CHAPTER – 1

INTRODUCTION

The ‘Quality’ movement can be traced in the late 13th century, where craftsmen began organizing unions called guilds. Until the 19th century, manufacturing in the industrialized world tended to follow this craftsmanship model. The factory system, with its emphasis on product inspection, started in Great Britain in the mid-1750s and grew into the industrial revolution in the early 1800s. In the early 20th century, manufacturers began to include quality practices in production process. Quality became a critical component when the United States entered World War II. Application of quality was mainly developed by the procurement directorates of NASA, the military and nuclear industries from the 1960s. Many American leaders have played different roles in developing quality concept. Among those leaders Joseph M. Juran and W. Edwards Deming come up with remarkable approaches in developing quality concept as well as total quality management. The birth of total quality movement in the United States led to the quality revolution in Japan. The Japanese welcomed the inputs of American leaders Joseph M. Juran and W. Edwards Deming and focused on improving all organizational processes through the people who used them. In 1970s, U.S. industrial sectors such as automobiles and electronics were attacked by Japan’s high quality competition. The quality movement emphasized on the entire organization and became total quality management (TQM). New quality systems have evolved from the foundations of Deming, Juran and the early Japanese practitioners of quality and quality concept has moved beyond manufacturing and entered into service, health care, education and government sectors.

1.1 Concept of ‘Service’:

Service is a type of economic activity which is intangible, not stored and does not result in ownership. A service is consumed at the point of sale. Service is one of the key components of Economics.

According to Philip Kotler, “Service is an act of performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product”
American Marketing Association defines service as -“Activities, benefits and satisfaction which are offered for sale or are provided in connection with the sale of goods”.

**Hassenfeild and Richard** (1974) defined service as, “Action of organizations that maintain and improve the well being and functioning of the people”.

Service can also be defined as per its characteristic features as given below:-

**Intangibility**: Services are intangible and do not have a physical existence. Hence, they cannot be touched, held, tasted or smelt.

**Heterogeneity/variability**: Given the very nature of service, each service offering is unique and cannot be exactly repeated even by the same service provider.

**Perishability**: Services cannot be stored, saved, returned or resold once they have been used. Once rendered to a customer the service is completely consumed and cannot be delivered to another customer.

**Inseparability**: This refers to the fact that services are generated and consumed within the same time frame.

### 1.2 Service quality:

**Zeithmal and Bitner** (2003:85) state that “service quality is a focused evaluation that reflects the customers’ perception of specific dimensions of service: reliability, assurance, empathy and tangibility. Satisfaction, on the other hand, is more inclusive. It is influenced by perception of service quality, product quality, and price as well as situational factors and personal factors.

Service quality (SERVQUAL) is a multi-dimensional research instrument which consists of five dimensions designed to measure consumer expectation of service with perceived performance. A team of academic researchers A. Parasuraman, Valarie Zeitheml and Leonard L.Berry published SERVQUAL questionnaire in 1998 to measure quality in service sector and it was a breakthrough in service quality research. The questionnaire consists of both expectation and perception components with a total of 22 items. Later, these 22 items were merged and developed into five dimensions: **Tangibility** consisting 4 items, **Reliability**
consisting 5 items, **Responsiveness** consisting 4 items, **Assurance** consisting 5 items and **Empathy** consisting 5 items. The instrument was developed over a five years period; was tested, pre-tested and refined before appearing in its final form. It has been widely used and adopted in service quality of numerous industries and various geographic regions.

**SERVQUAL Dimensions**

- **Tangibles**
- **Reliability**
- **Responsiveness**
- **Assurance**
- **Empathy**

**External Factors influencing expectation**

- **Expectation** (Expected Service)
- **Perception** (Perceived Service)
- **Gap 5**
- **Perceived Service Quality**

Source: Service quality model (Parasuraman et al 1985)

Tangibles – Physical facilities and facilitating goods.

Reliability – Performing promised service dependably and accurately

Responsiveness – Willingness to help customers promptly

Assurance – Ability to convey trust and confidence

Empathy – Describes politeness, respect, informing the customer in a language they can understand.

**1.3 Review of Literature**

Review of literature contains reviews of various research works done on service quality of Telecom sector at national and international level and categorizes the collected literature as, service quality models, customers’ perception, customers’ expectation, customers’ satisfaction, switching behavior and loyalty towards cellular services. It also covers other service sectors like, Banking, Insurance, and Airlines etc.
1.3.1 Dimensions of service quality

As per reviews, many literatures have strongly highlighted two models, which are basic models of service quality propounded by Gronroos and Parasuraman et al.

Gronroos (1984) identified three components of service quality namely technical quality, functional quality and image. Technical quality is the quality of what consumer actually receives as a result of his/her evaluation of the quality of service. Functional quality is about how he/she gets the technical outcome. This is important to him/her and to his/ her views of service he/she has received. Image is very important to service firms and it can be expected to build up mainly on technical and functional quality of the service including the other factors like tradition, ideology, words of mouth, pricing and public relations.

![Diagram of Service quality technical and functional quality model (1984)](image)

Further, this exploratory research was refined with their subsequent scale named SERVQUAL for measuring customers’ perceptions of service quality in 1988. At this point, the original dimensions of service quality collapsed into five dimensions: Reliability, Responsiveness, Tangibles, Assurance and Empathy.

In the year 1991, SERQUAL was revised by replacing the word, “should” with “would”. The author characterized and further delineated the four gaps identified in their research of 1985. This led to extended service quality model. According to this extended model, most of the factors involve communication and control process implemented in organizations to manage employees.

William Bouleling, Ajay Kalra, Richard Staelin and Valarie A. Zeithaml (1993) revealed behavioral process model of perceived service quality. Perception of the dimensions of service quality are viewed to a function of a customer’s prior expectation of what should transpire during a service encounter as well as the customer’s most recent contact with the service delivery system. These perceptions of quality dimensions form the basis for a person’s overall quality perception, which in
turn predicts the person’s intended behaviors. The author first tested this model with data from a longitudinal laboratory experiment. Then they developed a method for estimating the model with one-time survey data, and re-estimated the model using such data collected in field study. Empirical finding from the two tests of the model indicate, among other things, that the two different types of expectations have opposing effects on perceptions of service quality and that service quality perceptions positively affect intended behaviors.

George Philip and Shirley Ann Hazlett (1996) focused heavily on most renowned service quality measurement tool that has been developed namely SERVQUAL in order to assess the problems that exist in trying to develop one emphatic measurement tool for the service industry. As a whole, the enormity of such a task may have proved to be impossible while the contribution of the SERQUAL scale to the service quality literature remains irrefutable. It is found that five dimensions do not adequately address some of the more critical issues associated with the assessment of individual services. Against this back-drop, they put forward P-C-P model (Pivotal – Core – Peripheral Model) which they believe has the ability to span any service sector. It has proposed a skeletal framework within to consider respective services. Study concluded that the P-C-P model provides a simple, highly effective, general framework for assessing the service quality of any service sector.

Maive Suuroja (2003) suggested that perceived service quality rather be considered as evaluation of a particular service, not as a gap between the performance of service providers and some kind of norms or expectations. The results indicated that the formation of service quality evaluation can be a highly complex process that may operate at several levels of abstraction. Research indicates that the attributes of service quality, evaluations are connected with either interaction or tangibles, but firms need more concrete attributes to measure and manage their service quality. Study has exposed the need for a customized approach to service quality dimensions in different service sectors, depending on the specific features of services. Recent attempts to standardize the dimensions of perceived quality have borne no fruit. It is recommended that future research should explore the unique attributes of service quality perception in different service sectors and study the possible regularities of the evaluated attributes in sectors of similar type.
Gi – Du Kang and Feffery Fames (2004) examined service quality by considering service industry. The study has focused on Gronroos’s model – functional quality, technical quality and image. It has revealed that theoretical results did confirm the five factor structure of the SERQUAL instrument. A unique contribution of the study was going beyond the five – factor structure and studying for functional quality. The high correlation between the five SERQUAL factors suggested that the constructs are represented by a second – order latent variable of functional quality. A second finding of the study is the confirmation of the multidimensional nature of service quality supporting the European perceptive. The results indicated that functional and technical quality influence perceptions of overall service quality. A final finding of the study has documented the influence of functional quality on an individual’s image of an organization. The direct effects of functional and technical quality on overall service quality were comparable. The findings suggest that the interaction between a consumer and an organization’s representatives does have an important influence on a consumer’s image of the organization and subsequent evaluation of service quality.

Nithin Seth, S.G.Deshmukh and Prem Vrat (2004) have reviewed 19 different service quality models in their study. They revealed that service quality outcome and measurement depends on the type of service setting, situation, time, need etc. It is also found that customer’s expectations towards particular services are also changing with respect to factors like, time, increase in the number of encounters with a particular service, competitive environment and other factors.

Sandhya Joshi, Praveen Khurana and Shashi Khurana (2010) explored the key dimensions of service quality influencing mobile services in the telecom sector. It is found that the dimensions like network quality, responsiveness and other dimensions considered important dimensions influencing customer satisfaction. The study suggested that mobile service providers have to give more importance to network quality, which has an influence on customer satisfaction.

Ali Ramezani Ghotabadi, Rohaizat Baharan and Setareh Feiz (2012) focused on different service quality models. SERQUAL is the most common model used by researchers and it has different dimensions regarding the field of service sector. But, it is not comprehensive and suitable for different applications. The hierarchical model
has covered weakness of other models. It has strong structure and specifies the factors of customer perspective as well. Moreover, hierarchal measurement considers service outcomes. Results show the hierarchical instrument as the most advantageous approach to service quality assessment. Study concluded that the hierarchical service quality is the most suitable and helpful measurement for managers to collect the right information and make the right decisions.

Aurelio G. Mauri, Robert Minazzi and Simonetta Muceio (2013) analyzed the 30 years of research on the gap model proposed by Parasuraman, Zeithaml, and Berry in the 1980s. A review has been conducted from 1985 to 2013 to underline the model evolution and its criticisms, major international academic database have been consulted. The paper summarized some theoretical – conceptual and methodological – operational critical aspects identified by the scholars who analyzed and applied the model. The main objective of the study was to understand the state of art of the research on service quality measurement and identify future path of study. Critical literature reviews show how the gap model has been taken as starting point for a number of theoretical and practical studies which have gone beyond American and European boundaries to spread all over world. The gap model remains as a reference point in literature about service quality. In addition, new technologies and the increasing dynamic nature of services underline the need for an updated and more competitive environment. Further, research has focused on the role of price and on the relation between service quality and customer satisfaction. Researcher pointed out that role of price should be analyzed in a more extensive way, considering its impact on customer expectations and purchase behavior, its relevance for quality and value assessments and in the light of the employment of revenue management techniques which are widespread in the service sector.

1.3.2 Customers’ perception and expectation

Katerina Stylianou (2006) assessed service quality in the mobile telecommunication services available in Cyprus. The study explored customers’ perception and expectation with regard to two mobile telecommunication services namely CYTA and Areeba in Cyprus. Study has selected telephone survey for data collection. A total of 150 respondents were surveyed. Findings of the study show that CYTA mobile telecommunication service organization has obtained the highest rating
in most of the items. It is found that Areeba outperforms CYTA in responsiveness. More specifically, while this dimension was the prime strength of Areeba, it was one of the main weaknesses of CYTA. It is also found that both organizations lack the efficiency to tune into their customer’s expectations as regards to reliability, the most essential determinant of service quality as appreciated by the customers.

Muhammad Asif Khan (2010) examined the dimensions of users perceived service quality of cellular mobile telephone operator in Pakistan. The study adopted SERQUAL model and 800 respondents were selected for the study. The study used confirmatory factor and multiple regression analysis for data analysis and interpretation. The result of the study shows that the dimensions like tangible, assurance, responsiveness, empathy, convenience and network quality 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, reliability, has no significant effect on customers’ perception of quality. The study suggested that telecom industry regulators should take appropriate measures to include these dimensions to safeguard customers’ interest.

Sabbir Rahman, Ahasanul Haque and Mohd Ismail Soyyed Ahmad (2010) focused on the factors that have played significant role to select telecommunication service providers. The study has collected data from the consumers of mobile phone and three mobile phone operators from major cities in Malaysia. Factor analysis, confirmatory factor analysis and structural equation model are used to test the hypotheses. The study reveals that product quality, availability, promotion and network quality are significant and important factors to influence the consumers in Malaysia’s vast mobile phone market. It is also found that corporate image is not an important factor affecting customers’ perception. Study recommended that the mobile service providers should enhance their brand name by using various activities.

Rajkumar Paulrajan and Harish Rajkumar (2011) investigated consumer’s perception while selecting cellular mobile telecommunication service providers. The data was analyzed through reliability and factor analysis. The results showed that communication and price were influential and most preferential factors in selecting telecommunication service provider and product quality and availability have a
significant impact on consumer perception in selecting cellular mobile service provider.

R.C.S.Rajpurohit and M.L.Vasita (2011) explored consumer preferences and their satisfaction level towards the mobile phone service providers of Jodhpur city, Rajasthan. The study has taken 250 respondents. The results showed that the factor that induces the consumers to buy a particular mobile phone operator is call tariff followed by network coverage and brand image. It is also found that majority of respondents are satisfied with the value added services offered by their mobile phone service providers.

Liisa Ndapewa Kaapanda (2012) identified the crucial factors in selection of mobile telecommunication service providers in the northern region of Namibia. Study reveals that customers selection of mobile service providers is influenced by overall service quality, free calls and free SMS, network capability, reliability of service, network innovativeness, low rate charges, accessibility, promotions with discount, refund and free sample, geographic network coverage, family, friends and customer care. It is also found that customers prefer subscribing to the same service provider as their family members and friends prefer. The visually appealing physical facilities, high profile customers, celebrity promotional activities and special mobile number were found to be the least influential factors in selecting mobile telecommunication service provider. The study recommended specific marketing strategies needed to enhance the success of MTSPs in this competitive market and quality service delivery to satisfy customers.

Sadananda Sahoo and Sebasis Mohapatro (2012) discussed consumer’s motives in buying cellular services in twin cities of Orissa. The result indicates that for gaining customers inclination cellular operators should care more for better network, better customer care and good services whereas, the existing customers are not satisfied with the cellular services and having well prospective for cellular service providers. The study suggested that they should give more importance to price, properties and other value-added services (VAS) as it affects decision of the consumers to a larger extent.
Md. Rifayat Islam (2012) studied the dimensions of service quality and the perceived performance of the mobile phone users in Bangladesh. The study has concentrated on reality gap analysis. Four hypotheses were taken to find the gap existing between expectation and perception in the dimensions. All hypotheses are proved significant and they all are accepted. Paired T test was used to find the results. The study concluded that the customer care centers of Bangladesh are not performing up to the satisfaction of the customers and suggested to take corrective steps to minimize the gap as early as possible.

Muhammad Sabbir Rahman (2012) focused on the determinants that are significantly influencing telecom customers’ perception in Bangladesh. The study surveyed 450 telecom customers in Bangladesh from Dhaka city to determine the key influential factors that significantly influence their perception. The study revealed that most of the consumers have great concern about the service delivery and corporate image. On the other hand, satisfaction is not very important concern for them. It is also observed that the competition among the mobile phone service providers in Bangladesh is more intense now than ever before. They compete not only for network quality by a large amount of investment in network quality, network extension and upgrading, but also for the acquisition of new customers and retention of old customers by direct and indirect price reduction. Network quality is one of the important factors of overall service quality. The study suggested that the mobile phone operators in Bangladesh must put their attention on service quality and corporate image to influence the current and potential customers.

Hashed Ahmed Nasser.M, Salniza Bt Md. Salleh and Harrid Mahmood Gelaidan (2012) study the relationship between perceived quality, perceived value, customer expectation and corporate image with customer satisfaction with mobile service in Yemen. The data was collected from 118 academic staff members in public universities in Yemen. It is found that the relationship between perceived value, perceived quality and corporate image have a significant positive influence on customer satisfaction, whereas, customer expectation has positive but without statistical significance.
Waseso Segoro (2013) analyzed the customers’ perception on service quality by measuring dimensions of call quality, price structure, mobile devices, value added services, convenience in procedure and customer support. The mooring factors are measured by attitude, social influence, switching cost, prior switching behavior and variety seeking. The relationship quality is measured by dimensions of trust, familiarity and partnering. Customer satisfaction is measured by dimensions of price, functional, technical and emotional. Customer loyalty is measured by the dimension of cognitive loyalty. The study has selected a sample of 370 cellular subscriber students at eight universities in Bandung. Structural equation is adopted by the researcher to analyze collected data. The results provide that the customer perception on service quality and relationship quality have positive correlation with mooring factors. The perception on service quality has positive direct influence on customer satisfaction. On the other hand, mooring factors and relationship quality does not have direct influence on customer satisfaction. Mooring factors are proven to be moderating variables of service quality and relationship quality to customer satisfaction and have positive relationship. Moreover, the customer perception on service quality, relationship quality and customer satisfaction has positive direct influence on the customer loyalty.

Yousef Mehdipour, Hamideh Zerehkafi and K Kali das (2013) investigated the attitude of Idea cellular customers towards Idea services. The study has considered 2600 customers randomly. The results showed that majority of the respondents prefer post paid service to pre paid and the largest segment of respondents is of Idea then comes Cell One, Airtel and Vodafone. This study concluded that most of the respondents expect improvement in services provided by Idea cellular.

Emmanuel O Oyatoye, Sulaimon O Adebiyi and Bilqis B. Amole (2013) studied consumers’ preference for mobile telecommunication attributes in Nigeria, using conjoint analysis. 200 dedicated mobile phone users were conveniently sampled in Yaba and Akoka Environments of Lagos state for the purpose of conjoint study. The findings of the study showed that affordable service, wide coverage, followed by clarity of call, and are the most desirable attributes by consumers in the study area.
The conjoint analyses result allowed telecom firms to make trade-offs in rendering service to consumers and still offer services that provide consumer satisfaction. Study suggested that telecom service providers in Nigeria should focus on providing affordable service, wide coverage, followed by clarity of call which are being the most desirable attributes by consumers, rather than invest on undirected promotional strategies that hardly aid loyalty of customers to their networks.

1.3.3 Customers’ satisfaction

Moon –Koo Kim Myeong- Cheol Park and Dong- Heon Jeong (2004) explored the influence of customer satisfaction and the switching barrier on customer loyalty. It is found in the study that service quality has a significant impact on customer satisfaction, switching barriers like, call quality, value added services and customer support and also found that customer satisfaction and switching barriers have a significant influence on customer loyalty.

Ofir Turel and Alexander Serenko (2006) studied the antecedents of customer satisfaction and loyalty through an empirical investigation of 210 young adult cellular subscribers in Canada by adopting the American customer satisfaction model. Based on this model, the Satisfaction Index of young adult Canadians was calculated. It is found that perceived quality and perceived value are the key factors affecting a person’s satisfaction with mobile services and a negative link between satisfaction and customer complaints shows more satisfied a customer is, the less he or she is prone to complain. It is suggested that both Canadian and American mobile operators need to further improve their offering for young adults through a better understanding of their subscriber needs.

Md.Rabiul Kabir, Mirzar Mohammad Didarul Alam and Zahidul Alam (2009) studied the relationship between service quality and customer satisfaction and customer loyalty by developing a conceptual research model. The study has considered 300 respondents. The result of the study showed that there is a significant linear relationship between service quality and customer satisfaction. On the other hand, service quality, switching cost and trust are significant predictors of customer loyalty.
Muhammad Mohsin Butt Ernest Cyril de Run (2009) studied the factors contributing towards customer satisfaction in Pakistani mobile cellular services. It is found that there are few factors that affect satisfaction of cellular phone users like, price, network quality, usage and service support.

Simon Gyasi Nimako and Foresight Kofi Azumah (2009) assessed and analyzed customer satisfaction with service delivery of mobile telecommunication networks. The research aimed to study customers’ satisfaction with service delivered by MTNs in Ghana. One thousand respondents were sampled from the target population. The findings indicate that irrespective of mobile telecom network in Ghana, customer satisfaction is low, neither equal to nor better than desire and expectation of the customers with respect to mobile networks, customers are not satisfied with the service delivery of mobile networks. It is also found that overall customer satisfaction is significantly different among MTNs in Ghana, with customers of company B, C and D rating their satisfaction with service quality higher than customers of company A. The findings also indicate that “technical quality” is the most important dimension, followed by empathy, reliability, economy, responsiveness, image and assurance, while tangibles not found significantly important to the customers in Ghana’s MTNs.

Olu Ojo (2010) analyzed the relationship between service quality and customer satisfaction in the telecommunication industry with a focus on mobile telecommunication network in Nigeria. The researcher employed regression analysis and Pearson product moment correlation coefficient was employed in testing the hypotheses. It is found that service quality effects customer satisfaction and that there is a positive relationship between service quality and customer satisfaction. To ensure that customer satisfaction level is high, organizations must know the expectations of the customers and how they can meet such expectations. Also, the organizations should welcome suggestions from customers and more programs should be designed to measure service quality and customer satisfaction. It is clear from this research that customer service has an impact on service quality perception and customer satisfaction.
Ishfaq Ahmed, Muhammad Musarrat Nawaz, Ahmad Usman, Muhammad Zeeshan Shaukut, Naveed Ahmad and Hassan Iqbal (2010) in their study focused only on the SMS service provided by telecom organizations and measured service quality by using five dimensions and its relationship with customer satisfaction. The study considered 331 youngsters. Correlation and regression analysis are used to analyze the data. The results of the study showed that the dimension, empathy, is negatively related with satisfaction while other four dimensions - tangibles, assurance, responsiveness and reliability are positively related with satisfaction.

Muzammil Hanif Sehrish Hafeez and Adnan Riaz (2010) revealed the factors affecting customer satisfaction. The study has considered price fairness and customer services as predicating variables. It is found that price fairness has an effect on customer satisfaction than customer services.

Ahmad Syakir Bin Junoh and Mohd Rafi Bin Yaacob (2011) studied the customer satisfaction of broad band services in Malaysia with regard to price, speed and stability. The findings show that price, speed and stability have no significant relationship with customer satisfaction level with regard to broad band services in Malaysia. It is found that there are associations between education level, stability factors, monthly income level and price factors, nationality, gender and acceptable price level, monthly income, internet broad band usage period and speed.

Siew-phaik Loke, Ayankunle Adegbite Taiwo Hanisah Mat Salim and Alan G.Downne (2011) assessed the impact of reliability, responsiveness, assurance, empathy and tangible aspects on customer satisfaction. Gap analysis was used to determine the perceived importance and satisfaction on each dimension of service quality and regression analysis was conducted to test the relationship between service quality and levels of customer satisfaction. Results show that reliability, responsiveness, assurance and empathy significantly positively influenced customer attitudes in terms of satisfaction and loyalty. It is also found that there was a significant gap between the perceived satisfaction and importance on all the dimensions of service quality.
Biljana Angelova and Jusuf Zekini (2011) observed the customer satisfaction with services offered by different players in Macedonian mobile telecommunication industry. It is found that the overall service quality perceived by the customers was not satisfactory and expectation is higher than perception.

Zohra Saleem and Kashif Rashid (2011) analyzed the key factors of mobile technology adoption which influence customer satisfaction in Pakistan. The study used regression, correlation and factor analysis for data analysis. It is found that there is a positive relationship between organizational factor and customer satisfaction, a weak positive relationship between customer satisfaction and technical infrastructure and negative relationship between economic factors which is associated with the usage of mobile banking and customer satisfaction. The study suggested that the firms should focus upon application of innovative services, security and customer trust as key indicators of technology adoption.

Gloria K Q Agyapong (2011) studied the relationship between service quality and customer satisfaction in the utility industry (telecom) in Ghana. The study has adopted the SERQUAL model as the main framework for analyzing service quality. Multiple regression analysis was used to examine the relationship between service quality variables and customer satisfaction. It is found that there is a positive relationship between service quality variables and customer satisfaction.

Selvakumar, K. Jagatheesan and B. Arumugam (2012) analyzed the customer satisfaction of the Tata Tele services Limited in Sivakasi, Tamilnadu. It is found that most of the subscribers are dissatisfied with the activation formalities, the numbers of retail shops and towers which are very low. The call charges are very high; the roaming charges are very high and the recharge facilities are not easy. So, the study suggested the company to simplify the activation formalities, try to increase the retail shops and towers in many areas, minimize the call charges, roaming charges and new recharge coupons must be introduced.

Sunil Kumar Jena (2012) explored the customer satisfaction and brand loyalty in cellular services. It is found that majority of the respondents have quoted their service providers as better and a negligible percentage of respondents have negative opinion about their cellular operators. Invariably, all groups of age, gender,
occupation and place of domicile have given a positive opinion about their mobile service providers. This study has taken eighteen variables and one each under five factors are significantly responsible for consumer satisfaction and ‘Brand loyalty’ among the entire factors played a significant role in determining customer satisfaction.

R.C.Upadhyaya, Vashundhara sharma (2012) in this research paper laid special emphasis over the comparative analysis of telecom companies AIRTEL and BSNL by using primary sources of data in Gwalior division of Madhaya Pradesh. Descriptive and exploratory research design has been used. It is concluded that BSNL is having weak network performance as compared to Airtel. Trends of previous 5 years in Gwalior division have shown that BSNL company has slowly deteriorated its position. After analysis it is found that customers are highly satisfied with the services which are being provided by Airtel. Customers are not satisfied with the services that are being provided by BSNL. Study suggested to improve the services of BSNL especially to overcome the competition in the near future.

Anil Kumar (2012) determined and evaluated consumer satisfaction and its impact on the buyer behavior of consumers. A face-to-face interview survey was conducted on 100 consumers of Jhajjar city of Haryana state and selected with random sampling. The results revealed that the association between the gender of the respondents and their level of satisfaction towards their existing mobile connection is not significant. The association between the experience of the respondents and their level of satisfaction towards their existing mobile connection is not significant. The association between the monthly income of the respondents and their level of satisfaction towards their existing mobile connection is significant. The association between the qualification of the respondents and their level of satisfaction towards their existing mobile connection is not significant.

Shahzad khan and Saima Afsheen (2012) investigated the factors influencing customer satisfaction in cellular industry in Peshawar region. The study considered 150 respondents and, correlation and regression analysis were used for data analysis. It is revealed that price fairness, customer services and coverage are the major factors which have an effect on customer satisfaction. Results of the study showed that there is a positive and significant relationship between dependent variables like customer
satisfaction and independent variables like customer service, price fairness, sales promotion, coverage signal strength and promotion.

Mohammad M. Almossawi (2012) focused on the importance and consequences of satisfaction in the competitive telecom industry in Bahrain. The factors related to payment and savings such as, offers, rents, charges are most significant in determining satisfaction, retention and likelihood of switching from one mobile provider to another. Intercommunication factors such as customer service, friendly employees, and user friendly websites were found to be the least significant.

Mohammed Belal uddin and Bilkis Akhter(2012) explored customer satisfaction and its influencing factors of the mobile phone operation industry in Bangladesh. Data were collected through a questionnaire survey from a diversified representative sample. An iterated factor analysis with principal component analysis (PCA) and structural equation modeling (SEM) including measurement model and structural model were applied to analyze the data. The results demonstrated that service quality and fair price have indirect influence on customer satisfaction of a mass service industry (i.e., mobile phone operator) through perceived value. Results also showed that fair price has positive direct impact on customer satisfaction, whereas, the results did not find any significant direct impact of service quality on customer satisfaction. Mobile phone operators are recommended to formulate operations and marketing strategies that focus on expectations of customers to enhance the level of satisfaction.

Stergios Vranakis, Prodromos Chatzoglou and Apostocos Mpuloukas (2012) analyzed the satisfaction of Greek users of mobile phone services. The research model has been developed and incorporates many factors that influence customers’ satisfaction. The results indicated that company image is the main factor affecting not only customer satisfaction, but also perceived value, service quality and customer loyalty.

Ode Egena (2013) evaluated the customer satisfaction with service delivery of mobile telecommunication Networks in Nigeria. The study has considered 532 university students. The survey was restricted to subscribers using the four major GSM mobile phone operators. It is found that a relationship exists between service
quality delivery and customer satisfaction, service quality reliability dimension and
customer satisfaction and between customer satisfaction and switching intension
among mobile phone users in Nigeria. The results of the study showed that
respondents would likely stay with their telecom service providers as long as the
companies are able to satisfy their changing needs and meet customer requirements
beyond expectations.

Debarun Chakrabartthy (2013) studied the customer satisfaction and
expectation towards a telecommunication company in west Midnapore which is a
district of West Bengal. It is found that the dimensions which influence the
satisfaction level of customers are core services like good coverage, good
connectivity, network quality and call rate. Further, it is found that there is a
significant relation between the brand name and the preference of customers. Hence,
it has been recommended that telecom companies should focus on connectivity, call
rates, coverage and network quality.

Aaqiba Javed, Nazish Azam, Madiha Fazal and Arslan Ah Butt (2013)
identified the most used telecom service provider in Punjab as well as the variables
that make its customers satisfied and more popular among other service providers.
The service quality, price fairness, network coverage, responsiveness and innovation
were taken as independent variables and customer satisfaction was taken as dependent
variables. Regression analysis and correlation were applied to analyze the data. It is
found that there is a positive relationship between dependent and independent
variables except innovation which has no relationship with customer satisfaction.
Service quality is the most influencing variable and price fairness is the second most
influencing variable of customer satisfaction which in turn leads usage of a network.

Rajesh K Yadav and Nishant Dabhade (2013) studied the impact of service
quality on customer satisfaction of mobile users by analyzing the measures taken by
Air-tel. Chi-square test is applied in this paper to check the authenticity of data given
by the respondents. The study has pulled the attention on service quality with special
consideration given to attractive/ aggressive tariff plans, innovative services, quality
of service setup, customer relationship management cell, brand strength, network
quality, better customer care services, grievance redress cell and value added services
etc.
Anantha Raj A. Arokiaswamy and Abdul Ghani Kanesanbin Abdullah (2013) studied the impact of service quality dimensions on customer satisfaction. A sample size of 225 GSM users were taken for the study and gap analysis was considered to determine the perceived and expected satisfaction level on each of the service quality dimensions and regression analysis was conducted to test the relationship between the SERQUAL dimensions and customer satisfaction. The result showed that all the five service quality dimensions positively influenced customer satisfaction in terms of loyalty and attitudes. It also revealed that there is a significant gap between the perceived satisfaction and expectation on all the service quality dimensions.

Kumar Ratnesh and Amit Kansal (2013) observed the Indian telecom industry and found that there is a high competition among the players in telecom industry. All the players are giving special offers and schemes as per the market conditions to maximize their subscriber base. It is revealed that the most important determinants for consumers’ satisfaction and their foster recommendation are customized VASs, convenience, and network quality coverage and call tariff.

R.Buvaneswari and R. Prakash Babu (2013) studied customer satisfaction towards cellular service of Aircel at Mannargudi town. It is found that majority of the subscribers have expressed that better service is being provided by Aircel cellular service. It is found in this study that the market in Mannargudi is still in an expanding phase. The market is not saturated; however the changing of tariff rates and low awareness level is making it difficult for the company to maintain a constant growth rate. It has been also observed that Aircel can gain more number of customers by widening its area of coverage. Most of the subscribers have given conclusion that the price is low and services offered are the best.

Akshy kumar Shahoo (2013) did the research work to know the existence of significant difference between public and private telecom service providers concerning to customer satisfaction on customer loyalty and to know the degree of impact of customer satisfaction on customer loyalty. Data is collected through a structured questionnaire from 360 customers selected on stratified random basis from customers of both public and private sector mobile telecom service providers for the understanding of existing situation of the customer thought for their services. Results
showed that there is a variation in customer satisfaction with the services and also almost all the respondents are loyal with the service provider.

Rizwan Arshad (2014) identified the relationship between perceived service quality and customer satisfaction. It also revealed purchase intention as a mediating role and showed the affect of purchase intention on the customer satisfaction. The study utilized a survey through questionnaire which was distributed among the mobile service users in Lahore, Pakistan. Sample size was 150. Regression test was utilized in order to check the impact of each variable and mediating effect of purchase intention on the PSQ and CS. The entire test indicated positive relationship among the variables with partial mediation. Study suggested that managers should focus on the quality of the services. It would help the customers, enhance organization productivity and thus goal of organization will be achieved.

Prasanna Kumar M G and Y M Raju (2014) analyzed customers’ satisfaction with the mobile service providers, especially regarding network, call cost and customer care services. Study suggested that service providers must provide market-based and customer based services and reduce call cost and tariffs. Mobile service providers should also provide awareness on offers and legal information to the users.

M Sivasubramanian and S. Balaji (2014) studied the service quality dimensions and their impact on customer satisfaction in the telecommunication sector of Tamilnadu. A sample of 300 respondents was employed. Regression analysis, Pearson Correlation Coefficient and ANOVA were applied to test the hypotheses. The study revealed that service quality has an impact on customer satisfaction and that there exists a positive relationship between service quality dimensions (except price fairness and empathy) and customer satisfaction.

Ibrahim, Masud, Nyame, R K, Kumah and Aaron (2014) studied the quality service delivery in the telecommunication industry in Ghana with Vodafone Ghana. The study adopted a single case study design. The study found a significant relationship between the service quality dimensions (assurance, tangibles, responsiveness, empathy and reliability) and customer satisfaction. The study also revealed a wider gap on all the five service quality dimensions with regard to customers’ perception of quality service delivery as against customer service expectations.
Shahzad Ali Gill and Muhammad Waqas (2014) determined the customer satisfaction in cellular industry of Pakistan. The study identified the factors which contribute significantly towards customer satisfaction in the fast growing telecommunication and cellular industry of Pakistan. The study also concentrated on the factors that contribute to customer satisfaction with regard to cellular mobile service companies in Pakistan. The study revealed that call quality has a significant impact on customer satisfaction and is strongly correlated with the customer services. It also concluded that better customer service leads to higher customer satisfaction.

Dinesh Kumar, Brajesh Kumar, Mazahidul Haque Choudhury (2014) identified the customer satisfaction in cellular service on the basis of some fourteen such service counts that the cellular service providers offered to the customers as per present market scenario. The study indicated that the customers have shown their satisfaction on GPRS, festival offer services, free roaming service, validity service, bonus service and online recharge service. It is also highlighted that customers have reflected their dissatisfaction with the service quality of network, customer care, SMS packs, free talk time, connection charges, ease of availability of the retailer selling recharge action and ease of availability of retailers transferring recharge voucher.

Wael Rahhal (2015) analyzed the effect of service quality dimensions on customer satisfaction in Syrian mobile phone companies. The study has collected a sample of 600 mobile phone service users, and was distributed among Damascus and Aleppo. The study revealed a seven dimensional service quality instrument which is empirically tested for uni-dimensionality, reliability and construct validity using confirmatory factor analysis. The findings of the study showed that there is a direct significant impact of service quality on customer satisfaction. It has also provided guidelines for mobile services for understanding key drives of customers’ satisfaction. Customer perceived network quality appeared at the first important place in predicting overall customer satisfaction. So, service providers need to pay attention on providing adequate network coverage, voice clarity, and focus on reducing the congestion level in their network and they should also give social occasions more importance where customers need to use mobile phone more than usual. Additionally, responsiveness and complaint handling appeared at the second important place in predicting overall customer satisfaction. It is suggested that the employee should resolve the customer’s
complaints timely and that the customer’s queries are taken seriously. This implies that cellular mobile service providers should invest in empowering the employees and providing them with adequate resources so that they can take prompt action to customer queries. Reliability factor also appeared at the third important place in predicting overall customer satisfaction. Thus, the service providers need to focus on performing the service at the right time, providing the services at the promised time.

Shartsood and Reetu Sood (2015) analyzed the impact of customer relationship and marketing tactics on overall customer satisfaction and trust, which in turn increase customer loyalty. It is found that customer care cell of cellular service operators plays an important role in maintaining healthy and long lasting relations with customers. Assessment of customer protection cell is directly related to overall customer satisfaction. Study recommended companies to appoint staff for each zone and to assign responsibility to protecting customer rights. Companies should provide complete information related to changes in terms and conditions or plans. Customer grievances cells must be updated in order to retain the customers and protect the switching cost.

Kobra Veisi and Muralidhar (2015) studied telecom companies operating in Hyderabad in India with the focus on their customer satisfaction. Study identified critical factors like price, service tariff, making complaint to company’s service, service attitude, degree of understanding of service, coverage rate of business hall, phone call quality, accurate and transparent billing, network signal, quality of telecommunication, the possession of required skill and knowledge of business, feeling of charge of telecommunication. The results revealed that there is a significant and positive correlation between telephone services and satisfaction. It is suggested that employees and branch managers should be made to undergo basic management training to serve the customers professionally and the operational efficiency of the telephone service providers is to be improved through modern technology systems and better staff management.

Zarq Zahoor (2015) evaluated the satisfaction level of three different segments of Aircel network individuals, JK bank corporate plan and internet dongle customers. The simple random sampling design was selected. The study had been conducted at Srinagar district. The study identified that Aircel customers are extremely satisfied
with the tariff associated with their connection although the company needs improvement in the area of network coverage and internet speed so as to remain competitive in the market.

Jawwad Ahmad, Mazhar Hussain and Amar Rajput (2015) investigated the relationship among customer satisfaction, customer trust, switching cost and customer loyalty in mobile telecommunication service market of Pakistan. The data was collected from 515 customers in mobile telecommunication service market of Pakistan through convenience sampling. Correlation matrix and ordinary least squares regression analyses are used to determine the relationship. The findings revealed that customer trust partially mediates the relationship of customer satisfaction with customer loyalty. Switching cost has no moderating effect in determining the relationship of customer satisfaction with customer trust and customer loyalty in mobile telecommunication service market of Pakistan. It is suggested that the firms should enhance customer satisfaction in order to gain customer trust and customer loyalty.

1.3.4 Customers’ Loyalty

Oyeniyi, Omotayo and Abiodun Abolaji Joachim (2008) studied the relationship between customer services and customer retention in telecommunication industry in Nigeria. It is found that there is a strong relationship between customer service, satisfaction and retention in the communication industry in Nigeria and results also highlighted that respondents have a positive impression towards their telecom company’s ability in meeting their changing needs.

Mohammad Muzahid Akbar and Noorjahan Parvez (2009) identified the effects of customers’ perceived service quality, trust and customer satisfaction on customer loyalty. To test the conceptual framework, structural equation modeling has been used to analyze the data collected from 304 customers of a major private telecommunication company operating in Bangladesh. The results of the study indicated that trust and customer satisfaction are significantly and positively related to customer loyalty.
Rosemand Boohene and Gloria K.Q.Agyapong (2011) discussed the determinants of customer loyalty in Vodafone Ghana. The main variables of concern were service quality, customer satisfaction and image, even though other factors were also considered. The study used multiple and logistic regression analysis to examine the relationship between service quality, customer satisfaction, image and customer loyalty. The result indicated that there is a positive relationship between service quality and customer loyalty and negative relationship between customer satisfaction and customer loyalty. The study suggested that telecom management needs to emphasis on service quality.

Shahid Zaman Khokhar, Farooq Hussain, Tahir Masood Qureshi, Ibrahim Anjum, Ali Samaran and Rizwan Arshad (2011) focused on customers behavior to know how much they become loyal when satisfied and also to look into the pros and cons of the telecom sector boom in Pakistan. The study found that there is a positive relationship between customer satisfaction and customer trust. It is also found that a strong correlation and there is an outstanding significant and positive relationship between customer satisfaction and trust.

K. Sivakumar (2011) focused on customer satisfaction to know the value and service of Aircel and loyalty of the customers. The study was conducted in Tiruchirappalli city. 400 customers’ opinions were taken for analysis. The study revealed that 26% of the respondents neutral in their opinion towards customer satisfaction with regard to post paid connection and 28% opine to be somewhat satisfied with regard to prepaid connection. 28% of customers are loyal due to service quality of the connection in view of post paid and 30% of the customers are loyal due to emotional attachment of the connection in view of prepaid.

Juthamard Sirapracha and Gerard Tocquer (2012) explored the relationship between customers experience, brand image and brand loyalty in the wireless telecommunication service industry in Thailand. The finding revealed that wireless service brands deliver different customer experience and image, and that customer experience influence the strength of a brand including brand image and customer loyalty.
Ching – Fu Chen and Lee-Ting Cheng (2012) examined mobile phone service loyalty and the relationship between service quality, perceived value, satisfaction and loyalty of mobile telecom services. The study used structural equation model to examine the relationship. The results revealed a relationship path of quality, value, satisfaction, and loyalty has supported in general. Service quality has a positive direct effect on perceived value and satisfaction, perceived value has positive direct effects on both satisfaction and loyalty. Satisfaction has a positive effect on loyalty.

Vivek Agrawal, Vikas Tripathi and Vivek k Tripathi (2013) studied the factors which are influencing the loyalty of customers of BSNL in today’s environment and investigated the variables that influence the perception of the mobile phone customers who remain loyal with the existing service providers. It is found that there are various factors that market offers to the companies and industries and it is very much pivotal for a company to assess them continuously to stand in the consumers mind and market at large. BSNL enjoyed first mover’s advantage in the market and market leader position for long in telecommunication sector. BSNL positions itself themselves as a service provider with seamless connectivity but there is a major loss of the mentioned factors in recent days. The result showed that there is loss of loyalty among customers and hence customers are switching, which is the biggest and unaffordable phase that any company has to undergo.

Wilson Edzorna Dzisah (2013) identified the issues of customer retention within the cell or mobile phone sector of the telecommunications in Ghana with a focus on Millicom Ghana limited (Tigo). It is found that behavioral intentions were positively influenced by the level of satisfaction. The study concludes that customers’ retention is achieved only when the customers believe that the customers’ services offered are effective and higher. Therefore, effort should be made to improve the general service value communicated to customers. Study recommends that the service operator should make their service reliable and convenient to their customers in order to take advantage of customer satisfaction and loyalty which are found to depend to a greater extent on service reliability convenience. The high level of competition among service providers necessitated adoption of different customer service techniques to satisfy and retain the customer. The effectiveness of the level of customer service will enhance customer retention switching between and among service providers.
Majed Radi Al-Zoubi (2013) observed the effectiveness of service quality on customer loyalty in the Jordanian telecom sector. The study has considered IT and MIS University students as sample. The study used descriptive analysis, one way ANOVA, Pearson Correlation and finally stepwise Regression analysis to assess the impact of SERVQUAL factors on customer loyalty. The result showed a strong and positive correlation between SERQUAL and customer loyalty in the Jordanian telecom market. The study also found that SERQUAL has a significant impact on customer loyalty.

Murtaza Khurshid (2013) identified the determinants of customer loyalty in the telecom industry in Peshawar, Pakistan and analyzed their causes and influences. Study was conducted to find out major variables that are causing customers’ loyalty in telecom industry. It is found that eighteen major hypotheses identified by the study had an impact on the customers’ loyalty. Study has considered 160 University students as respondents. The study has analyzed the collected data by applying Regression analysis, descriptive statistics and correlation. The study reveals that customer satisfaction, switching barriers, price, promotion, sales promotion, customer trust, corporate/brand image, service quality, customer care service, value added services, network coverage, signal strength, call packages or rates, call quality/call rates, SMS rates, SMS quality, GPRS rates and GPRS quality are the important factors causing the customer loyalty in telecom industry. A significant relationship exists among all these independent and dependent variables. Study concludes that there is a low correlation between the sales promotion and customer loyalty of telecom users in Peshawar, Pakistan.

Chosniel Eliken Ocloo and Ernest Kafui T Setse (2013) discussed whether quality service has a relationship with customer retention and whether there is an interplay between customer satisfaction and retention in Vodafone. 134 respondents were selected. The study revealed that there is a relationship between quality service and satisfaction while customer satisfaction to a large extent influences customer retentions. This finding holds implications for industry operators on key areas to pay attention in order to improve customer satisfaction so as to guarantee customer retention.
Karunaratna A. C (2014) studied the effect of service quality effect on customer loyalty. 300 samples were considered for the study. The Pearson correlation and Regression analysis were employed to test the impact of service quality on customer loyalty. The result of the study showed that service quality dimensions of responsiveness and empathy have a significant positive relationship with customer loyalty while tangibles, reliability, and assurance also indicate positive correlation with customer loyalty.

Usman Ahmad Qadri, Mohamood Shah Khan (2014) identified the effect of price perception, customer satisfaction, brand image, switching barriers and trust towards the customer retention in the cellular industry of Pakistan. The data was collected from the customers from one of the cellular companies in Lahore. The data was analyzed with the help of the multiple regression analysis. It is found that switching barriers, brand image, price perception, trust and customer satisfaction effect customer retention.

Kwabena Adjel and Rrxhard Denanyoh (2014) explored the determinants of brand equity among mobile telecom users in Brong Ahafo region of Ghana. The study has taken Pearson Correlation to establish the relationship between the dependent and independent variables. The results showed that call rates, network coverage and sales promotion have a significant positive relationship with customer loyalty and also brand image and prompt customer service were seen to have a less effect on customer loyalty.

1.3.5 Switching Behavior

Joseph Omotayo Oyeniyi and Jouchion Abalaji Abiodum (2009) discussed switching cost and its relationship with customer retention, loyalty and satisfaction in the Nigerian telecommunication market. It is found that customer satisfaction has a positive effect on the customer retention and differentiated the consequences of customers’ behavior in terms of exit and loyalty. However, the effect of switching barriers on consequences is significant only when customers consider to exit. Study suggested that one of the major areas of future research is the role of government policy in creation and removal of switching barriers especially in a developing economy where government participation is crucial.
M. Satish, K. Santhosh Kumar, K.J.Naveen, and V.Jeevanantham (2011) identified the factors that influence the consumers in switching behavior. The study has taken 112 respondents in Chennai and also Cluster sampling method was opted for data analysis. It is revealed that call rates plays an important role in switching followed by network coverage, value added service and customer care whereas, advertisement played a least important role. It is recommended that the mobile service provider have to concentrate on increasing network stability and setting tariff rates competitively and it should also focus on corporate image.

G.N. Satish Kumar, H. Vari and S.Vandana (2011) analyzed the factors influencing the mobile subscribers’ intention to switch mobile service providers in India based on structured equation model (SEM). The study has considered 361 samples. The findings revealed that service quality is the most important factor influencing the mobile subscribers’ intention to switch service provider compared to promotional offers and service affordability.

Munir Hossain, Md.Zahidul Islam and Hossain Mohammad (2012) studied the influence of switching cost, trust, perceived satisfaction, corporate image and length of relationship on customer resistant behavior. The study was confined to the subscribers of telecommunication companies in Dhaka, Bangladesh. The study revealed that switching cost and relationship length act as a barrier for customers to switch compared to other factors.

Rehana Kouser, saifallah Qureshi, Farasat Ali Shahzad and Hassan Hasan (2012) in their research aimed to find the reasons behind the customers’ switching behavior in cellular services sector of Pakistan. Researchers surveyed 480 respondents across the different regions of the country. It is found that the customer retention is highly dependent on call and SMS rates than on network service, network coverage and customer service. Logistic regression and likelihood ratio are used to find the results. It is concluded that proposed variables have a significant relationship with the switching. Customers’ satisfaction is highly dependent on the call charges, SMS charges, GPRS service and considered as an important reason for switching customers. Study suggested that companies should focus on these factors to retain their current customers and make them loyal enough that they could have a long retention period with the company.
Yarhands Dissour Arthur, Kwaka Ahenkrah and David Asamoah (2012) discussed the important factors that influence cause customers to switch and also assessed the relationship that exists between the factors and the switching likelihood. The study has adopted the Chi-square test. The paper highlighted high tariff, hidden charges, service disruption, unreliable help lines and inadequate or incomplete information provided by service providers are the important reasons for customers to switch from one network to another.

Sarwat, Afzal, Amir Khan Chandio, Sonia Sheikh Muskan Bhand, Bais Ali Ghumro Anum and Kanwal Khuhro (2013) analyzed factors affecting customer satisfaction and reasons that are responsible for switching of cellular network. The sample respondents were selected through convenience sampling technique, total sample size was 104. The study has used regression method. The results showed that, service quality is negatively associated with brand switching. Price is positively associated with brand switching. Trust has a negative impact on brand switching. The result suggested that if there is a high brand loyalty then brand switching will be less.

Rashid Saeed, Rab Nawaz Lodhi, Muhammad Saad Saeed et.al (2013) analyzed the factors behind brand switching in telecom industry of Pakistan. Study was conducted at Sahiwal city. 150 respondents were selected on the basis of convenient sampling. Multiple regression and correlation tools are adopted to test hypotheses. It is found that people of Sahiwal switch their network if they get lower price on other network and feel inconvenience on the existing network.

Shekhar Srivastava and Ashish Bhatnagar (2013) focused on various issues related to customer care and quality that customers consider as important as well as customers’ intention to switch to other competitor network. It is found that 45.6% subscribers are switching to other service providers for better customer service followed by 24.4% subscribers are switching for minimum call charges, 14.4% subscribers are switching for better network connectivity and 15.6% are switching due to other factors like value added services, multimedia services, billing services/tariff plans etc.
Khushboo Makwana and Nidhisharma Swaranjeet Arora (2014) studied the factors influencing consumer switching behavior in telecommunication industry. The study revealed that by providing value added services and effective pricing strategies telecom service providers can control consumer brand switching behavior and retain the customers.

Dominic Ooko, Joseph Nzomoi and Rogers Mumo (2014) analyzed the factors that influence consumer switching behavior. Regression results showed a strong relationship between the consumer intention to switch and the duration and the cost of porting (“push determinants”). Other determinants identified are the “sway determinants” which include the period of usage, age and the average amount spent on airtime. The result indicated that 68% of the respondents had intention of switching but the existing legal frame work was found to be ineffective in facilitating an increase in the porting rate. Study suggested that mobile number portability awareness should be transparent and non manipulative.

1.3.6 Other service sector

Shiang Lih Chen Mccain, Soocheong Jang and Clark Hu (2005) conducted a gap analysis between loyal customers and potential switchers in evaluating Casinos’ service quality attributes. It was found that the top three gaps were all related to the functional quality. Several technical aspects of service quality were found to be important to acquire loyal customers: good location, good food specials and buffets, variety of games, better odds, preferred rules and longer time on device. Additionally, from the functional quality perspective, Casino management and employees can boost customers’ loyalty by demonstrating their competency in the operation and in delivering what they promised to the customers.

Amrutha Sherikar and Suresh Jange (2006) evaluated the quality dimensions in the light of SERVIQUAL model viz., reliability, responsiveness, assurance, access, communication, tangibility; empathy and security have been applied. The results indicated that the service quality dimensions of reliability, responsiveness, assurance, access, communication and tangibles applied to university libraries in Karnataka are found to be satisfactory to a little extent based on the scale techniques. The study suggested several areas for future research and to library managers, educational
administrators, scholars and measurement theorists for improving the performance of library and information system in India to meet the high standards of service quality in libraries to serve the users with utmost care and diligence.

Kalthom Abdullah, Noor Hazilah Abd. Manaf and Kamariah Mohd Noor (2007) studied the perception of Malaysian consumers and quality Airline service. They have used SERQUAL model for measurement. The results of the study indicated that the most significant factors in Malaysian customers’ perception of service quality are empathy, tangibles and assurance. In addition, the respondents indicated that the airlines surveyed performed better than expected on the responsiveness dimensions of service quality. There is also strong indication that satisfaction with service quality results in future use and the likelihood of recommending the airline to others.

Olle Stromgren (2007) identified the best predicating dimension of overall service quality. Study has taken both theoretical and empirical methods. Theoretical study was done by identifying relevant theories, determining and defining service quality for hospitality industries. The study has collected 84 respondents’ opinions and views from their resort hospitality experience. The findings showed that service quality is represented by six dimensions in the hospitality industry relating to reliability, assurance, tangibility, employees, exterior and delivery of service. The best predator of overall service quality is the dimension referred to as reliability followed by exterior and tangibility and assurance.

Rahim Mosahab, Osman Mahamad and G.T Ramayah (2010) determined the quality of service offered by Sepah Bank. Results showed that all fivefold dimensions of service quality and total customers’ expectations are beyond their perceptions of the bank performance. In fact, findings of this research showed that although in all fivefold dimensions of service quality Sepah banks performance has been higher than average limit, but its service quality does not satisfy customers’ expectations. It is also found that there is a positive and meaningful relation among all fivefold dimensions of service quality and, satisfaction and loyalty. Resulted (reliability) dimension and processed (tangibles, responsiveness, assurance and empathy) dimensions have a positive and meaningful relation with satisfaction and loyalty. There is a significant relation between the processed dimensions and satisfaction and loyalty.
Geetiker and Shefali Nandan (2010) studied the components of service quality of Indian Railways at railway platform. The study is exploratory in nature and used factor analysis to identify the most important factors influencing customer satisfaction with service quality. The findings revealed that five factors are considered important for determining satisfaction with railway platforms and the most important among them are refreshment and behavioral factors.

K. Ravichandran, B. Tamil mani, S. Arun Kumar and S. Prabhakaran (2010) discussed the influence of perceived service quality on customer satisfaction. It is found that increase in service quality of the banks can satisfy and develop customer satisfaction which ultimately retains customers.

Jawaria Fatima Ali, Imran Ali, Kashif Ur Rehman, Ayse Kucuk Yilmaz, Nadeem Safwan and Hasan Afzal (2010) investigated the determinants of customer satisfaction and customer retention in cellular industry of Pakistan. It is found that there is a significant relationship between price reasonability, user friendly aspects, call clarity and strong relationship and, customer satisfaction and customer retention.

Alin Sriyam (2010) assessed customers’ expectation and perception level towards service quality of front office staff at a hotel. The study analyzed the discrepancy between customers’ expectation and perception level towards service quality of front office staff at a hotel. Study has considered SERQUAL dimensions viz., tangibility, reliability, responsiveness, assurance and empathy. The finding shows that the highest level of customers’ expectation was assurance and the highest level of customers’ perception was tangibility. The results showed that the overall mean score of perception was higher than expectation in all dimensions, yielding a positive SERQUAL gap; customers were satisfied with all the dimensions of service quality.

Arash Shahin and Nassibeh Janatyan (2011) analyzed the correlation of service quality gaps and estimated customer dissatisfaction in an Iranian travel agency. The findings of the study revealed that the maximum value of gap is related to ‘appealing accommodation facilities’ which is a part of the dimension of tangibles. The minimum values of the gaps are also related to on time delivery and reputation of service. The correlation analysis has not addressed any significant correlation among
the gaps. Ultimately, regression analysis has approved and estimated linear correlation between the gaps of empathy and tangibles, and the overall customer dissatisfaction.

Kazi Omar Siddiqi (2011) focused on the most important attributes in banking sector. The study has taken 100 retail banking customers from different banks in Bangladesh. The results showed that all the service quality attributes are positively related to customer satisfaction and customer satisfaction is positively related to customer loyalty. It is also revealed that the highest positive correlation with customer satisfaction and tangibility shows the least positive correlation with customer satisfaction.

S.P. Singh and Sunayna Khurana (2011) investigated the level of service quality of private banks from the customers’ perspective and by assessing their satisfaction towards the services that private banks provide. Sample of 300 customers of private banks in Hissar district were selected under random sampling technique. The study adopted SERQUAL model, consisting of 22 items measuring customers understanding, service standards, service performance and communications. The result showed that customers perception in private banks in Hissar district was lower than their expectations. It is also found that there is no significant difference between the satisfaction level of male and female customers related to overall satisfaction.

S.G. Santhiyavalli (2011) evaluated the service quality of State Bank of India and major factors responsible for customer satisfaction. The study has adopted SERQUAL model and revealed that empathy has maximum average score among other four dimensions. It is also mentioned that among five dimensions reliability, responsiveness, empathy and tangibility are the major factors responsible for customer satisfaction.

Mehdi Ghasemi, Ali Kazemi and Ali Nusr Esfahani (2012) analyzed the strength and weak point of Islamic Azad University of Najafabad based on M.A students’ opinion with revised SERVQUAL model. Revised SERVQUAL model was developed by Suresh Chander for the first time. This model contains 5 dimensions which include 41 clauses. The dimensions are tangibles of service, systematization of service delivery, core service, social responsibility, and human element with a short difference afterward. The results also indicated that the organization has had the better
performance in tangible of service dimension in comparison with clauses related to other dimensions and there are adequate opportunities to improve service quality level. Gap existence in all dimensions showed that the organization could not reach the students’ expectations of service delivery pattern. Study suggested to provide the service with less price, upgrade the capacity of service level in facing sudden crisis, increase employees commitment by educating them and providing better job condition, offering systematic method for investigating to complaints and solving them.

Sahar Siami and Mohammad Bagher Gorji (2012) evaluated the situation of service quality on the service quality gap model to determine the five service gaps in Iran’s insurance industry. The results showed that customers expectation from five dimensions of SERVQUAL for delivering excellent service get high levels, but their perceptions resulting from the perceived service are evaluated in moderate level. It also clear that reliability and assurance criteria are the most important and the highest customers’ expected criteria also empathy criterion is considered as the least important factor in insurance industry.

S.F.Amiri Aghdaie and F. Faghani (2012) studied the relationship between mobile banking services and customer satisfaction. The study adopted SERQUAL model to know the quality of the mobile banking services rendered by the banks in Iran. The researcher has used the customer satisfaction as the dependent variable and the five dimensions of service quality; namely tangibles, reliability, responsiveness, assurance and empathy could correlate with satisfaction significantly. However, the assurance factor would have no relationship with customer satisfaction. The ANOVA test showed that there was a significant correlation between mobile banking services and customer satisfaction.

Maya Busent Lohani and Pooja Bhatia (2012) measured service quality in public and private banks of India. Study collected data from 410 customers of Lucknow. The results showed that dimensions of service quality such as tangibility, reliability, responsiveness, empathy and assurance significantly influence customer trust and commitment. Private bank customers are more committed and satisfied as they received better quality of service. The study implied that public sector banks
should also come forward and try their best to provide better quality service to win back their customers.

Pijush Chattopadhyay and S. Saralelimath (2012) studied customer preference towards using ATM service in Pune city. The study has considered 300 customers from different cooperative banks in Pune city. Chi-square tests and other tools are used for data analysis. It is found that majority of the customers are highly satisfied with ATM services and view them as essential services.

Girish K Nair and Harish K Nair (2013) identified the dimensions that organized retailers offer the customers. An analysis of the various retail service quality variables was done to understand the relationship among them. The study tries to explore the factors that attract the customers towards the organized retail sector in the capital city of Kerala. Study tries to find interrelationship between various retail service quality dimensions which will help the retailers to identify the steps needed to improve the overall quality of service. As per the result, perception of service quality is influenced by the various customers, even some of the general factors like personal interaction, physical aspects are the dimensions on which customer perception remains constant and common to the entire customers on a majority basis. So the retail outlets have to frame their own strategies in order to attract the customers on a large basis.

Mei Mei Lau, Ronnie Cheang, Aris Y.C Lam, Ronnie Cheang, Aris Y.C Lam and Yuen Ting Chu (2013) identified interrelationship between service quality, customer satisfaction and customer loyalty in the retail banking sector in Hong Kong. The study also focused on to finding out the most important attributes of service quality in retail banks. 119 retail banking customers of Shanghai banking corporation in Hong Kong were considered for the study. The results indicated that the five SERVQUAL dimensions have a positive influence on customer satisfaction. Tangibility, Responsibility; Reliability and Assurance were more significant in contributing to customer satisfaction, while Empathy was the least significant. The study suggested that SERVQUAL model is a suitable instrument for measuring service quality in the retail banking sector in Hong Kong. So, banking industry practitioners can consider this instrument as a tool to assess and improve their service quality.
1.4 Research Gap

As per the literature review it is evident that service quality dimensions and service attributes have a significant impact on customers’ satisfaction. Telecom sector is technology based and a highly competitive sector. The service quality changes with the changes in technology. The customers’ expectations also change with the changed market environment. Hence, any study conducted in this sector becomes obsolete within a short period. The earlier studies conducted have concentrated on the urban consumers and neglected the rural and semi-rural consumers. There are no studies conducted in south India on telecom sector. Hence, the present study intends to analyze the service quality in telecom sector by considering all dimensions.

1.5 Statement of the problem

Telecom sector is playing a leading role in service sector. Competitors encapsulate the market by offering variety of services with up to date technology. Understanding customers’ preference and expectation has become crucial for the service providers. The players are facing vicissitude market situations because the expectations, needs and wants of the customers are different. Expectations and satisfactions vary between different age groups, between males and females, and between rural and urban customers. Perception and expectations may differ between as well as among rural and urban customers. Customers will switch over from one service provider to another not only with dissatisfaction but also in search of service varieties. Understanding customers’ expectation is an intricate situation for every service provider. With a strong review background it is found that most of the researchers have focused more on urban areas. Minimal research work has focused on rural areas. Present study has made an attempt to analyze the service quality offered by selected telecom service providers with the help of empirical data which helps service providers to take up further changes in their service features and improve the quality in services.
1.6 Research questions:

Following are the research questions considered for present study:

1. What are the services offered by Telecommunication sector?
2. What are the reasons for selecting particular service connections?
3. What are the perception, expectation and satisfaction levels of the respondents about the quality of the service offered?
4. What are the opinions and satisfaction level of the respondents about the service attributes?
5. Whether service quality dimension as well as service attributes are strong predictors of respondents’ perception, expectation, satisfaction and loyalty?
6. Do the expectation and satisfaction differ between different age groups, genders, educational levels and occupations?

1.7 Need for the study

Indian service sector plays a vibrant role in the economic development of the nation. Indian telecom sector is one of the key drivers of service sector. It emerged in the mid of 19th century. Liberalization and deregulation of Foreign Direct Investment have brought remarkable changes in the Indian telecom industry. The sector is creating different opportunities for players. There are 11 major cellular operators in India like, Airtel, Vodafone, Idea Cellular, BSNL Mobile, Aircel, RCom, Tata DoCoMo, Telenor, Jio, MTS and MTNL. These are offering innovative and up to date services in telecom market as per the timely guidelines of TRAI. The TRAI was set up in the year 1997, which is a regulatory authority of Indian telecom sector. India is the second largest telecom sector and has third largest number of internet users in the world. It holds 1,124.41 million subscribers base (Nov 2016). The urban subscribers are more (57.6%) compared to rural subscribers.

The present telecom market is under ferocious competitive environment because competitors have encountered the market by introducing up dated technology. Therefore, objectives have changed towards understanding the customers’ expectation, satisfying and retaining them for a long run otherwise
customers will change their opted service connection. The concept of business centric approach has changed to customer centric approach. It helps to understand the problems faced by the customers, more possibility to give solutions and collect suggestions to improve the quality of service which may enhance market share and help attract new customers as well as retain existing customers. Subscribers are increasing overwhelmingly day by day. Customers perceive about the brand with different sources like personal experience, through words of mouth, friends, relatives etc. Customers come out with different expectations before selecting a brand. Customers will look for varieties in their selected brand with minimal price. It may be a difficult task for any business organization to measure quality of the services offered and understand customers’ expectations. Quality plays a major role with advanced technology in present competitive situations. Competitors have created rivalry by introducing new and innovative technology oriented products and services in the market. New business entrants are entering with unique featured varieties of products and services. By considering all the above aspects the study has been undertaken to understand the perception, expectation and satisfaction of the cellular subscribers and quality of the services offered by the cellular service provider in rural and urban areas of different taluks of Mysore district.

1.8 Objectives of the study

The main objective of the study is to analyze the customers’ perception, expectation, satisfaction, loyalty and their opinion about the quality of the service and service attributes offered by their opted cellular services. Also,

1. To study the various services offered by the Telecommunication sector.

2. To evaluate the service quality offered by telecom firms with the help of service quality dimension.

3. To analyze the perception towards service quality and service attributes with respect to demographic factors.

4. To measure the gap between service quality perception and service quality expectation with respect to demographic factors.

5. To measure the gap between service quality expectation and satisfaction with respect to demographic factors.
1.9 Hypotheses

As per the research questions and objectives perception of the respondents based on different demographic variables was found to influence the service quality and service attributes and the following hypotheses and sub hypotheses were formulated in this regard.

On the basis of Perception towards service quality -

H₁: There is no significant difference in Perception between urban and rural respondents towards service quality.

H₁.₁: There is no significant difference in Perception between urban and rural respondents towards Tangibility dimension.

H₁.₂: There is no significant difference in Perception between urban and rural respondents towards Reliability dimension.

H₁.₃: There is no significant difference in Perception between urban and rural respondents towards Responsiveness dimension.

H₁.₄: There is no significant difference in Perception between urban and rural respondents towards Assurance dimension.

H₁.₅: There is no significant difference in Perception between urban and rural respondents towards Empathy dimension.

H₂: There is no significant difference in Perception between male and female respondents towards service quality.

H₂.₁: There is no significant difference in Perception between male and female respondents towards Tangibility dimension.

H₂.₂: There is no significant difference in Perception between male and female respondents towards Reliability dimension.

H₂.₃: There is no significant difference in Perception between male and female respondents towards Responsiveness dimension.
H2.4: There is no significant difference in Perception between male and female respondents towards Assurance dimension.

H2.5: There is no significant difference in Perception between male and female respondents towards Empathy dimension.

H3: There is no significant difference in Perception among respondents from different age groups towards service quality.

H3.1: There is no significant difference in Perception among respondents from different age groups towards Tangibility dimension.

H3.2: There is no significant difference in Perception among respondents from different age groups towards Reliability dimension.

H3.3: There is no significant difference in Perception among respondents from different age groups towards Responsiveness dimension.

H3.4: There is no significant difference in Perception among respondents from different age groups towards Assurance dimension.

H3.5: There is no significant difference in Perception among respondents from different age groups towards Empathy dimension.

H4: There is no significant difference in Perception among respondents from different educational level towards service quality.

H4.1: There is no significant difference in Perception among respondents from different educational level towards Tangibility dimension.

H4.2: There is no significant difference in Perception among respondents from different educational level towards Reliability dimension.

H4.3: There is no significant difference in Perception among respondents from different educational level towards Responsiveness dimension.
H₄.₄: There is no significant difference in Perception among respondents from different educational level towards Assurance dimension.

H₄.₅: There is no significant difference in Perception among respondents from different educational level towards Empathy dimension.

H₅: There is no significant difference in Perception among respondents from different occupations towards service quality.

H₅.₁: There is no significant difference in Perception among respondents from different occupations towards Tangibility dimension.

H₅.₂: There is no significant difference in Perception among respondents from different occupations towards Reliability dimension.

H₅.₃: There is no significant difference in Perception among respondents from different occupations towards Responsiveness dimension.

H₅.₄: There is no significant difference in Perception among respondents from different occupations towards Assurance dimension.

H₅.₅: There is no significant difference in Perception among respondents from different occupations towards Empathy dimension.

**On the basis of Expectation towards service quality** -

H₆: There is no significant difference in Expectation between rural and urban respondents towards service quality.

H₆.₁: There is no significant difference in Expectation between rural and urban respondents towards Tangibility dimension.

H₆.₂: There is no significant difference in Expectation between rural and urban respondents towards Reliability dimension.

H₆.₃: There is no significant difference in Expectation between rural and urban respondents towards Responsiveness dimension.
H₆₄: There is no significant difference in Expectation between rural and urban respondents towards Assurance dimension.

H₆₅: There is no significant difference in Expectation between rural and urban respondents towards Empathy dimension.

H₇: There is no significant difference in Expectation between male and female respondents towards service quality.

H₇₁: There is no significant difference in Expectation between male and female respondents towards Tangibility dimension.

H₇₂: There is no significant difference in Expectation between male and female respondents towards Reliability dimension.

H₇₃: There is no significant difference in Expectation between male and female respondents towards Responsiveness dimension.

H₇₄: There is no significant difference in Expectation between male and female respondents towards Assurance dimension.

H₇₅: There is no significant difference in Expectation between male and female respondents towards Empathy dimension.

H₈: There is no significant difference in Expectation among respondents from different age groups towards service quality.

H₈₁: There is no significant difference in Expectation among respondents from different age groups towards Tangibility dimension.

H₈₂: There is no significant difference in Expectation among respondents from different age groups towards Reliability dimension.

H₈₃: There is no significant difference in Expectation among respondents from different age groups towards Responsiveness dimension.
H₈₄: There is no significant difference in Expectation among respondents from different age groups towards Assurance dimension.

H₈₅: There is no significant difference in Expectation among respondents from different age groups towards Empathy dimension.

H₉: There is no significant difference in Expectation among respondents with different educational level towards service quality.

H₉₁: There is no significant difference in Expectation among respondents from different educational level towards Tangibility dimension.

H₉₂: There is no significant difference in Expectation among respondents from different educational level towards Reliability dimension.

H₉₃: There is no significant difference in Expectation among respondents from different educational level towards Responsiveness dimension.

H₉₄: There is no significant difference in Expectation among respondents from different educational level towards Assurance dimension.

H₉₅: There is no significant difference in Expectation among respondents from different educational level towards Empathy dimension.

H₁₀: There is no significant difference in Expectation among respondents from different occupations towards service quality.

H₁₀₁: There is no significant difference in Expectation among respondents from different occupations towards Tangibility dimension.

H₁₀₂: There is no significant difference in Expectation among respondents from different occupations towards Reliability dimension.

H₁₀₃: There is no significant difference in Expectation among respondents from different occupations towards Responsiveness dimension.
There is no significant difference in Expectation among respondents from different occupations towards Assurance dimension.

There is no significant difference in Expectation among respondents from different occupations towards Empathy dimension.

On the basis of Satisfaction towards service quality -

There is no significant difference in Satisfaction between rural and urban customers towards service quality.

There is no significant difference in Satisfaction between rural and urban respondents towards Tangibility dimension.

There is no significant difference in Satisfaction between rural and urban respondents towards Reliability dimension.

There is no significant difference in Satisfaction between rural and urban respondents towards Responsiveness dimension.

There is no significant difference in Satisfaction between rural and urban respondents towards Assurance dimension.

There is no significant difference in Satisfaction between rural and urban respondents towards Empathy dimension.

There is no significant difference in Satisfaction between male and female respondents towards service quality.

There is no significant difference in Satisfaction between male and female respondents towards Tangibility dimension.

There is no significant difference in Satisfaction between male and female respondents towards Reliability dimension.
H_{12.3}: There is no significant difference in Satisfaction between male and female respondents towards Responsiveness dimension.

H_{12.4}: There is no significant difference in Satisfaction between male and female respondents towards Assurance dimension.

H_{12.5}: There is no significant difference in Satisfaction between male and female respondents towards Empathy dimension.

H_{13}: There is no significant difference in Satisfaction among respondents from different age groups towards service quality.

H_{13.1}: There is no significant difference in Satisfaction among respondents from different age groups towards Tangibility dimension.

H_{13.2}: There is no significant difference in Satisfaction among respondents from different age groups towards Reliability dimension.

H_{13.3}: There is no significant difference in Satisfaction among respondents from different age groups towards Responsiveness dimension.

H_{13.4}: There is no significant difference in Satisfaction among respondents from different age groups towards Assurance dimension.

H_{13.5}: There is no significant difference in Satisfaction among respondents from different age groups towards Empathy dimension.

H_{14}: There is no significant difference in Satisfaction among respondents with different educational level towards service quality.

H_{14.1}: There is no significant difference in Satisfaction among respondents from different educational level towards Tangibility dimension.

H_{14.2}: There is no significant difference in Satisfaction among respondents from different educational level towards Reliability dimension.
H_{14.3}: There is no significant difference in Satisfaction among respondents from different educational level towards Responsiveness dimension.

H_{14.4}: There is no significant difference in Satisfaction among respondents from different educational level towards Assurance dimension.

H_{14.5}: There is no significant difference in Satisfaction among respondents from different educational level towards Empathy dimension.

H_{15}: There is no significant difference in Satisfaction between respondents from different occupations towards service quality.

H_{15.1}: There is no significant difference in Satisfaction among respondents from different occupations towards Tangibility dimension.

H_{15.2}: There is no significant difference in Satisfaction among respondents from different occupations towards Reliability dimension.

H_{15.3}: There is no significant difference in Satisfaction among respondents from different occupations towards Responsiveness dimension.

H_{15.4}: There is no significant difference in Satisfaction among respondents from different occupations towards Assurance dimension.

H_{15.5}: There is no significant difference in Satisfaction among respondents from different occupations towards Empathy dimension.

Opinion towards service attributes -

H_{16}: There is no significant difference in Opinion between rural and urban respondents towards service attributes.

H_{17}: There is no significant difference in Opinion between male and female respondents towards service attributes.


$H_{18}$: There is no significant difference in Opinion among respondents from different age groups towards service attributes.

$H_{19}$: There is no significant difference in Opinion among respondents with different educational level towards service attributes.

$H_{20}$: There is no significant difference in Opinion among respondents from different occupations towards service attributes.

**Satisfaction towards service attributes -**

$H_{21}$: There is no significant difference in Satisfaction between rural and urban respondents towards service attributes.

$H_{22}$: There is no significant difference in Satisfaction between male and female respondents towards service attributes.

$H_{23}$: There is no significant difference in Satisfaction among respondents from different age groups towards service Attributes.

$H_{24}$: There is no significant difference in Satisfaction among respondents with different educational level towards service Attributes.

$H_{25}$: There is no significant difference in Satisfaction among respondents form different occupation towards service Attributes.

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The 4\textsuperscript{th} objective -To measure the gap between service quality perception and service quality expectation of cellular subscribers- the following hypothesis is framed

$H_{26}$: There is no significant difference between Service Quality Perception and Service Quality Expectation.
The hypothesis below is formulated based on 5th objective - To measure the gap between service quality expectation and service quality satisfaction of cellular subscribers.

H$_{27}$: There is no significant difference between Service Quality Expectation and Service Quality Satisfaction.

1.10 Methodology of the Research Study

The study is empirical and descriptive. Data has been collected from rural and urban cellular subscribers from different taluks of Mysore district. Both primary and secondary source are considered for the study also selected suitable statistical tools to find the results.

1.10.1 Primary Source

The primary data is collected by distributing structured questionnaire. The questionnaires are circulated to the selected samples from rural and urban taluks in Mysore district. Questionnaire consists of two major parts. Part A is about demographic profile of the respondents. Part – B consists of information about the service subscribed by the respondents. Further, Part - B is divided into part-I which is about customers’ perception, part –II which contains information about customers’ expectation, part-III which consists of information about customers’ satisfaction and part-IV which contains information about customers’ loyalty. The survey was conducted over a period of two years (2013-2015).

1.10.2 Secondary Source

The secondary data was collected through published sources like, Annual reports of telecom sectors, research articles, newspapers, magazines, various journals and web sources.

1.10.3 Sample – Method and Size

Stratified simple random sampling under probability method was selected to decide the sample size. The table 1.1 shows the sample selected in each taluk of Mysore district. The total population of Mysore district is 29, 94,744 (as per 2011 census). Study has considered Cellular subscribers of BSNL, Airtel, Vodafone, Idea and other cellular service providers like, MTS, Reliance, Aircel etc., are considered for the study. The samples were collected from both rural and urban areas of different
taluks in Mysore district. The total sample size consists 0.01% of the Mysore district population.

**MYSURU DISTRICT**

![Mysore District Map](image)

Source: District map

The table below shows the distribution of sample size.

<table>
<thead>
<tr>
<th>SL No</th>
<th>Names of the Mysuru taluks</th>
<th>Population size</th>
<th>Sample selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heggaddevana Kote</td>
<td>Rural – 238079</td>
<td>238</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 25715</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 263794</td>
<td>264</td>
</tr>
<tr>
<td>2</td>
<td>Periyaptana</td>
<td>Rural – 225484</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 16722</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 242206</td>
<td>242</td>
</tr>
<tr>
<td>3</td>
<td>Hunsuru</td>
<td>Rural – 231872</td>
<td>232</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 50859</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 282731</td>
<td>283</td>
</tr>
<tr>
<td>4</td>
<td>Krishna Raja Nagara</td>
<td>Rural – 216948</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 35757</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 252705</td>
<td>253</td>
</tr>
<tr>
<td>5</td>
<td>Mysuru</td>
<td>Rural – 269365</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 1007226</td>
<td>1007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 1276591</td>
<td>1276</td>
</tr>
<tr>
<td>6</td>
<td>Nanjangudu</td>
<td>Rural – 334721</td>
<td>334</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 50564</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 385285</td>
<td>385</td>
</tr>
<tr>
<td>7</td>
<td>Tirumakudlu Narsipura</td>
<td>Rural – 239943</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban – 51489</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total – 291432</td>
<td>291</td>
</tr>
<tr>
<td></td>
<td>Total sample selected</td>
<td></td>
<td>2994744</td>
</tr>
</tbody>
</table>
In cellular services there are two types of subscription schemes. One is pre-paid and other one is post paid. Information, from both pre-paid and post paid service subscribers in the selected sample is collected for the study.

1.10.4 Reliability of the instruments used:

A pilot study was conducted to test the reliability of the scale framed in the questionnaire using Cronbach’s Alpha, and 95 cellular subscribers were selected from the population and are not considered as the sample for the main study. The reliability statistics result for the variables represented 0.844 which means the instruments measured are reliable. By considering all the viability of the instruments the main study is conducted. The result of reliability analysis of the variables used for the study is presented below:
Table 1.2: Result of Reliability analysis of service quality and service attributes variables

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>Variables</th>
<th>No. of Statements</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Service quality Perception</td>
<td>4</td>
<td>0.897</td>
</tr>
<tr>
<td>2</td>
<td>Service quality Expectation</td>
<td>4</td>
<td>0.966</td>
</tr>
<tr>
<td>3</td>
<td>Service quality Satisfaction</td>
<td>4</td>
<td>0.986</td>
</tr>
<tr>
<td>4</td>
<td>Satisfaction with service attributes</td>
<td>8</td>
<td>0.814</td>
</tr>
<tr>
<td>5</td>
<td>Opinion about service attributes</td>
<td>8</td>
<td>0.872</td>
</tr>
</tbody>
</table>

Source: Field survey

1.10.5 Analytical tool

To analyze the collected data, different statistical tools like mean, standard deviation and Cramers’ value under chi-square test are used. Analysis of variance is applied to test the difference among variables with the help of SPSS package 16th version. Tables and charts are used to exhibit the results.

1.10.6 Scope of the study

Majority of the population resides in the rural areas of Mysore district except Mysore taluk. Most of their business transactions and personal work are held through cell phones. With the fast growing technology and dynamic competitive situation, understanding customers’ expectations is a challenging task for any organization. Moreover, customers have an opportunity to change their opted service connection because of dissatisfaction or in search of varieties. Understanding the reasons for changing the service connections is inevitable.

The study is confined to cellular subscribers from seven Taluks of Mysore district viz., Heggadadevana Kote, Periyaptana, Hunsuru, Krishnarajanagara, Mysuru, Nanjangudu, and Tirumakudlu Narsipura. An in depth research has been done on cellular subscribers’ perception, expectation, satisfaction, loyalty and opinion about their opted service.
1.11 Limitation of the study

The study is conducted in Mysore district. Among the total population of Mysore district, only 0.01% sample has been considered on random basis. The analysis has been done based on the information provided by the respondents.

As of now Indian telecom sector is technology oriented. Offering up to date services to the customers is very important or else they may change their service connection with the existing mobile number. So, a conclusion was drawn based on the information provided by the cellular subscribers about the network they have opted at present.

1.12 Organization of the thesis

The thesis has been organized into five different chapters as follow:-

Chapter 1: Introduction

This chapter presents background of the research topic, meaning and definition, and research done on service quality, customer perception and expectation, satisfaction, switching behavior and loyalty of cellular subscribers in telecom sector. It also covers research work done on other service sectors, need for the study, statement of the problem, objectives of the study, research hypotheses, research methodology, scope and limitations of the study, and the chapter scheme.

Chapter2: An overview - Indian Telecom Sector

This chapter covers the brief history of the Indian telecom sector, its growth, major developments, regulating authorities, policies, technologies and the profiles of major players of Indian telecom sector.

Chapter3: Profile of the Respondents

This chapter is divided into two different parts Part-A and Part-B. Part-A covers demographic profile of the respondents. Part-B provides information about the service subscribed and related information.
Chapter 4: Analysis and Interpretation of data

This chapter consists analysis and interpretation of the opinion of the respondents about criteria for choosing their brand, worth of the service offered, satisfaction, experience, value added services, advertisement for the brand, brand loyalty drives, satisfaction with the price offered by the opted service.

Chapter 5: Testing of Hypotheses

This chapter depicts the information of research hypotheses by considering the customers' perception, expectation, satisfaction and loyalty towards service quality and service attributes offered by the service providers. The results are analyzed by applying suitable statistical tools with the help of SPSS software.

Chapter 6: Summary of the Findings, Suggestions and Conclusion

This chapter presents general as well as major findings based on the analysis. Suitable suggestions are given based on the findings and observations. Finally, the study concludes overall research work and also discusses about further scope for research.