trademark. NT’s monopoly in the sector ended in 2004 when private sector players were granted access to the telecom space following the implementation of the Nepal Telecommunications Policy, 2004, which opened the ground for Nepal’s telecom sector to be liberalized. Following that, a spate of private sector operators, including United Telecom Limited (UTL), Ncell, STM Telecom Sanchar Pvt. Ltd, Smart Telecom, and Nepal Satellite set up operations in the Nepali market.

Numerous research has defined perceived worth. It is described as the consequence of a personal comparison between the customer’s perceived total advantages and the perceived expenditures incurred. Simply stated, value is the gap between perceived benefits and expenses. However, what defines value tends to be extremely personal and can vary greatly from one



client to another (Holbrook, 1994; Zeithaml, 1988). Perceived value is the results or benefits customers obtain in relation to overall expenses (which include the price paid and extra costs associated with the transaction). Kumar (2011). Only the consumer, not the service provider, can determine the worth of a product or service; thus, the concept of customer-perceived value is viewed as highly subjective and personal.

According to Parasuraman (1985), initial descriptions of service quality were based on the so-called “disconfirmation” paradigm, which refers to a perception of service quality resulting from a comparison between what consumers believe the service should be and their perceptions of the actual performance provided by the service provider. Since then, many studies have been undertaken on the subject, owing to its importance as an input to consumer satisfaction and a measure of organizational performance. According to the literature from the last decade, service quality is the consumer’s subjective judgment of service performance. Service quality may also be defined as a customer’s perception of the relative inadequacy or excellence of a service provider and its services.

The marketing mix concept is separated into two parts: product mix and service mix. The service marketing mix, known as the 7Ps, comprises Product, Price, Place, Promotion, People, Physical Evidence, and Process. The product marketing mix comprises four components: product, price, place, and promotion, also known as the four P’s.

Price refers to the amount of money paid for a product or service or the total value that consumers trade for the benefits of owning or utilizing the product or service. Price is regarded as the most crucial indicator of purchasing intentions. It has been demonstrated that customers typically consider whether they obtained adequate value for money. Customers typically purchase things based on pricing rather than other features.

Place is described as the ease of access that prospective customers associate with a service, such as position and distribution. A company should consider site decisions because of the necessity of service and consumption happening simultaneously and in the same area: a location that gives all customer information, competition, promotion action, and marketing tasks.

Promotion includes sales promotion, advertising, personal selling, public relations, and direct marketing. Promotional activities can affect consumers’ thoughts, feelings, experiences, and purchasing decisions. Promotion is a selling approach that should be incorporated into any marketing effort. Individual salespeople can distribute product advertisements via television, radio, the internet, magazines, the press, and other forms of media.

Personnel refers to the service employees who create and deliver the service. Many services include human encounters between consumers and service staff, which significantly impact the customer’s sense of service quality.

The process is described as the implementation of actions and functions that raise the value of service at a low cost and a high benefit to the consumer, and it is more significant for services than commodities.

Physical evidence refers to the environment in which the service and any tangible objects are given. It is extremely important since customers typically rate the level of service offered based on physical evidence.

Expectations result from previous experiences with the company’s products or services. This enhances customer expectations for overall quality, product and service quality, and satisfaction with personal demands. Customer expectations are expected to directly and positively correlate with customer satisfaction. In contrast, various previous CSI Customer satisfaction studies, such as ACSI and ECSI, found that the association between customer expectation and customer satisfaction was weak and non-significant (Turkyilmaz, 2007). In this study, customer expectation is defined as the amount of consumer expectations from the company’s mobile provider.

Nasser (2012) found a positive relationship between customers and the available mobile telecommunication services. It was found that the customer is fully satisfied with the services. Shah (2016) states that appropriate marketing methods, taking into mind pricing level, network quality, product diversity, and client facilities, should be developed by the telecommunication industry in order to retain old customers as well as attract new ones. On the other hand, Hamid (2012) states there is a positive relationship with perceived value but indicates a negative relation with customer expectation.

The research questions that are important to achieve the objectives of the research can be listed as below:

- What are the factors that affect customer satisfaction using mobile telecommunication services?
- Is there any relation between customer satisfaction with perceived value, service quality, marketing mix and customer expectation?

The general purpose of the study is to identify the factors influencing customer satisfaction by customers of Nepal telecommunication services.

The specific purposes of the study are as follows:

- To examine the factors affecting customer satisfaction when using mobile telecom services.
- Investigate the relationship between customer happiness, perceived value, service quality, marketing mix, and expectation.
- To measure age, gender, profession and monthly income impact on customer satisfaction.

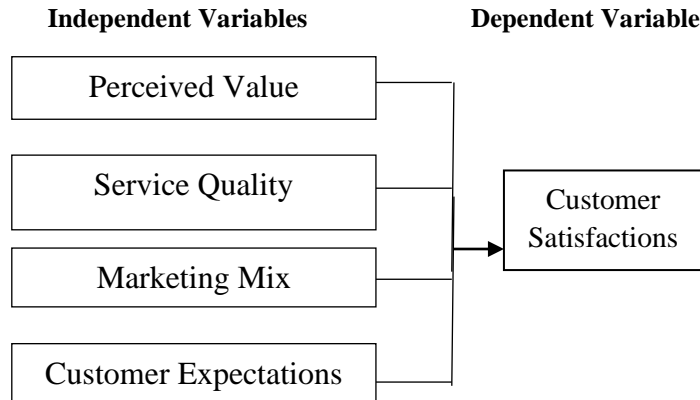


Figure 1. Conceptual frame

Source: (Rahman 2014), (Pumim, 2016), (Nasser, 2012), (Shah, 2016), (Hamid, 2012),

There is a relationship between Customer Satisfaction and their variables (i.e., Perceived Value, Service Quality, Marketing Mix and Customer Expectations) Rahman (2014), Pumim et al. (2016), Nasser (2012), Shah (2016) and Hamid (2012). So, this research assumes the following alternative hypotheses:

- H1: Perceived value has a positive influence in determining customer satisfaction.
- H2: Service Quality has a positive influence in determining customer satisfaction.
- H3: Marketing Mix positively influences customer satisfaction
- H4: Customer Expectation positively affects customer satisfaction

II. METHODOLOGY

The main purpose of this study is to understand the impact/influence of several factors of independent variables like perceived value, service quality, marketing mix and customer expectation on mobile telecommunication services. The research objective was achieved through a combination of descriptive and explanatory research methods. The methodology adopted a positivist approach, and research constructs were developed after thoroughly reviewing existing literature. For this reason, the study is classified as “quantitative research.” The use of quantitative research was justified by three main factors: the research hypotheses were clearly defined (Creswell 2009), the theories were well supported by the findings (H1-H4), and a representative sample was used. The data was analyzed and tested quantitatively, with a questionnaire survey serving as the primary data collection tool.

The research population consists of customers who use Nepal telecommunications facilities throughout the Kathmandu Valley, from which the researcher collected 200 samples. The sample respondents were selected via non-probability sampling, often known as convenience sampling. The respondents were selected non-randomly from employees of related offices, students from school and college, and local people from the valley.

The research relied on primary data to gather information. A structured questionnaire was created for this purpose, consisting of 62 questions. The questionnaire featured both closed-ended questions and a 5-point rating scale, which is commonly used in research. Respondents were asked to indicate their level of agreement or disagreement with each statement on the scale, with scores ranging from 1 (strongly disagree) to 5 (strongly agree), and intermediate options included disagree, neutral, and agree.

The research utilized a self-administered questionnaire to gather data from 200 participants of varying demographics, including age, gender, occupation, and education level. The survey was conducted by distributing the questionnaire to the respondents.

The collected data was analyzed using various statistical methods, including frequency analysis to display demographic information and reliability analysis to assess the internal consistency of the questionnaire. Descriptive statistics were used to

summarize the data, while correlation and multiple regression analyses were conducted to examine relationships between variables and test the proposed hypotheses. The data was analyzed using the SPSS 25 program.

The study highlights that 51.5 percent of the respondents were female, and 48.5 percent of the respondents were male. The majority of the education level of respondents is a bachelor's degree with 41%. At the same time, 30% and 20% of respondents are +2 and postgraduate, respectively. The maximum number of respondents are from employees with 54%. This is followed by students, with 31%, business persons, with 8.5% and other professions, with 6.5% respectively. The majority of age respondents are between 20-30 years old which is 55.5%, the second age group of respondents are less than 20 years that old 21 %, the third age group of respondents are 30-40 years old, which is 15.5%, the fourth age group of respondents are 40-50 years old which is 5%, and the smallest group age is over 50 years old which is only 6%.

III. RESULTS AND DISCUSSION

The maximum number of respondents prefer NTC with 71%. The Ncell brand is preferred by 28% of respondents, while 1% of respondents preferred Smart Cell. 61% of respondents have used the service for more than 5 years. 12% of respondents have used it for 4–5 years, 10% of respondents with 1-2 years, 6% of respondents have used it for 2-3 & 3-4 years, while only 5% have used it for less than a year. The maximum number of respondents is 10000-20000, with 26.5%. The second largest respondent lies between the monthly incomes of NRs. 20000-30000 with 24%. It is followed by respondents who depend upon family with 22% and less than 10000 is 8.5%. The respondents having NRs.30000-40000 and 50000 and above have similar 7.5%. The least number of respondents is a monthly income of NRs. 40000-50000 is 4 %.

Cronbach's alpha is a tool used to measure the reliability of a group of scales or test items. It assesses the consistency of the measurement, determining the extent to which the items measure the same concept (Mukaka, 2012).

Table 1: Reliability Analysis

Code	Variables	Cronbach's Alpha	N of items
PV	Perceive Value	0.75	5
MM	Marketing Mix	0.858	7
SQ	Service Quality	0.683	6
EXP	Expectation	0.797	5

Source: Calculation Based on SPSS

Table 1 reported that Cronbach's Alpha Coefficient has values above the acceptable level of 0.6. The scale items of constructs in questionnaires ranged from 0.68 to 0.85, consistent with the study. So, the data is satisfactory for further analysis purposes (George & Mallery 2009).

The data collected from the participants was analyzed using descriptive statistics. The mean was calculated to determine the average response, and the standard deviation was used to measure how much the results varied from the mean. (Sharma & Chaudhary, 2018) It was determined that respondents performed well on the Likert scale when the data showed a mean value greater than 3. In Table 2, descriptive statistics are displayed.

Table 2: Descriptive Analysis

Code	Variables	Mean	Std. Deviation
CS	Customer Satisfaction	3.32	.74
PV	Perceive Value	3.44	.69
MM	Marketing Mix	3.21	.57
SQ	Service Quality	3.31	1.19
EXP	Expectation	3.10	.80

Source: Calculation Based on SPSS

Table 2 shows that all the independent variables, perceived value, marketing mix, service quality, and customer expectation, have mean values above 3, which means customers are satisfied with the mobile telecom services they use. Among independent variables, perceived value has the highest mean value, 3.44, and customer expectation has the lowest mean value, 3.10. It indicates that perceived value is the main component or factor for customer satisfaction. Likewise, the dependent variable, customer satisfaction, has a mean value of 3.32, which indicates customers are satisfied with the mobile telecommunication service they are using.

The associations between the variables were examined using a correlation analysis. Simple multiple-choice variables were subjected to Pearson's correlation analysis. A correlation matrix was constructed to evaluate the degree of association between the research variables. A positive correlation indicates a direct relationship, with one variable increasing as the other increases. On the other hand, a negative correlation shows an inverse relationship, with one variable rising as the other

decreases (Sharma & Chaudhary, 2018). Correlations are considered weak at $r = 0.30$, moderate at $r = 0.60$, and strong at $r = 0.90$.

Table 3: Correlation Matrix

Construct	Correlation	Digital Banking Adoption
Customer Satisfaction	Pearson Correlation	1
Perceive Value	Pearson Correlation	.573**
Marketing Mix	Pearson Correlation	.331**
Service Quality	Pearson Correlation	.577**
Expectation	Pearson Correlation	.559**

Table 3 demonstrates the Pearson’s correlation coefficients between the studied variables. The table shows a high correlation between Perceive Value, Marketing Mix, Service Quality and Expectation with Customer Satisfaction, as their correlations were 0.573, 0.331, 0.577 and 0.559.

Before conducting a regression analysis, certain assumptions must be met. Four tests were used to evaluate these assumptions, including the normality test, linearity test, multicollinearity test, and error independence test. Regression analysis allows for understanding how changes in one independent variable while holding other independent variables constant, affect the average value of the dependent variable (Sharma & Chaudhary, 2018). Regression analysis is shown in Table 4.

Table 4: Coefficients

Independent variables	Coefficient value of the beta	Sig.
(Constant)	.336	.000
Perceive Value	0.331	0.000
Marketing Mix	0.156	0.038
Service Quality	0.084	0.136
Expectation	0.325	0.000

Source: Calculation Based on SPSS

Result variable Customer Satisfaction $R = 0.700$; $R^2 = 0.490$; Adj. $R^2 = 0.480$; S. E. = 0.534; F-Value = 46.832; p-value of F test = 0.000. Sig. at 5% level

The p-value in Table 4 is 0.000, which is equivalent to alpha. In addition, at 46.832, the F-statistic is noteworthy. As a result, the model accurately depicts the relationship between the predictive and dependent variables. The R-square value is 0.490, i.e., 49% variation in Customer Satisfaction is explained by independent variables Perceived Value, Marketing Mix, Service Quality and Expectation.

Table 4, the p-value of perceived value, marketing mix and expectation are significant at a 5% significance level. So, H1, H2 and H4 have accepted perceived values, marketing mix, and expectations that influence customer satisfaction. The P-value of service quality is not significant at a 5% level of significance. So, H3 is not accepted. Service Quality does not affect customer satisfaction.

IV. CONCLUSION

The main objective of this study is to examine significant factors related to independent variables that impact/influence customer satisfaction. The major conclusion of the study is that the perceived value, Marketing Mix and Expectation have a significant impact on customer satisfaction. Similarly, correlation analysis shows that variables like Perceive Value, Marketing Mix, Service Quality and Expectation have a positive relation with customer satisfaction. There is no significant relationship between service quality and customer satisfaction. Regression analysis clarifies that among the four elements of customer satisfaction, perceived value, marketing mix, and customer expectation have the strongest significant contribution towards customer satisfaction. However, service quality and marketing mix have the least significant contribution towards customer satisfaction. In descending order from strongest to least strong, customer satisfaction variables are Customer expectation, perceived value, marketing mix and service quality. In a nutshell, this finding is contradictory to previous findings. Rahman (2014) shows how innovative services have a higher chance of satisfying consumers in the mobile telecommunications sector. Consumers want to get the most out of their mobile service provider’s unique offerings; the degree of novelty has a bigger influence on how much they value customer satisfaction. Service quality plays a great role in satisfying the customer and maintaining their loyalty. Shah (2016) suggests suitable marketing techniques by taking into account factors like price range, network quality, product variety, and client amenities that should be developed by the telecommunication industry in order to retain old customers as well as attract new ones. On the other hand, Hamid (2012) states there is a positive relationship with perceived value but indicates a negative relation with customer expectation.

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