Impact of Service Quality on Customer Satisfaction with Special Reference to Mobile Telecommunication Industry of Sri Lanka

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Abstract

Purpose – Service quality is crucial for every business organization as it allows companies to differentiate themselves from their competitors and enhance the satisfaction of their customers. The study attempts to examine the impact of service quality on customer satisfaction with special reference to the Mobile Telecommunication Industry of Sri Lanka.

Design/Methodology/Approach- A survey was conducted for data collection through a structured questionnaire distributed to the customers of four main mobile service providers. The study followed the random stratified proportional sampling method to collect data. Descriptive Statistics, Cronbach's alpha, Multicollinearity Test, Pearson's Correlation and Multiple Linear Regression were used for data analysis.

Findings - The study found a positive and significant relationship of network quality, Assurance and Reliability with customer satisfaction. However, Responsiveness, Empathy and Convenience do not have a significant relationship to customer satisfaction of Sri Lankan mobile telecommunication industry.

Contribution - The study fulfils the existing research gap in service quality and customer satisfaction of the mobile telecommunication industry of Sri Lanka. The findings of this study will help the management of mobile service providers to plan their future strategies and enables future researchers to conduct studies related to this area.

Keywords: *Customer Satisfaction, Mobile Telecommunication Industry, Network Quality, Service Quality, SERVQUAL model*

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1. Introduction

Service quality is significant for every business organisation as it allows them to attract more customers to their products. In today's global competitive atmosphere, the quality of the service offered is considered an essential strategy for achievement and survival. According to Parasuraman, 1985, service quality refers to providing a service that meets or exceeds customers' expectations. When determining a business organisation's competitive position, the quality of its service acts as a critical element. Providing quality service helps business organisations to achieve excellence and sustain competitive advantage. Previous researches suggested that service quality is an important indicator of customer satisfaction, and service quality is one of the most important research topics on a large scale in services (Zeithaml 2000; Gallifa & Batalle, 2010). Many researchers have discussed service quality in their studies. As per Kolter &Armstrong, 2016 as cited in (Almomani & Ghaith, 2018), for a service provider to be successful, it should build a strong relationship with its customers through high-quality service. If an organisation fails to offer quality service in a highly competitive market, such organisation has to struggle in the market (Alnsour, Tayeh, & Alzyadat, 2014). Satisfied customers ensure the sustainability of the business organisation as they often stay loyal, are less sensitive to changes in price and have fewer complaints about the service delivered (Almomani and Ghaith, 2018).

Business organisations must be concerned about their customers' satisfaction to have competitive advantages over their rivals. Customer satisfaction plays a vital role in determining an organisation's success and long term

competitiveness (Ojo, 2010). Most of the time, customers compare the service with the service they received earlier from the service firm, and this ratifies the customer satisfaction is a process. As per these definitions, customer's satisfaction depends on whether the actual service they receive meets or exceed their expectations or is below their expectations.

Service quality and customer satisfaction can be identified as interrelated concepts. The ability of service organisations to provide high-quality service to their customers leads to increased customer satisfaction, and thus, conferring to Ismail & Yuan, 2016, service quality acts as a strong forecaster of customer satisfaction. Satisfied customers may retain within the service firm, repeat their purchases, and share the good experience they received from the service firm.

The telecommunication industry can be identified as a rapidly changing and competitive industry in the world. In Sri Lanka, the telecommunication industry has recorded a growth of 17.2% in 2019 comparing to the same of 10.4% in 2018 (Central Bank of Sri Lanka, 2019). Due to the increasing number of customers with the fact that customer satisfaction is an important element for consideration by the management, telecommunication companies must be concerned about the relationship between service quality and customer satisfaction to retain the existing customers and attract new customers to their products. In recent times, social media and newspapers outlined that Sri Lankan mobile telecommunication industry (MTI) customers complain about their service providers' service, which is evidence for the practice gap. A lack of empirical evidence is available between service quality and customer

satisfaction of MTI in Sri Lanka and measurements of service quality show differences from country to country (Hanaysha, 2017, as cited in Darmadasa & Gunawardana, 2017). Thus, the research findings of other countries could not be generalised in Sri Lanka. Scholars are recommended to investigate the impact of service quality on customer satisfaction in various industries since existing empirical evidence is limited to few sectors (Alnsour et al., 2014). There are only a few researches available in Sri Lanka regarding service quality and customer satisfaction, and most of them are related to other industries such as hotels and banks. Therefore, there is a necessity to research the service quality and customer satisfaction of the mobile telecommunication industry of Sri Lanka. Thus, the present study was carried out to fill these gaps by answering the following three questions. What are the factors affecting service quality? How are these factors related to customer satisfaction? What is the significance of each variable of service quality on customer satisfaction? The objective of this study is "To investigate the impact of service quality on customer satisfaction in Mobile Telecommunication Industry of Sri Lanka." Therein, the remainder of the article is organised as follows. The first section contains a literature review that includes theoretical concepts and empirical evidence relevant to the study. The research methodology is explained in the second section. Section three focuses on the analysis of the findings of the study. The final section draws the summary of findings and conclusion, recommendation, and suggestions for future researches.

2. Literature Review

This section mainly focuses on a critical evaluation of the available literature relating to service quality and its impact on customer satisfaction.

2.1. Service Quality

Services become a part of people's lives as every person tends to use services daily.

Quality of the services plays a vital role as the customers measure their satisfaction based on the quality of the service they receive. According to Parasuraman et al., 1985, service quality means the customer's overall judgment of the excellence of service or the difference between one's expectation and actual service they delivered. Service quality is a measurement used to determine how well the delivered service level matches customer expectations. Delivering quality service means meeting customer expectations on a regular basis (Parasuraman et al., 1985). As a result of globalisation and free trade agreements, highly competitive markets within firms were created. Telecommunication services, Banking services, Public Transport Services, Insurance Services and Security Services can be identified as key services people consume. Business organisations need to target their customers ' satisfaction to face the competition successfully and survive within the market. In order to attract and retain more customers to the business, business organisations need to differentiate their offerings and should improve the quality of their offerings (Parasuraman, 1985); (Zeithaml, Parasuraman, & Berry, 1990); (Reichheld & Sasser, 1990).

Consequently, businesses can exploit their resources effectively and achieve a competitive advantage at a local and global level.

2.2. Customer Satisfaction

For a business organisation, delivering a high-quality service is not enough to ensure the profitability and sustainability of their business. Business organisations must be concerned about their customers' satisfaction to have competitive advantages over their rivals. Therefore, customer satisfaction plays a vital role in determining an organisation's success and long-term competitiveness (Ojo, 2010). According to Philip Kotler, customer satisfaction can be identified as an individual's feeling of pleasure or distress, which results from comparing the product's perceived performance or outcome against his/her expectations. Oliver (1981) defined satisfaction as a psychological state that results when the emotions of consumers' expectations are combined with their feelings about the consumption experience. Bitner (1990) define satisfaction as the result of comparing product or service performance with the previous experience the customer has on the way of service to be delivered.

2.3. Service Quality Measurement in Telecommunication Industry – Empirical Evidence

 Researchers have done their researches on measuring service quality of the telecommunication industry. Most of the researchers used the SERVQUAL model to measure service quality. Alnsour et al., in 2014 done research on the topic of Using SERVQUAL to assess the quality of service provided by Jordanian Telecommunications Sector. In his

study, he has explored the application of the SERVQUAL approach to assess the quality of service of the Jordanian telecommunication sector and how it can ultimately affect customer loyalty. The study results exposed that the telecommunication companies need to understand the Jordanian customer expectations in the light of the unique cultural traits of these customers. This influences the companies' capacity in fulfilling customer expectations (Alnsour et al., 2014). Loyalty is directly enhanced by achieving service quality and should be one of the main goals for telecommunication companies (Alnsour et al., 2014).

Birgit Leisen & Charles Vance, in 2001, researched the topic of Cross-national assessment of service quality in the telecommunication industry by using evidence from the USA and Germany. In his study, he found that the five-dimensional service concept suggested by the SERVQUAL instrument seems to be the best fitting model of service quality in the USA as well as in Germany (Birgit Leisen & Charles Vance, 2014)

Abu WJ et al., in 2019, researched Using SERVIQUAL to investigate the quality of providing wireless communication services in the United Arab Emirates. His study showed a significant difference between users' expectations and the current level of quality of services in the tangibility dimension of service quality.

The SERVQUAL model was also used by (Lai, Hutchinson, Li, & Bai, 2007) in China's mobile telecommunication to test the communication industry. The study used exploratory and confirmatory factor analysis. The results

presented that the SERVQUAL instrument is a valid means for measuring service quality. Service convenience is identified as an important additional dimension of service quality in China's mobile services sector.

Woo & Fock in 1999, investigated the Hong Kong mobile phone service sector to find out determinants of customer satisfaction with service quality. They carried out an exploratory factor analysis on 20 attributes followed by confirmatory factor analysis. They found four determinants of customer satisfaction: transmission quality and network coverage, pricing policy, staff competence, and customer service.

Negi & Ketema in 2013 carried out research to identify the role of service quality as perceived by mobile users while determining their overall satisfaction. They have added a new dimension to the SERVQUAL model, which is Network Quality Dimension. They have developed a structured questionnaire and collected primary data from 250 mobile subscribers of Ethiopian Telecommunication Corporation. Service quality gaps were computed and found to be negative for all the service quality dimensions, with the highest gap for the added dimension of Network Quality.

A lack of empirical evidence is available between service quality and customer satisfaction of the Mobile Telecommunication Industry of Sri Lanka, and measurements of service quality show differences from country to country (Hanaysha, 2017). Thus, the research findings of other countries could not be generalised in Sri Lanka. According to Shafei & Tabaa, 2016; Alnsour et al., 2014), academics are encouraged to research the impact of service

quality on customer satisfaction in related to different industries since existing empirical evidence is limited to few sectors. There are only limited researches available in Sri Lanka regarding service quality and customer satisfaction, and most of them are related to other industries such as hotels and banking. Therefore, there is a requirement to research service quality and customer satisfaction in the mobile telecommunication industry of Sri Lanka.

Mobile Telecommunication Industry is a rapidly changing industry, and Service quality should be reassessed on a regular basis (William C. Johnson & Anuchit Sirikit, 2002). Therefore, there is an essential performance of researches on a regular basis. Previous researches used only five dimensions of service quality (SERVQUAL Model) which was developed by Parasuraman et al. in 1998. In addition to those five dimensions, the network quality dimension and convenience dimension are also crucial in measuring the service quality of the Mobile Telecommunication Industry. Therefore, future researchers are encouraged to perform researchers by adding these two dimensions to the SERVQUAL model (Negi R. 2009; Lai F et al., 2005).

Nagshineh and Schwartz, 1996; Markoulidakis et al., 2000; Sharma and Ojha, 2014, define network quality as an indicator of network performance regarding voice quality, call drop rate, network coverage and network congestion. Carvalho and Leite, 1999; Gagliano and Hathcote, 1994, define Convenience as flexible and comfortable facilities to suit the customers' needs. In this research, in addition to the five dimensions of the SERVQUAL model,

the researcher will also use these additional two dimensions to measure the service quality of the Mobile Telecommunication Industry of Sri Lanka.

2.4. Service quality dimensions

With referred to empirical evidence on the relationship between service quality and customer satisfaction, the researcher has identified seven service quality dimensions as independent variables and customer satisfaction as the study's dependent variable. Tangibility - Physical facilities, equipment, machines, materials, appearance of personals and information systems of the service firm (Parasuraman, Zeithaml and Berry, 1985) ; Reliability – Ability to provide consistent performance and provide the promised service dependably and accurately (Parasuraman, Zeithaml and Berry, 1985) ; Responsiveness – The ability to solve the problems fast, willingness to help customers, deal with customers' complaints effectively and meet the customers' requirements promptly (Parasuraman, Zeithaml and Berry, 1985) ; Assurance – Assurance define the employees' politeness, knowledge and courtesy of employees to perform the service and their ability to inspire trust and confidence (Parasuraman, Zeithaml & Berry, 1985) ; Empathy – Empathy is the caring, individualised attention the firm provides to its customers (Parasuraman, Zeithaml & Berry, 1985) ; Network Quality - Indicator of network performance in terms of voice quality, call drop rate, network coverage and network congestion. (Nagshineh & Schwartz, 1996; Markoulidakis et al., 2000; Sharma & Ojha, 2014); Convenience - Flexible and comfortable facilities to suit the customers' needs.

2.5. Hypothesis

Based on the above-identified service quality dimensions, the following hypotheses have been developed. H1 - There is a positive impact of Tangibility on customer satisfaction ; H2 - There is a positive impact of Reliability on customer satisfaction ; H3 - There is a positive impact of Responsiveness on customer satisfaction ; H4 - There is a positive impact of Assurance on customer satisfaction ; H5 - There is a positive impact of Empathy on customer satisfaction ; H6 - There is a positive impact of Network Quality on customer satisfaction ; H7 - There is a positive impact of Convenience on customer satisfaction.

3. Methodology

In this research, the researcher used positivism philosophy. Positivism philosophy is a philosophical theory which states that "positive" knowledge is exclusively derived from the experience of natural phenomena and their properties and relations. A deductive approach was used as the research logic. Moreover, the researcher used a quantitative approach in this study. The quantitative approach is also known as the positivist approach, and in this approach, it is believed that the researcher is independent of what is being researched.

3.1. Conceptual Framework

Based on the literature review, this topic was concentrated on the conceptual framework of the impact of service quality on customer satisfaction. This framework emphasised how well the researcher addresses the research problem. Hence it shows the relationship between the dependent variable and independent variables. In this study, the researcher has identified seven independent variables: Tangibility, Reliability, Responsiveness, Assurance, Empathy, Network Quality, and Convenience. The researcher has identified customer satisfaction as the dependent variable. This study follows the deductive approach. Hence the conceptual framework has been developed in line with the theoretical justification and empirical contribution.
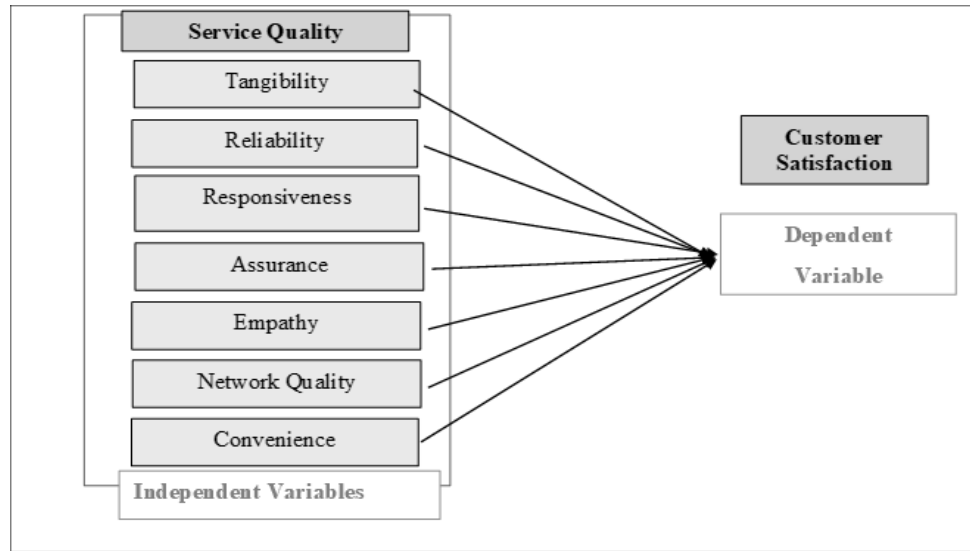
Figure 1: Conceptual Framework

Source: Author's own analysis, 2021

3.2. Target Population and Sampling Frame

The study's target population is all the customers of the mobile telecommunication industry of Sri Lanka; Dialog, Mobitel, Airtel, Hutch. The sample size was selected from G-Power software as 107, and the researcher decided to increase that sample size to 166 samples. Furthermore, the researcher has used the "Random Stratified Proportional Sampling Method" to gather data.

3.3. Data Collection

The researcher has used a standardised questionnaire of SERVQUAL odel with modification of adding six more questions related to Netw3.ork Quality dimension and Convenience Dimension. Respondents were asked to state their perception using a five-point Likert scale ranging from "1 = strongly disagree" to "5= strongly agree". The target respondents were the customers of four main mobile operators of Sri Lanka. The researcher used Random Stratified Proportional Sampling Method and distributed 166 questionnaires. Questionnaires were distributed online by using Google Form.

4. Findings and discussion

4.1. Demographic Data Analysis

The sampling technique used by the researcher is Proportionate Stratified Random sampling, and a structured questionnaire was used to gather data from the respondents. The main survey was conducted using 166 respondents, and the completed questionnaires were taken to conduct a statistical analysis of the study. The demographic analysis of respondents is as follows.

The majority of the respondents are females and are between the age of 18 to 24 years. Most of the respondents are undergraduates, employed and from Western Province. The monthly income of the majority is less than Rs. 25,000.

100% of the respondents use a mobile phone. The survey results show that most of the respondents use Dialog, and most of them use their mobile network operator between 1 year to 5 years.

4.2. Descriptive Analysis of Variables

As per the table below, the number of samples (N) is 166. Tangibility has the highest mean value, while the Responsiveness has the lowest mean value. Customer satisfaction has the highest standard deviation, and Tangibility has the lowest standard deviation.

Table 4.1: Descriptive Analysis

| | N | Mean | | Std. Deviation |
| | Statistics | | | Statistics |
		Statistics	Std. Error	
Tangibility (A)	166	3.9232	.05099	.65694
Reliability (B)	166	3.6566	.06778	.87327
Responsiveness (C)	166	3.5919	.05621	.72420
Assurance (D)	166	3.8946	.05725	.73765
Empathy (E)	166	3.6551	.05961	.76799
Network Quality (F)	166	3.6968	.06823	.87910
Convenience (G)	166	3.7671	.06165	.79431
Customer Satisfaction (H)	166	3.7249	.06942	.89440
Valid N (listwise)	166			

Source: Survey data, 2021

4.3. Reliability and Validity Test

Table 4.2: Reliability of the variables

Variable	Cronbach's Alpha	N of items
Independent Variables		
Tangibility	0.759	4
Reliability	0.906	5
Responsiveness	0.775	4
Assurance	0.849	4
Empathy	0.836	4
Network Quality	0.840	3
Convenience	0.746	3
Dependent Variable		
Customer Satisfaction	0.891	3

Source: Authors' own analysis, 2021

As per the above table 4.2, Cronbach's alpha of reliability dimension is 0.906, which is the best. Assurance, Empathy, Network quality and customer satisfaction have 0.849, 0.836, 0.840 and 0.91 of Cronbach's alpha, respectively, which is good. Tangibility, Responsiveness, and Convenience also have more than 0.7 of Cronbach's alpha, which indicates the data set's Reliability is high. The Cronbach's alpha value should exceed the threshold of 0.70 (Hair et

al., 2010). As per the results shown in Table 4.2, the alpha values were above the cut-off values, indicating adequate Reliability.

The validity of the test was measured by using Kaiser Myer Olkin (KMO) test. KMO test is a statistical measure that determines how suitable the data set is for factor analysis. The test evaluated the sample adequacy for each variable in the model. KMO return values range between zero and one (0-1). KMO values less than 0.6 indicate the sampling is not adequate, while KMO values more than 0.8 indicate the sample is sufficient. The researcher has performed KMO and Bartlett's test to determine the sampling adequacy of this study. The results of the test is illustrated in Table 4.3.

Table 4.3: Factor Analysis

Variable	KMO Value	Bartlett's Test of Sphericity Chi-Square	Total Variance Explained	Factor Loading	
Tangibility	.78	159.813	58.275%	Component Matrix[a]	
					Component 1
				AQ1	.685
				AQ2	.793
				AQ3	.813
				AQ4	.756
Reliability	.866	526.880	72.686%	Component Matrix[a]	
					Component 1
				BQ1	.850
				BQ2	.877
				BQ3	.879
				BQ4	.880
				BQ5	.771
Responsiveness	.758	176.816	60.185%	Component Matrix[a]	
					Component 1
				CQ1	.830
				CQ2	.769
				CQ3	.780
				CQ4	.719
Assurance	.781	290.915	69.283%	Component Matrix[a]	
					Component 1
				DQ1	.803
				DQ2	.805
				DQ3	.887
				DQ4	.832

				Component Matrix[a]	
Empathy	.813	253.473	67.677%		Component 1
				EQ1	.812
				EQ2	.851
				EQ3	.835
				EQ4	.792
Network Quality	.723	198.287	75.768%	Component Matrix[a]	
					Component 1
				FQ1	.868
				FQ2	.887
				FQ3	.856
Convenience	.673	116.665	66.476%	Component Matrix[a]	
					Component 1
				GQ1	.830
				GQ2	.848
				GQ3	.765
Customer Satisfaction	.750	283.505	82.175%	Component Matrix[a]	
					Component 1
				HQ1	.909
				HQ2	.902
				HQ3	.909

Source: Authors' own analysis, 2021

As per above Table 4.3, the KMO values of all the measurement items were greater than 0.50. Moreover, the total variance explained of the measurement items was greater than 50%, indicating the appropriateness of the total variation in the items of respective factors. The measurements items were also extracted in one single component of the respective variable. Therefore, all the results of KMO and Bartlett's test indicate the appropriateness of factor analysis.

4.4. Test of Normality

In this study, the researcher used the results of Skewness and Kurtosis to determine whether the data set met the assumption of normality.

Table 4.4: Skewness and Kurtosis

	N Statistics	Skewness		Kurtosis	
		Statistics	Std. Error	Statistics	Std. Error
Tangibility (A)	166	-.220	.188	-.183	.375
Reliability (B)	166	-.490	.188	.122	.375
Responsiveness (C)	166	-.301	.188	.293	.375
Assurance (D)	166	-.424	.188	.117	.375
Empathy (E)	166	-.007	.188	-.458	.375
Network Quality (F)	166	-.408	.188	-.196	.375
Convenience (G)	166	-.061	.188	-.578	.375
Customer Satisfaction (H)	166	-.429	.188	-.087	.375
Valid N (listwise)	166				

Source: Authors' own analysis

As per George & Mallery, 2010, skewness values between -2 and +2 are considered acceptable to prove a normal distribution. As per the survey results, all the values of skewness range between -2 and +2, which indicate the data set is normally distributed. The values for Kurtosis less than three are considered acceptable in order to prove normal distribution. As per the above table results, all the Kurtosis values are below 3, which indicates a normal distribution.

4.5. Test of Multicollinearity

Table 4.5: Test of Multicollinearity

	Collinearity Statistics	
	Tolerance	VIF
A	.491	2.038
B	.332	3.015
C	.244	4.097
D	.284	3.515
E	.289	3.465
F	.388	2.578
G	.357	2.801
a. Dependent Variable: H		

Source: Authors' own analysis, 2021

As per the survey data results, all the variables have a tolerance value of more than 0.1 and VIF value of less than 10. Therefore, it can be concluded that no independent variables highly correlated with each other and the overall model is free from the multicollinearity problem.

4.6. Pearson's Correlation

As per the results illustrated in Table 4.6 below, all the independent variables positively impact customer satisfaction. The significant value for each variable is .000, which are less than .05.

Table 4.6: Summary of Pearson's Correlation

Independent Variables	Dependent Variable	Correlation	
		Coefficient Value	Significance Level
Tangibility	Customer Satisfaction	.556**	.000
Reliability	Customer Satisfaction	.672**	.000
Responsiveness	Customer Satisfaction	.711**	.000
Assurance	Customer Satisfaction	.732**	.000
Empathy	Customer Satisfaction	.728**	.000
Network Quality	Customer Satisfaction	.685**	.000
Convenience	Customer Satisfaction	.653**	.000

Source: Authors' own analysis, 2021

4.7. Regression Analysis

The researcher has used regression analysis to predict the dependent variable by using the data of the independent variables. The outputs of the regression analysis are discussed below.

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828[a]	.685	.671	.51302

a. Predictors: (Constant), Tangibility, Responsiveness, Reliability, Assurance, Empathy, network quality, Convenience

Source: Authors' own analysis, 2021

The model summary describes essential information on whether the regression model fits with the observed data and how well it will fit. R-squared enables researchers to measures the proportion of the variation in the dependent variable explained by independent variables for a linear regression model. Adjusted R-squared adjusts the statistic based on the number of independent variables in the model. As per the outputs illustrated in Table 4.7, R^2 value is .685, which implies that 68.5% of the variation in the dependent variable (i.e. customer satisfaction) can be explained by independent variables of the study (i.e. Tangibility, Reliability, Responsiveness, Assurance, Empathy, network quality and Convenience).

Table 4. 8: ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	90.409	7	12.916	49.074	.009[b]
	Residuals	41.583	158	.263		
	Total	131.993	165			

a. Dependent Variable: Customer Satisfaction

b. Predictors: tangibility, Reliability, Responsiveness, Assurance, Empathy, network quality and Convenience

Source: Authors' own analysis, 2021

There should be a relationship between the dependent variable and independent variables to perform the regression analysis. If the significance value is lower than .05, the null hypothesis can be rejected, and the alternative hypothesis can be accepted. The null hypothesis is that there is no relationship between the dependent and independent variables, and the alternative hypothesis is that there is a relationship between the dependent variables and independent variables.

According to the output of ANOVA, the significant value is .009, which is less than .05. Therefore, it can be stated that the model is significant, and the alternative hypothesis can be accepted; there is a relationship between the dependent variable and the independent variable.

4.8. Coefficients

Table 4.8: Coefficients [a]

Model		Unstandardised Coefficients		Standardised coefficients	t	Sig.
		B	Std. Error	Beta		
1	Constant	-.298	.257		-1.163	.247
	Tangibility	-.046	.087	-.034	-5.31	.596
	Reliability	.163	.079	.159	2.056	.041
	Responsiveness	.130	.112	.106	1.167	.245
	Assurance	.341	.102	.281	3.357	.001
	Empathy	.148	.097	.127	1.527	.129
	Network Quality	.267	.073	.262	3.661	.000
	Convenience	.075	.084	.067	.897	.371

a. Dependent Variable: Customer Satisfaction

Source: Authors' own analysis, 2021

As per the above outputs, Tangibility has a negative beta value of -.034, Reliability has a positive beta value of .159, Responsiveness has a positive beta value of .106. Assurance, Empathy, Network quality and Convenience also have positive beta values of .281, .127, .262, .067, respectively. Other than the Tangibility, all other independent variables have a positive impact on customer satisfaction.

Moreover, when considering the p-values, Reliability has a p-value of .041, Assurance has a p-value of .001, and network quality has a p-value of .000. All these mentioned p-values are less than .05, and hence it can be stated that Reliability, Assurance and network quality are significant determinants of customer satisfaction in the mobile telecommunication industry.

4.9. Discussion of Findings

Reliability is discussed regarding the performance of a promised service in an accurate and timely manner. The results of this study found that reliability impacts positively and significantly on customer satisfaction. The results are similar to the results of the studies carried out by Alnsour et al. 2014, Negi, 2009. Assurance is discussed regarding the politeness and the knowledge of the service provider's employees, and this deals with the trust and confidence of the service provider. As per the results of this study, Assurance has a significant positive relationship with customer satisfaction. These results are the same as per the results of a study carried out by Ladhari R., 2010. As per the output demonstrated in Table 4.8, network quality has a positive and significant impact on customer satisfaction. The results are consistent with the results of the study carried out by Negi R 2009. Tangibility is discussed on the physical appearance of the mobile service provider. The results found that the Tangibility has an insignificant influence on customer satisfaction, and this is consistent with the results of a study carried out by Seiw-Phaik L, 2011.

5. Conclusion

The main objective of this study is to evaluate the impact of service quality on customer satisfaction in the Mobile Telecommunication industry of Sri Lanka. The researcher has identified three main research questions and this section discusses answers to these research problems.

5.1. What are the factors affecting service quality?

In this study, the researcher has identified seven factors that affect service quality by studying previous literature: Tangibility, Reliability, Responsiveness, Empathy, Assurance, network quality, and Convenience. Overall, by identifying the factors that affect service quality, the researcher has fulfilled the first research objective; to examine the factors affecting the service quality of the mobile telecommunication industry of Sri Lanka.

5.2. How do these factors relate to customer satisfaction?

The researcher has carried out Pearson's correlation analysis and multiple regression to determine the relationship between service quality dimensions and customer satisfaction. In this study, the researcher has developed seven hypotheses which were included in the methodology section. Those hypotheses were tested by analysing the results of Pearson's correlation and multiple regression. As per the results of Pearson's Correlation, all the independent

variables have a positive and significant impact on customer satisfaction. A summary of the results of multiple regression was interpreted in below Table 5.1.

Table 5. 1: Summary of Multiple Regression

Model	Standardised coefficients (Beta)	T	Sig.
Constant		-1.163	.247
Tangibility	-.034	-5.31	.596
Reliability	.159	2.056	.041
Responsiveness	.106	1.167	.245
Assurance	.281	3.357	.001
Empathy	.127	1.527	.129
Network Quality	.262	3.661	.000
Convenience	.067	.897	.371

Source: Authors' own analysis, 2021.

As per the results of the above regression output, Tangibility has a negative impact on customer satisfaction, while Reliability, Responsiveness, Assurance, Empathy, network quality and Convenience have a positive impact on customer satisfaction. By analysing Pearson's correlation and multiple regression results, the researcher has fulfilled the second research objective of this study, which is to examine how the service quality dimensions are related to customer satisfaction.

5.3. What is the significance of each variable of service quality on customer satisfaction?

To determine the significant level, the researcher has taken the outputs of multiple regression. As per the results of the above regression summary Table 5.1, Network quality positively impacts customer satisfaction with a significant level of .000 (which is less than .05). Also, the t-vaue of network quality is recorded as 3.661, and it is the highest t-value of all the variables—higher the t-value, the significance, and the significant impact of network quality on customer satisfaction. The next highest t-value is for the assurance dimension is 3.357. The significant level of Assurance is .001, which is less than .50. The reliability dimension has the third-highest t-value, which is 2.056. The significant value is .041, and it is less than .05. Regression output demonstrates that Tangibility has a negative impact on customer satisfaction. Although Responsiveness, Empathy and Convenience have a positive impact on customer satisfaction, the significant values are more than .05.

Through the analysis of multiple regression, the researcher has accomplished the third research objective of this study: to inspect the significance of each variable of service quality on customer satisfaction. The following table summarises the output of this study.

Table 5.2: Hypothesis Testing

	Hypothesis	Result
H1	There is a positive impact of **Tangibility** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Rejected
H2	There is a positive impact of **Reliability** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Accepted
H3	There is a positive impact of **Responsiveness** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Rejected
H4	There is a positive impact of **Assurance** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Accepted
H5	There is a positive impact of **Empathy** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Rejected
H6	There is a positive impact of **Network Quality** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Accepted
H7	There is a positive impact of **Convenience** on customer satisfaction of the mobile telecommunication industry of Sri Lanka	Rejected

Source: Authors' own analysis, 2021

5.4. Recommendations

The study suggests the management of mobile service providers to pay more attention to the network quality dimension since this is the most critical factor of service quality and a strong predictor of customer satisfaction. They should be concerned about both the voice calls and data services provided by them. Secondly, the management of mobile service providers should be concerned about the assurance dimension. As per the results of this study, Assurance is the second highest dimension that can be used to predict customer satisfaction. In Assurance, they should focus on building trust with their customers. The management can use training sessions to their staff regarding the technical questions raised by customers and thereby they can enhance the service quality dimension, Assurance.

The third highest service quality dimension that affects customer satisfaction is Reliability. It can be recommended to the management of mobile service providers to check whether they solve their customers' problems accurately at the first time and should also check whether they keep their records accurately.

5.5. Suggestions for future researchers

This study was carried out to measure the impact of service quality on customer satisfaction only for the mobile telecommunication industry. Future researchers can be carried out their studies to measure the impact of service quality on customer satisfaction in other industries of the country. The sample size used in this research is 166

samples, which is too small compared to the population and obtained through stratified random proportionate sampling, which can restrict the generalizability of the findings. Future researchers are recommended to use a more significant number of samples to gather data in their studies. Furthermore, this study has taken data of the population at one point, which is known as cross-sectional data. Future researchers are motivated to observe the participants of the study repeatedly over a period of time and recommend carrying out a longitudinal study to obtain more accurate results. This study was used to examine the impact of service quality on customer satisfaction of Sri Lankan mobile telecommunication customers. Since the results can deviate from country to country, future researchers are encouraged to carry out this research in the context of different countries.

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