

A COMPARATIVE ANALYSIS OF SERVICE QUALITY OF MOBILE TELECOMMUNICATION COMPANIES

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ABSTRACT

In today's competitive world communication plays very dominant role. Communication has become an integral part of the growth, efficiency of any business. Technology gives a power to person to communicate anywhere at any time. With technological advancement, communication becomes faster. Indian telecom market has gained recognition as one of the most lucrative market globally. The statistical growth of subscribers in India has changed the Indian market on global map. The number of telephone subscribers in India is 1173.75 million out of which 40.07 million were Punjab subscribers, at the June, 2019 (Performance indicators, June, 2019, Telecom Regulatory Authority of India). With increase in technology the customer has become more demanding as far as quality is concerned. This paper describes the comparative service quality level among customers of public and private mobile telecommunication sector in Punjab. For purpose of this study a sample of 400 customers were selected on convenient basis from the state of Punjab. Sample is divided into equal proportion i.e. 200 customers taken from public sector and 200 customers taken from private sector. T-test is used to analyses the significant means difference between the expectation and perception of customer of public and private sector regarding service quality dimensions. The key findings of the study show that private sector had better performance in terms of service quality dimensions. The study suggested that public sector should focus on customer feedback, focus quality of services deliver to customer according to their requirement, adequate network coverage, regular follow-up and efficient management.

KEYWORDS: Service quality, Mobile telecommunication, Customers, Punjab, T-test.

INTRODUCTION

In present time, the service sector is one of the most important sectors for all countries and key contributor to GDP. In today's competitive environment any service sector can't survive successfully without delivering high quality services. Now days, The telecom sector is one of the most important service sector of the country and can lead to growth and long term development

of any country. Services are deeds, processes and performances (**Zeithaml and Bitner, 2003**). Broadly speaking, service include all economic activities whose output is not a physical product or whose constructions generally consumed at the time it is produced and which provides added value in forms of convenience, amusement, timeliness, comfort or health that are essentially intangible for its first purchaser (**Quinn, Baruch and Paquette, 1987**). Service is an act or performance that one party can offer to another that is essentially intangible and does not result in ownership of anything. Its production may not be tied to a physical product (**Philip Kotler, 1984**). Service quality is a vital tool that can help a firm to combat to stand out from competition (**Ladheri, 2008**). According to **Seiler, 2004**, in both public and private sector organizations service quality holds an immense position. According to **Teck-hong and Yong-kean, 2012**, explored that service quality has a straight influence on cultivating business performance and is related to growth of market share. According to **Gronroos, 2007**, the evaluation that consumers make between their expectations and perceptions in defined as service quality. As per **Parasuraman, Zeithaml and Berry** the service quality is defined as, **Service quality = Perception-Expectation**. Service quality is difference between the service expectation and service quality received by the customer. Customer has certain expectation about the services. If the customer experience the same service as they expect then this difference will be zero and we can say that the service quality is very good. Higher the difference of above equation lower will be service quality. As defined by **Parasuraman, Zeithaml and Berry** the service quality depends upon customer perception and expectation is necessary that the service provider with respect to the customer expectation as well as customer perception should understand the service quality parameters. This will help in getting the better service quality and hence higher level of customer satisfaction. According to TRAI reports June, 2019 Key players in mobile telecom sector in Punjab is BSNL (public sector), Vodafone idea limited, Bharti airtel limited, reliance communication and Reliance JIO (Private sector).

PUBLIC SECTOR SERVICE PROVIDER

BSNL (BHARAT SANCHAR NIGAM LIMITED):- BSNL was set up in the year 2000 and it's headquarter is situated in New Delhi. As of Telecom Regulatory Authority of India, June, 2019, 5773415 BSNL users in Punjab. It provides GSM and CDMA both services.

PRIVATE SECTOR SERVICE PROVIDERS

BHARTI AIRTEL: - Bharti was set up in the year 1995 and it's headquarter is situated in New Delhi. As of Telecom Regulatory Authority of India, June, 2019, 10244140 Bharti users in Punjab.

RELIANCE COMMUNICATION GROUP: - It was set up in the year 2004 and it's headquarter is situated in Mumbai. As of Telecom Regulatory Authority of India, June, 2019, 297 Reliance Communication Group users in Punjab.

RELIANCE JIO: - It was set up in the year 2015 and it's headquarter is situated in Mumbai. As of Telecom Regulatory Authority of India, June, 2019, 12985842 Reliance JIO users in Punjab.

VODAFONE IDEA: - Vodafone was set up in the year 1994 and idea was set up in the year 1996 and their headquarter are situated in Mumbai. On 31st august 2018, Vodafone India merged with idea cellular and was renamed as Vodafone idea limited. As of Telecom Regulatory Authority of India, June, 2019, 11255026 Vodafone idea users in Punjab.

REVIEW OF LITERATURE

A number of studies have been conducted to analyze the comparative service quality of mobile telecommunication. According to **Raju (2012)** the perceived service quality dimensions, service quality gap, relationship of level of attitude of customer and feature products of the mobile phone service provide namely Airtel, Vodafone, Aircel and BSNL. For study purpose 600 respondents selected as sample, 150 from each service providers i.e. Airtel, Vodafone, Aircel, BSNL through interview schedule with simple random sampling technique from Madurai city. The time period of the study was 2009-2010. Main findings of the study were that majority of the customers (57 per cent) were female and there is a relationship between gender and level of attitude. Majority of the customer prefer Nokia followed by Samsung brand. Moreover, small businessmen and small traders were able to do their business over telephone and it was important contribution to the growth of the country. The study suggested that service provider should ensure the availability of equipment and modern technology that will make employees job easier and better. It also suggested that telecom operators should also improve their network coverage by mean of having their wide service area coverage and also provide the value added services like E-ticketing, E-banking, E-global payment and cost effective services. **Rasheed (2011)** studied the factor influencing, service quality, customer satisfaction, switching behaviour and customer loyalty in GSM market. The study based on primary and secondary data. For study purpose 693 customers taken as sample from Airtel, Aircel, BSNL, Vodafone and IDEA from Kanyakumari district. The study found that number of young customer is greater than the elder customer. The important service provider among the customer is BSNL and Airtel. The most important service provider among the young customer is Airtel whereas the elder is BSNL. Moreover, the dominant source of important service providers among the young customer was retailer, distributors whereas among the old customer were advertisement, company and promotional measures, it also revealed that important variable in services are free 'SMS' facility, inter network coverage, low activation charge, multimedia messaging facility, positive word of mouth and special offers. This study suggested that service providers should focus on all service variables namely Tangibility, Responsiveness, Reliability, Empathy and service quality to prepare their marketing strategy. This study also suggests that proper incentives can be achieved by enlarging customers' evaluation of different satisfaction components and usage pattern.

Moreover, loyalty programmes accompanied by well designed customers' satisfaction programmes can be effective in increasing customer retention. **Singh (2012)** in his study examined the telecom policies, plans, regulations, organization structure, customer's perception and manager's perception in BSNL. This is primary and secondary study. For study purpose 300 customers and 50 senior officers selected as sample from Sangrur, Mohali, Sunam and Pathankot areas of Punjab through convenient and purposive sampling technique. Main findings of the study were that majority of customers' preferred BSNL customer care services. More than 80 per cent officers have recommended that customers aware about BSNL services and sale offered by making contracts on phones, sending SMS and by hiring services of reputed marketing agencies. BSNL has to formulate a strategy oriented towards marketing and modernise its HRD policies forecasting a smart human capital which supports excellent customer care and customer relations that is highly desirable in competitive environment of telecom industry locally as well as globally. **Vikas (2012)** in his study analyzed the service quality dimensions, customer value, customer satisfaction and relationship among variables. This is primary and secondary study. For study purpose 411 pre-paid subscribers of GSM services respondents taken as sample through structured questionnaires. This study revealed that service quality attributes directly positive related to loyalty were employee performance, competitiveness, operational efficiency, credibility, transmission quality, reliability and convenience. Moreover, customers regularly suffer from the problems of weak and congested network. The study suggested that manager should focus more on improving performance of employees and network quality. The importance of network quality is to help customer in getting congestion free network and clarity of voice. It also suggests that the company should focus on training and development needs of employees to improve their skills in providing high class service quality. **Devi (2013)** in her thesis analyzed the market scenario, Determinants of service quality, customers and retailers perception regarding service quality. This is primary and secondary study. Primary data collected through questionnaires from 968 customers and 491 retailers from Chennai. The study found that the usage of pre-paid plan dominates as compared to usage of post-paid plan. Vodafone main target was the youth. Aircel has the best ranking for schemes as compare to other service providers. Study also found that overall Vodafone received higher service quality rating while all other service providers received medium service quality rating. Moreover, telecom software, telecom professionals, telecom infrastructure and telecom services are the key players in shaping today's economy and revenue sharing strategies are leading to mergers and acquisitions, helping companies to enter new business opportunities, generate employment and boosting countries economy. This study suggested that all service providers need to be varying of competition in the market. New players were entering in the market with attractive strategies. Areas like physical layout, effectiveness of employees' skills and ability, quality services at reasonable cost, response to regression need to improve. Moreover, companies need to concentrate on their promotional offers to maximise sales and companies must target better display space in retail outlets to derive maximum mileage. **Alaguchany (2014)** analyzed the customer perception, service quality gap, association between perceived service quality dimension and customer

satisfaction. This is primary and secondary study. For study purpose 300 respondents were selected, 75 each from Airtel, Vodafone, Aircel and BSNL through interview schedule with simple random sampling technique. The time period of the survey was 2012-2013. The findings of the study were that FDI is very effective in the development of any country and telecommunication plays important role in the inflow of FDI and success of mobile advertising will directly depends upon penetration and success of mobile internet. This study suggested that tariff rates should be fair and make it affordable to customer. Indian government should consider redefining the revenue base on which spectrum and license fees were levied to enable the building of terminals with service to facilitate low cost entry. **Sahoo (2016)** in his thesis studied the perceived service quality, customer satisfaction, customer loyalty and effect of perceived advertisement on strategic relation for formulation of marketing strategy. This is primary and secondary study. For study purpose 803 respondents were selected as sample from 13 telecommunication districts of Odisha state in the year 2014 with simple random sampling. Out of 803 respondents, 373 respondents were BSNL users and rest 430 were private services users. The results revealed that gender plays no role in choosing private service or BSNL services and most of the customer prefers to have pre-paid connections in comparison to post-paid connection. The study also found that service quality strongly affects the degree of customer satisfaction in both types of service providers. Moreover, customer expectation is more than their perception although customers are satisfied in overall services. This study suggested that mobile phone service providers should improve the technical service quality dimensions for achieving better level of customer satisfaction and the advancement of information technology creates a large opportunity before telecom sector in India which would optimally exploited keeping the customer's action in mind for business growth. In the light of the preceding review of the studies carried out in this area, researcher find out there are few studies focusing on a comparative analysis of service quality of customer of mobile telecom companies. So this study tried to compare the service quality gap of public and private sector mobile telecom companies in Punjab region.

NEED OF THE STUDY

In a vast country like India, the telecommunication service industry plays an important role. India telecom sector has emerged as one of the fastest growing economies in the world. One of the sectors that have shown the signs of contributed significantly to the nation's economy is the telecom sector. In fact the India telecom market has gained recognition as one of the most lucrative market globally. The statistical growth of subscribers in India has changed the Indian market on global map. The number of telephone subscribers in India is 1186.63 million, out of which 675.58 million were urban subscribers whereas 511.05 were rural subscribers; market share of private sector is 88.75 percent whereas public sector is 11.25 per cent at the end of June 2019 (The Indian telecom performance indicators, April-June, 2019, Telecom Regulatory

Authority of India). Day by day number of customers increases. People prefer to do work on mobile, convey their business, Marketing, and every other sort of communication through the mobile phones. With increase in usage of mobile phones, people are very concerned about the quality of services provided. With increase in technology the customer has become more demanding as far as quality is concerned. Government and professional bodies like TRAI (Telecom Regulatory Authority of India) have set up benchmarks for raising the service quality and customer satisfaction. But question arise that does the customer receiving all such quality services? What should be the service quality parameters? Does the service provider follow these quality benchmarks? As mentioned above service quality is affected by customer perception and expectations and it may differ from person to person. So to understand the customer expectation from their perception there is need to incorporate the voice of customer. This study may provide input to insights on the perceived quality in mobile telecommunication especially in Punjab. Now days, due to COVID-19 situation all students, researchers, faculties, businessman and all professional depends on mobiles for their work. There are many factors affecting service quality like network quality, internet services, value added services etc. this study focused to compare the gap of public and private sector.

OBJECTIVES

1. To compare the perception of subscribers of selected public and private sector mobile telecommunication companies in terms of service quality.
2. To make suggestions on the basis of findings of the study to enhance service quality level.

RESEARCH METHODOLOGY

The research objective of the present study indicates that this is descriptive in nature. Survey method was employed for data collection. The company was selected on the basis of market share. On this bases, in public sector BSNL and private sector Airtel limited and Vodafone idea limited were selected.

SAMPLING PLAN

POPULATION- it includes all those who use mobile phone service belongs to Punjab region.

SAMPLING UNIT- the data was collected by visiting home/offices of the respondents.

SAMPLING METHOD- the non-probability convenience method was used.

SAMPLE SIZE- the sample size is taken 400 respondents out of which 200 respondents taken from public sector and 200 respondents taken from private sector.

DATA COLLECTION- for study purpose self structured questionnaire is used. The questionnaire was used because they have item designed to elicit the information on the research interest and they have protocol for recording the responses. Pre tested SERVQUAL scale of Parasuraman, Zeithmal and Berry is used. In addition to this five more variable i.e. image, technical quality, network quality, value added services and internet services are added. The data available from the surveyed questionnaire was processed and analyzed with the help of SPSS. T-test was used to analyze the significant mean difference between the expectations and perception of customers of public and private sector regarding service quality dimensions. P-value <0.05 indicates that there is significant difference between service quality level of the public and private sector of mobile telecommunication in Punjab.

ANALYSIS AND INTERPRETATION

TABLE 1. COMPARATIVE ANALYSIS OF SERVICE QUALITY DIMENSIONS IN PUBLIC AND PRIVATE SECTOR OF MOBILE TELECOMMUNICATION

Tangibility Statements	Public sector (P-E)	Private sector (P-E)	T-value	P-value
Interior of company office are outlook designed and visually appealing	-0.14	-0.03	-0.11	.911
Material associated with the services (such as Brochures, pamphlets, invoices and print ads.,)are visually appealing and gives accurate information	-0.11	0.12	-2.86	.004
Authorized office of the company is conveniently accessible	-0.05	0.27	-1.18	.236
Employees of company are well dressed and neat in appearance	-0.10	0.09	-1.66	.096
Reliability statements				
Mobile service provider delivers services as per promised schedule	-0.06	0.12	-2.01	.045
Company performs the service right in the first instance	-0.10	0.13	-0.71	.477
Company insists on error free records (i.e. billing system)	-0.11	-0.14	-0.96	.337
When you face a problem, company is sympathetic and reassuring	-0.16	0.18	-1.60	.109
The company provides service consistently, dependably and reliably	-0.10	0.39	-0.97	.332
The company provides variety of pricing plans and nominal charges on calls	-0.10	0.05	-1.31	.190
Responsiveness statements				
Company gives timely intimation of successful recharge	-0.14	0.17	-1.93	.054
Company makes timely intimation of need to recharge when the balance is too low	-0.12	0.11	-1.98	.048
Customer care executives give complete information in response to the queries	-0.16	0.26	-1.00	.317
Employees of company have always been willing to help customers	-0.14	-0.18	-1.05	.290
Employee ability to communicate clearly with you	-0.12	0.24	-1.19	.235

Value added services Statements				
The range and variety of VAS (value added service) like Ring tones, SMS, video calls, movies downloading, internet banking, navigation, astrology etc. provided by company is competitive and comprehensive	-0.15	-0.16	0.02	.980
VAS is started only after obtaining the customers consent	-0.09	-0.17	0.36	.717
VAS can be deactivated without any trouble and unnecessary charges	0.07	-0.07	0.67	.503
Convenient to use the VAS provided by company	0.03	0.11	-0.34	.728
Assurance Statements				
Employees of company are respectful, polite, courteous and trustworthy	-0.06	-0.15	-2.96	.003
The behavior of employees of company instills confidence among customers	-0.10	0.05	-3.14	.002
Company commits to ethics and promotes ethical behavior	-0.12	0.13	-3.82	.000
Company has taken sufficient measures for addressing the safety and security concerns of mobile customers	-0.25	0.13	-1.62	.106
Empathy Statements				
Customer care service is quite user friendly	0.43	0.10	-1.45	.146
Employees of company are easily approachable	0.10	0.09	-0.04	.963
Company gives customer individual intention	0.22	0.08	-0.64	.521
Mobile service provider understands the specific needs of the customers	0.17	0.08	-0.44	.658
When customers have a problem, company shows a sincere interest in solving it	0.31	0.10	-1.04	.299
Company has operating hour's convenient to all their customers	0.04	0.14	0.48	.626
Image Statements				
The company has good image and reputation	0.05	0.27	-1.00	.314
Service provider has delivered a good brand image to its customer	-0.08	0.27	-1.63	.103
Service provider is trust worthy	-0.14	-0.15	0.06	.946
Service provider is stable and firmly established	0.06	0.40	-1.64	.100
Technical quality Statements				
Degree of success in completion of calls, SMS, MMS etc.	0.29	0.14	-0.70	.484
Call gets connected at first attempt and speedy delivery of SMS	0.14	0.10	-0.16	.871
Employees are technically trained and have sufficient knowledge to answer the queries of the customers	-0.12	-0.08	0.21	.828
Network quality Statements				
Network clarity and speed for call and other services	-0.08	-0.15	0.35	.726
Network innovativeness– ability to use current technology to improve services	0.06	0.16	-0.43	.661
Proving adequate network coverage	0.54	0.15	1.77	.077
The call quality and data transfer quality is fine	-0.13	0.12	-1.19	.232
You are able to communicate (through calls, MMS, SMS) easily during festive season/peak hours	-0.13	-0.11	-0.09	.925
Internet services Statements				
Service provider offers best technology to the others	-0.08	-0.05	0.16	.866
The downloading and uploading speed of the data is consistent as promised	-0.17	-0.06	-0.62	.534
Service provider provides better internet security to the customers	-0.10	-0.09	0.04	.965

For tangibility, The table reveals that the difference between gap (P-E) regarding attribute namely 'Interior of company office are outlook designed', 'Authorized office of the company is conveniently accessible', 'Employees of company are well dressed' under tangibility dimension of the public and private sector is insignificant. Whereas attribute namely, 'Material associated with the services' shows significant difference. The analysis provides that the service quality of the public sector is significantly higher than that of the private sector.

For reliability, attribute namely 'Mobile service provider delivers services as per promised schedule' shows significant difference whereas other attribute shows insignificant gap between public and private sector.

For responsiveness, all attributes of responsiveness dimension shows insignificant difference except item namely, 'Company makes timely intimation of need to recharge when the balance is too low'. Table reveals that the quality of private sector mobile telecommunication is better as compare to public sector because the negative gap scores of private sector are lesser as compare to public sector.

For value added services, all the attributes of VAS dimension show insignificant difference between gap scores of public and private sector of mobile telecommunication. It shows that the quality of private mobile telecommunication sector is better as compare to public sector under value added services.

For assurance, it shows that all attributes of assurance dimension show negative gap score under public sector. There is significant gap between all attributes of service quality of both the sector except item namely, 'Company has taken sufficient measures for addressing the safety and security concerns of mobile customers'.

For empathy, the analysis show that there is significant difference between all attributes of both the sector except attribute namely, 'Employees of company are easily approachable'.

For image, there is insignificant gap scores of the perception and expectation of image dimension of service quality. Table reveals that the negative gap score of private sector is less or as compare to public sector.

For technical quality, there is negative gap scores of attribute namely, 'Employees are technically trained and have sufficient knowledge to answer the queries of the customers'. It means there is need for organizing training for employees that will help the employees to answer the queries of the customers.

For network quality, it was revealed that there insignificant difference between all the attributes of network quality dimension. Private sector is better as compare to public sector because the gap is lesser than public sector.

For internet services, it was revealed that there is insignificant difference between all the attributes of internet services dimension. Private sector has lesser gap as compare to public sector. It means that there is need to improve the quality of services regarding internet speed, sufficient data and internet security.

FINDINGS, CONCLUSION AND SUGGESTIONS

As the market matures and competition increase, service provider will have to differentiate their strategies according to customer need. It can be concluded that private telecom service provider have shown better performance as compare to public sector in all service quality dimension i.e. tangibility, reliability, responsiveness, value added services, assurance, empathy, image, technical quality, network quality and internet services. Public and private telecom service provider should more focus on network coverage, internet services and value added services. The study suggested that if the public sector wants to increase its service quality level it should focus enhance the level of services of attributes namely ‘service right in the first instance’, ‘company is sympathetic’, ‘timely intimation’, ‘always been willing to help’, ‘range and variety of VAS (value added service)’ ‘understands the specific needs of the customers’, ‘employees are technically trained’, Network clarity and speed for call’, ‘downloading and uploading speed of the data’ where the expectation and perception of public sector is significantly higher than the private sector. In order to bring improvement in their area public sector should focus on customer satisfaction and customer services. Top rank held by private sector is clear indicator of the better performance of the private sector. **Upadhyaya and Sharma (2012)** explained that customers are satisfied with private sector (Airtel) and not satisfied with the services which are provided by public sector (BSNL). **Baruah and Baruah (2015)** private sector had better performance than public sector in terms of subscriber base, market share and gross revenue. According to **Kumar and Uma (2013)** private cellular operators are proved to be the favorites of mobile users whereas public sector is fading away from the mind of mobile users. According to **Yadav (2014)** private telecom service provider have shown better performance than their public sector rivals in terms of network coverage, market share and innovative plan. Above studies supported to this study. Moreover, public sector should focus on customer feedback, focus quality of services deliver to customer according to their requirement, adequate network coverage, regular follow-up and efficient management.

LIMITATION AND SCOPE FOR FUTURE RESEARCH

1. The study was limed to telecom sector of Punjab, so that it has limited implications for practitioners. It may include other service sector to make the service comprehensive and generalized. It also generalizes of comparison of two or more states.
2. Apart from the factors considered in this study other factor such as MNP (Mobile number portability) and CRM (Customer relationship management) should be studied.

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