



Customer's Perception and Expectations from Telecom Service Providers in India

Jignesh Darji
Research Scholar,
GLS University,
Ahmedabad, Gujarat (India)

Dr. Vineeta Gangal
Assistant Professor,
GLS University,
Ahmedabad, Gujarat (India)

Abstract: *Entry of Reliance-Jio in telecom sector has changed the market dynamics completely. Earlier there were only few options available with the customers in the form of Idea, Vodafone, Bharti Airtel, BSNL and other Small players operating in few selected territories only. Competition has become intense as it is very much difficult for the telecom players to retain the customers. In present time companies may survive if they are able to provide quality service to customers. However service quality in telecom industry has so many dimensions and different authors have tried to elaborate it over the period of time. The paper "Customer's perception and expectations from Telecom service providers in India" attempts to summarise the work done by various authors to define and measure service quality in Telecom industry in terms of various models and its application. The paper concludes that there is still a huge scope for identifying various dimensions of service quality in telecom industry. This implies that telecom companies will have to focus on customer expectations and perceptions about service quality.*

Keywords: *Service Quality, Telecom Industry.*

I. INTRODUCTION

India is currently the world's second-largest telecommunications market with a subscriber base of 1.05 billion and has registered strong growth in the past decade and half. The Indian mobile economy is growing rapidly and will contribute substantially to India's Gross Domestic Product (GDP), according to report prepared by GSM Association (GSMA) in collaboration with the Boston Consulting Group (BCG). The country is the fourth largest app economy in the world.

The liberal and reformist policies of the Government of India have been instrumental along with strong consumer demand in the rapid growth in the Indian telecom sector. The government has enabled easy market access to telecom equipment and a fair and proactive regulatory framework that has ensured availability of telecom services to consumer at affordable prices. The deregulation of Foreign Direct Investment (FDI) norms has made the sector one of the fastest growing and a top five employment opportunity generator in the country.

International Data Corporation (IDC) predicts India to overtake US as the second-largest Smartphone market globally by 2017 and to maintain high growth rate over the next few years as people switch to Smartphone and gradually upgrade to 4G.

Market Size

The mobile industry is expected to create a total economic value of Rs 14 trillion (US\$ 217.37 billion) by the year 2020. It would generate around 3 million direct job opportunities and 2 million indirect jobs during this period.

The total number of telephone subscribers in the country rose by 11.13 per cent year-on-year to 1,151.78 million in the September-December quarter of 2016. According to a report by leading research firm Market Research Store, the Indian telecommunication services market will likely grow by 10.3 per cent year-on-year to reach US\$ 103.9 billion by 2020.

According to a study by GSMA, smart phones are expected to account for two out of every three mobile connections globally by 2020 making India the fourth largest Smartphone market. India is expected to lead in the growth of Smartphone adoption globally with an estimated net addition of 350 million by year 2020. Total number of Smartphone shipments in India stood at 25.8 million units in the quarter ending December 2016, and Smartphone shipments during 2016 stood at 109.1 million units, up by 5.2 per cent year-on-year. Broadband services user-base in India is expected to grow to 250 million connections by 2017.

II. SERVICE QUALITY DIMENSIONS IN TELECOM INDUSTRY

Importance of services has been increased drastically in past few years. Many researchers have tried to find out the service quality measure across the industries and Concluded that the qualities of service experiences address three basic issues: (1) what defines service quality perceptions, (2) how service quality perceptions are formed and (3) how important it is where the service experience takes place. (James, 2004) Suggested that service quality consists of three dimensions, technical, functional



and image, and that image functions as a filter in service quality perception. The results from a cell phone service sample revealed that Gronroos' model is a more appropriate representation of service quality than the American perspective with its limited concentration on the dimension of functional quality. Analytic hierarchy process (AHP) framework to measure service quality can also be used to fight with the competition in fast food service provider. The results show that the customers regarded "empathy" as the highest priority in assessing service quality of a "fast-food" restaurant. It is apparent that it is important for a restaurant to provide a caring and personalized service to customers. Customers regarded "tangibles" (the appearance of the restaurant's physical facilities, equipment, personnel, and communication materials) as the second most important dimension of service quality. "Assurance", defined as the knowledge and courtesy of a restaurant's employees and their ability to convey trust and confidence was viewed as the third most important aspect of the service experience. It is apparent that diners like to have a knowledgeable employee when being served, and prefer to dine in a comfortable atmosphere. "Reliability" (a restaurant's ability to perform the promised service dependably and accurately) and "responsiveness" (a restaurant's willingness to help customers and provide prompt service) were not rated as highly as the other aspects of service quality. (Luk, 2006).

(Dr. Balram Dogra, 2006) Explored the role and importance of outcome quality dimensions. The results highlight that industry specific outcome quality dimensions are important in customers' perceptions; in explaining variance in overall service quality, and in diagnosing the service shortfalls. (Khan, 2010) Showed that the dimensions of tangible, assurance, responsiveness, empathy, convenience, and network quality found to have positive and statistically significant relationship with mobile phone users' perceived service quality. Convenience and network quality dimensions found to be relatively most important dimensions affecting users' perception. The dimension of reliability did not reflect significant effect on customers' perception of quality. (Emmanouil Stiakakis, 2011) Concluded that the core dimensions of m-service quality are: (i) interaction quality, (ii) environment quality, and (iii) outcome quality. Interaction quality comprises the sub-dimensions of expertise, problem solving, information, security/privacy, and customization/personalization. Environment quality can be achieved through the sub-dimensions of equipment, design, and context. Finally, outcome quality consists of the sub-dimensions of reliability, tangibles, and valence. (Ren Ye, 2011) Showed that Reliability and Assurance encouraged more positive word-of-mouth intention, while Tangibles, Responsiveness, and Empathy did not have any significant effect on one's word-of-mouth. (Vikas Gautam, 2012) Showed that Employee Performance, transmission Quality, Competitiveness, Credibility, Reliability, Support Attributes, Operational Efficiency, and Convenience creates advantage, but the decisive test comes in how these are used by the players to differentiate themselves. (Simon Gyasi Nimako, 2012) Indicated that four emerged SQ dimensions relevant to Ghana's MTI were labelled as: Customer relations, Image, Tangibles and Real network quality. (Evaluating service Quality Of Mobile Application Stores: A Comparison Of Three Telecommunication Companies In Taiwan, 2012) Showed that nine service qualities are valued by all mobile communication users of three telecommunication companies. These service qualities are 'answers questions rapidly', 'sincerity in responses to users' questions', 'the importance of solving users' problems', 'provision of reliable information', 'provide the application information required by users', 'stable network connection service', 'provide precise connection signal', 'importance of communication network for users' and 'mobile phone devices allow successful transactions', Respectively.

In another study, conducted to measure the factors affecting telecom service quality it was concluded that eight dimensions including "Approach of Employee towards Customers, Technology Expertise of Employees, Information provided to understand the product, Sincerity of Service Provider, Timeline to provide the service, Network Quality of Service Provider, Time Frame to Solve Grievance, Company Trust", those have a significant impact on the Telecom Service Quality which are part of hierarchical service quality model. (Uprey*, 2013). (Alper zera, 2013) show that there are five dimensions we can consider in mobile service quality, namely availability, perceived risk, easy to use, compatibility of mobile devices and entertainment services, and these dimensions have positive effect on satisfaction as service quality literature suggests positive relationships between service quality and satisfaction. Ease of use and availability are seemed to be the most important dimensions affecting satisfaction. As we proposed, the importance of mobile devices is obvious not only directly on satisfaction, also on the other dimensions of mobile service quality. Also in mobile industry customers form their service quality perceptions based on their evaluations of seven primary dimensions including: network quality, value-added service, pricing plans, employees' competency, billing system, customer services, and service convenience. This study showed that customers' evaluation of value-added service, pricing plans and service convenience are most important factors in their overall perceived service quality. (Seyed Yaghoub Hosseini^{1*}, 2013). (Dr. Samuel Kwadwo Frimpong, 2014) **Concluded that, competition does not necessarily leads to quality service delivery according to the respondents.** Most subscribers think that, if the mobile networks fail to satisfy their customers (subscribers), they should be made to pay fines; to pay compensation to these subscribers; to be sanctioned and finally, their certificate of operation to be withdrawn. (Yarimoglu¹, 2014) found out that to gain the optimal service quality that customers expect, practitioners should increase employee satisfaction and enhance interactions between employees and customers (People element), design physical environment tools according to the target market customer expectations (Physical element), manage the process in pre-sale, service encounter, and after-sale stages (Process element). (Singh, 2015) Showed that Service Quality in mobile industry is 7 dimensional. Rank Analysis on the basis of Variance Explained resulted in following arrangement in order of their importance for service quality from highest to lowest: 1. Employee Performance 2 Reliability 3 Assurance 4 Responsiveness 5 Competitiveness 6 Network Quality 7 Tangibility. Thus Employees Performance ranks as most important dimension of service quality in mobile industry and Tangibility ranks as least important dimension. Online store service quality can also be used as a source of competitive advantage. It is also clear that personalizing efforts are important components of interaction quality while outcome quality with a special focus on output can be understood by focusing on privacy risk protection as well as order fulfilment. (Mpinganjira, 2015). (Debasish Baruah^{1*}, 2015) Found from regression analysis that all the dimensions of service quality were positively and significantly impacted the customer satisfaction. Also, from ANOVA analysis, it was found that for reliability, responsiveness and empathy, there was difference between male and female regarding the perception of these dimensions while for tangible, assurance and network quality, there was no difference. (Rahhal, 2015) Showed the direct significant impact of



service quality on customer satisfaction and this effect had appeared through three dimensions (network quality, responsiveness, and reliability) and there are no direct effects of other dimensions on customer satisfaction.

III. CUSTOMER'S PERCEPTION IN TELECOM INDUSTRY

It has been Concluded that the relative influences of technical quality and functional quality on service-quality perception is not clearly addressed here, attention still needs to be paid to their impact on the perception of service quality.(Kang, The hierarchical structure of service Quality: integration of technical and functional quality, 2006).(Research, 2011) Showed that brand image is the most influencing factor for customer's perception towards an operator.(VIJ*, 2012) Investigated the relationship that exists in the service industry between customer satisfaction, service quality and perceived customer value.(K. Osotimehin, 2015) Revealed that there was a positive and significant relationship between service quality and both, customer satisfaction and customer loyalty, and also service quality is considered as a major factor in choosing telecommunication service provider in Nigeria. Further, the study revealed that the quality of service customers received from their service providers in terms of prompt service delivery, reliability, improved service, availability of effective and efficient customer care to assist customers help in assessing their rate of satisfaction.(Ananda Sabil Hussein, 2015) Found that the interaction quality, outcome quality and physical quality were the dimensions of service quality which were formed in the hierarchical model. In addition, this study indicated that service quality was a robust determinant of corporate image and customer loyalty in the banking sector. Similar to service quality, corporate image was also found to be an essential predictor of customer loyalty as well as the mediator between service quality and customer loyalty.(K. Osotimehin, customers Perception of Service Quality in the Nigerian Telecommunication Sector , 2015) Revealed that there was a positive and significant relationship between service quality and both, customer satisfaction and customer loyalty, and also service quality is considered as a major factor in choosing telecommunication service provider in Nigeria. Further, the study revealed that the quality of service customers received from their service providers in terms of prompt service delivery, reliability, improved service, availability of effective and efficient customer care to assist customers help in assessing their rate of satisfaction.(Prabuvengatesh T, 2016) Found to have highly influenced the customers in Coimbatore and their perception based on the service quality aspects such as Tangibility, Reliability, Responsiveness, Assurance, Empathy and Technical Quality

IV. CUSTOMER'S PREFERENCE AND EXPECTATIONS IN TELECOM INDUSTRY

(Jengchung V. Chen, 2007) Showed how to evaluate service quality, improve service deficiency and understanding the needs of customers are the most important issues in mobile value-added service market these days.(Rajkumar1, 2011) Showed a comprehensively integrated framework to understand the relationships among several dimensions. The study shows communication and price were most influential and most preferential factors in selecting telecommunication service provider. However, product quality and availability has a significant impact on consumer perception choice in selecting cellular mobile service provider.(Prof. R.C.S. Rajpurohit*, 2011) Indicated that the factor that induces the consumers to buy a particular mobile phone operator is call tariffs followed by network coverage and brand image. The study also highlights that majority of respondents are satisfied with the value added services offered by their mobile phone service providers.(Ampomah, 2012) Suggested that significant positive relationships exist only between customer satisfaction and service quality and between customer satisfaction and price fairness, but not for other variables such as service recovery, brand image, and customer orientation of service employees.(R. GEETHANJALI, 2013) concluded that mobile network service plays an important role in human being life by connecting others any were in the world mean time they are facing tight competition in order to avoid the competition knowing about customer preference and satisfaction is very essential for entire network service providers. The customers are confused by various offers by various mobile network service providers at various times. Mutual agreement between various mobile network service providers to offer same sort of benefit able schemes to the customers and not entertaining the customers to switch from one network service to other network service assist all the service providers to get equal benefit mean time the service provider by creating the good imagination between the customers their network service is user friendly to very one assist the network service provider to earn new customer and to retain the existing customers.(Sulaimon Olanrewaju ADEBIYI, 2016) Revealed that majority of the respondents are influenced by service quality, promotional activities, price/billing, customer care service and satisfaction derived from the various mobile service providers. The regression analysis proved that the telecommunication services have on customer satisfaction thereby lead to their preference and continues patronage of telecom service providers.

V. SERVICE QUALITY MEASUREMENT IN TELECOM INDUSTRY

(A. Parasuraman, 1985) argued that, while quality in tangible goods has been described and measured by marketers, quality in services is largely undefined and unsearched. The authors attempted to rectify this situation by reporting the insights obtained in an extensive exploratory investigation of quality in four service businesses and by developing a model of service quality.(Bolton, 1991) Developed a model of how customers, endowed with prior experiences and Expectations, assess service performance levels, overall service quality, and service value.(J. Joseph Cronin, 1992) Investigated the conceptualization and measurement of service quality and the relationships between service quality, consumer satisfaction, and purchase intentions. They suggested that the current operationalization of service quality confounds satisfaction and attitude. Hence, the authors test (1) an alternative method of operationalizing perceived service quality and (2) the significance of the relationships between service quality, consumer satisfaction, and purchase intentions. The results suggested that (1) a performance-based measure of service quality may be an improved means of measuring the service quality construct, (2) service quality is an antecedent of consumer satisfaction, (3) consumer satisfaction has a significant effect on purchase intentions, and (4) service quality has less effect on purchase intentions



than does consumer satisfaction. (J. Joseph Cronin, SERVPERF Versus SERVQUAL: Reconciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality, 1994) Responded to concerns raised by Parasuraman, Zeithaml, and Berry (1994) about the relative efficacy of performance-based and perceptions-minus-expectations measures of service quality. They demonstrated that the major concerns voiced by these authors are supported neither by a critical review of their discussion nor the emerging literature. Several research issues relative to service quality measurement and strategic decision making also were identified. In big mobile markets like China (Shu, 2010) did a comprehensive evaluation of customers' perceptions of service quality in the Chinese mobile communications market through developing and estimating a hierarchical and multidimensional model. The results of this study support the use of a hierarchical and multidimensional approach for conceptualising and measuring customers' perceptions of service quality, similar to the models developed by Brady and Cronin (2001), and Dabholkar et al. (1996). (Jr., 2001) Through qualitative and empirical research, found that the service quality construct conforms to the structure of a third-order actor model that ties service quality perceptions to distinct and actionable dimensions: outcome, interaction, and environmental quality. In turn, each has three sub dimensions that define the basis of service quality perceptions.

(Suuroja, 2003) Analysed about how to conceptualize service quality-about the nature of perceived service quality (perception of performance vs. disconfirmation) and the formation of service quality (Single construct vs. aggregation of service dimensions).

(Luk, 2005) Concluded that "analytical hierarchy process for service quality" ("AHP-SQ") approach described in this study assists management to devise and maintain a relevant, competitive plan for ongoing improvements in service quality. Specifically, such analysis enables the following questions to be addressed: "How does the firm perform in terms of service quality in relation to its competitors?"; "Given the firm's resources, which service initiatives will enhance its service competitiveness?"; "Which service areas require immediate improvement?"; "How should the firm's service improvement be prioritized?"; and "What opportunities exist for service improvement in relation to the competition?" (Kang, 2006) showed that a two-component model incorporating both technical quality and functional quality, yields better fit than a model concentrating on functional quality alone (such as SERVQUAL). (Bhattacharjee, 2010) Proposed a solution for measuring service quality in an industry or organization having human and machine services by considering the most important three attributes like responsiveness, empathy and innovative power of the involved human beings in a real time basis. (Samea, 2010) Discussed that one of the most influential models in the service quality literature is the model of service quality gaps. Author critically reviewed the model of service quality gaps and developed in order to make it more comprehensive. (Bekhet, 2011) Concluded that the orthodox SERVQUAL model is fraught with numerous shortcomings and operational flaws; major among them is its inapplicability to all cases, countries, services, ethnicities, etc. Modified service quality models have been developed in an attempt to fill the deficiency gaps of the SERVQUAL model. Yet these modified models have also fallen short of reflecting the real service quality dimensions impacting customer's satisfaction. The study suggested a number of solutions that may lead to the development of a model/ models that enjoy a certain degree of consistency and universality. (Emmanouil Stiakakis, 2011) Suggested the core dimensions of m-service quality as: (i) interaction quality, (ii) environment quality, and (iii) outcome quality. Interaction quality comprises the sub-dimensions of expertise, problem solving, information, security/privacy, and customization/personalization. Environment quality can be achieved through the sub-dimensions of equipment, design, and context. Finally, outcome quality consists of the sub-dimensions of reliability, tangibles, and valence. (Muhammad Sabbir Rahman, 2012) Proposed model that focuses on the relationship between functional quality, technical quality, internal, external influences mediated by corporate image and service quality towards customer's satisfaction. The model also tries to build the relationship between perceived prices by the customers on customer's satisfaction when service quality plays a mediating role.

(Ali Ramezani Ghotbabadi, 2012) Found the Hierarchical model as the comprehensive model. This model contains significant factors and works by researchers approving the validity and reliability of this model in different categories. It is an applicable service quality measurement for marketing managers. Some new measures of service quality as per hierarchical service quality included three main new areas such as physical environment, interaction quality and outcome quality to identify the student satisfaction. (Aida Azlina Mansor, Hierarchical Service Quality Model towards students satisfaction, 2012). (Michael Daniel Clemes, 2013) Tried to develop and test a comprehensive hierarchical model of these six important constructs. The results of the study supported using a hierarchical and multidimensional approach for conceptualising and measuring customers' perceptions of service quality in the mobile communications market. In addition, the findings illustrate that service quality is an important determinant of customer perceived value, customer satisfaction, corporate image, and perceived switching costs. Customer perceived value is also an antecedent of customer satisfaction. Corporate image, customer satisfaction, and perceived switching costs are three key drivers of customer loyalty. (Michael Daniel Clemes and Xin Shu, 2013) In the study supported a hierarchical and multidimensional approach for conceptualizing and measuring customers' perceptions of service quality in the mobile communications market. In addition, the findings illustrate that service quality is an important determinant of customer perceived value, customer satisfaction, corporate image, and perceived switching costs. Customer perceived value is also an antecedent of customer satisfaction. Corporate image, customer satisfaction, and perceived switching costs are three key drivers of customer loyalty. However, the findings also indicate that corporate image is not an important determinant of customer satisfaction and that customer perceived value is not a key driver of customer loyalty. (Seyed Yaghoob Hosseini, 2013) Proposed a multidimensional measurement model (MS-Qual) based on an extensive literature review and then, to assess the model validity, convergent and discriminant validity had been established based on the survey data gathered from 363 of Iranian mobile phone subscribers. Findings of this study showed that customers form their service quality perceptions based on their evaluations of seven primary dimensions including: network quality, value-added service, pricing plans, employees' competency, billing system, customer services, and service convenience.



(Rareşa, 2014) Proposed a new conceptual model which can be used to evaluate PeSQ based on a critical literature review of existent service quality (PSQ) studies in offline and online environments. Understanding how customers perceive and evaluate offline and online services is important for companies in order to deliver superior services.

(Yarimoglu, 2014) Found out that the dimensions of each service quality measurement were all different from each other due to the different characteristics of the industries that each study has been conducted in. The study showed that there is a need for an industry-specific national service quality index and suggested that national customer satisfaction indices which have existed in the literature can be a model for industry-specific national service quality indices. (Ms. Prachi Jain, 2015) Reviewed various service quality models revealed that none of the models is perfectly applicable in different cultural settings and different sectors. Thus, there is a need to further add to the research in the area of service quality measurement to develop a more reliable and valid yardstick. (Mr Ameer Bensalem1, 2015) Confirmed that all three levels of the proposed hierarchical structure; including the primary dimensions of interaction, outcome, and environment qualities, were important and valid in measuring mobile phone service quality in Algeria. (BaharunAli Ramezani Ghotbabadi, 2015), Concluded that service quality is multilevel/multidimensional. In addition, industry-specific models which suggested based on the structure of generic models regarding a specific industry found as the most useful models. This article also reviewed and presented an overview of researches on the service quality measurement models and the advantages and disadvantages of the main service quality measurements and pinpoints the most comprehensive, efficient, effective, and useful measurement. (POLYAKOVA, 2015) Critically reviewed service characteristics as prerequisites of perceived service quality conceptualization. The examination of six perceived service quality models was intended to identify a superior model that could be used by further research. After studying various service models, it has been concluded that there has been a considerable change in the customers' expectations and perceptions. Despite the changes already incorporated, there is still a need to make subsequent changes in service delivery process and service outcome. The study also revealed that no generalization in importance of determinants of service quality is possible across different service types. (Ms. Prachi jain, 2015). A study was conducted to analyze and test the validity of the hierarchical model of service quality developed by Brady and Cronin in the measurement of service quality of telecom players in Algeria. The study confirmed that all three levels of the proposed hierarchical structure; including the primary dimensions of interaction, outcome, and environment qualities, was important and valid in measuring mobile phone service quality in Algeria. (Mr Ameer Bensalem1, 2015). (Dr. Hari Sundar.G, 2016) Showed that the traditional attitude-based approach relies on assumptions about the link between evaluations of service quality and subsequent behavior, which are not supported by the substantive body of research findings about buyer behavior. The attitude-based approach also requires inferences to be made concerning what aspects of service provision determine the attitudes. An attempt is made to explain a different approach, which looks directly at service provision by using descriptive non-attitudinal measures and seeks to relate these to observed buying behaviors of interest.

VI. SERVICE QUALITY GAPS IN TELECOM INDUSTRY

(Dr. Vijay Kumar) Observed that Success of the Service organization depends on many factors, among them Service Quality is a major factor. But it is somewhat difficult to measure Service Quality Because Of Intangibility, Inconsistence, Inseparability and Non Inventory. (Mary Jo Bitner, 2010) Mentioned that Gaps Model of Service Quality has been used across industries and worldwide to help companies formulate strategies to deliver quality service, to integrate customer focus across functions, and to provide a foundation for service as a competitive strategy. It was developed at a time when most services were delivered interpersonally and in real time without the advantages (and sometimes disadvantages) of technology infusion. In the intervening years, technology has profoundly changed the nature of service(s) and at the same time it has influenced strategies for closing each of the service quality gaps. (MORAGWA, 2013) Recommended that provisioning of promised service, timely, accurately and dependably will need highest priority. Since customer care leads to improved customer satisfaction, employees in the telecommunication industry are vital in ensuring quality service delivery. The role of frontline staff becomes extremely important in making the interaction with customers pleasing. Employees need to understand the importance of their role in service delivery and managements should ensure that human resources and staff welfare dimensions are addressed to optimize the quality service delivery by staff. (Arora, 2016) Analysed that the gap between expectation and satisfaction of the customers exists in the case of service providers. Further the service providers should avoid making exaggerated claims as it can undermine the trust and tolerance level of customers. Also the service providers must provide the services in prompt and timely manner and should act quickly to resolve problems as it is one of the critical factors affecting service quality.

VII. NEED FOR FURTHER STUDY

- ✓ The first research gap relates to a lack of published research regarding customers' perceptions of service quality in the Indian telecom market. The service quality dimensions and how these dimensions impact on subscribers' perceptions of service quality in the Indian Telecom market have not been fully investigated.
- ✓ In addition, the majority of empirical studies that have been conducted on the Indian telecom market have relied on the SERVQUAL/SERVPERF scale. For a critique of the universal application of the SERVQUAL/SEVERPERF dimensions, Brady and Cronin (2001) have suggested Hierarchical model of service quality which is more descriptive than SERVQUAL Model.
- ✓ The second research gap relates to a lack of published research pertaining to the service quality dimensions that the Indian Telecom subscribers perceive to be more or less important. This research gap is important, as telecom services



providers cannot be confident that they are resourcing the appropriate dimensions of mobile communication services that their subscribers perceive as important

- ✓ The next research gap shows that most of the researchers have avoided importance of the service dimensions like Interaction quality, physical outcome quality and outcome quality.
- ✓ The literature review reveals the culture specificity of various studies. Hence it is felt that the studies that have been conducted in other countries need to be validated through studies in the Indian context.

VIII. CONCLUSION

From the above literature review it is very much clear that customer's perception and expectations from telecom service providers have changed over period of time. Hence there is a strong requirement to develop a framework to check and measure service quality dimensions from customer's point of view. From a corporate perspective, this study will benefit marketers and practitioners who are already operating in, or preparing to enter, the Indian telecom market. It may help Indian Cellular Mobile Service Providers to understand which Service Quality (SQ) dimensions to focus on, so as to get higher Overall Service Quality (OSQ) perception ratings.

REFERENCES

1. *Media Reports and Press Releases, Cellular Operators Authority of India (COAI), Telecom Regulatory Authority of India (TRAI), Department of Telecommunication (DoT), Department of Industrial Policy and Promotion (DIPP), India Services Sector Report by Deloitte*
2. Notes: # - GSMA report 'GSMA Intelligence Consumer Survey 2016', * - according to a report by CMR, @ - according to a report 'The Mobile Economy India 2016' by GSMA.
3. Bibliography
4. A. Parasuraman, V. A. (1985). A Conceptual Model of Service quality and its implications for future research . *Journal of Marketing*, 9.
5. Abbas, H. A. (2013). Quality as Determinant Factor of Customer Satisfaction: Case Study of Zain-Kuwait. *iBusiness*, , 8.
6. ABDOLREZA ESHGHI, S. K. (2008). SERVICE QUALITY AND CUSTOMER SATISFACTION: AN EMPIRICAL INVESTIGATION IN INDIAN MOBILE TELECOMMUNICATIONS SERVICES. *Marketing Management Journal*, Fall 2008 , 26.
7. Abdulrahman Al-Aali, M. A.-A. (2017). Measuring the Service Quality of Mobile Phone Companies in Saudi Arabia . *Research Gate*, 14.
8. Agyapong, G. K. (2011). The Effect of Service Quality on Customer Satisfaction in the Utility Industry – A Case of Vodafone (Ghana) . *International Journal of Business and Management* , 8.
9. Ahmad, Z. A. (2014). Consumer Purchase Behavior in Cellular Service Sector of Pakistan. *IOSR Journal of Business and Management (IOSR-JBM)*, 14.
10. Aida Azlina Mansor, R. H. (2012). Hierarchical Service Quality Model towards Student Satisfaction . *International Journal of Innovation, Management and Technology*, 5.
11. Akshaya Kumar Sahoo, B. K. (2015). Differentiated Service is the Success Measure: An investigation in Telecom Industry Odisha, India. *Mediterranean Journal of Social Sciences*, 11.
12. Ali Ramezani Ghotbabadi, D. R. (2012). A REVIEW OF SERVICE QUALITY MODELS. 2nd INTERNATIONAL CONFERENCE ON MANAGEMENT (p. 8). LANGKAWI KEDAH, MALAYSIA: University Technology Malaysia.
13. Almossawi1, M. M. (2012). Customer Satisfaction in the Mobile Telecom Industry in Bahrain: Antecedents and Consequences . *International Journal of Marketing Studies*, 18.
14. Alper zera, M. T. (2013). The effect of mobile service quality dimensions on customer satisfaction. *Procedia - Social and Behavioral Sciences*, 11.
15. Ampomah, Y. K. (2012). FACTORS AFFECTING CUSTOMER SATISFACTION AND PREFERENCE IN THE TELECOMMUNICATIONS INDUSTRY: A CASE STUDY OF MTN GHANA . Ghana: Institute Of Distance Learning, Kwame Nkrumah University of Science and Technology .
16. Ananda Sabil Hussein, R. H. (2014). How Quality, Value And Satisfaction Craete Passenger Loyalty: An Empirical Study On Indonesia Bus Rapid Transit Passenger. *The International Journal of Accounting and Business Society*, 20.
17. Anantha Raj A. Arokiasamy, D. A. (2013). SERVICE QUALITY AND CUSTOMER SATISFACTION IN THE CELLULAR TELECOMMUNICATION SERVICE PROVIDER IN MALAYSIA . *Researchworld*, 9.
18. Anita Seth, K. M. (2008). Managing the Customer Perceived Service Quality for Cellular Mobile Telephony: An Empirical Investigation. *VIKALPA*, 16.
19. Archi Dubey1, D. A. (2016). Impact of Service Quality on Customer Loyalty- A Study on Telecom Sector in India . *IOSR Journal of Business and Management* , 11.
20. Arora, D. M. (2016). Analysis of Gaps in Customer Services – A Study of selected Telecom Service Providers in NCR. *Pacific Business Review International* , 8.



21. AZUMAH, S. G. (2009). AN ASSESSMENT AND ANALYSIS OF CUSTOMER SATISFACTION WITH SERVICE DELIVERY OF MOBILE TELECOMMUNICATION NETWORKS WITHIN GHANA. SWEDEN: Researchgate.
22. B. G. K. Murthy, D. A. (2015). CONSUMER PERCEPTION TOWARDS MOBILE VALUE ADDED SERVICES. *International Journal of Management (IJM)*, 8.
23. BaharunAli Ramezani Ghotbabadi, S. F. (2015). Service Quality Measurements: A Review. *International Journal of Academic Research in Business and Social Sciences*, 20.
24. Bansal, V. B. (2013). A STUDY ON CUSTOMER SATISFACTION OF MOBILE PHONE SERVICE USERS OPERATING IN THE MALWA REGION OF THE PUNJAB. *ABAC Journal*, 11.
25. Bekhet, B. A.-a. (2011). Beyond SERVQUAL: A Paradigm Shift. *Australian Journal of Basic and Applied Sciences*, 6.
26. Bhattacharjee, P. K. (2010). A Novel Service Quality Measurement Method with Minimum Attributes (SERVQUAL-MA) of a Service Industry Involving Human Interactions. *International Journal of Innovation, Management and Technology*, 4.
27. Bolton, R. N. (1991). A MULTI-STAGE MODEL OF CUSTOMERS' ASSESSMENTS OF SERVICE QUALITY AND VALUE. *Journal of Consumer Research*, 31.
28. Changhee Kim, S. W. (2016). Driving Sustainable Competitive Advantage in the Mobile Industry: Evidence from U.S. Wireless Carriers. *MDPI journals*, 13.
29. Debasish Baruah#1*, T. N. (2015). Impact of Service Quality Dimensions on Customer Satisfaction in Telecom Sector. *International Journal of Engineering Trends and Technology (IJETT)*, 7.
30. Dominic Ooko, J. N. (2014). Determinants of Consumer Switching Behavior in Mobile Telephony Industry in Kenya. *International Journal of Business and Commerce*, 17.
31. Dr. A. Ansari, A. K. (2013). Investigation the Relationship among Mobile Value-added Services Quality, Customer Satisfaction and the Continuance Intention: Case Study, Hamrah Avval Operator. *International Journal of Information Science and Management*, 18.
32. Dr. Balram Dogra, A. K. (2006). A DIMENSION SPECIFIC ANALYSIS OF SERVICE QUALITY IN CELLULAR MOBILE TELEPHONE SERVICES. *Apeejay Journal of Management and Technology*, 12.
33. Dr. D.S. Chaubey, D. S. (2011). MOBILE PHONE USERS' BEHAVIOUR AND SERVICE USES: A STUDY OF CONSUMERS OF UTTARAKHAND STATE. *Annals of Management Research*, 17.
34. Dr. Hari Sundar.G, J. B. (2016). Conceptual Study on Service Quality and Relationship Quality Research. *IOSR Journal of Business and Management (IOSR-JBM)*, 6.
35. Dr. Samuel Kwadwo Frimpong, M. A. (2014). Quality Service Delivery in the Telecommunication Industry of Ghana: The Perspective of MBA Students of Sikkim Manipal University. *International Journal of ICT and Management*, 8.
36. Dr.K. Moorthy1, K. K. (2016). A STUDY ON CUSTOMER BEHAVIORAL INTENTION AND SATISFACTION TOWARDS INTERNET SERVICE PROVIDERS WITH SPECIAL REFERENCE TO TAMILNADU. 3rd International conference on science, Technology and management (p. 14). New Delhi: India International Centre.
37. Dr. Vijay Kumar, N. .. (n.d.). SERVICE QUALITY GAPS IN CELLULAR TELECOMMUNICATION SERVICE PROVIDERS (A Study with Reference to –Andhra Pradesh) . *IOSR Journal of Economics and Finance (IOSR-JEF)* , 8.
38. E.Mega1, I. S.-R. (2007). The Influence of Service Quality into Customer Retention in the Mobile Telephony Sector – The Case of the TIM Company . *University of Paisley* , 22.
39. EBODEY, M. M. (2012). FACTORS INFLUENCING CUSTOMER RETENTION: A STUDY OF USAGE OF MOBILE PHONE IN SUDAN . MALAYSIA : UNIVERSITI UTARA MALAYSIA .
40. Emmanouil Stiakakis, C. K. (2011). A Model to Identify the Dimensions of Mobile Service Quality. 10th International Conference on Mobile Business (p. 10). Greece: IEEE.
41. Evaluating service Quality Of Mobile Application Stores: A Comparison Of Three Telecommunication Companies In Taiwan. (2012). *International Journal of Innovative Computing, Information and Control*, 19.
42. Far zana Quoquab, I. N. (2016). Investigating the Effects of Consumer Innovativeness, Service Quality and Service Switching Costs on Service Loyalty in the Mobile Phone Service Context. *Ga djah Mada International Journal of Business* , 34.
43. Garima Malik, H. S. (2015). Impact of Sales Promotion Technique Used by Online Dealers on Consumers. *International Journal of Applied Sciences and Management (IJASM)*, 16.
44. Gera, R. (n.d.). Developing a hierarchical model of customer perceived service quality assessment for retail banking services .
45. Haksik Lee, Y. L. (2000). The determinants of perceived service quality and its relationship with satisfaction . *JOURNAL OF SERVICES MARKETING*, 15.
46. Hashed Ahmed Nasser. M1, *. S. (2012). Factors Affecting Customer Satisfaction of Mobile Services in Yemen . *American Journal of Economics* , 14.
47. Hassan Ziyad Ibrahim, Z. H. (2015). Impact of Service Quality on Customer Satisfaction In Maldives Tourism Industry . *International Journal of Accounting & Business Management* , 15.
48. Hsub, H.-C. W.-S. (2015). A Multi-Dimensional and Hierarchical Model of Service Quality in the Gaming Industry. *International Journal of Tourism Sciences* , 32.
49. Hung-Che Wu, C.-C. C. (2013). A Hierarchical model of service quality in the airline Industry. *Journal of hospitality and tourism management*, 22.
50. Ishaqa, M. I. (2012). PERCEIVED VALUE, SERVICE QUALITY, CORPORATE IMAGE AND CUSTOMER LOYALTY: EMPIRICAL ASSESSMENT FROM PAKISTAN. *Serbian Journal of Management* , 12.
51. J. Joseph Cronin, J. &. (1992). Measuring Service Quality: A Reexamibnation and extension. *Journal of Marketing*, 15.
52. J. Joseph Cronin, J. &. (1994). SERVPERF Versus SERVQUAL: Reconciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality. *Journal of Marketing*, 8.



53. James, G.-D. K. (2004). Service quality dimensions: an examination of Gronroos's service quality model. *Managing Service Quality*, 12.
54. Jawaria Fatima Ali1, I. A. (2010). Determinants of consumer retention in cellular industry of Pakistan . *African Journal of Business Management*, 7.
55. Jengchung V. Chen, Y.-H. W. (2007). A Framework examining the Customer's expectation and Cellular Phone Service. 2007 IRMA International Conference (p. 4). Idea Group Inc.
56. Jr., M. K. (2001). Some new thoughts on conceptualizing perceived service quality:A Hierarchical approach. *Journal of Marketing*, 17.
57. K. Osotimehin, B. A. (2015). Customers Perception of Service Quality in the Nigerian Telecommunication Sector . *Journal of Economics and Business Research*, 14.
58. Kang, G.-D. (2006). The hierarchical structure of service quality: integration of technical and functional quality. *Emerald Insight*, 14.
59. Khalid Mehmood Warraich, I. A. (2013). Achieving Sustainable Competitive Advantage Through Service Quality: An Analysis of Pakistan's Telecom Sector. *Global Journal of Management and Business Research*, 10.
60. Khan, I. (2012). Impact of Customers Satisfaction And Customers Retention on Customer Loyalty . *International Journal of Scientific & Technology Research*, 5.
61. Khan, M. A. (2010). An Empirical Assessment of Service Quality of Cellular Mobile Telephone Operators in Pakistan. *Asian Social Science*, 14.
62. Kiran, K. a. (2011). Antecedents of customer loyalty : Does service quality suffice? . *Malaysian Journal of Library & Information Science*, 19.
63. Laura. (2007). Developing a multidimensional and hierarchical service quality model for the travel agency industry. *Tourism Management*, 14.
64. Lee1, H. S. (2013). Major Moderators Influencing the Relationships of Service Quality, Customer Satisfaction and Customer Loyalty . *Asian Social Science*, 11.
65. Li-Jen Yang1, T.-C. C.-F. (2011). Using the Importance-Performance Analysis (IPA) approach to measure the service quality of mobile application stores in Taiwan . *African Journal of Business Management*, 11.
66. LOHANA, D. S. (2012). Customers respond and satisfaction against marketing strategies of selected cellular service providers in Nanded city. *EXCEL International Journal of Multidisciplinary Management Studies*, 19.
67. Luk, C. C. (2005). A strategic service quality approach using analytic hierarchy process. *Emerald insight*, 12.
68. Marina DOBROTA, A. N. (2012). INFLUENCE OF THE CUSTOMER EXPERIENCE ON SATISFACTION. *JOURNAL OF ENGINEERING MANAGEMENT AND COMPETITIVENESS (JEMC)*, 7.
69. Mary Jo Bitner, V. A. (2010). Technology's Impact on the Gaps Model of Service Quality. Springer Science+Business Media, LLC 2010 .
70. Michael Daniel Clemes and Xin Shu, C. G. (2013). Mobile communications: a comprehensive hierarchical modelling approach. *Asia Pacific Journal of Marketing and Logistics*, 33.
71. Mohammad Alamgir Hossaina* , Y. K. (2014). Developing and validating a hierarchical model of service quality of retail banks . *Total Quality Management*, 16.
72. MORAGWA, G. (2013). THE EFFECTS OF SELECTED FACTORS ON THE QUALITY OF . Tanzania: Open University of Tanzania.
73. Mpinganjira, M. (2015). An Investigation Of Perceived Service Quality In Online Shopping: A Hierarchical Approach . *The Journal of Applied Business Research*, 15.
74. Mr Ameer Bensalem1, D. R. (2015). APPLYING HIERARCHICAL SERVICE QUALITY MODEL IN MEASURING MOBILE PHONE SERVICE QUALITY IN ALGERIA. *British Journal of Marketing Studies*, 9.
75. Ms. Prachi Jain, D. V. (2015). SERVICE QUALITY MODELS: A REVIEW. *BVIMSR's Journal of Management Research*, 12.
76. Muhammad Asif Khan, M. (2010). An Empirical Assessment of Service Quality of Cellular Mobile Telephone Operators in Pakistan . *Asian Social Science*, 14.
77. Muhammad Sabbir Rahman, A. H. (2012). A Conceptual Study on the Relationship between Service Quality towards Customer Satisfaction: Servqual and Gronroos's Service Quality Model Perspective. *Asian Social Science*, 10.
78. Noor-Ul-Ain Nawaz, A. U. (n.d.). What Makes Customers Brand Loyal: A Study on Telecommunication Sector of Pakistan . *International Journal of Business and Social Science*, 9.
79. Ode Egena, B. S. (2013). Customer satisfaction in mobile telephony: An analysis of major telecommunication service providers in Nigeria . *ASIAN JOURNAL OF MANAGEMENT RESEARCH*, 11.
80. Oghojafor, B. A. (2014). DETERMINANTS OF CUSTOMER SATISFACTION AND LOYALTY IN THE NIGERIAN TELECOMMUNICATIONS INDUSTRY . *British Journal of Marketing Studies*, 17.
81. Orose Leelakulhanit, B. H. (2011). FACTORS THAT IMPACT CUSTOMER SATISFACTION: EVIDENCE FROM THE THAILAND MOBILE CELLULAR NETWORK INDUSTRY. *INTERNATIONAL JOURNAL OF MANAGEMENT AND MARKETING RESEARCH*, 10.
82. POLYAKOVA, O. a. (2015). Perceived service quality models: are they still relevant? *The Marketing Review*, 24.
83. Prabuvengatesh T, 2. D. (2016). Customer perception measuring service quality provided by Airtel telecom services in Coimbatore . *International Journal of Multidisciplinary Research and Development*, 6.
84. PREMKANTH, P. (2011). SERVICE QUALITY AND CUSTOMER SATISFACTION IN SRILANKA TELECOM . *Journal of Global Management Research*, 10.
85. Prof. R.C.S. Rajpurohit*, D. M. (2011). CONSUMER PREFERENCES AND SATISFACTION TOWARDS VARIOUS MOBILE PHONE SERVICE PROVIDERS AN EXPLORATORY STUDY IN JODHPUR CITY, RAJASTHAN. *Gurukul Business Review (GBR)*, 11.



86. Quansah, A. B. (2015). A Good Quality Service Provision in the Network Service in Ghana: A Case Study of MTN Ghana . *International Journal of Marketing Studies*, 13.
87. R. GEETHANJALI, *. M. (2013). A Study on consumer preference and fulfilment in subscribing mobile network service with special reference to Madurai city. *Journal of Exclusive Management Science*, 16.
88. Rahhal, W. (2015). The Effects of Service Quality Dimensions on Customer Satisfaction: An Empirical Investigation in Syrian Mobile Telecommunication Services. *International Journal of Business and Management Invention*, 9.
89. rahman, m. h. (2014). Factors aFFecting customer satisFaction in mobile telecommunication industry in bangladesh. *Business, ManageMent and education* , 20.
90. Rajkumar1, R. P. (2011). Service Quality and Customers Preference of Cellular Mobile Service Providers . *Journal of Technology Management & Innovation*, 8.
91. Rareşa, O. D. (2014). Measuring perceived service quality offline vs. online:a new PeSQ conceptual model. *Procedia Economics and Finance*, 14.
92. Ren Ye, D. D. (2011). An Examination of Service Quality Dimensionality and Positive Word-Of-Mouth Intentions in a Chinese Telecommunication Context. *Deakin University*, 10.
93. Research, I. J. (2011). customers perception towards mobile services and their influencing factors in the choice of service providers. *malaysia: international islamic university malaysia*.
94. Roostika, R. (2011). The Effect of Perceived Service Quality and Trust on Loyalty:Customer's Perspectives on Mobile Internet Adoption. *International Journal of Innovation, Management and Technology*, 6.
95. Samea, A. S. (2010). Developing the Models of Service Quality Gaps: A Critical Discussion. *Business Management and Strategy*, 11.
96. Saowanee Srikanjanarak a, A. O. (2009). Value Added Service and Service Quality from the Customer's Perspective: An Empirical Investigation in Thai Telecommunication Industry. *ASEAN MARKETING JOURNAL*, 12.
97. Seyed Yaghoub Hosseini, M. B. (2013). Providing a Multidimensional Measurement Model for Assessing Mobile Telecommunication Service Quality (MS-Qual). *Iranian Journal of Management Studies (IJMS)*, 24.
98. Shah, C. (2012). Consumer Preferences for Mobile Service Providers: An Empirical Study in Bardoli. *International Journal of Marketing and Technology*, 20.
99. Shahriar Akter, J. D. (n.d.). Service Quality of mHealth: development and validation of a hierarchical model using PLS . *Service Quality of mHealth Platforms*, 36.
100. Shu, X. (2010). A Hierarchical Model of the Chinese Mobile Communications Market: An Empirical Analysis . *CHRISTCHURCH, New zealand: Lincoln University Digital Thesis*.
101. Siew-Phaik Loke, A. A. (2011). Service Quality and Customer Satisfaction in a Telecommunication Service Provider . *International Conference on Financial Management and Economics* , 6.
102. Simon Gyasi Nimako1, F. K.-B. (2012). Confirmatory factor analysis of service quality dimensions within mobile telephony industry in Ghana. *The Electronic Journal Information Systems Evaluation*, 19.
103. Singh, D. A. (2015). Dimensionality of Service Quality in Mobile Industry. *THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT*, 7.
104. Sulaimon Olanrewaju ADEBIYI, H. A. (2016). DETERMINANTS OF CUSTOMER PREFERENCE AND SATISFACTION WITH NIGERIAN MOBILE TELECOMMUNICATION SERVICES . *BVIMSR's Journal of Management Research* , 12.
105. Suuroja, M. (2003). Service quality- Main conceptualizations and critique . *University of tartu, Faculty of economics and business administration* , 27.
106. Syeda rownak afza. (2015). *Measurement of Service Quality in Bangladesh mobile phone sector: Issues, Standards and Practices*. Dhaka: Dhaka university.
107. Tung, F.-C. (2013). Customer satisfaction, perceived value and customer loyalty: the mobile services industry in China . *African Journal of Business Management* , 8.
108. Uprety*, A. C. (2013). Identification of Telecom Service Quality Dimensions in India with fuzzy analysis. *Global Journal of Management and Business Studies*, 8.
109. V*, K. (2012). THE IMPACT OF SERVICE QUALITY ON CUSTOMER SWICHTING IN TELECOMMUNICATION INDUSTRY JAFFNA DISTRICT, SRILANKA. *ZENITH International Journal of Business Economics & Management Research*, 10.
110. VICTORIA MOJISOLA OSHO, P. O. (2016). IMPACT OF SERVICE QUALITY ON CUSTOMER SATISFACTION IN THE TELECOMMUNICATION INDUSTRY . *Academic Discourse: An International Journal*, 12.
111. VIJ*, R. (2012). STUDY OF CUSTOMER PERCEPTION OF TELECOMMUNICATION SERVICE PROVIDERS IN HIMACHAL DISTT SOLAN . *Asian Journal of Multidimensional Research*, 22.
112. Vikas GAUTAM, M. K. (2011). An Empirical Investigation of Factors Determining the Consumers' Choice of Mobile Service Providers. *İşletme Araştırmaları Dergisi 3/4 (2011)*, 15.
113. Wu, H.-C. (2012). An Examination of Service Quality in the Gaming Industry in Macau. *International Conference on Economics Marketing and Management (p. 5)*. Singapore : IPEDR.
114. Yarimoglu, E. K. (2014). A Review of Service and E-Service Quality Measurements: Previous Literature and Extension. *Journal of Economic and Social Studies*, 32.
115. Yong Jae Ko, D. L. (2005). A Hierarchical Model of Service Quality for the recreational sport industry. *Sport MarHeting Quarterly*, 16.