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**THE TELECOM SECTOR & THE STUDY OF SERVICE QUALITY:
A THEORETICAL GLIMPSE**

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Abstract

After two decades of formulation of the National Telecom Policy (NTP) in 1999 The Indian telecom industry is passing through complex times. The mobile phone has transformed into a persuasive medium to deliver information services spanning various usage areas such as governance, commerce, agriculture, education and health. Standing tall by being the second-largest telecommunications market in the world next to china, the industry has now billion plus subscribers. Comprising of major sectors like telephony, internet and broadcasting the industry is contributing significantly in country's GDP and job growth. Lowest tariffs, Mobile portability and various services have resulted in a dynamic and hyper competitive market. With a ferocious battle taking place between the established biggies and the new entrants the companies that will survive the competition will be the ones being able to differentiate themselves on the basis of service quality.

In today's competitive environment customer occupies the central place in business & retaining a satisfied customer can pay more as compared to attracting new one. Considering India at the cusp of a data revolution and telecom being the backbone this study examines the impact of service quality and service value on customer bonding. The study aims to provide a better understanding and analyse the gap in service quality of Telecom sector in terms of customers' expectations and perceptions using the SERVQUAL and other models.

Key words: Service Quality, Telecom, Telecommunication Industry, Customer Satisfaction, India, Perception and Expectation, Cellular, Customer, Gap Analysis, SERVQUAL.

1. Introduction

The Telecommunications Industry of India is one of the vast and leading industries in the world connecting different parts of the country through various modes like telephone, radio, television, satellite and internet. The Telecom Regulatory Authority of India [TRAI] governs this industry by providing a regulatory framework and favourable environment for its efficient operation.

With a cut-throat competition the services offered by this industry are easily accessible at affordable prices to the customers of urban and rural areas of India. The common man has benefited from lower prices and access to communication services at the same time has an access to wide variety of choices. The importance of services has fuelled the entire ecosystem resulting in an indispensable focus on service quality and relationships among several dimensions.

Service quality today is indispensable for any business enterprise. For a business to survive building a customer satisfaction and brand loyalty is a must and no business can flourish without meeting the needs of its customers. Attracting a new customer is difficult and costly as compared to retaining an existing one which is directly proportional to Customer Satisfaction and to ensure a high level of customer satisfaction, organisation must first know customers' expectations and how can they meet such expectations. That is what organisations do: they serve people's needs. Service quality cements a healthy relationship between customers & organisation. A two-way flow of value it implies that the customer benefits and derives real value from the relationship which translate into value for the organisation in the form of increased profits and sustainability. The paper examines theoretical perspectives on Services & Service Quality in telecommunication industry specifically as a means to achieve customer satisfaction.

A huge amount of research has been conducted on different aspects of service quality over last few years, leading to a sound conceptual base for both practitioners and researchers. The study attempts to analyse the gap in service quality of Telecom sector in terms of customers' expectations and perceptions regarding mobile phone services. It is important to explore and map the differences which indicate that there is scope for betterment on behalf of the cell phone service providers. In view of the inflexible competition in the global business arena where businesses have to survive and grow on the basis of volume instead of margin, service quality will constitute an essential plank of service marketing. Gap reduction in customer expectations will have to be the main focus of Telecom companies if they are to compete in this hyper competitive market. To this end, telecom companies should continually evaluate and reevaluate how customers perceive their services and to implement appropriate corrective action for retaining the existing customers and getting new customers. This paper will provide a firm understanding of Service Quality.

2. Literature Review

2.1. Services

Service is an activity to fulfil some one's need in the market. It can be experienced but cannot be touched or seen. It is an action of doing something for someone or something. They are experiences that are consumed at the point of purchase, and cannot be owned. Services perish quickly and includes deeds, processes and performances. On the other hand we can say services can compute as all economic activities whose output is not a physical product or whose

construction is generally consumed at the time it is produced and which provides added value that are essentially intangible.

Some basic definitions of service as defined by Management Gurus are:

“A service is any activity or benefit that one party can offer to another which is essentially intangible and does not result in the ownership of anything.” By Kotler, Armstrong, Saunders and Wong²

“Services are economic activities that create value and provide benefits for customers at specific times and places as a result of bringing about a desired change in or on behalf of the recipient of the service.”By Christopher Lovelock²

“Services are the production of essentially intangible benefits and experience, either alone or as part of a tangible product through some form of exchange, with the intention of satisfying the needs, wants and desires of the consumers.”By C. Bhattachargee

Wilson et al. (2008) defines services with following distinctive characteristics:

- **Intangibility:** Services cannot be touched, seen smelled or tasted
- **Inseparability:** Services are produced and consumed simultaneously. At the point where service is provided both provider and consumer are present and cannot be separated.
- **Heterogeneity:** The quality of services varies as they are produced by people at different time interval. It's difficult to reproduce them.
- **Perishability:** Services can't be stored and they can neither be returned nor resold.

2.2. Service Quality

The term 'Service Quality' is an association of two different words; 'service' and 'quality'. Service means "any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything."

Quality has come to be acknowledged as a strategic tool to accomplish functional productivity and better presentation of business. Service quality' means the ability of a service provider to satisfy customer in an efficient manner through which he can better the performance of business.

Service quality is required for creating customer satisfaction and is connected to customer perceptions and customer expectations. Service quality is a result of customer comparison between their expectations about the service and their perceptions about the service company argues **Oliver (1997)**. This implies that if the perceptions exceed the expectations the service will be considered excellent, if the expectations equal the perceptions the service will be considered good and if the expectations are not met the service will be considered bad.

For service providers, the pursuit of service quality is essential for competitiveness and gaining momentum. According to business administration perspective, service quality is an achievement in customer service. Mathematically, It is a comparison of perceived expectations (E) of a service with perceived performance (P) thus, giving rise to the equation $SQ = P - E$.

In the service sector too 'quality' is an important element for the success of business. It is because of the realization of its positive link with profits, increased market share, customer satisfaction. Several earlier studies and authors pointed out that quality concept in service is different from the concept prevalent in the goods sector. The reasons for such a treatment are inherent features of services like intangibility, inseparability from the provider, heterogeneous etc. Hence there is a distinct frame work for quality explication and measurement.

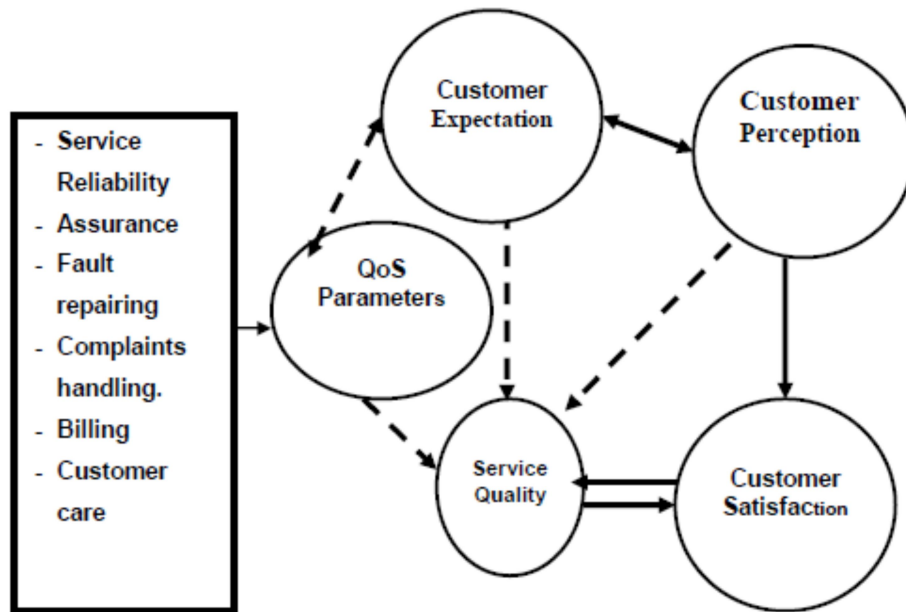


Fig: Service Quality, Service Parameters & Customer Satisfaction (Source:A Study of Mobile Services from Customers' Perspective)

2.3. Service Quality in the Sight of Various Authors

The term 'Service quality' is harder to define and judge. Number of authors tried to define it and give definitions in different point of views.

According to **Philip Kotler and Gary Armstrong** "service quality is the ability of a service firm to hang on to its customer. That is, in their opinion customer retention is the best measure of service quality".

The Service Quality as perceived by its customer has two dimensions - technical or outcome dimension and the function or process related dimension suggested **Christian Gronroos**.

Service quality is "the delivery of excellent or superior service relative to customer expectation", as defined by **A. Parasuraman, Valarie A. Zeithaml and L. Berry**. They have conducted extensive research into service quality and identified ten criteria in evaluating service quality.

According to them it is the overall judgement of excellence of service or the difference between one's expectation and actual services performed.

According to *Ladhari, 2009* Service quality not just provides a company a competitive edge but is also an important factor to sustain growth. *Wisniewski & Wisniewski, 2005* suggested that consumer expect a qualitative service which creates pressure on businesses to better understand and evaluate service quality. Service Quality is important factor related to cost and customer satisfaction (*Howat et al. 2008, Chen 2008*).

Churchill and Suprenant (1982) consider that service quality is involved in subjective cognition. In other words, consumers decide it subconsciously instead of by an objective judgment.

The concept 'service quality' is not an independent term, means, its formation depends upon several factors related to service and service firms. These factors are grouped into five broad dimensions including reliability, responsiveness, assurance, empathy and tangibility.

So, from the above discussions it is clear that the service quality is a difficult concept to define in a single definition. This idea seems to mention several different areas, namely, quality of the output, quality of the process, quality of the delivery system and quality as a universal philosophy of the firm.

3. Measuring Service Quality

Various tools and techniques are used to measure service quality and as a result scales like The Gap model, SERVQUAL, SERVPERF and SERVCON have been widely accepted and used out of the various service quality models. Most studies focus on SERVQUAL however it has been criticized on both methodological and theoretical grounds.

3.1. The GAP Model

A customer's expectation of a particular service is determined by factors like direction personal needs and past experiences. The expected service and the perceived service sometimes may not be equal, thus leaving a gap. The service quality model or the 'GAP model' developed in 1985, highlights the main requirements for delivering high service quality. It identifies five 'gaps' that cause unsuccessful delivery. Proposed by *Parasuraman, Zeithaml & Berry* 1988.

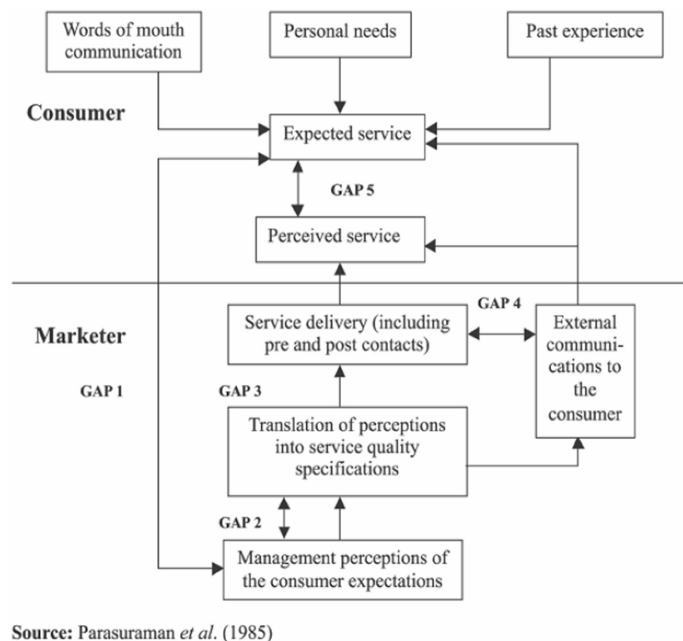


Fig: The Gap Model

Gap1-4 is Provider's Gap and Gap 5 is customer's gap. The five Gaps can be defined as.

Gap 1: Customer Expectations – Management Perceptions Gap

Gap 2: Management Perceptions - Service Quality Specifications Gap

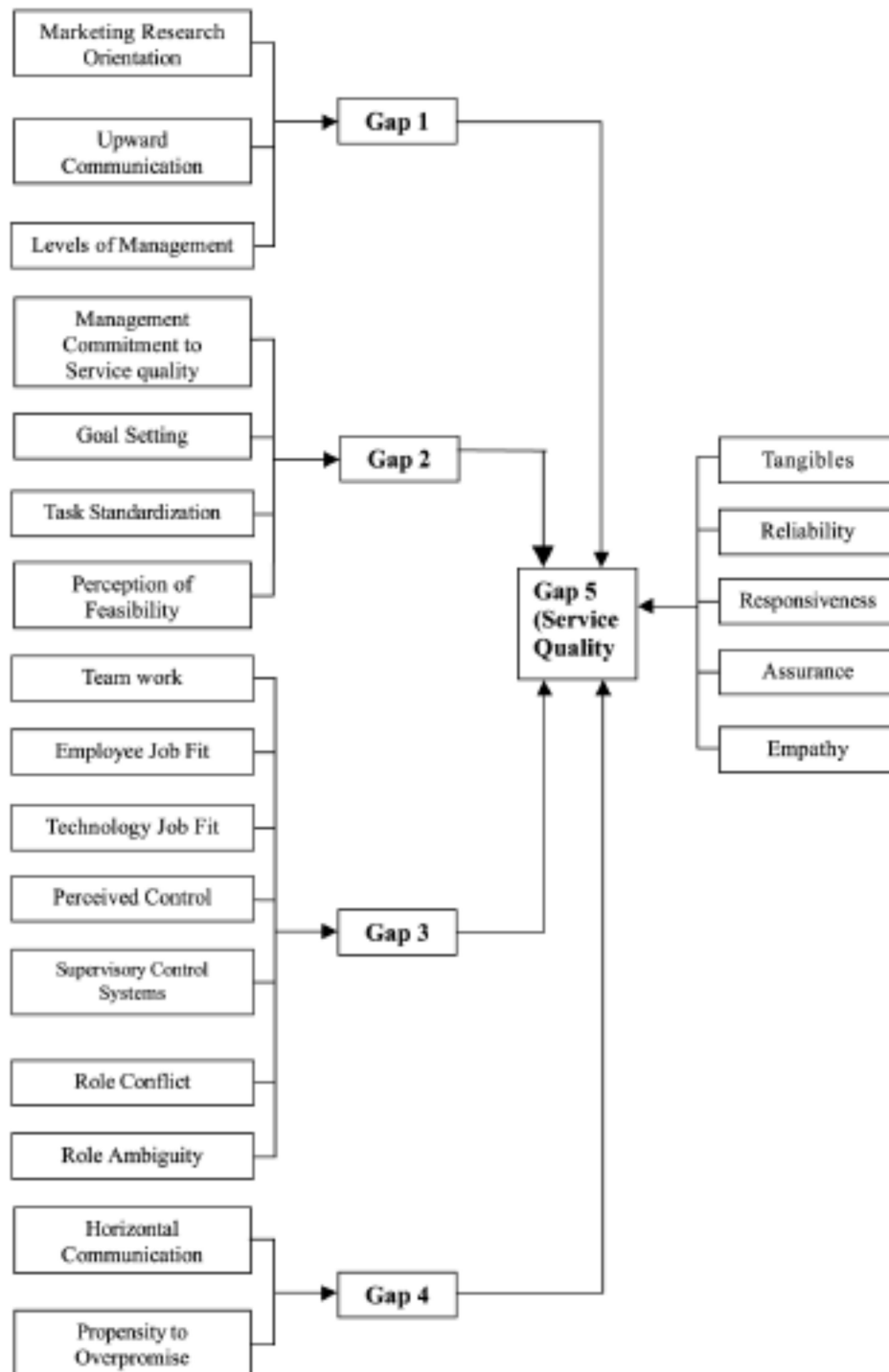
Gap 3: Service Quality Specifications - Service Delivery Gap

Gap 4: Service Delivery - External Communications Gap

Gap 5: Expected Service - Perceived Service Gap (or the Service Performance Gap)

3.2. The SERVQUAL Model

Parasuraman et al. conducted exploratory investigation in order to define service quality. They found irrespective of the type of services consumer use similar criteria. 10 dimensions were identified and labeled as "Service Quality Determinants". This most widely used model originally consisted of 97 items and ten dimensions which were later reduced to 22 items measuring 5 dimensions. Although SERVQUAL has been widely used most of the SERVQUAL related problems centre on the use of difference scores and the measurement of expectations. SERVQUAL was built on the theory that Service quality is best measured as the gap between customers expectation and the performance they perceive. Major widespread concern of the model is the 5-dimension configuration of the scale and the appropriateness of operationalizing service quality as expectation- performance gap.



Source: Zeithaml *et al.* (1988)

Fig: The Extended SERVQUAL Model

Van Dyke, Kappelman, and Prybutok (1997) challenge theoretically, pointing out that there is no cognitive evidence that respondents reason in this manner, and methodologically, regarding the calculation and validation of difference scores. Even SERVQUAL's creators, *Parasuraman, Zeithaml, and Berry* found performance scores operationally superior to difference scores.

3.2. The SERVPERF Model

Since the gap theory of service quality proposed by Parasurman et al. was supported by little empirical or theoretical evidence, a “Performance based” service quality measurement scale, SERVPERF was developed by *Cronin and Taylor 1992*. While SERVQUAL identifies service quality by comparing the perception of services received with the expectations, SERVPERF maintains only the perception of service quality. While SERVQUAL doesn’t study the service quality, SERVPERF provides analysis on the service quality. Superiority of SERVPERF has been demonstrated in numerous studies however wide acceptability and use of SERVQUAL suggests consensus regarding it’s superiority has not been yet reached. (*Brady et al. 2002*)

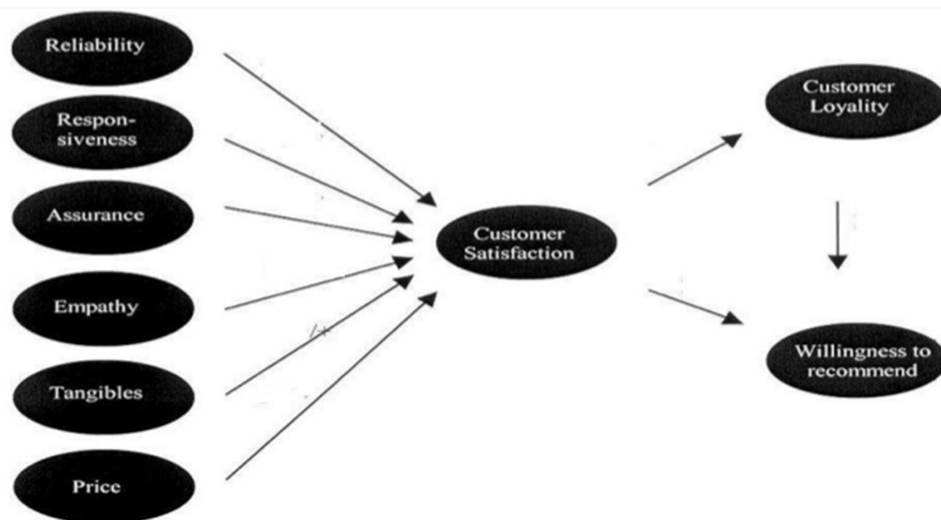


Fig: The SERVPERF Model

3.3. The SERVCON Model

The rise of customer demand in terms of convenience of service exchange has lead researchers to construct a Conceptual model. The model conceptualizes service convenience as a second-order, five-dimensional construct that reflects consumers’ perceived time and effort in purchasing or using a service.

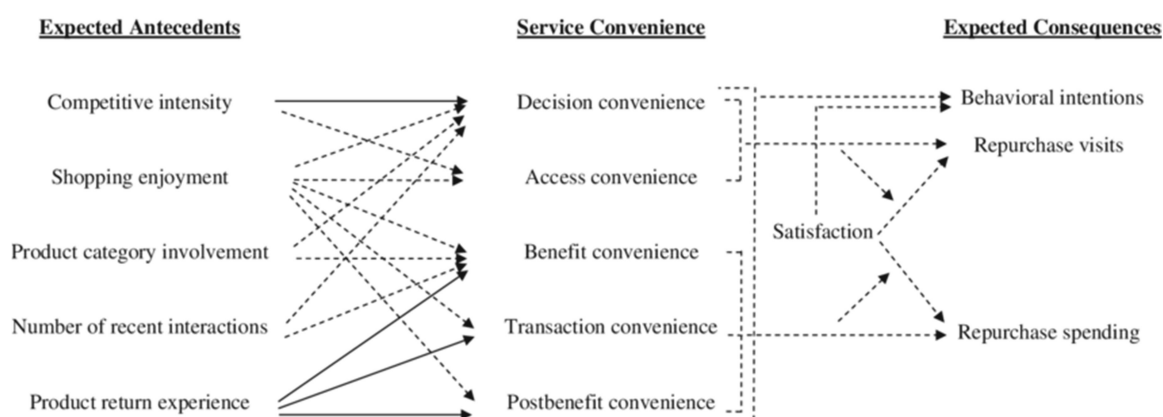


Fig: The SERVCON Model

The SERVCON scale, is a comprehensive instrument for measuring service convenience. The five dimensions are independent within a nomological network that illustrates distinct antecedent and consequent effects, and the results reinforce the multidimensional representation, offering insight into the distinctive relationships between each service convenience dimension. As an applicative tool SERVCON scale should be implemented fully and determine how individual dimensions' influence customers' perceptions and behaviour.

4. Dimensions of Service Quality

The above models and concepts reveals one fact that, the concept 'service quality' is not an independent term, means, its formation depends upon several factors related to service and service firms. Taking into consideration the various models of service quality the Service Dimensions were initially classified into ten categories ie.

The Long List. Comprising of *Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding/Knowing the customer, Tangibles*. These factors were then assembled into five broad proportions that is reliability, responsiveness, assurance, empathy and tangibility.

4.1 Reliability

Reliability is defined as the ability to perform the promised service dependably and accurately. In broad sense reliability means, service firms' promises about delivery, service provisions, problem resolutions and pricing. Customers like to do business with those firms, who keep their promises. So it is a crucial element in the service quality perception by the customer and his faithfulness. Hence the service organizations need to be aware of customer need of reliability. In the case of telecom services, the reliability dimension includes - regularity, attitude towards complaints, keep customers informed, consistency, procedures and more.

4.2 Responsiveness

Responsiveness is the desire to help customers and to provide service. This dimension focuses the customer requests, questions, complaints and problems. It also focuses on punctuality, presence, and professional commitment etc., of the employees or staff. It can be calculated on the length of time customers wait for assistance, answers to questions etc. The conditions of responsiveness can be improved by continuously view the process of service delivery and employee's attitude towards requests of customers.

4.3 Assurance

The third dimension of service quality is the Assurance dimension. It can be defined as employee's knowledge, courtesy and the ability of the firm and its employees to inspire trust and confidence in their customers.

4.4 Empathy

Another dimension of service quality is the Empathy dimension. It is defined as the caring, individualized attention provided to the customers by their service firms. This dimension tries to convey the meaning through personalized or individualized services that customers are unique and special to the firm. The focus of this dimension is on variety of services that satisfies different needs of customers, individualized or personalized services etc. In this case the service providers need to know customer's personal needs or wants and preferences.

4.5 Tangibility

The fifth dimension of service quality is the Tangibility which is defined as the appearance of physical facilities, equipment's, communication materials and technology. All these provide enough hints to customers about the quality of service of the firm. Also, this dimension enhances the image of the firm. Hence tangibility dimension is very main to company and they need to invest heavily in arranging physical facilities.

Reliability	1. Providing services as promised. 2. Dependability on handling customers' service problems. 3. Performing services correctly the first time. 4. Providing services at the promised time. 5. Maintaining error-free records.
Responsiveness	6. Keeping customers informed about when services will be performed. 7. Prompt service to customers. 8. Willingness to help customers 9. Readiness to respond to customers' requests.
Assurance	10. Employees who instill confidence in customers. 11. Making customers feel safe in their transactions. 12. Employees who are consistently courteous. 13. Employees who have the knowledge to answer customer questions.
Empathy	14. Giving customers individual attention. 15. Employees who deal with customers in a caring fashion. 16. Having the customer's best interest at heart. 17. Employees who understand the needs of their customers. 18. Convenient business hours.
Tangibles	19. Modern equipment. 20. Visually appealing facilities. 21. Employees who have a neat, professional appearance. 22. Visually appealing materials associated with the service.

Fig: 5 SERVQUAL dimensions and 22 Factors for assessing Service Quality

5. The Telecom Sector in India

Telecommunication has emerged as an economic miracle transforming the lives of millions and shaping the socio economic development of Digital India. One of the prime support services needed for rapid growth and modernisation the major milestones can be marked by development of wireless, mobile and broadband communication leading to the Next Generation Networks and Satellites and the Tower and resource sharing economies.

A 165-year-old sector the Tele-density of Indian telecom industry (wireless plus wire line) has grown from a low of 3.60% in March 2001 to 84% in March 2016. Future technologies like

mobility, analytics, cloud, Internet of Things (IoT) and Machine to Machine (M2M) will play a key role. With the telecom industry undergoing a transformational change in last decade the mobile operators have successfully adopted innovative models to sustain growth. According to an estimate the telecom industry contributed to 6.5% of India's GDP while providing direct and indirect employment to four million people in 2015. One of the fastest growing sector with annual growth rate (CAGR) of 7.3 percent in the last decade.

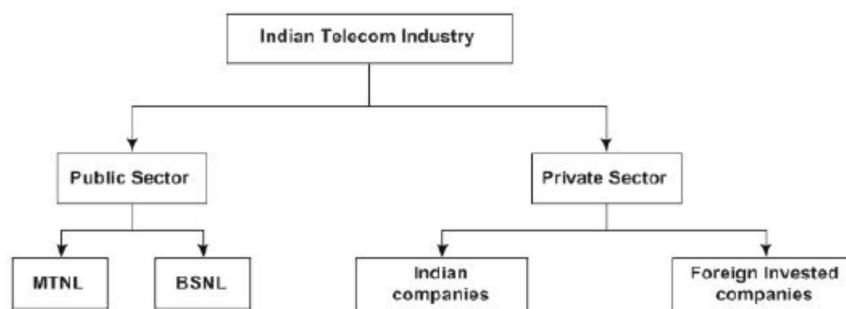


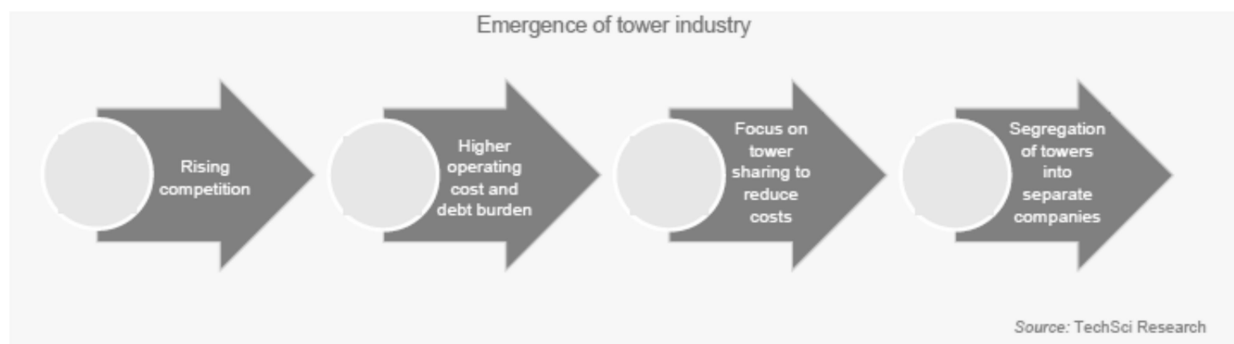
Fig. 3

Source: D&B Research

Apart from this classification of Telecom industry based on ownership into public and private sector the Indian telecom Market can be split into three segments:

1. Mobile (Wireless) : Comprises establishments operating and maintaining switching and transmission facilities to provide direct communications via airwaves
2. Fixed-line (wireline) : Consists of companies that operate and maintain switching and transmission facilities to provide direct communication through landlines, microwave or a combination of landlines and satellite link-ups.
3. Internet services : Includes Internet Service Providers (ISPs) that offer broadband internet connections through consumer and corporate channels

A surge in the subscriber base has necessitated network expansion covering a wider area, thereby creating a need for significant investment in telecom infrastructure. To curb costs and focus on core operations, telecom companies have been segregating their tower assets into separate companies. Inspired by the success seen by Indian players in towers business, most of the operators around the world are replicating the model.



With 70 per cent of the population staying in rural areas, the rural market would be a key growth driver in the coming years. The country has a strong telecommunication infrastructure and In terms of telecommunication ratings, India ranks ahead of its peers in the West and Asia. Competition among telecom companies is extremely high and the pace of transformation of the industry over the course of last year has been astonishing, even by its own standards. Jio's entry in the market in September 2016 has shifted the battle from voice to the data front. It has given rise to a consolidation wave that has swept the industry due to escalated levels of competition.

Therefore, telecom companies should continually assess and reassess how customers perceive their services and implement appropriate corrective action for retaining the existing customers and getting new customers.

6. Telecom Services

Keeping in view the service quality models and service expectations the service in the telecom industry can be comprehensively classified as shown in the figure below and are an important determinant in selecting the Service provider.

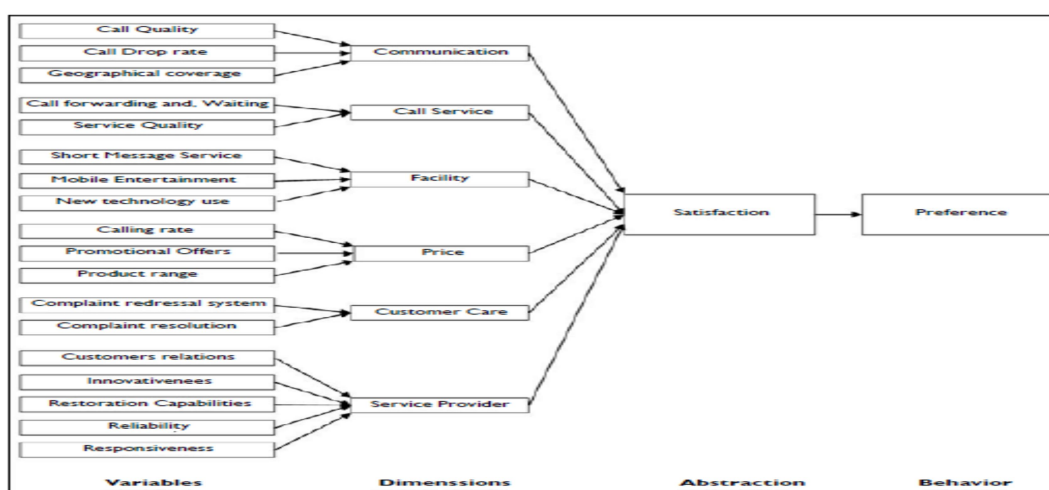


Fig. Telecom Service Quality

7. ResearchMethodology

Service quality can be measured by soft measures and hard measures. Soft measures are those that cannot easily be observed and must be collected by talking to customers, employees or others. Under this method the telecom can measure quality in the following ways.

- **Customer Satisfaction Surveys:**Under this method individual customers or corporate customer may be asked to rate their specific and overall impression of service delivery. For this a questionnaire or interview schedule can be used. Besides this, focus group interviews and other market research techniques can be utilized for this purpose.
- **Internal Performance Analysis:**In this method employee surveys are conducted to determine perception of the quality of service delivered to customers on specific dimensions. Also, feedback from quality circles, performance evaluation reports, customer retention levels etc., provide information to monitor quality of services.

Hard measures of service quality This method includes those characteristics and activities that can be counted, timed or measured through audits. Various techniques can be used to make changes such as: **Quality Function Deployment (QFD)**. The relationship between service quality and customer satisfaction has received considerable attention in academic literature. The results of most research studies have indicated that the service quality and customer satisfaction are indeed unconventional but are closely related that and a rise in one is likely to result in an increase in another setup.

8. Conclusion

In the increasing competitive market, especially telecom market, the focus on service quality is essential to service firms for their survival and success. The management of service quality helps the management to maintain consistency in service delivery and to meet changing customer expectations more efficiently and effectively. Also, it provides some benefits to firms such as, service differentiation from competitors, better image, higher profitability, increased customer satisfaction, increase customer retention and loyalty, staff morale, productivity etc. Hence measurement of service quality is an inevitable task to the service firms, especially telecom companies.

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