CHAPTER - 2

REVIEW OF LITERATURE

2.1 Brief Overview

Effective research cannot be accomplished without studying critically what already exists in the form of general literature and specific studies. Therefore, it is considered as an important prerequisite for actual planning and execution of research projects. The review of existing literature helps to formulate hypotheses, identify research gap and formulate framework for further investigation.

In this chapter, the theoretical bases for this study are supported by a discussion of previous studies and existing research related to the topic. The objective is to examine existing research on customer retention and its determinants in order to establish a theoretical basis and identify the research gap. Identification of research gap will permit the study to hypothesize the linkage among the different constructs currently acknowledged to affect behavioural intentions and outcome of customer retention.

The review of literature is organised in five sections:

Section 1: Studies Related to Growth & Development of Telecommunication Sector in India.

- Technological Advancement in Telecom Sector,
- Investment Policy of Telecom Sector.
- Competition in Telecom Sector.

Section 2: Studies Related to Customer Retention.

Section 3: Studies Explaining the Relationship between Customer Retention and Service Quality.

Section 4: Studies Explaining the Relationship between Customer Retention and Switching Barrier.

Section 5: Studies Explaining the Relationship between Customer Retention and Satisfaction.
2.2 Studies Related To Growth and Developments of Indian Telecom Sector in India

Snyder (2006) states that communication is a process that allows information to pass between a sender and one or more receivers and the transfer of meaningful information or ideas from one location to a second location. Communications is a human process; human communicate by sending information between them. On the other hand, telecommunication is the transmission of data or information over a distance. Tele is a Greek word meaning at a distance, far off. Thus, it classifies smoke signals, semaphore flags, lanterns and signal flares, telegraph systems, televisions, telephones, written letters, and hand signals as capabilities that support telecommunications. The problems with these communications forms include reliability, speed of transmission, and comprehension purposes.

National Telecom Policy (NTP) of India 2012 projected to increase rural teledensity from the current level of around 39 to 70 by the year 2017 and 100 by the year 2020. The number of telephone connections, at the end of February 2012, was 943 million, as compared to 41 million at the end of December 2001. This growth has been fuelled by the cellular segment (mobile phones) which alone accounted for 911 million connections at the end of February 2012. The composition of the telecom sector too has witnessed a structural change, with the private sector accounting for 88 % of the total connections. It is also projected in NTP 2012 to provide affordable and reliable broadband-on-demand by the year 2015 and to achieve 175 million broadband connections by the year 2017 and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand.

Department of Telecommunications (DOT) Annual Report (2011-12) states that Indian Telecommunication sector maintained an impressive growth rate during the current year. Indian telecom network has 926.55 million connections at the end of December11 with 893.86 million wireless connections and it is the second largest network in the world after China, and one billion mark also appears achievable. The penetration of internet and broadband has also improved with 20.99 million internet subscribers and 13.30 million broadband subscribers across the country. The future progress of telecommunication in our country is very encouraging as operators have
started rolling out the wireless broadband networks in the country and soon the services are expected to be available in the entire country.

**Economic Survey of Government of India (2011-12)** has mentioned to make available secure, reliable and affordable voice telephony and high speed broadband services to every citizen in India with special focus on rural and remote areas. It also intends to improve the broadband experience by enhancing the speed of delivery and to make India a global hub of manufacturing all electronic products including telecom equipment with substantial value addition within the country and safeguard security concerns of the nation. Economic survey also indicates to achieve One Nation- Full Mobile Number Portability and to enable free roaming throughout the country.

**Report of the Working Report on the Telecom Sector for the 12th Plan (2012-2017)** suggests that the Indian Telecommunication sector has witnessed major changes in the tariff structure. The telecommunication tariff order (TTO) 1999, issued by the Regulator (TRAI), had begun the process of tariff rebalancing with a view to bringing them closer to the costs. Subsequent amendments to TTO 1999 coupled with enhanced competition has resulted in gradual and substantial reduction in the tariffs. Some of the packages offered by operators provide local calls as low as ½ paisa per second and STD as 1 paisa per minute. International call charges have also reduced significantly. During the 11th Plan period, it was projected that 75% of telecom equipment demand would be met from indigenous sources; however the actual production was much lower. During this period, mobile handset manufacturing began but the production as well as value addition has been limited in numbers.

**Economic Times (November 15, 2012)** states that for the telecom sector it is the regulatory overhang, which was there, has got partly addressed. One, on spectrum reframing and the associated cost for the 900 MHz spectrum, and the second is licence fee that the government will charge whenever the licence renewal is completed in two years time. So the hope for this auction will provide some sort of benchmark for some obvious things, but does not look like it is the case. The market is somewhat positively inclined looking at the fact that there was no irrational building in the sector. Reliance did not show its stand. So those issues have got partly addressed and now the market is probably focussing on the fact that the competitive
intensity, which has been in the industry, could start seeing some decline. Balance sheet, which was looking very venerable for most of these companies, is not going to get as much damaged if the auction had been hugely successful.

Adam Braff, Passmore and Simpson (2003) opine that telecom service provider even in United States face a sea of troubles. The outlook for US wireless carriers is challenging. They can no longer grow by acquiring new customers; in fact, their new customers are likely to be migrated from other carriers. Indeed, churning will account for as much as 80% of new customers in 2005. At the same time, the carrier’s Average Revenue Per User (ARPU) is falling.

Dutt and Sundram (2004) identify that in order to boost communication for business, new modes of communication are now being introduced in various cities of the country. Cellular Mobile Phones, Radio Paging, E-mail, Voice-mail, Video, Text and Video-Conferencing now operational in many cities, are a boon to business and industry. Value-added hi-tech services, access to Internet and Introduction of Integrated Service Digital Network are being introduced in various places in the country.

T.V. Ramachandran (2005) analyses the performance of Indian Telecom Industry which is based on volumes rather than margins. The Indian consumer is extremely price sensitive. Various socio-demographic factors, rising income levels, booming knowledge sector and growing urbanization have contributed towards tremendous growth of this sector. The instrument that will tie these things together and deliver the mobile revolution to the masses will be 3 Generation (3G) services.

Rajan Bharti Mittal (2005) explains the paradigm shift in the way people communicate. There are over 1.5 billion mobile phone users in the world today, more than three times the number of PCOs. India today has the sixth largest telecom network in the world up from 14th in 1995, and second largest among the emerging economies. It is also the world’s 12th biggest market with a large pie of $ 6.4 billion. The telecom revolution is propelling the growth of India as an economic powerhouse while bridging the developed and the developing economies.
ASEAN India Synergy Sectors (2005) point out that high quality of telecommunication infrastructure is the pillar of growth for information technology (IT) and IT enabled services. Keeping this in view, the focus of telecom policy is vision of world class telecommunication services at reasonable rates. Provision of telecom services in rural areas would be another thrust area to attain the goal of accelerated economic development and social change. Convergence of services is a major new emerging area.

Aisha Khan and Ruchi Chaturvedi (2005) explain that as the competition in telecom area intensified, service providers took new initiatives to customers. Prominent among them were celebrity endorsements, loyalty rewards, discount coupons, business solutions and talk time schemes. The most important consumer segments in the cellular market were the youth segment and business class segment. The youth segment at the inaugural session of cellular summit, 2005, the Union Minister for Communications and Information Technology, Dayanidhi Maran had proudly stated that Indian telecom had reached the landmark of 100 million telecom subscribers of which 50% were mobile phone users. Whereas in African countries like Togo and Cape Verde have a coverage of 90% while India manages a merely mobile coverage of 20%.

Marine and Blanchard (2005) identifies the reasons for the unexpected boom in mobile networks. According to them, cell phones, based on Global System for Mobile Communication (GSM) standard require less investment as compared to fixed lines. Besides this, a wireless infrastructure has more mobility, sharing of usage, rapid profitability. Besides this, usage of prepaid cards is the extent of 90% simplifies management of customer base. Moreover, it is suitable to people’s way of life—rural, urban, and sub-urban subscribers.

G. Dhananjayan (2005) conducts a case study on mobile users of Punjab and concluded that despite the presence of only four mobile operators in Punjab (against six in most of other states), due to aggressive market expansion and segmentation strategy followed by two key operators (Airtel and Spice), the total mobile population crossed 3.2 million by October 2004 for a population of just 24.35 million, thus achieving a penetration level of a whopping 13%. Most states
which are industrially advanced had just 6% mobile penetration, clearly illustrating the lead achieved by Punjab.

**Business and Economy (2005)** identifies the catalyst for Indian mobile operators in the future will undoubtedly be increased marketing and advertisement expenditure, along with better deals for mobile phone users like the previously mentioned full talk time Rs. 10 recharge card, will go a long way in not only retaining customers but also acquiring the vast market of lowered customers who are extremely sticky about value for money and have extremely low loyalties and almost non-existent switching costs.

**Oliver Stehmann (2005)** points out that the telecommunications industry is characterized by rapid innovation in the service and the transmission market. The legally protected public or private monopolist does not have the same incentive to foster innovation that would exist in a competitive environment. Thus, state intervention based on the natural monopoly argument neglects dynamic aspects, which are crucial in the telecommunications sector.

**Associated Chambers of Commerce and Industry of India (2005)** point out that 30% of the new mobile subscribers added by the operators worldwide will come from India by 2009. 10% of the third generation (3G) subscribers will be from India by 2011; Indian handset segment could be between US $ 13 billion and US $ 15 billion by 2016. It offers a great opportunity for equipment vendors to make India a manufacturing hub. Indian infrastructure capital expenditure on cellular equipment will be between 10 to 20% of the investment that will be made by international operators by 2015. The other proposals included setting up of hardware manufacturing cluster parks, conforming to global standards and fiscal incentives for telecom manufacturing among others.

**Virat Bahri (2006)** explains the viewpoint of Sam Pitroda the Chairman of Worltdel that identifies opportunities for investments in telecommunications. He analyses that there is an increasing role for telecom in e-governance in India. According to him, technology can be leveraged to take India’s development to next level.
2.2.1 Studies Related to Technological Advancement in Telecom Sector:

**Economic Times (November 26, 2012)** point out that the telecom sector in India looking to 4G upgradation: Semiconductor companies come up with innovative, low-cost technology. The dust kicked up by the 2G spectrum auction may finally be settling, but a storm is building up on another front. Telecom service-providers, smarting under stiff peer competition and high spectrum charges, have now got to upgrade their base stations to offer 3G and 4G facilities to maintain their competitive edge and cater to the high data and voice traffic demands.

**Communications Today (November 26, 2012)** explain that the field is now open to technology providers to bring out innovative, cost effective technologies for base station upgradation. One industry in particular the chip manufacturers is scrambling for attention in the telecom equipment market, offering intelligent chips which can perform multiple functions and even integrate some of the functions, traditionally done by the software, on the silicon itself. Customers also need to have devices which are 4G compliant and dongles to support this network. The onus is now on tech providers to provide gear which involves low installation costs, can be upgraded and has the capacity to handle heavy throughput. "The capex and opex challenges faced by the telecom industry can only be mitigated by the use of state-of-the-art semiconductor and packaging technologies.

**Ministry of Communication and Technology Report (December 2012)**

**Implementation of National Optical Fibre Network (NOFN):** All village Panchayats are to be connected through NOFN to enable delivery of public and private electronic services to citizens in urban and rural areas. Broadband is a tool for improving the life of people by providing affordable and equitable access to information and knowledge. For individual, broadband has direct impact on their day to day life style and behaviour. For State, it enormously contributes towards trade and generation of employment. Many Information and Communication Technologies (ICT) applications such as e-commerce, e-banking, e-governance, e-education and tele-medicine require high speed Internet connectivity. Government has approved
National Optical Fiber Network in October 2011 for providing Broadband connectivity to all Panchayats at a cost of approx 20,000 Crore.

Department of Telecommunications (DOT) Annual Report (2011-12) explains that India has proved its dominance as a technology solution provider. Efforts are continuously being made to develop affordable technology for masses, as also comprehensive security infrastructure for telecom network. Research is on for the preparation of tested infrastructure for enabling interoperability in Next Generation Network. Pilot projects on the existing and emerging technologies have been undertaken including WiMax, 3G etc. Emphasis is being given to technologies having potential to improve rural connectivity. Also to beef up R&D infrastructure in the telecom sector and bridge the digital divide, cellular operators, top academic institutes and the Government of India together set up the Telecom Centres of Excellence (COEs). Seven Centres of Excellences in various field of Telecom have been set up with the support of Government and the participation of private/public telecom operators as sponsors, at the selected academic institutions of India.

E Pedersen and Methlie (2002) conduct a study the technology aspect and explain a comparative view. According to them, a comparison of the slow adoption of WAP services in Europe with the successful adoption of comparable I-mode services in Japan and technologically simple SMS based services in Scandinavian suggest that aggregate and technology based models are insufficient to explain the mobile service. Thus, technological models of the supply side need to be supplemented with the views and impact of perceptions from the demand side of the mobile commerce end user.

World Telecommunication Development Report (2002) shows that the technologies of mobile telecommunications and internet are going to set the contours of further technological progress in the current decade. The most recently initiatives aims at convergence of voice and data received from multiple sources both web based and real time video streams in mobile handsets and calling cards have virtual presence possible almost everywhere overcoming the barriers of distance, topography and remoteness.
Prithipal Singh (2004) observes that with the convergence of technologies, data services are expected to grow exponentially in the years to come. Broadband is likely to take a lead in the development of Indian Telecom Sector. Broadband is growing market and offers immense possibilities for investment. In Broadband policy, India has envisaged a target of 40 million Internet subscribers and 20 million broadband subscribers in the country.

P.S. Saran (2004) finds that the telecom technology in India has transformed from manual and electro-mechanical systems to the digital systems. India has stepped into new millennium by having 100% electronic switching system. The technological changes have made way for new services and economics in the provision of telecom services.

Mather (2005) explores that the challenge, of course, is that a competitor can show up in one of your established markets with new technology, better people, a better network of companies for support and a better management style and steal huge chunks of your business before you can respond. Staying at the forefront of all these issues will be the only way to stay successful.

2.2.3 Studies on Investment Policy of Telecom Sector:

Moto (1990) observes the need of separate policy, regulation and operation which require changes in legislation - for example the restructuring the Japanese Nippon Telegraph and Telephone Public Corporation and Kokusai Denshin Dewwa were preceded by appropriate changes in legal framework.

Melody (1990) points out that the Indian Government had not addressed the basic requirement necessary for reform and there was no pre-planned sequence of structural changes which are basic determinants of reform. Therefore, the government, investors and subscribes could expect only marginal benefits from the reform process.

Akwule (1992) researches that India in comparison with Kenya, which had almost the same level of gross domestic investment as percentage of GDP from 1981- 89 raided the telecom investment as a share of GDP from 3.28% to 8.67 in 1978. The effect of
under investment in these sectors was compounded by the diffusion of these scarce resources over a number of areas where no specific area in telecom was developed.

**Jain and Chhokar (1993)** points out the limitations of capital and manpower as key constraints. The Athreya Committee’s report may be viewed as an initiation of a process of examining organizational options. Management incentives which would allow these organizations to increase profitability and the structural mechanisms which would allow them to raise capital from markets had been sketchily outlined.

**Department of Telecommunications (DOT) Annual Report (2011-12)** states that telecom is the third major sector attracting FDI inflows after services and computer software sector. In the telecom sector, FDI up to 49% is allowed under automatic route and beyond that up to 74% is permitted through the Foreign Investment Promotion Board (FIPB), a government body. As per the current telecom services policy, the sector has 74% of equity on basic cellular, unified access services and other value-added services. An attractive trade and investment policy and lucrative incentives for foreign collaborations have made India one of the world’s most attractive markets for the telecom equipment suppliers and service providers. Few such constructive policies are:

No industrial license is required for setting up manufacturing units for telecom equipment.

- 100% Foreign Direct Investment (FDI) is allowed through automatic route for manufacturing of telecom equipments.

- Payments for royalty, lump sum fee for transfer of technology and payments for use of trademark/brand name on the automatic route.

- Foreign equity of 74% (49 % under automatic route) is permitted for telecom services - basic, cellular mobile, paging, value added services, NLD, ILD, ISPs - and global mobile personal communications by satellite.

- Full reparability of dividend income and capital invested in the telecom sector.
Debabrata Datta (2012) conducts a study on spectrum auction and telecom policy, he argues that high amount of auction bid can result in several deficiencies in the telecom industry. An issue of debate is whether high auction bid will result in higher price for the services. Under the assumption of infinite time horizon, high license fee is a sunk cost and therefore does not raise price. But this paper shows that a high license fee can raise the lending bank’s interest charge for which not only price rises but the infrastructural investment in the telecom industry suffers. After the acquisition of spectrum through auction the industry needs infrastructural investments to roll out the quality services. Inadequate investment in infrastructural activities like procurement of quality equipments, erection of tower, etc., may result in lower quantum of services with degraded qualities. This is in fact a reality in India where not only rural telecom infrastructure is vastly inadequate, the urban telecom infrastructure is also under severe stress. The paper shows that these objectives are realized if a part of the license fee is spent for the subsidization of infrastructural investment in the telecom industry.

According to Business Standard (9 December, 2012) despite several controversies like 2G spectrum scam, the telecom sector witnessed over 17% increase in investment in 2010-11 over the previous financial year. The capital employed in the telecom sector increased to Rs 3,37,683 crore in 2010-11 from Rs 2,86,837 crore in 2009-10, according to Trai’s annual report 2010-11. The growth in subscriber base resulted in an increase in the gross revenue of telecom services as reported by the service providers for the year to Rs 1,71,719 crore during the year, a growth of 8.69% from Rs 1,57,985 crore in the previous year. The revenue contribution from the public sector telecom companies in 2010-11 was 20.37% (previous year 24.82%) and from private sector firms was 79.63% (previous year 75.18%).

2.2.4 Studies Related to Competition in Indian Telecom Service Sector:

Shyamal Ghosh (2003) mentions that the most significant development since 1999 has been the progressive reduction in tariffs which has been facilitated by competition through multi operator environment. The most dramatic reduction in tariff has been from very high Rs. 16 per minute to Rs. 2 per minute.
N.M. Shanthi (2005) throws light on the factors that contributed to the growth of telecom sectors. The studies various initiatives take by government in lien of liberalisation, privatisation and de-monopolisation initiatives. The trend is expected to continue in the segment as prices are falling as a result of competition in the segments. The beneficiaries of the competition are the consumers who are given a wide variety of services.

Kushan Mitra (2005) analyses various factors contributing to competition to Indian Telecom Industry. Besides lowering of prices, increased efficiency, greater innovation, highly tech industry better quality services are some of the reasons which are boosting competition amongst various telecom service providers.

Michael Meltzer (2005) explains that in electronic age, the need to manage customer relationships for profit is a marketing dilemma that many telecommunication companies face.

Arindham Mukherjee (March, 2006) takes out various case studies like Vodafone, Maxis, Telekopm Malaysia, Tatatele etc. to study the rising interest of foreigners for investment in Indian telecom industry. Various reasons of stemming growth can be rising subscriber base, rising teledensity, rising handset requirements, saturated telecom markets of other countries, stiff competition, requirement of huge capital, high growth curve on telecom, changing regulatory environment, conducive FDI limits in telecom sector.

Stephen Y. Walters (2003) observes that the telecommunications industry is being rocked by change fuelled by the advent of the tremendous success of the internet and its technologies. For quite some time, there has been competition in the telephony business. Long-distance rates have seen continuous decreases for two decades as new carriers sought to capture greater and greater market share. Local carriers have seen competition for interconnecting the networks of large corporate customers and for providing them access to long-distance services. So, competition and change are not new issues in telecommunications. But the internet has forced an entirely new set of changes on the phone business. There are new carriers, new business scenarios, new technologies, and new ways of thinking about end users
and the services they seek.

**Business Standard (October 1, 2012)** states that plagued by increasing competition, the telecom industry is adding more and more inactive subscriber, leading to saturation in the industry. Increasing price competition and aggressive customer acquisitions by the telecom operators could lead to saturation in the telecom industry, with the pace of subscriber addition not likely to be as strong as before, points out a recent report on the sector by rating agency ICRA. The active mobile phone subscribers base stood at 76 per cent of the total subscribers as on July 2012, translating into ‘active teledensity’ of 57 per cent, according to ICRA. The intense competition among companies led to frequent migrations between plans by the price-sensitive subscribers, leading to proliferation of inactive connections, the report said. The Indian telecom industry has at least seven telcos in each circle and up to 12 telcos in some circles competing for market share.

**Times of India (9 September, 2012)** states that the competitive intensity of the Indian telecom sector is likely to ease post in 2013 said a report by an investment bank. The auction of the 1,800 MHz band spectrum scheduled to begin in November, 2012 is likely to soften the competitive intensity in a sector that has been cut throat competition over the years. High cash requirements set over the medium term may shift focus from revenue market share (RMS) gains to cash profit generation, said Avendus Securities. The report said that under the worst case scenario, India's largest telecoms operator Bharti is likely to post earnings CAGR of 19% and Aditya Birla-owned Idea Cellular is likely to clock 18% during financial year 2013. Auctions may trigger easing of competitive intensity. An upcoming 1,800 MHz band auction is likely to set high cash requirements during the next few years. High cash requirements over the medium term may shift focus from RMS gains to cash profit generation, the report said. Similar to 3G auctions, high cash requirements due to auctions may ease competition. With the 1,800 MHz band auction scheduled to commence in this year, competitive intensity may remain high for two more quarters.

**ITU, Trends in Telecommunication Reform (2002)** find that the despite this encouraging trend toward market liberalization, there are still significant concerns that remain as to the true extent of meaningful competition in telecommunications market.
worldwide. In the provision of basic services for example, although more than 79 countries have allowed some competition in local service markets in 2001, only 46 countries had a second line operator to compete with the incumbent. Similarly, although over 81 per cent of countries claimed to allow competition in their cable TV markets last year, the real number of countries with effective competition is far fewer.

**Telecom watch (2011)** states that the incumbent operators BSNL/MTNL enjoys a dominant position in wire line segment of telecom market with a market share of nearly 88%. The MTNL operates in Delhi & Mumbai and BSNL operates in the rest of the country. Both these organisations have been carved out of the government i.e. the department of telecom and historically enjoyed the privileges being a government department such as right of way, the strategically located land and buildings and other infrastructural facilities. These organisations enjoys dominant position in wire-line telephony and using this infrastructure including copper local loop in acquiring dominant position in internet service provisions specially in broadband segment. Thus in order to encourage competition in the telecom sector, it is necessary that the other telecom licensees should have the access to the copper local loop on non-discriminatory basis for fair competition in these segments of the telecom.

**Telecom Solutions (2007)** point out that the falling ARPs is a natural consequence of progressively adding customers from lower income segments, division of household telecommunication expenditures between separate cell connections by family members and fall in prices due to fierce competition. After the recent launch of services by new entrants, currently 10 to 11 operators in a circle are jostling with each other for the same pie. Yes, falling ARPs have definitely created a concern among many observers. For instance over last one year MOU (Minutes of Usage) per customer fell by around 10% but ARPs has fallen by around 30%. Yet, the industry is not unattractive as some observers are portraying it to be. Despite the 1p/second scheme, if we take into account the income through rentals or administrative charges as it is for prepaid, the GSM operators are still earning close to 71 paisa per outgoing MOU and their average ARPs are around Rs 164 per customer per month. The large operators like Airtel are still clocking 40% EBDITA margin, even in the latest quarterly $40.
Subhashish Gupta (2007) find out that the telecommunication in India is seen as a resounding success of the policy of liberalization. There is vigorous competition in cellular mobile services and this sector continues to grow at a rapid pace and may soon boast of the world’s second largest network in the not too distant future. Prices of mobile calls are reputed to be the lowest in the world.

2.3 Studies Related to Customer Retention

Afreza Miremadi (2010) appraises the impact of electronic customer relationship management in creating loyalty and retention of customers in Iranian Telecommunication sector by focusing on mobile telecom sector. The objective of this study is to find the relationship between E-CRM effective factors and loyalty and retention factors in order to conduct the Irarian mobile telecom operators to be successful in enhancing loyalty and retention. According to the findings, for the successful implementation of the system, vision and commitment from the management are needed. Strategic priority should be given to tangibility; scalability and flexibility are important factor to construct the customer loyalty in Iranian mobile telecom industry where as for implementing the customer intention consideration should be given to personal compatibility, professional competence, frontline employee, quality of service and pricing policies attractions. These findings can become a useful marketing tool for the managers of the telecommunication organizations in Iran and in other countries.

Minna Pura (2005) studies the direct effect of perceived value dimensions (monetary, convenience, social emotional, conditional and epistemic value) on attitudinal and behavioural component of loyalty: commitment and behavioural intentions to use location based mobile services. This study revealed that the behavioural intentions were most influenced by conditional value, the context in which the service is used, followed closely by commitment and to some extent monetary value. Commitment can be enhance through building emotional value and conditional value by focusing on offering fun service experiences in the right context. The influence of social and epistemic value was not significant. Results give practical implications on how to increase awareness of location based service (LBS) in a way that gives a realistic picture of how LBS create value for customers.
Sabbir Rahman, Ahasanul Haque, Sayyed Ahmad (2011) investigate the choice criteria for a mobile phone operator in the Malaysian mobile Telecom market by the customers. Structural equation models were applied to test the propositions by means of a survey of a random sample of 400 mobile telecom customers form major cities in Malaysia. It was found that the price and service, quality hypothesis are more important than the brand image hypothesis. Network quality is one of the important factors of overall service quality. The outcome of this research show a comprehensively integrated framework in which to understand the vibrant relationship among several dimensions of service quality, price and brand image to have a handful idea on the consumer’s perceptions.

Motshedisi Elizabeth & Geoffrey Mukwada (2011) explore the strategies that have been employed by the cell phone companies in South Africa in order to retain subscribers. This study evaluates the retention strategies that have been adopted by the cellular industry, where players are battling to retain customer or recruit new ones. The evaluation is based on the perceptions of the customers of the five cell phone network providers that operate in South Africa. This study concludes that though there are many customer retention strategies that are employed in South African Cellular industry. The most effective are those related to quality of service, affordability of service and provision of customer support services. This study also indicate that in the Eastern Free state the perceptions of customers of the five cell phone companies are significantly different regarding the effectiveness of the marketing strategies employed by different service providers.

Torsten J. Gerpott et al (2001) test hypothesis suggesting that customer retention, customer loyalty and customer satisfaction should be treated as differential constructs which are causally interlinked. In this study LISREL analysis support a two staged model in which overall CS has a significant impact an customer loyalty which in turn influences a customer’s intention to terminate extend the contractual relationship with his mobile cellular network operator (=CR). Mobile service price and personal service benefit perceptions as well as (lack of) number portability between related variables with the strongest effect on customer retention. The findings suggest that an important
factor for regulators to promote competition in cellular markets is the enforcement of efficient number portability procedures between mobile network operators.

K.A. Silva & Yapa (2009) conduct a study to identify the main factors that determine the customer loyalty of corporate telecommunication customers. This study revealed that the most important factor determining the customer loyalty was the ability of service providers to add value to customer’s business process, contrary to the common belief that the low price keeps the customer with the same provider. However, it was found that relative importance of the factors is not same between two different groups, i.e. IT personal and non IT professional. The least important factors were tangibility, legal undertaking and payment terms. Further, it was found that people factors contributors play a more important role in customer satisfaction than the technology, price and payment terms.

Jawaria Fatima Ali et al (2010) conduct a study to investigate the variables which can help retain existing customers. The study found that price reasonability and call clarity as the strongest determinants of customer retention for the cellular industry of Pakistan. Study reveals that customer support services, value added services, user friendliness and customer complaints are having effects on customer satisfaction. However, overall customer satisfaction is having highly significant and positive relationship with customer retention in cellular industry of Pakistan. In order to retain customers the service providers should continuously satisfy its customer. As long as the satisfaction level of customer remains high, he/she will use the services of company. Any decrease in level of satisfaction of customer will also results in reduction of consumers to gain higher market share.

Lerley white and nenkata Yenkata Yanamandram (2009) conduct an investigation of the factors that potentially influence dissatisfied customers to continue purchasing form their existing service provider in the business to business service sector. The study reveals that five major factors deter customers from switching to alternative service providers: Switching; cost; interpersonal relationship; the attractiveness of alternatives; service recover; and inertia. These factors are machete by dependence and calculative commitment.
Lawrence Ang and Francis Buttle (2006) investigate the association between customer retention outcomes and a number of management processes including customer retention planning, budgeting and accountability and the presence of documented complaints, handling process. It was found that excellences at customer retention are positively and significantly associated with the presence of documented complaints handling process. None of the other variables is significantly associated with the dependent variable.

Minna Pura (2005) analyzes the direct effect of perceived value dimensions (monetary convenience social, emotional conditional and epistemic value) on attitudinal and behavioural component of loyalty commitment and behavioural intentions to use location based mobile services. The study reveal that behavioural intentions were most influenced by conditional value; the context, in which the service is used, followed closely by commitment and to some extent monetary value, commitment can be enhanced through building emotional value and conditional value by focusing on offering fun service experience in the right context. The influence of social and epistemic value was not significant. The minor influence of monetary value as well as the high influence of conditional value implies that the one dimensional value measures are not applicable in a mobile context where decisions are often made spontaneously and based on situational needs. Effective marketing strategies need to take into account the contextual use and emphasize other convenience or emotional value.

Hussen Javanshir et al (2011) examine the effects of customer value, customer satisfaction and customer loyalty on customer retention. The results indicate that all aspects of the customer value have positive relationship with customer satisfaction but only emotional value has a positive and direct relationship with customer loyalty & the study confirms that while none of customer value aspects has direct and positive relationship with customer retention both customer satisfaction and customer loyalty positively and directly affect customer retention. This study did not find any meaningful relationship between customer loyalty and functional value. Functional value is mostly inflectional when there is a big difference between the levels of services of various banks.
Yaobinlu et al (2009) examine the determinants of customer satisfaction and loyalty. The findings confirm that trust, perceived service quality, perceived customer value, including functional value and emotional value, contribute to generating customer satisfaction with mobile instruction message (MIM). The results also show that trust, customer satisfaction and switching cost directly enhance customer loyalty. Additionally, the study finds that age, gender and usage time have moderating effects.

Dung Back Seo (2007) conduct a study to understand the factors related to customer retention behaviour, both behavioural factors such as switching costs and customer satisfaction and demographic factors, its two goals are to understand how factors that affect switching costs and customer satisfaction such as length of association, service plan complexity handset sophistication and the quality of connectivity, drive customer retention behaviour and how customer demographics such as age and quality of connectivity, drive customer retention handset sophistication, leaching to differences in customer retention behaviour. Findings of study show strong relationship between switching costs and customer retention behaviour. Service plan complexity, reflecting price and wireless service usage and handset sophistication can increase switching cost, which are positively related to customer retention behaviour. The fundamental quality characteristics of wireless service connectivity quality do affect customer retention behaviour. The study also reveals how age and gender demographics can affect customer retention behaviour indirectly.

Jill Sureeney & Jojjre swait (2007) investigate the important optional sale of the brand in managing the churn of current customers of relational services. This search leads to the enhanced understand in that the brand has significant sale to play in managing long term customer relationships, and details how the usual tools of CRM, satisfaction and service quality recite to brand credibility. Results from sampler of retail bank and Long Distance Telephone Company customers medicate that brand credibility serves in a defensive role: It significantly enhances word of mouth and reduces switching behaviours among customer’s satisfaction and commitment. Findings suggest that brand credibility primarily commitment. Impact, customer satisfaction and secondarily, loyalty commitment. The effect of brand credibility on loyalty was primarily indirect through customer constructs satisfaction. This indicates
that the two experiential constructs, brand credibility (representing trust worthiness and expertise) and satisfaction (summarizing customer consumption experience over time) influence loyalty (representing psychological attachment and a desire to continue the relationship in the future. Brand credibility also positively impacts continuance commitment as hypothesized.

**Das Naryandas (2005)** studies the benefits of customer loyalty in B2C markets vs B2B markets. No doubt, the benefits of customer loyalty are enormous but the means by which companies create and sustain are not same as in the consumer markets. In business markets, every customer needs a customized product, quantity or price. In fact each segment effectively consists of one customer as compare to consumer market which has large number of buyers with similar wants, transactions are small in value, mass production, consumer’s perceptions and companies focus on brands.

**Singh and Gupta (2004)** explain the application of data mining tools on telecommunication industry. The telecom industry is offering local and long-distance telephone services to provide many comprehensive communication services including data and voice. Data mining tools are used for identifying behaviour patterns of behaviours of different groups of users, the traffic data, usage of services etc. For the purpose data from applications such as billing, marketing, sales, fraud management, performance analysis systems, network switches and customer service across the company.

**Gronroos (1995)** finds that the de-intermediation process and consequent prevalence of CRM is also due to the growth of the service economy. Since services are typically produced and delivered at the same institutions, it minimizes the role of the middlemen. A greater emotional bond between the service provider and the service users also develops the need for maintaining and enhancing the relationship. It is therefore not difficult to see that CRM is important for scholars and practitioners of services marketing.

**Storbacka (2000)** suggests that the company must be selective in tailors its program and marketing efforts by segmenting and selecting appropriate customers for
individual marketing programs. In some cases, it could even lead to “outsourcing of some customers” so that a company better utilize its resources on those customers it can serve better and create mutual value. However, the objective of a company is not to really prune its customer base but to identify appropriate programs and methods that would be profitable and create value for the firm and the customer.

**Gronroos (1990)** states: “Marketing is to establish, maintain and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by a mutual exchange and fulfilment of promises”. The implication of Gronroos’ definition is that customer relationships is the ‘raison de etre’ of the firm and marketing should be devoted to building and enhancing such relationships.

**Sheth and Parvatiyar (1995)** observed that developing customer relationships has historical antecedents going back into the pre-industrial era. Much of it was due to direct interaction between producers of agricultural products and their consumers. Similarly artisans often developed customized products for each customer. Such direct interaction led to relational bonding between the producer and the consumer. It was only after industrial era’s mass production society and the advent of middlemen that there were less frequent interactions between producers and consumers leading to transactions oriented marketing. The production and consumption functions got separated leading to marketing functions being performed by the middlemen. And middlemen are in general oriented towards economic aspects of buying since the largest cost is often the cost of goods sold.

**Frazier, Speakman and O’Neal (1988)** find that another force driving the adoption of CRM has been the total quality movement. When companies embraced Total Quality Management (TQM) philosophy to improve quality and reduce costs, it became necessary to involve suppliers and customers in implementing the program at all levels of the value chain. This needed close working relationships with customers, suppliers, and other members of the marketing infrastructure. Thus, several companies formed partnering relationships with suppliers and customers to practice TQM. Other programs such as Just-in-time (JIT) supply and Material Resource Planning (MRP) also made the use of interdependent relationships
between suppliers and customers.

Benni, Hjartar and Laartz (2003) study that mobile-telecom companies could build within the mobile-services domain might, for example, charge customers for on-line games (a reusable service, since it wouldn’t have to be created anew for each game launched), send out big volumes of automated text messages, and reformat video streams or music so that one service could address a variety of mobile devices. Standardized application services are just beginning to emerge in mobile telecommunications, but their value could grow rapidly. Application server software - a similar layer of reusable IT functions deployed in a multitude of enterprise applications (for instance, customer-relationship-management systems) - created a $2 billion market in only a few years.

David L. Kurtz (2003) proposes that the purpose of relationship marketing is to build long-term connections between the company and its customers and to develop brand and firm loyalty. Relationship marketing works well for services where transactions tend to be continuous and switching costs for customers are high. Firms operating in the customization and functional service quality sector do well with relationship marketing programs. The long-term goal of relationship marketing is to build brand loyalty. Personal interaction with service personnel is critical in the development of the long-term relationship.

Rayport and Bernard (2004) explain the importance of customer interface as competitive advantage in the era of shorter product cycles and fast commoditization of products. Failing to manage these interfaces to the firm’s advantage will affect its profits. Lack of proper management of touch points can cause a churn among the firm’s existing customers. A study of 700 mobile service customers in Cochin, Kerala reveals that 70% of the customers switched over to other mobile service because of the customers switched over to other mobile services because of poor customer service and lack of proper complaint handling.

Care Sewell (2004) in book titled “Customer for Life” explains that in order to attract and retain the customers, first a company is required to differentiate itself from its customers. As the author says special always wins over general. In the
process of doing that it is always better not to talk of prices in the promotional ads. The best way to let people know how the company differentiates from its competitors is not by words but by giving examples of what the company has done in the past. As everyone knows that word of mouth publicity is effective means of advertising than any other mode, it is always better to allow outsiders like research organizations or media periodically and allow them to know what exactly is happening in the organization. This gives customers a feeling that what the company says is indeed true as it is supported by these third parties though their reports.

Kumar, Venkatesan and Reinartz (2006) disclose that to retain valuable customers companies should give what they require. Companies that take advantage of new technology in the right way will doubly benefit. Predicting customer behaviour is highly unpredictable that companies spend millions inundating and alienating customers. So it is very important for companies to know what to sell, when and to whom.

T. Vekat Ram Raj and G. Radha Krishna (2006) find that all customers who have been associated with any company for reasonably a longer period of time should undoubtedly given priority treatment. In the present era of customer acquisition, corporate have been aggressively pursuing different customer retention strategies and tools for retaining customers, companies in India are realizing the fact that retaining an old customer is easier than acquiring a new one. Hence, most companies have started in feel the need to reward those customers who have been loyal to them.

Hommer and Krause (2004) observe that mobile-telephone companies tend to consider prepaid service a poor cousin of monthly bill subscriptions, and it is true that prepaid customers generate, on average, only 35 percent of the revenue that monthly subscribers do. Some mobile operators even talk about getting out of the prepaid business altogether. Research suggests, however, that prepaid customers, when managed properly, can offer a healthy revenue stream whether or not they eventually become monthly subscribers. It was found that when a carrier implements an effective acquisition program, it could increase the profitability of prepaid customers.
by 40 to 80 percent. To turn the prepaid segment around, companies must choose their customers more carefully manage the life cycle and clean.

**Alan.R.Skupp (1989)** in a descriptive paper subsequently analysed what is next to pricing in customer relationship management. This paper described the involvement of customers, marketing personnel and service providers in the successful utilization of customer relationship management. The success of the service provider lies on the perception of the consumers towards operational efficiency of the service providers. The article identified servicing rights and purchase price are highly correlated with each other. The pricing policy of the service providers is the primary variable to maximize the customer loyalty.

**David.G.Anderson, William. C.Penningiton (1992)** in a descriptive paper ascertained how the service specification is correlated to perfect service development. In cell phone industry, network test generation is an essential component of service verification. It is found that a perfect service development leans upon the efficiency of any organization to develop, deliver and maintain the services in any industry. The open service creation process provides a significant CRM process and its growth to increase the level of satisfaction of customers.

**Hamed.A.Al-saggaf (1997)** establishes a relationship between total quality management and its impact over maintenance of customer loyalty and effectiveness of CRM. It is found that the customer survey is indispensable to impose strategies for effective tracking of CRM process. It is also found that the quality of services, environmental factors optimize the customer satisfaction and leads to customer loyalty. The strategies of the firm involved all employees to offer best services to the customers; in fact the factor foretells the customer values for the improvement of better relations.

**Mile.Terziovski and Alison.Dean (1998)** conduct a research over best predictors of quality performers in Australian service organization. They empirically establish a link between quality and performance. They found that the company desires to increase the competitive quality of service. Then their strategic planning capabilities and employee’s knowledge and involvement are required to promote the positive
feeling among customers who possess the loyalty towards organization. It is also found that significant predictors are proposition to quality of service and continuous improvement in delivering customer satisfaction.

Michael S. McCarthy and Eugene H. Fram (2000) explored an investigation of customer penalties, ascertain the efficacy of the organization, consequences and fairness perception. The authors emphasized that the increase of customer loyalty is highly probable through successful relationship marketing. They identified that the customer penalties are intended to increase customer complaints with purchase agreements. They meticulously observed that the consequence of customer penalty policies rapidly reduce customer loyalty and increase negative word of mouth communications.

Tawna Wayment (2002) attempts a research move to analyze consumers perception and their attitudinal changes towards services of the firm. The research explored how purchase behavior fluctuates based on the service quality as well as the consumers perception towards service quality which determines the customer loyalty. The research emphasized that the service quality is the unique phenomenon for the change in the attitude of consumers. The purchase decision and the information search are also the powerful indicators to determine the service quality of the firms.

Punith Manchanda, Jean-Pierre Dubé, Khim Yong Goh, Pradeep K. Chintagunta (2002) in an innovative research work establish relationship between loyalty and customers retention using relationship management. The researcher meticulously observes how advertisement creates influence over customer retentions. It is found in the research paper that the number of advertisements have positive effect on customer retention. But, it does not have any deep influence in converting customers into loyal customers. The significant difference and heterogeneity views express the impact of advertisements and also demonstrate the importance of individual relationship with customers.

Vincent P. Magnini (2004) identifies the moderators effect of CRM in the service recovery process. The rigorous methodology is adopted to study the notions of recovery paradox and its influence over success as well as the failures of organization.
The researcher clearly identified that the recovery of every customer offers an opportunity for the firms to reach higher customer satisfaction services and attains higher customer loyalty. The control and stability of the firms during the CRM implementation creates a good intervention for the increase of customer satisfaction.

**Gulcin, Buyukozkan (2004)** conduct a study explaining the organizational information and its communication network and its effect over enhanced performance. It is found in the research work that the corporate responsive of any firm focuses towards organizational development and designing effective customer relationship management. The organizational information network is found to lean upon customers interaction and their responsiveness towards business process of the organization.

**Yonggui Wang, Hing PoLo, Renyong Chi and Younheng Yang (2004)** in an innovative research work developed a framework for customer value as well as customer relationship management. They determined the performance and effectiveness of customer relationship management in terms of service quality of service providers. They identified the significant difference between tangibility and intangibility in the development of brand loyalty. The segmentation of intangibility is found to comprise customer satisfaction and direct linkage with brand loyalty. The empirical model also stated that the functional value, social value, emotional value and perceived sacrifices are the predominant factors of customer value and also useful to establish a link between loyalty and satisfaction. The researchers found that the customer value measurement determines CRM performance of any organization.

**Iselin.Skogland and Judy.A.Siguaw (2004)** identify how the satisfied customers become loyal to any organization. They specifically underpinned that the customer satisfaction is not suitable for all the industries to become loyal to the organizations. The paper quoted the frivolous nature of customer satisfaction in hospitality industry. It further argues that in hospitality management an automated system alone will not ensure the customer satisfaction to optimize the returns from the customers. They identified the repeated purchase cases and the satisfaction in FMCG products that create loyalty among the customers with optimistic dimensions.
Young – Hoon Park and Eric.T.Bradlow (2005) find an important breakthrough of integrated model for the relationship between bidding behaviour of firms and its relationship with CRM. The research paper identified that the seller design the action which is optimizing the customer population. The bidding behaviour seems to have good inclination towards customer satisfaction. The fundamental understanding of the bidding behaviour also triggers brand loyalty and increase in service quality parameters.

Rajagopal and Romulo Sanchez (2005) make an attempt to find how managerial dimensions of their decisions are helping to bridge the gap between customer needs and expectations through Customer Relationship Management. It is found that the customer’s affinity towards an organization is developed through their successful planning process of CRM. The researchers also identified the effectiveness of relationship management in helping organisations to create new strategies to increase the customer loyalty. The managerial perspective of organization aims at improving strategies to optimize the lifetime value of customers.

Balaji Pathmanaban, Zhiqinang, Zheng, Steven .O. Kimbrough (2006) empirically established the value of complete information for E-CRM models. The analytical E-CRM thoroughly analyses the customer database and also expresses the customer convenience and expectations. The authors found that the customer database is worth obtaining. They applied data mining approach and also E-CRM modeling and the benefits are highly essential to gain the momentum of customer population. They also emphasized the customer loyalty is positively related to an intensified data base of customers.

Peter.Coffee (2006) in a descriptive methodology, identified selling process alone will not be useful to offer customer satisfaction. It is found that customer’s volume of purchase depends upon their need and expectation rather than selling improvement process of the organization. The customer convenience and purchase process are crucial areas to increase the number of dynamic consumers.

Rajagopal (2006) make the advancement in an analytical research that the brand excellence is useful to measure the impact of advertising and brand personality on
buying decisions. It is found that the branding process is highly correlated to customers’ conventional knowledge and its recall is very much depend upon attractive advertisements. The communication sensitivity and brand personality are essential to influence the customer-centric approach in all the aspects of CRM. The success of brands not only depends on sales promotion but depends on tangible attributes like pertinence of brand name and associated benefits.

D.D.Nauck, D. Ruta, M. Spott, B.Azvine (2006) elaborately conducted a research for proactive analytics and customer actions, in customer relationship management. In this research the authors typically identified how the large volume of customers and their data are proactively useful to establish prioritization of decisions and futuristic decisions of customers. The sensitivity analysis is exploited to predict customer reactions in future against organizations impact on implementation of CRM. The intelligent customer analytics plays a wide role in predicting initial strategy and customer feedbacks in relationship management. The intelligent customer analytical tools are abundantly found useful for the domain experts in the organization to implement CRM strategies.

J.Rathbun (2007) identifies the attractive strategies of the firm to keep the loyal customers. It is found in the paper pricing, quality, comfort and convenience fulfil the customers’ expectations. It is also found that advertisement of any product creates nil loyalty among customer. It is also found that the service providers should steadfastly fix the operational efficiency of relationship management in matching customer’s requirements. The critical analysis of literature related to customer loyalty innovatively identifies after sales service, pricing mechanism and interaction of the sales personnel which are crucial in determining the quantum of loyalty. The literature clearly identifies predominant gap, which shows how a customer loyalty plays its vital role in service sector, especially in cell phone industry.

2.4 Studies explaining the relationship between Customer Retention and Service Quality

Service quality has gained a great deal of attention from researchers, managers, and practitioners during the past few decades. Many scholars have studied the effect
of service quality on customer retention (Oliver, 1980; Lehtinen and Lehtinen, 1982; Ennew and Binks, 1996; Ranaweera and Neely, 2003; Venelis and Ghauri, 2004; Anuchit Sirkit, 2004; Abdolreza Eshaghi et al, 2007; Yo obin Lu et al, 2009; Subbir Rahmon, et al, 2010; Jessy John, 2011; R.A Gbadiyan, 2012). Their findings reveal that there is a direct correlation between service quality and customer behavioural intentions and retention.

R.A Gbadiyan (2012) examines the correlation that exists between customer’s loyalty and qualities of services provided by the mobile Telecommunication companies in Sierra Leone. This study revealed that a vast majority of respondents subscribe to more than one network provider. They also find that female customers preferred low service Charges mobile network while male customers preferred network with wide coverage. This study recommends that mobile telephone companies should give more prompt attention to customer’s complaints and they should try to improve their connectivity.

Fazlazadeh Alireza, et al (2011) propose and test an integrative model to examine the relations among service quality, value, image, satisfaction, and loyalty in Iran. Their study reveal that service quality directly influences perceived value, image perceptions and customer satisfaction that value and image influence satisfaction, that corporate image influences value, and that both customers satisfaction corporate image are significant determinants of loyalty. Thus, image has both a direct and indirect (through value and satisfaction) impact on customer loyalty. Customer satisfactions mediate the impact of service quality, value and corporate image on customer loyalty. In most aspects evidence suggests the loyalty model in Iran is similar to what researchers have found in western countries.

Rosemond Boohene, Gloria K.Q. Agyapong (2011) investigated the determinants of customer loyalty in vodafone (Ghana). The main variable of concern were services quality, customer satisfaction and image even through other factors were also considered. The study adapted the SERQUAL model as the main work analyzing service quality. The results indicate that there is a positive relationship between customer satisfaction and customer loyalty. The results of the findings suggest that Telecom management needs to emphasis service quality. Due to the fact that telecom
firms do not provide tangible products, their service quality is usually assessed by measures of the service provider’s relationship with customers. Thus, telecom service management should pay attention to staff skill possession and offering fast and efficient services.

**Anuchit Sirkit (2004)** performs a study to investigate the mobile customers relationship with their service providers based on their service quality perceptions service as well as whether loyalty intentions resulted from the perceived implementation of selected relationship marketing variables. The major findings of the study were (1) It confirmed that relationship benefits and relationship quality were positively related for the service provider’s performance (2) It confirmed that service quality was logically related with relationship quality on the performance of the service providers. (3) There was a significant difference in relationship benefit between service providers’ officers and their customers, and also there was a significant difference in relationship quality between service providers officers and their customers (4) It has shown that commitment to the service providers was influenced by relationship quality. It is confirmed that customers perceived commitment and loyalty intentions were positively related for the service providers’ performance.

**Jessy John (2011)** explores the factors that influence customer loyalty of BSNL mobile customers BSNL being the pioneer in mobile sector still have a strong customer base, but over the past few years a steady thinning is happening in the customer base. This study investigates the reason behind the hard core customer loyalty even in an environment with high quality alternatives. The results indicate that network quality, customer service along with value added services provided by BSNL enhanced the loyalty of the customers. Customer loyalty in case the case of mobile phones is determined to an extent by its geographical coverage and the ease with which calls can be made in peak hours. Another factor that was found to influence loyalty is the relationship it has with the customer which is determined by promptness with which the complaints were resolved with the warmth shown by customer care department and the convenience with which the bill can be paid.
Fujun Lai, Mitch Griffin (2009) examine the relations among service quality, value, image, satisfaction, and loyalty in China. This study reveals that service quality directly influences both perceived value and image perceptions, that value and image influence satisfaction, that corporate image influences values and that both customer satisfaction and value are significant determinants of loyalty. Thus, value has both a direct and indirect (through satisfaction) impact on customer loyalty. Other variables mediate the impact of both service quality and corporate image on customer loyalty.

Hyung Seok Lee (2010) conducts a study to verify the relationship among service quality, perceived value, customer satisfaction, and customer loyalty in mobile phone service. The findings show that service quality positively inferses customer loyalty. In addition, perceived value and customer satisfaction positively affects customer loyalty respectively. For customers with high perceived service quality, perceived value, and satisfaction they have a strong loyalty.

Abdolreza Eshaghi et al (2007) investigate the determinants of the propensity to switch wireless service providers. This study suggests that wireless service providers are better off improving customer satisfaction in order to minimize customer defection. This would imply shifting scarce resources to customer retention through improved service, saving cost of expensive customer acquisition campaigns. The findings also shed light on the industry’s relentless campaigns in wooing customers through financial incentives such as free phones, free minutes etc. Quite interestingly, these incentives are aimed at attracting new customer as opposed to increasing the satisfaction of exiting customer. The findings also suggest that it is very important that service providers address the threat of new technical solution with approaches that improve customer satisfaction.

Anita Seth, K Momaya and H.M.Gupta (2008) conduct an empirical study on customer perceived service quality for cellular mobile telephony. Their research resulted in the development of a reliable and valid instrument for assessing customer perceived service quality for cellular mobile services on the basis of the findings revealed during the exploratory investigations, ‘convenience and customer perceived network quality’ dimensions were added in the original SERVQUAL scale. This research can be seen as the study incorporating both functional as well as network
quality attributes for assessing customer perceived service quality. Further, their study highlighted the selection importance of service quality attributes and should that responsiveness is the most important dimension, followed by reliability, customer perceived network quality, assurance, convenience, empathy and tangibles.

Subbir Rahmon, et al (2010) assess the factors that have played significant role to select telecommunication service providers. From the results it is revealed that price or call rate is the most important factor followed by service availability and promotion. Network quality is one of the important factors of overall service quality. The attributes that are considered under the category of price or call rate, brand image, customer’s satisfaction, service quality, advertising and promotion used and developed in the survey scale of this study can be considered reliable indicators of customer perception and can be training guidelines for mobile phone operator’s services in Malaysia. Corporate image was not found to be an important factor affecting customer perception towards an operator because customers are more sensitive in brand image rather than corporate image.

Yo obin Lu et al (2009) conduct a study to explore perceived service quality of two service providers in China, China mobile and China Unicom. The empirical results show that corporate image moderates the effect of environment and outcome qualities on the service quality. According to this study consumers evaluate the mobile brokerage service quality based on sub-dimensions such as attitude, expertise problem salving information, equipment, design, situation punctuality, tangibles and valence. These sub-dimensions are then combined together to form three primary dimensions of interaction quality, environment quality and outcome quality. Findings also showed that corporate image had significant moderating effects on the impacts of outcome and environment qualities on mobile brokerage service quality.

Oyeniyi, omotayo et. al. (2008) attempt to find the relationship between customer service on customer retention in telecommunication industry in Nigeria. If retention is not managed; customer’s loyalty may be lost. This study examined the potential constructs in customer retention by investigating the chain of effects of retention form customer service, satisfaction value and behavioural intention. The results, further show that the respondents in this study have a positive impression towards their
telecom company’s ability to meet their changing needs. This shows that the respondents would stay with their telecom companies as long as the companies are able to satisfy their changing needs.

**Evangelia Blery et al (2008)** conduct a study to identify the influence of service quality on customer loyalty in the Greek mobile telephony sector. Service quality was measured using the SERVPERF model. Repurchase intention and positive word of mouth were used as behavioural components to measure customer loyalty; however, it should be noted that customer’s stated repurchase intention does not always ensure their actual repurchase behavior. The influence of perceived price on customers’ repurchase showed that there is relationship between service quality and customers repurchase intention in mobile telephony. The findings proved that there are relationship between service quality and repurchase intention in the Greek mobile telephony sector. The relationship between service quality and repurchase intention showed that service quality is an important decision making criterion for service consumers and any efforts to improve quality will be beneficial. The results of this study showed customer feel that mobile attentions to them operators do not have their best interests at heart and that employees do not pay individual and do not respond immediately to their requests. The findings also showed that perceived price was negatively associated with repurchase intention. Perceptions proved to have a higher correlation with repurchase intention than the overall service quality measure.

**Ishyaq Ahmed (2011)** examines the quality of services provided by telecom (cellular) companies in Pakistan, and its effect on the level of satisfaction and the intentions of customer to stay with the same telecom company. Specifically, this study investigate customer attitudes towards the short messaging service (SMS) provided by these telecom companies using the SERQUAL model by Parsuram et al. (1988) Finding suggest that there is positive relationship between elements of service quality and both customer satisfaction and repurchase intentions, except for the element of empathy which was found to have a negative relationship with satisfaction and repurchase intentions of customers. Findings also indicate a positive relationship between user satisfaction and their repurchase intentions. The results reveal that
greater the customer will be satisfied higher will be chance of their repurchase intentions with the same mobile service provider.

**Dhanya Alex (2010)** conducts a study with an aim to find the relationship of quality variables such as product quality, service quality and contextual experience with customer perceived value. The main objective was to gain a deeper insight on major factors influencing customer perceived value which in turn influences preferences and future buying intention in the case of a coffee shop. This study reveals the relative impacts of determinants of perceived value and how much each of them contributes which can help companies in attaining a competitive edge over other competitors and also achieve customer patronage. In today’s world of intense competition satisfying customers is only the base line and may not be sufficient for survival. Management should focus on gaining customer loyalty by enhancing customer perceptions of service quality, product quality and contextual experience.

**Chatura Ranaweera and Andy Neely (2003)** present a holistic model of customer retention incorporating service quality perceptions, price perceptions, customer indifference and interca. Price perceptions and customer interference too were found to have a direct linear effect on retention. Furthermore, there was evidence to medicate that inertia was a relatively unstable condition and that reliance by service providers on inertia to retain customers could indeed be a risky strategy.

**F. Jovier Sese et. al (2011)** investigates the drivers of customer retention in a liberalizing market. The authors address key retention issues that allow them to contribute to existing retention research in several critical ways. 1. Examine the effects of pricing and mass advertising 2. Account for (new extranets) competitors actions. 3. Investigate the dynamic impact of marketing tactics, and 4. Study the proposed relationships in a market recently opened a competition. Using longitudinal data for a sample of 650 mobile phone consumers and split population hazard model that account for the notion that some customers are never at risk of defection, the authors show that bath the focal firm’s (incumbent) and the competitors price and mass advertising exert a significant influence on the probability of terminating an existing incumbent relationship. They find that the relationship between marketing
variables and retention are not static but very over time. Price is generally less effective in the early stages of market liberalization, which suggests that customers become more price sensitive in later stages.

***Shuman, Twombly and Rottenberg (2005)*** on their book “Everyone Is A Customer” explain with the balance of power shifting towards the customer, companies are realizing that they must collaborate with their customers and other businesses in designing, developing and delivering the basket of goods and services to profitably satisfy the customers’ needs. While working in the collaborative community, the ability to develop a relationship and understand the needs of the customer is the key and customer in such cases refer to every party which must receive some value from the collaboration. By developing the business through an iterative process, companies can know more precisely how to get and retain customers, develop the products and services that satisfy the customers’ needs and finally deliver and serve the customers.

2.4.1 Existing Service Quality Models

Today the concept of quality has been changed due to the voice of the customer & customer awareness. And so service providers are required to evaluate the quality level from customer requirement & satisfaction benchmark point of view.

Several quality models are introduced to reduce the gap between customer & service providers. With the help of these quality models, the service provider can understand customer requirements from quality perception in a better way. Some of the models which are taken in to consideration during the study are:

1. Service Triangle Management Model

2. Cause-Effect Model

3. Servqual Model

4. Kano Model

5. Service Expectation Model
6. Service Profit Chain Model

Such models help to maintain the quality level by reducing the gap between customer & service provider.

2.4.1.1 Service triangle management model

This model focuses on the three basic groups of the service industry & shows their impact on the service which customer receives.

- The service strategy of service providers
- People involved in providing various services to customer
- Organization’s system (service provider’s system)

**Figure 2.1: Service triangle management model**

Source: Karl Albrecht & Ron Zemke, *service America in services Marketing* by C. Bhattacharjee pg 58
Here the edges reflect six different relationships of service providers with customer satisfaction:

1. Customer should know the service provider’s policy & strategies.
2. Customer must have transparent communication with service provider.
3. Impact of organization’s system in terms of services offered to customer on customer satisfaction.
4. Awareness of Service providers’ strategies to Employees.
5. Need of consistency between the service provider’s policies & the actual system, which they are implementing in day to day operations.
6. Impact of organization’s system in terms of services offered to customer on internal employees of service provider.

2.4.1.2 Cause Effect Model

The Cause Effect model basically helps to understand the causal relationships &/or association among different sets of variable considered under study. It shows the relationship among, dependent, independent, intervening and extraneous variables.

**Figure 2.2: Causal Model for Mobile Services**

![Causal Model for Mobile Services](source)

*Source: Yobin Lu, Zhang, Wang (2009)*
Causal analysis basically highlights the major impact of various service factors on the service quality. This model shows different attributes & their corresponding effects on the service characteristics. The effect highlights that there are several other factors exist, which may play important role in bringing change in quality factors & so may affect the customer satisfaction. Here the service quality has become the cause for which the assumed effect is the fulfilment of customer needs that means the customer satisfaction. Through this model researcher is trying to show the relevant factors from customer perception point of view, which may affect the customer satisfaction and so could hamper the service quality. The service quality is a cause, which is good if the satisfaction level of customer is high. That’s why the assumed effect of service quality is the customer satisfaction.

2.4.1.3 Servqual Model

SERVQUAL takes into account the perceptions of customers of the relative importance of service attributes. This allows an organization to prioritize. And to use its resources to improve the most critical service attributes. In order to measure the customer satisfaction several quality dimensions are required to be considered. David A. Garvin and Parasuraman, Valerie Zeithaml, and Leonard Berry (had defined several service quality dimensions from customer perception point of view, some of which are included in table 2.1 along with their relevancy with the mobile services.

Table 2.1 Quality Dimensions & their relevancy with mobile services

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Dimensions</th>
<th>Meaning</th>
<th>Relevancy with Mobile services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tangibles</td>
<td>These are the physical facilities available with appearance</td>
<td>Mobile handset</td>
</tr>
<tr>
<td>2</td>
<td>Reliability</td>
<td>It is the ability to perform the promised service consistently with full accuracy</td>
<td>Network service, billing, VAS, customer care</td>
</tr>
<tr>
<td>3</td>
<td>Responsiveness</td>
<td>It is the ability of willingness to help customers and provide prompt service</td>
<td>Customer Care service</td>
</tr>
<tr>
<td>4</td>
<td>Competence</td>
<td>Possession of required skill and knowledge to perform service</td>
<td>Service provider personnel</td>
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<td></td>
<td>5</td>
<td>Courtesy</td>
<td>Politeness, consideration respect, and friendliness of contact personnel</td>
</tr>
<tr>
<td>---</td>
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<td>----------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Credibility</td>
<td>Trustworthiness, believability, honesty of service provider</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Feel secure</td>
<td>Freedom from danger, risk, or doubt</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Access</td>
<td>Approachable and easy of contact</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Communication</td>
<td>Listens to customers &amp; acknowledges their comments</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Understanding the customer</td>
<td>Making efforts to know customers and their needs</td>
</tr>
</tbody>
</table>

With reference to these parameters the Parashuraman, Zeithaml defined the Servqual model in terms of Gap Model. The gap model of service quality highlights the customer focus. With the involvement of customer expectation and customer perception the service quality excels in a structured and practical way.

**Figure 2.3: GAP Model**

![GAP Model Diagram](image)

(Source: *SERVQUAL* (Zeithaml, Parasuraman Berry, 1985))
In Servqual model given by Parasuraman, Valerie Zeithaml, and Leonard Berry, there exists gap between the services delivered & services received by the customer. There is a gap in understanding the customer requirements from the service provider’s & customer’s perception. Parasuraman and Zeithaml found that service quality is a measure between service perceptions as well as expectations.

Gap 1: Customer expectations & mgt. perceptions

Gap 2: Mgt. Perceptions & Service Specifications

Gap 3: Service Deliveries & External Communications.

Gap 4: Customer expectations & mgt. perceptions

Gap 5: Customer expectations & Experience

Service quality can be measured by measuring the gap between two different areas. Wider is the gap will indicate the poor service quality. And the small value of gap will indicate the better service quality.

There exists a big gap (Gap 5 in diagram) between what customer expects from service provider regarding mobile services and what they actually receive. SERVQUAL model says that to improve the service quality, the need is that every service provider should close this gap and so can increase the customer satisfaction level. As pointed out in this model the customer gap (Gap 5) is caused by the totality of all Provider Gaps:

\[
\text{Gap 5} = \text{Gap 1} + \text{Gap 2} + \text{Gap 3} + \text{Gap 4}
\]

Customer Gap can be reduced if the service provider could control & reduce its four gaps.

The high quality service requires that service provider should understand the customer need & their expectation thoroughly. But if the service provider understands the customer expectation from service provider perception then there exists a gap (Gap 1). Once the service provider understands the customer expectation properly (from
Customer perception also) then these expectations are moulded into customer oriented service designs and standards. If service provider does not understand the customer perception clearly then it will leads to another gap, which is Gap 2 in Gap model diagram. This improper design and standard may further lead to improper service delivery, which emerged Gap 3 in diagram. Usually when service provider promises some of the services to customer regarding the delivered and if the service provider fails in fulfilling those promises then this may further lead to customer dissatisfaction. This lack of fulfilment leads to Gap 4 in diagram.

To increase the overall customer satisfaction among mobile service customers the need is of increasing the overall service equality from customer perception. That means mobile service provider must try to reduce the Gap 5 which can be less if Gap1, Gap2, Gap3 & Gap4 are minimum. This shows that service provider should understand the expectations of mobile user regarding network connectivity, billing services, Activation of card, Customer care in response to complaints, call drop, Efficient Value Added Services in order to minimize the Gap5.

2.4.1.4 The KANO Model

Kano gave the satisfaction model after considering three basic factors, which influences the customer satisfaction. Kano model divides the customer requirements in three broad categories: the normal requirements which must be fulfilled by the service providers, the exciting requirements which help in increasing the service value and the expected requirement which will make customer as happy if provided by the service provider.

1. Basic Factors. (Normal Requirements are like Dissatisfiers, which must have) – These are the minimum requirements, which will cause dissatisfaction if they are not fulfilled, but do not cause customer satisfaction if they are fulfilled (or are exceeded). In case of mobile services the customer perception focuses on the good network coverage otherwise the customer dissatisfaction level starts increasing. Better network coverage without any network related problem is the basic requirement of customer, which causes dissatisfaction if service provider fails to provide as desired by the customer.
2. Excitement Factors. (Exciting Requirements) (Satisfiers, Attractive) - Such factor increases customer satisfaction if delivered but do not cause dissatisfaction if they are not delivered. These factors surprise the customer and generate 'delight'. Using these factors, a company can really distinguish itself from its competitors in a positive way. By receiving special discounts in bills, new multimedia features or even special billing offers will always make the mobile user happy and so will increase the satisfaction level if provided. But if these additional schemes are not available then it won’t increase the customer dissatisfaction level.

3. Performance Factors (Expected Requirement). These are the expected factors, which cause satisfaction if the performance of such factors is high, and they cause dissatisfaction if the performance is low. Such attributes are like customer-care, handling bills or information from mobile service providers. If the customers get the updated information from time to time then it increases the performance & so is the satisfaction level. In case of mobile services the customer perception says that customer requires minimum or no call drop, good and efficient customer care service, frequent billing updates etc. these are the expected requirements for mobile customer and so if service provider fulfils the customer expectation as they want then the customer satisfaction will be high otherwise it will be low.

Figure 2.4: Kano Model for Mobile services

Source: Kano model (Kano et al., 1984)
2.4.1.5 Service Profit Chain Model

If we look towards the service profit chain as given by James L. Heskett, W. Earl Sasser Jr. & Leonard A. Schlesinger, it shows that the profit & the growth of service organization depends upon the customer loyalty which is linked with the customer satisfaction. If the customer is dependent on some particular service & if they receive that service then customer may be satisfied but this customer satisfaction is linked with the service quality. Whatever customer wants if they receive but of no use then it will lead to the poor quality & so definitely with such service customer will not be satisfied. But if the delivered service quality is good then it will increase the customer satisfaction.

![Service-Profit Chain Diagram](image-url)

Source: Heskett, Sasser and Schlesinger, 1997

Higher customer satisfaction increases the customer loyalty and this will help service providers in retaining the old subscribers as well as in adding the new customers.
2.4.1.6 The Expected Service Model

Customer satisfaction with reference to the mobile services can be measured through their expectation, their selection factor, the mode of use & the basic use of service, which may differ from customer to customer. These attributes & their values are directly affected by the customer perception, which varies from customer to customer. Survey shows that the actual perception of users differs compared to their expectations. Meeting to perception is referred as achievement of service quality & meeting to expectation is referred as service satisfaction. So as per Service Expectation Model the customer satisfaction can be measured by evaluating the user’s expectation. The survey shows that the user expects the basic service requirements like good network coverage, easy to use, good after sales services minimum & uniform roaming charges, up-to-date billing information from time to time, prompt response from customer care etc. from mobile service providers.

**Figure 2.6: Expected service satisfaction with mobile service quality from customer perception**

![Diagram showing considered service parameters]

**Source:** Zeithaml, Parasuraman Berry, 2001

The customer expectations include:

- 100% network coverage
- No call drops
• Fair billing services
• Effective & efficient customer care
• Value Added Services
• No voice problem
• No unwanted messages
• Free roaming & uniformity in Number

But what customer receives?
• Poor network coverage
• Partial call drop outside region
• Call charges are high
• Frequent unwanted messages
• Poor communication from customer care.
• No Billing updates

The key parameters upon which customer satisfaction is measured through this survey are:

• **Billing performance**
• **Help services – Customer Care**
• **Network Connectivity & Coverage, Call drop**
• **Customer satisfaction with offered supplementary services (Value Added Services)**

2.5 **Studies explaining the relationship between Customer Retention and Switching Barrier**

*Jones et al. (2001)* find that customers tend to keep using current service as the level of the customer satisfaction is high. In other words, the customer satisfaction is the first factor for the customer retention. However, the customer retention and the churning rate of them were identifies to be different in the same level of customer
satisfaction according to the level of the switching barrier, which affects the customer retention as well as adjustments the relationship between the customer satisfaction and the customer retention.

**Moon-Koo Kim et al (2004)** conduct a study to investigate how customer satisfaction and the switching barrier influence customer loyalty. The study reveals that mobile carriers much, above all else maximize customer satisfaction and the switching barrier in order to enhance customer loyalty. In particular, mobile carriers must focus on service quality and offer customer-oriented services to heighten customer satisfaction. At the same time, efforts to raise the switching barriers must build a long-term relationship with customers by further investing in CRM. Among factors establishing service quality, the factors with a significant impact on customer satisfaction appeared to be call quality, value-added services and customer support. The factor significantly affecting the switching barrier appeared to be switching costs such as low cost, move in cost, and interpersonal relationships.

**Inger Roos, Margareta Friman (2007)** aim at deepening understanding of the role of emotion in customer switching processes and identifying the relative frequency of negative discrete emotions in terms of different triggers. The main finding was that the identified emotions were located in the trigger part of the relationship and was expressed by the respondents during the switching process in form of annoyance, anxiety, disappointment, dissatisfaction, distress, depression, rage, stress and tension. Their study offer insight into the emotion in customer relationship.

**Dong-Hee Shin & Won-Yong Kim (2007)** investigates switching barriers under the mobile number portability (MNP) in the US mobile market. The findings indicate that customer satisfaction, switching barriers and demographics significantly affect subscribers' intent to switch. Among them, switching barriers had the most significant influence, which raises a question of the effectiveness of MNP. The mobile market is intended to play an important role in lowering switching cost which can increase the level of competition among providers. The findings, however, imply that subscribers still perceive switching barrier high, discouraging them from switching carriers.
Mitga Pirc (2007) explores the impact of usage, budgetary constraints, involvement and customer characteristics on customer intention to switch mobile service providers. It is shown that the mobile services usage effect on switching intentions is curvilinear (Positive linear and negative quadratic) and that only the budgetary constraints regarding the service matters and not the one related to the mobile phone. Past mobile service providers switching experience also contributes to the intention to switch. Mobile phone ego involvement has positive impact on customer retention; however purchase involvement (both mobile phone & mobile services) increase customer risk.

Dong H. Shin and Won Y. Kim (2007) seek to investigate the effect of mobile number portability (MNP) on mobile subscribers in Korea by focusing on subscribers’ perception and behaviour related to MNP. This study reveals that subscribers perceive the switching barrier still as high, discouraging subscribers from switching carriers. While MNP lowered switching cost considerably, a significant level of switching cost still remains despite MNP. Carriers develop new subscriber lock-in strategies that make them stay with current carriers. In addition, there are hidden costs other than MNP that should burden the subscribers with number portability.

Munir Hossain and Anowar Ulah (2011) investigate the relationship between corporate image, trust, switching cost, and customer loyalty in the context of a developing country- Bangladesh. The results show that corporate image, trust and switching cost are all positively related with repurchase intention. Moreover, it has revealed the fact that there is not only relationship between there independent and dependent variables but they are also statistically significant. In detail this study demonstrates the fast that the identified three different independent variables significantly contribute to the influence of customer loyalty. Managers should carry out activities that enhance the image of the company and develop trust among clients. Loyal customer will buy more over time and also encourage other people to buy their choosen brand. This will eventually increase revenue and profit. At the same time, companies should deliver services as promised with efficiency. Services failure will be perceived negatively and lead people to lose faith.
Pratmaong Srinuan et al (2011) explain the determinant factors of switching behaviour in the Thai cellular market before the Mobile Number Portability (MNP) policy is implemented. The result show that subscriber characteristics, including age, government officer, self employed, internet use, central region, and southern region are significant in explaining the switching behaviour of Thai mobile subscriber. It also indicates that the mobile operators’ customers are confronted with different switching costs. The subscribers of the largest mobile operators have the highest switching costs. The study also shows that largest mobile operators will gain more switching subscribers than small operators.

M.Sathish, K.Santhosh Kumar, K.J.Naveen, V.Jeevanantham (2011) make an attempt to identify the factors that affects the consumers into switching the service provider. To find the major influences that goes into the decision of purchasing a SIM card, to find the likeliness of switching the service provider. The study reveals that call rates play the most important role in switching the service provider followed by network coverage; value added service, Consumer care and advertisement which plays the least important role. It is found that there is a relation between switching the service provider and the factors (Customer service, service problem, usage cost, etc.). The findings also suggest that managers of these mobile operators should shift focus on building corporate image and analyse more carefully the reason for consumers to switch brands in this industry in order to increase loyalty among these consumers.

Klemperer (1987) suggests that switching costs are defined as the customer’s anticipated time and effort associated with changing service providers. Switching costs give firms the power to retain their customers, while potentially raising prices and generating monopoly profits. The greater the power of service suppliers, the greater the likelihood that they are able to dictate the terms of the service relationship, and hence (from the customer’s perspective) the greater the risk associated with establishing long-term relationships.
2.6 Studies explain the relationship between Customer Retention and Satisfaction

Yonggui Wang (2004) paid much attention to the measurement model of service quality in China’s mobile telecommunication market based on the well-known SERQUAL model, but with reasonable modification on the basis of focus group discussions and expert opinions to reject the specific industry attributes and the special culture of China. By taking a disaggregated approach, we find that not all quality-related factors contribute to customer perceived service quality, customer value and customer satisfaction equally, which provide more useful and practical suggestions for researchers and managers in improving service quality creating and delivering superior customer value, and achieving high customer satisfaction. Furthermore, in addition to the direct interrelationships among customer perceived quality, customer value and customer satisfaction, the moderating effect of customer value on the relationship between customer perceived service quality and satisfaction is detected based on structural equation models.

Shakir Hafeez, SAF Hasnu (2010) conduct a study to find the level of satisfaction and loyalty among the users of cellular phones. The findings suggest that overall customer satisfaction and loyalty is comparatively low among the customer of Mobilink (Telecom company). The customer loyalty in Pakistan’s mobile sector is relatively low because it is an emerging industry, new players are entering in this market and customers are more fascinated to try the new service providers. However, it is expected that when the industry will be well established that when the industry will be well established, the results will be more comparable to other studies. This study shows a positive relation between all the constructs. The effect of perceived quality and price on customer satisfaction is positive and significant. But the indicators show that overall customer satisfaction is comparatively low in mobile industry.

Waqas Saeed et al (2009) conduct a study to find out the user’s satisfaction with the Pakistani mobile phone operators. Investment in the Pakistan’s mobile market has been enormous in the past few years. Service operators are introducing new services and low call rates packages to attract more users, as well as to retain them. Finding of this study indicate that user loyalty; corporate image and user expectations have high impact on the user satisfaction. According to this research these factors are the driving
force for achieving user satisfaction in mobile telephone market. Operators need to deal with complaints lodged by the users and properly trained staff should be available to the users for their queries the managers should focus on these factors to attain high user loyalty and user satisfaction which will lead to user retention.

**Ofir Turel, Alexander Serenko (2009)** examines the antecedents of satisfaction and loyalty through an empirical study of 80 cellular subscribers in Ontario, Canada. Results of the study suggest that most causal relationships depicted by the American customer satisfaction model are valid in the mobile telecommunication sector. However, due to the switching barrier loyalty to a wireless service provider is no longer a uni-dimensional construct, but rather comprised of two independent factors—repurchase likelihood and price tolerance. This investigation also suggests that there are some differences in service perceptions between prepaid and post paid cell phone users. Overall, this study forms the foundations for future benchmarking of the performance of wireless network operators in terms of satisfaction and loyalty. It was also found that mobile phone users perceive the level of services similarly regardless of the nature of their contractual obligations (Prepaid vs. postpaid). However, it was discovered that prepaid users develop a higher degree of perceived value of the received services. In fact, although prepaid users pay higher pre-minute rates and have lower monthly usage and charges, they receive the same quality of service.

**Yobin Lu (2011)** explores the effects of service quality and justice on customer satisfaction, which in turn, affects continuance intention of mobile services. A research model was developed based on this multidimensional approach was empirically examined with data collected from about one thousand users of mobile value-added services in china. Result show that all three dimensions of service quality (interaction quality, environment quality and outcome quality) have significant and positive effects on cumulative satisfaction while only one dimension of service quality (interaction quality) has a significant and positive effect on transaction – specific satisfaction Beside procedural justice, the other two dimensions of justice (distributive justice and interactional justice) significantly influence both transaction – specific satisfaction and cumulative satisfaction. Furthermore, both types of customer satisfaction have significant and positive effects on continuance intention.
Ofir Turel, Alexander Serenko (2006) conduct a study to examine the antecedents of customer satisfaction and loyalty through an empirical investigation of 210 young adult cellular subscribers in Canada by adapting the American customer satisfaction model. This study suggests that the degree of perceived quality (PQ) and perceived value (PV) are the key factors affecting a person’s satisfaction with mobile services. Satisfaction in turn inferences the extent of loyalty. As such, highly satisfied customers tend to demonstrate a high likelihood of repurchase and higher tolerance to price decrease by competitions. A negative link between satisfaction and customer complaint shows that the more satisfied a customer is, the less he or she is prone to complain. Nevertheless, satisfaction only partially explains complaints behaviour, and other factors may be taken into account to better explain customer complaints.

Woogon Kim et al (2008) investigate the relative importance of institutional DINESERV factors (i.e., food, quality atmosphere, service quality, convenience and price and value) that affect customer satisfaction on return intention and word of mouth endorsement. The findings showed that all Institutional DINESERV dimensions had a significant positive effect on overall customer satisfaction and revisit intention. Improving customer satisfaction, which results in increased return not only strengthen customer loyalty, but also improve the dinning facility’s reputation and generate greater revenue.

Yurong Xu, David .C.Yen, Binshan Lin, David. C.Chou (2002) emphasized the need for adopting customer relationship management technology for effective implementation of CRM. They found that CRM impelled the growth of all the firms in the world and it requires more empirical and sharpened techniques to offer customer satisfaction through CRM. The authors developed a extended concept of CRM from micro and macro perspectives. They underpinned the problems of relationship between implementation of CRM, suitable to customer attitude.

Rungting Tu (2004) underpinned an association that prevails among service quality, expectations, service experience, emotions and customer satisfaction. The research is able to ascertain expectation and service quality have strong influence over customer emotions. It is further found that the strong impact on perception of service experience is abundantly found on customer satisfaction. A microscopic analysis of
structural equation modelling, customer expectations, service quality and emotions always predict a culmination point of customer satisfaction.

**N.Baxter, D.Collings and I.Adjali (2003)** conduct a study to find out a mediatory effect of agents for the effective implementation of Customer relationship management. A meticulous care has been taken by the authors in measuring the influence of customer population through CRM investments. In the research, the authors emphasized the potential return on CRM investments that must have the relationship with customer satisfaction. They also identified how the agents act as mediators to convey the imputation of CRM functions for the effective customer communication process. They also ascertained how the agents convey the firms CRM concepts to the customers and also in return informs the firms about customer expectations.

**Ki-Joon Back and Sara.C.Parks (2003)** in an innovative research work ascertained brand loyalty model of consumers and its empirical relationship with customer satisfaction. The study investigated the attitudinal change among the consumers due to profound loyalty of the brands. This study encounters behavioural brand loyalty constructs and the incidental impacts over the level of customer satisfaction. The incidental impact is measured in the form of cognitive – affective and conative stages of loyalty. It is found that consumer loyalty is the culmination point of customer satisfaction. When the consumers are highly satisfied then their attitudes focus the direction of cognitive brand loyalty or behavioural brand loyalty. Both the loyalties are the psychological outcome of customer satisfaction and also increased the purchasing frequency rapidly.

**N.J.Millart (2003)** segmented the sample unit and explored the perceptional difference among the customers in imbibing the notions of CRM. They profoundly believe that Customer Relationship Management must increase the personal relationship with the customer to exactly ascertain their expectation over services as well as the product. The author emphasized the drives which increases the customer interaction programs. The fusion of strategy, process and technology determine the potential outcomes of CRM. The personalized CRM entirely lean upon mutual benefits of customer and service provider. It is the duty of the service provider to
concentrate more on cost effective strategy delivered through appropriate customer relationship process and confidence building.

**Giovanni Gianni and Fiorenzo Franceschini (2003)** develop a model to support the personalized management of a quality in e-commerce service. It mainly focused on the service quality parameters pertaining to customer relationship management. The authors identified that the individual characteristics of a customer is able to supply all possible personalized, high quality service. The application of Structural equation modelling and Gomorian model of CRM clearly revealed the virtual transactions are able to follow a large amount of the users without losing necessary details of the customers. They emphasized customer profiling and evolution can be done easily through the effective service quality. The progressive interaction of customers creates a sense of personalization and co-operation between customers and the firm.

**Henry H. Schrader (2003)** in an innovative research work, ascertained the familiarity of marketing managers and their maximum usage of relationship marketing. The author tested the hypothesis of familiarity with relationship marketing is a significant factor influencing success of the firm. It is also found that technological innovation of marketing managers is also highly significant in predicting the effectiveness of CRM. The implementation of latest technology is useful for any firm to maintain loyalty as well as to offer satisfaction to the customers.

**Rajkumar Venkatesan and V. Kumar (2004)** reveal through their research, CRM in service industry is measured in customer life time value and their demarcation of their framework. They emphasized the usefulness of customer lifetime value and the need for implementing CRM at all levels. The identification of empirically tested, purchase frequency model and customer selection strategy model are found indispensable for the comparison of CRM metrics for customer selection and ultimately customer satisfaction. The pure mathematical paper identified an algorithm that gives a relationship between customer lifetime value and need for CRM. They also noted that customer lifetime value transformed the effects of CRM in the form of higher profits and customer centric values. The paper concludes that, there is potential increase in the profits when CRM is implemented properly along with the lines of maximized customer lifetime value.
Timothy.D.Landry, Todd.J.Arnold and Aaron Arndt (2005) in a collective effort of establishing the technological implications on customer relationship management comprehended the technological revolutions in all sectors magnetically attracts the customers through CRM strategies. The authors identified the evolving nature of channel functioning and inter-firm relationships. Besides these relationships, they anatomically analysed organisational process in implementing CRM technological strategies to increase the sales volume. The study entirely leans upon primary data and exactly identified that the technologies are indispensable to determine the maximum efforts of CRM. There is an evident in the research paper that the technological change in an organization actually measures the organization commitment in rendering customer satisfaction and their trust in E-Commerce.

William Boulding, Richard Staelin, Michael Ehret, Westly. J. Johnston (2005) answer a research question whether the upgrading of CRM in an organization reveals its actual potentiality to render customer satisfaction. It is found that a Customer Relationship Management maturation process leads to customer satisfaction and also tells the process after CRM culmination. The outcome of continuous evolution and integration of marketing strategies are emanated through the implications of CRM. The authors also identified CRM is a predominant factor to improve technologies in service industry as well as the specifications of customer expectation and satisfaction. The environmental variables are the deciding factors for an organization to employ CRM strategies to display their potentiality.

Ben Shaw – Ching Liu, Nicholas.C.Petruzzi and D.Sudharsan (2007) aim their research to apply customer lifetime value models to assess the overall value of the service encountered. The paper also aims at establishing assessment implications for the effective Customer Relationship Management. They applied a pure mathematical methodology and analytical model method to obtain the customer rhythm and frequency of purchase. In this research, the authors identified stochastic parameter characterizing the quality of service and long term customer value. They exactly determine the factors related to different customers. The study concluded an effective and efficient servicing process that is indispensable to a firm’s success and the
powerful customer relationship management creates a survival force in today’s globally competitive environment.

Adrian Payne, Pennie Frow (2005) proposes a conceptual framework and an empirical model to verify the impact of CRM in enhancing the customer value was analysed in detail. The conspicuous three alternatives of CRM perspectives are explored and also emphasized the need for a cross functional, process oriented approach that positions CRM at a strategic level. The research clearly narrows down the relationship between holistic approach of CRM and implementation of technology in CRM. A specific process called multi-channel integration process evaluated the performance of every firm leaning upon CRM practices. They ultimately concluded that a company must be customer centric, and the only solution to achieve customer centric aspect is to implement and maintain the customer focused CRM tool at all the levels for proper interaction with the customers.

Lesley. K.Russell (2005) find out that proper communication to the customer is one of the indispensable factors culminating the effectiveness of CRM. The author emphasized that building the database of customers is a lifelong investment of the firm useful for the prudential benefit. Recognizing the customers clearly shows the apprehension for their business with respectful and insightful communication. It helps the firm to integrate a sophisticate marketing technology with brand building strategy.

Craig, Bailey (2005) in a descriptive article, it was highlighted the importance of unlocking the value of customer satisfaction. The paper clearly highlighted that the business environment companies are not able to afford to loose a profitable customer. So in this competitive environment, the customer satisfaction must be the primary aim as well as the objective of the organization to withstand against any type of competition. The author emphasized that, it is the duty of every firm to announce the increase in customer satisfaction and revenue within the framework of success. The customer focus and changing the CRM aspects for the needs of customers is an important optimistic change.

Wei Jiang, Tomau, Kwok-Leung Tsui (2007) profoundly monitor the operational intelligence and integrated technologies of the firms to maintain their business
activity. The authors used Bayesian average method and matrix methods to derive profile modelling of customers. A crucial break-through of this research clearly identified the small set of abnormal customers must be identified by every firm as a crucial objective and definitive events. The authors emphasized the importance of customers profiling and how business activity monitor updates the profile of the customers to ascertain their abnormal behaviour. They also identified that the customer’s diagnosis process is very crucial process in customers activity monitoring which will be useful for measuring effective customer relationship management.
DISCUSSION

Gaps in the existing studies show that there is a need to make a fresh attempt to understand the customer retention strategies for Indian telecommunication sector as number of improvements could be incorporated on account of gaps in the existing literature.

The mobile telecommunication industry being a service oriented industry has to sustain on the quality of customer service. Analytical results of research studies, conducted world-wide reveal that the revival and growth of a mobile service provider not only depend upon its ability to provide qualitative services to its customers on a sustained basis, but in building a long-term mutually beneficial and trust-worthy relationship with its customers. The operational and service aspects of the mobile telecommunication service providers have witnessed significant changing owing to the innovations of science & technology and computer revolution.

What is a good, acceptable, or appropriate level of satisfaction, retention, or customer loyalty? This of course, to some extent depends on how it is measured and presented, but even more on the expectations and targets set for the activity. Earlier studies of factor affecting customer retention usually set the focus on customer satisfaction and the switching barrier. Customers experiencing a high level of satisfaction are likely to remain with their existing providers and maintain their subscription. However, according to some research, customer satisfaction, while positively influencing customer retention, is not always a sufficient condition, and, in some cases, fails to produce the expected effect. Hence, these researchers suggest that it is necessary to analyze other potentially influential factor. It is in this context that the concept of switching barrier was proposed.

Further, it has been observed that the switching barrier plays the role of an adjustment variable in the relationship between customer satisfaction and customer retention. In other words, when the level of customer satisfaction is identical, the level of customer retention can vary depending on the magnitude of the switching barrier.
So, many studies have been conducted on the subject of customer retention and loyalty and also about these issues in the mobile telecommunication services industry.

By reviewing the literature, it was figured out that service quality, customer satisfaction and switching barrier are the important dominant of customer retention. The mobile carriers must maximise customer satisfaction and the switching barrier in order to enhance customer retention. In particular, mobile carriers must focus on service quality and offer customer-oriented services to heighten customer satisfaction.

Customer satisfaction is critical in mobile telecommunication market, since operators lose about 30 percent or more of their subscribers every year and have large customer acquisition expenditures. Needless to say, it is important for mobile operators to develop well-designed customer satisfaction programs for increased customer retention.