

# Factors Affecting Customer Retention in Telecom Sector: A systematic review in Indian perspective

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## Abstract

Indian mobile industry is the most rapidly expanding businesses in the world. Presently, India is one of the second world's largest telecommunication market and is still mounting. The main aim of this review paper is to explore the factors affecting towards the customer retention from the customers prospective in line with the experience of mobile connections to our country. The present study conducts a systematic review of 50 research papers published across reference peer reviewed journals during 2001-2019 in telecom sector. During the analysis of the literature review, various categories are adopted such as publication year, journals, research design, methodology, related research area, findings, limitations and challenges to the telecom industries. The study is useful for academic researchers, managers and practitioners in the telecom field. The authors critically reviewed the papers and develop a framework to study the significant factors influencing retention in telecom domain. The recommendations also have been made to this review paper on factors influencing customer retention and the directions for future researches are indicated. The authors have found 64 sub factors affecting retention in telecom sector and then categorized these factors into significant factors such as service, support, brand, network coverage, pricing, and customer relation and regulation impact.

**Keywords:** Customer retention, Telecom Company, Customer relationship management, Mobile telephony, Subscriber, Loyalty.

## I. INTRODUCTION

The Indian telecom industry is a high growth industry as of today with population base of 130 crores. India has now become the world's most competitive as well as fastest growing telecom markets. Due to the addition of more than five million users in January, the subscriber base increased from 1151.44 million at the end of December'19 to 1156.44 million at end of January'20, thereby registering a monthly increase rate of 0.43%. Wireless subscription in urban areas increased from 643.97 million at end of December '19 to 644.54 million at the end of Jan'20 and wireless subscription in rural areas increased from 507.46 million at end of Dec'19 to 511.90 million at end of Jan'20. Monthly growth rates of urban and rural wireless subscription were 0.09% and 0.87% respectively. But the gross revenue of telecom sector has been declined from Rs.62198

crore at end of March'18 to Rs.58414 crore at end of March'19. The annual and quarterly growth of Indian telecom's revenue were declined by 6.08% and 0.98% respectively. This year on year revenue decline is one of the key challenges being faced by Indian telecom industries. However, India is one of the ninth largest equity market (3.5 trillion equity market) globally after china. In addition, India has the largest number of listed companies in the world. The country offers the robust growth opportunities to domestic and international companies for investment prospective driven by the Indian government's Make in India initiative for digital technology movement. This has also given rising opportunities for rural and urban areas to increase the per capita household income. The most of customers likely to come from rural or urban areas with inadequate basic infrastructure and limited but no connectivity is demanding lower tariff, unlimited voice calls & data with additional value-added services. The digital movement enabled the country towards artificial intelligence, machine learning, deep learning, chat box, online shopping, online education, online games and many more. These all digital technologies are running over telecom backbone. Therefore, the telecom is playing a very pivotal role to develop country's economic growth. The urban, city and metro customer demands high speed internet for audio-video streaming, navigation, music downloads, gaming, m-commerce, mailing solutions, video-chat box and social networking. That's why people are demanding 4G/5G technology to run these applications. With compare to urban areas, people in rural areas need low cost technology to run these applications. The Government has done various initiatives to enable digital technology across the country for rural and urban both areas. This has also helped to improve the health of the telecom sectors through various programs like digital technology, 100% FDI policy, introduction to VNO license, mobile number portability, special number service 112, Aadhar based e KYC, GPS enabled handset, spectrum sharing, spectrum management and spectrum auction. Recent initiative of Bharat net to connect 2.5Lacs villages over optical fiber connectivity to boost more internet penetration. Private telecoms also shown interest to connect the Villages. Airtel shown interest to connect 10000 villages, Reliance JIO interested to connected 30000 Villages and Vodafone idea shown interest to connect 3000, 1000 villages respectively. Reliance JIO's freebee services for unlimited voice and data lead to an intense competition between Indian telecom player. Airtel, Vodafone Idea and BSNL are also forced to reduce lower the prices for acquisition

and retention of new and existing customers. This has given a breadth at least to Airtel, Vodafone idea and BSNL to sustain in such highly intense market after Reliance JIO's entry into telecom business.

#### **Key Development to improve the telecom infrastructure:**

Merger and acquisition is a popular governance structure that strategically combines the resources from one organization to other organization. Merger between the telecom companies is to help industries to improve the network in rural and urban areas, resilient service, low call drops, POP capacity, cost effective plan, increase market share and improve service quality. The merger also helps telecom industries to reduce the competition and streamline the smooth operation process to acquire new customers. Though there are various initiative has been done by government to improve the service quality of mobility, wireline voice and data services. Here in this review paper, the authors have restricted to study in mobility only.

## **II. LITERATURE REVIEW:**

Customer acquisition is the process of bringing new customers to your brand. It involves lot of costs to attract people to brands before customer acquisition. The cost of bringing in customers to brands is known as customer acquisition cost. These costs are nothing but line like marketing cost, advertising cost, billboards, television, radio spots, poster, prints etc. Now the goal for any business to maintain consistent influx of new customers and then retaining the existing customer is also very critical for any industry to survive. Customer retention has direct impact on profitability to any business. The more the customer retention the more the profitability in organization. Retaining customers is always has very less cost than acquisition of new customer. According to Oliver (1981), customer satisfaction is the major outcome of the customer 's attitude to switch service provider to other, repeat purchase and customer loyal. Customer retention refers to the ability of an industry or business to retain its customers over some specific period to gain profitability and long-term sustainability in the market.

### **II.a Customer acquisition and customer retention in telecom sector:**

Jacquelyn S. Thomas (2001) explore that customer acquisition and retention are two independent process. The author also explains that there is a linkage between customer acquisition and retention. They find out that the focus of the study is not to address how firms should acquire customers. Moreover, due to the data limitation of customer base, the retention and strategy on churn analysis might be biased. They represent a model to correct those biases in customer analysis process as customer acquisitions and retentions. Werner Reinartz ,Jacquelyn S. Thomas & V. Kumar (2005) explore that there is a modelling framework for balancing resources between customer acquisition efforts and customer retention efforts .They focus on right resource allocation model that addresses the questions of how much to invest in customer relationships and how to

invest at different points of customer-firm relationship. Dr. S. M. Yamuna and R. Shiji (2011) find that most users are using 4G services from Vodafone Airtel and JIO. They also reveal that the customer level of awareness towards 4G services offered by various telecom service operators depends on gender, age, education, qualification, occupation and marital status.

### **II.b Service quality on customer retention in Indian telecom companies:**

Lei Yu, Wu Kuan, Yang Chen, Po Yuan, Chen Shu & Ling Cheng (2012) explore that the consumer 's perceived value and each cost component of information searching cost, moral hazard cost and specific asset investment cost are positively related to repurchase intention. The study suggests that providing with enough cues to reduce consumer's information searching is core element of repurchase intention formation. Sumangala Damodaran (2013) explore that the outsourcing strategy of airtel on network & IT management to third-party has resulted with cost saving and increased profits. The paper reveals that with the network outsourced, the telecoms can offer lower cost tariff plan to customer. The author finds out the factors that affect customer acquisitions and retentions are brand Image, service delivery experience, network experience, customer care experience, store and gallery experience, billing experience and web experience. Abhijit Chirputkar and Yatin Jog (2015) finds out the brand oriented behavioral factors and brand oriented attitudinal factors are very important to influence the customers to remain loyal to their brand. The study is limited to prepaid mobile connections. Monalisha Patnaik, Abhipsa Ray, Biswa Bhusan Mall, Rosemary Kujur, Silpa Jena and Somu Jena (2015) finds out that the critical factors for customer satisfaction to increase the acquisition & retention. The paper also reveals that brand preference, customer perception, distributor perception, marketing strategy, service quality & delivery are the factors affecting the customer satisfaction. Suraj Kushe Shekhar (2015) reveals that the perceptions of Indian customers and retails towards cellular operators in India are the visibility to customer, customer support, customer response and complaint resolution.

### **II.c Lower pricing offered by JIO disrupted Indian telecom sector**

Pawan Kalyani (2016) explore that the effect and awareness of JIO offer and then its competitive strategy adopted by Airtel, Vodafone and BSNL. Bhosale Veena, P. Jain, Ashwin Nirmal (2016) explore that the most influencing factor about the JIO scheme launched in Jalgaon city. The study also explores that the factors that influence the customer to become loyal with JIO are free data, unlimited voice calls and considering customer's feedback or concern. These factors are responsible for JIO to control monopoly market in mobility space. D. Satyanarayana, Dr. K. Sambasiva Rao and Dr. S. Krishnamurthy Naidu (2017) explore that the JIO's free tsunami creates a lot of radical and unexpected changes in consumer's behaviors and competitor's strategies. The entry of Reliance JIO affects equilibrium in the mobile industry and forced competitors like Airtel, Vodafone

and Idea to merger their operation to improve the customer experience. Dr.S.M. Yamuna and R. Shiji (2011) explore that there are various factors including socio geographical factors developing the brand awareness among smart phone users about 4G mobile phone services. Most users in Indian now are using 4G services from Vodafone, Airtel and JIO. The authors find out that the factors like gender, age, educational qualification, occupation and marital status are also creating brand awareness among users about the 4G services .Noorul Haq ( 2017) finds out that launching JIO disrupts the Indian telecom market and forced many telecoms to shut down their operations due to lower prices and freebee services. It also has changed market dynamics the way competitors are adopting the aggressive pricing strategy to churn each other's customer base and then completely disrupted the Indian telecom market. Rajbinder Singh (2017) explore research in Impact of Reliance JIO on Indian Telecom Industry and the study finds out that Reliance JIO's freebee services like free internet and free voice calling pushed other telecom operators towards merger and consolidation to reduce operation cost and increase the profitability and EBITDA.

#### **II.d Customer relationship management on customer retention in Indian telecom companies:**

M.L.Agrawal( 2003) in his paper finds out that the CRM is an important tool for business consumer products .The author also explains about six steps of CRM strategy , CRM implementation and drawbacks of CRM software .The paper describes the concept and mechanics of customer relationship management and illustrates how CRM helps corporate renaissance in hard times. Peter C. Verhoef (2003) states that affective commitment and loyalty programs provide economic incentive positively that affect both customer retention and customer share development. EWT Ngai, Li Xiu, D.C.K Chau (2009) finds out that the analyzing and understanding the customer behavior and characteristics is the foundation of the development of a competitive CRM strategy to acquire and retain potential customers and maximizing customers value. the authors further explore that the application of data mining technique to CRM strategy is a useful tool to extract and gain the insight information from the customer data base and can be used as a best supporting tool for making different CRM decisions. Subhashish Das & Manit Mishra (2018) finds out in their study that there is a mediating effect of customer satisfaction on the relationship between the customer relationship management practices and retention. Dr. Abomaye Nimenibo, Williams Aminadokiari, Samuel Effiong and Blessing James (2019) effectively finds out that CRM is a determining factor towards customer retention and it has been required in any organization or business to maximize the profit and income by meeting the needs of customers. However, the author also explore that the effective CRM is the reason of customer satisfaction.

#### **II.e Customer satisfaction impact on customer retention Indian telecom companies:**

Kotler (2011) defined satisfaction as “A person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectations”. Sandra M and James H Drew (2003) finds out that there are four different types of risks attributed during online shopping put buyers on risk and these are the risks are financial risk, product performance risk, psychological risk and time risk. The authors also study the relationship between consumer demographics (gender, age, income and online experience) , types of risk perceived by internet users ( shopper and buyers) and selected online patronage behaviors (total amount spent, frequency of searching with intent to buy , and frequency of buying online). Mohammed. M. Almossawi (2012) finds out that the importance and consequences of customer satisfaction in the competitive telecom industry in Bahrain has been affected by a positive relationship between satisfaction and retention. The author also explores that there is a poor association found between customer satisfaction, customer retention and loyalty. Dr.B. Kishore Babu (2018) explore to know about the customer loyalty of JIO customers towards JIO after free services time was over. The study further analysis’s that the majority of JIO customers are satisfied with the performance of Reliance JIO when compare to other operators. Anders Gustaffsson, Michael D. Johnson and Inger Roos (2006) explore that customer satisfaction, affective commitment and calculative commitment are the most important dimension towards the customer retention in telecommunication sector. The study further finds out that the situational and reactional trigger conditions to moderate the satisfaction cum customer retention relationship. Roma Mitra Debnath (2008) finds out that the prime focus of the telecom service provider is that to create loyal customer that being provided with benchmarking performance of services and customer retention of existing customer. The paper also explores that customer will get the benefit of additional services proposed with the tariff plan to become loyal customers for longer periods with telecom service providers.

Afshan Azam, Fu Qiang and Muhammad Ibrahim Abdullah (2012) explore that the consumer satisfaction is not only a critical performance outcome in internet retail shopping but also a primary predictor of customer online shopping and purchase intention. The factors that authors find out that influencing customers towards online shopping’s are system satisfaction, service interfaces, security, currency relevancy, consistency, understandability, navigability and telepresence. Premkumar.G and J. Rajan (2012) finds out that main factors in customer retention in Indian mobile telecom market and to check mobile number portability is a blow to mobile telecom service provider. The study explores that the customer satisfaction plays a very important role in customer retention. The more the level of customer satisfaction the more the quantum of customer retention in Indian mobile telecom

market. However, the customer satisfaction is affected by various factors are trust and service quality. Muhammad Alshurideh Ra'ed (Moh'd Taisir), Masa'deh Barween Alkurdi (2012) reveals that the customer satisfaction does affect customer retention .The study also found that there is a direct relationship between customer-supplier relationship duration and customer satisfaction and then the mobile services provided by the call centers also affect the customer satisfaction and customer retention. Ratnesh Kumar and Dr. Amit Kansal(2013) finds out that there is a high competition among telecom players in India and all the players are giving special offers and schemes to maximize the subscriber base depend upon market condition .The author also suggest that the telecom players to align with new dynamic business environment due to competition . Balwant Singh Mehta (2013) explores that the socio-economic impact of mobile phone usage in rural India. The survey also reveals that mobile phone helped user to gather information for their agricultural and non-agricultural purposes and enable them to get in touch with their family members and migrant workers. The demographic factors of mobile phone user (ownership access), usage (social and economic), activity (education entertainment & innovative use) and impact (satisfaction, safety, skills, Income) plays an important role of mobile phones in rural India .Md.Hasebur Rahman ,Md. Redwanuzzaman ,Md. Masud-Ul-Hasan & Md. Asfaqur Rahman (2014) reveals that service innovativeness , service reliability , service competitiveness, customer demand fulfillment to be found significant factors and service consistency, network signal , coverage, pricing policy, quality of offering, value added services, contribution to society and brand value to be found insignificant factors in affecting customer satisfaction .On the basis of findings the study concluded that customer satisfaction is a dynamic phenomenon of customer retention. Menachem Domb, Joshi Sujata, Bhatia Sanjay, Roy Arindam and Saini Jypti (2015) reveals that brand image, service delivery experience, network experience, customer care experience, store and gallery experience, billing experience and web experience are significantly affecting the customer experience in telecom industry. Dr. Meera Arora (2015) explore that the importance of impact of customer satisfaction through the constant quality service delivery to customer enable the telecom industry for long term sustainability. The paper also revealed that customer centric strategy for telecom company is not only helping to increase market share but also helping service provider for long run business. Ascarza Eva and Neslin Scott A (2016) finds out that the variety of metrics to measure and monitor the customer retention. The author also presented an integrated framework to manage retention that leverages emerging opportunities offered by new data sources and new methodologies. The study also has provided a broader prospective of customer retention. M. Sankara Rao Prof. P. Srinivas Subbarao (2017) explore that the mobile number portability is an option for customer to change existing network to a new network based on the quality of services and offerings made by telecom service provider. Dr.

S.P. Maithiraj (2018) reveals that customer buying behavior has been affected due to lacking service quality, value added service, promotional offers and customer care services pushing the customers to switch over existing service operator to new one. Abani Mohanty and Dr. Sabyasachi Das ( 2018) explore that the retaining the existing customers than finding a new customers is easier for the companies .Customers are enjoying the benefits of retention strategies like keeping them updated, trying to find their changing needs, various trial offers of VAS, waiving of late payment fees, solving the complaints, not disconnecting the service, giving gifts and freebies . The study finds out the customer retention strategies to keep the customers with the telecoms service providers for longer periods.

#### **II.f Customer churn management on retention:**

M. Satish, K. Santosh Kumar, K. J. Naveen, V. Jeevanantham (2011) find out in their study that the factors responsible for influencing the consumer in switching the service provider. The study further explores the call rate plays the most important role to switch the service provider followed by network coverage, value added services, customer care and advertisement. Jamwal Sanjay (2011) finds out that the churn prediction and management have become a serious concern to Indian mobile operators to retain customer due to severe competition. Telecom operators must predict the possible churners and then utilize the limited resources to retain those customers as well. Arthur. Yarhands. Dissou., Ahenkrah. Kwaku., Asamoah. David.,(2012) find out in their study that the causes of customer churn from one operator to other .The study also explore the factors of likeliness of switching services from existing service operators to new , depends on various factors like gender, education occupation ,income, age network issue, high tariff, hidden charges, service disruptions, unreliable helpline, incomplete information and inadequate features. Kiran Dahiya and Surbhi Bhatia (2015) explore that customer churn plays a very significant role in telecom industry for survival and expansion of subscriber base. The study has also explored that the CRM tool through data mining technique will help the industry to acquire and retain customers for longer periods. Gunjan Malhotra and Surinder Kumar Batra (2019) find out that the frequent switching of customers between service provider happen due to low switching cost provided the by the service providers. Based on the factor analysis, there are six factors being identified as switching reason of existing services to new one and these factors innovative offers, publicity, convenience, price, trust building and service quality .Moreover value added services and effective pricing strategies adopted by the service provider can also control the consumer's brand switching behavior that can help to retain customers for longer periods . Sukanta Saha and Yogesh C Joshi (2019) explore that the telecom operators may plan some innovative measures like tariff plan, improved quality of services to increase the perceived satisfaction level among the customers for retention.

### **II.g Merger effect on customer retention in Indian telecom companies:**

Bedi, Surbhi (2017) explore that there are severe challenges, uncertainty and lot of issue during pre-merger and post-merger between the organization. The merger and acquisition have created doubts among the customers to opt new service from merged entity thus by helping the competitor's competitor to increase the customer base. Mishra Arjyolopa, Pradhan Amruta, Bisht Oasis (2018) explore that the dynamic of trusts post-merger and acquisition, integration planning in the Indian telecom sector are identified as the factors being responsible for successful merger and its positive impact to customers, market and business. These factors are also responsible for the consequences of failed merger between the organization.

### **II.h Impact of OTT (Over the Top) players to Indian telecom sector in retention analysis:**

Esselaar Stephen; Stork Christoph (2018) explore that the impact of over the top Applications on mobile operator revenue. The authors find out that the data revenues has been increased with the help of OTT players but the revenue on Voice and SMS is decreased .The author identified the factors over the impact of OTT on mobility revenue and these factors are usage pattern, regulatory interventions and the choice of business models.

### **II.i Challenges of customer retention in Indian telecom service provider:**

The TRAI report (2015 & 2019) shows that there are various factors affecting telecom industry's performance and require to develop proper framework to improve the telecom sector's performance. The factors that affecting telecom industry's performance are technology readiness, cost incentive to telecom companies, social propensity to adopt OTT, strength of OTT platforms, scalability of telecom services. Jonathan Donner (2007) explore that that face to face interaction was dominant in urban India than the customer interaction with various ICT access through landline, mobile, email, SMS etc. The author also explores that the importance of use of information and communication technologies of customer acquisition and retention in urban area. Parsheera Smriti (2018) reveals that the Indian telecom industries are going through a new phase of development. The telecom sector's priorities shift from traditional telecom services to high quality internet access the policy and regulatory framework must also respond accordingly. The study highlights some key challenges are faced by the telecom sector like reliance on wireless network , high cost of spectrum and the continuing digital infrastructure development .The author also recommended to regulator should adopt and design some mechanisms to avoid such challenges and uncertainties in the market to achieve better customer satisfaction. Sigit Haryadi (2018) explore that the

telecom regulatory body controls the tariff of mobile connections and therefore, it is creating obstacles to acquire customers for telecom service providers. The customer is the key to success mantra to any sector of business and this is especially a universal true to Indian telecom industries also where profit margins are very less and such intense competition among players on the rise, enable the customer to give a chance to move from one service provider to other. In a result of that Industry is not only losing customer, losing revenue market share, profitability and sometimes losing stakeholder's confidence. As the industry has undergone from monopoly to competitive market, telecom service industries are facing a very tough time due to higher license fees, lowering tariffs, default payments and increasing cost induced by the customer. So, companies are attempting to find out the ways to improve the strategy of customer retention. However, a thorough study of literature review of various journals, it is yet to be find out the factors relating to customer acquisition and retention of Indian telecom companies

### **III. PROBLEM STATEMENT:**

- To understand customer 's switching behavior.
- To increase customer retention.
- To build trust and loyalty for efficient customer relationship management.

### **IV. OBJECTIVE:**

- To identify the main factors involved in customer retention of Indian telecom market.
- To recommend a suitable model to mobile telecom service provider for customer retention.

Figure 1 shows the seven main factors identified from the research papers.

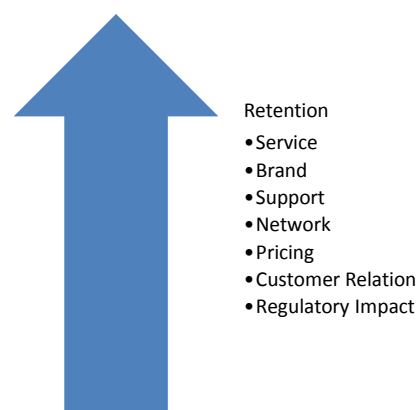


Figure 2 shows the seven variables categorized into sub factors.

Service	Brand	Support	Network	Pricing	Customer relation	Regulatory Impact
Quality of Service	Brand Image	Value	Network Problem	Usage cost	Direct mailing	Regulatory Interventions
Customer's expectation	Brand Awareness	Commitment	Network outage	Call rates	Telephonic discussion	Telecom regulatory policy
Actual Performance	Brand Preference	Customer care	Network experience	Offers	Face to Face interaction	Merger and Acquisition
Tangibility	Brand Value	Customer friendly experience	Activation experience	Schemes	WhatsApp	Pre-merger performance
Customer Service experience	Brand Program	Channel partner	Network coverage	Promotional offers	Chat Bot	Telecom regulation impact
Value Added Service	Brand Loyalty	Agency	POI experience	Discounts	Communication	Risk factors
MNP Experience		Visibility	Excess radiation from Mobile towers	Low cost of service	Body Language	Uncertainty
Reliability		Response	Network quality	Free offers	Data mining technique	
Scalability		Assurance				
Demo experience		Commitment				
Service innovativeness		Social factors				
Customer delight		Demographic factors				
		CRM				
		Store experience				
		Billing experience				

Customer retention is the most significant judgment towards the choice to continue the existing service, loyalty, good value and building trust to service provider and customer. Based on the various studies, the authors understood that there are various factors (64 factors as mentioned above) directly related to the customer retention of Indian telecom companies. This review paper is based on the study of various journals in Indian market. The purpose of this study is to finding factors impacting to customer retention in Indian telecom sector. To fulfil this purpose, the research papers were selected from 2001 and 2019 containing customer retention and acquisition ,CRM impact in retention , churn impact, challenges and merger effect in telecom sector .We have categorized sixty three factors in to seven factors ( Service , Support, Brand, Network ,Pricing , Customer Relation and Regulatory impact to telecom companies).The literature review is considered to be the main part of any study as it helps in investigating the recent developments on factors affecting the customer retention in Indian telecom sector .The study follows the structured literature review approach initially to filter the studies to be included in the literature review and later these studies are analyzed through various classification.

## V. RESEARCH METHODOLOGY:

The purpose of this study is to finding factors impacting to customer retention in Indian telecom sector. To fulfil this purpose, the research papers were selected from 2001 and 2019 containing customer retention and acquisition ,CRM impact in retention , churn impact, challenges and merger effect in telecom sector .We have categorized sixty three factors in to seven factors ( Service , Support, Brand, Network ,Pricing , Customer Relation and Regulatory impact to telecom companies).The literature review is considered to be the main part of any study as it helps in investigating the recent developments on factors affecting the customer retention in Indian telecom sector .The study follows the structured literature review approach initially to filter the studies to be included in the literature review and later these studies are analyzed through various classification in order to have a broader understanding of the factors affecting the customer retention in Indian telecom industries. Existing literature review studies on factor affecting customer retention in telecom sector has shown from next page onwards and citations are recorded till 2019. Table -1 shows the details of research methodology from title, year, name of journal, name of publishers, area of study, objective, factors, location of study and research design adopted in the 50 research papers.

Figure -3 shows the research methodology studied from 50 research papers.

Author name	Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Jacquelyn S.Thomas	A Methodology for Linking Customer Acquisition to Customer Retention.	2001	Journal of Marketing Research	Sage Publication	Acquisition and Retention Analysis	To study a model for linking customer acquisition to retention .	Customer acquisition , retention, Data limitation , biased data,Discount rates,offers etc.	India	Data analysis
Sandra M.Forsythe, Bo Shi	Consumer patronage and risk perceptions in Internet shopping.	2002	Journal Business Research and Auburn University	Elsevier	Customer satisfaction and retention analysis	To study the relationship between consumer demographics(gender, age, income and online experience),types of risk perceived by internet users (shopper and buyers) and selected online patronage behaviors(total amount spent, frequency of searching with intent to buy,and frequency of buying online).	Perceived risk is a useful context to explain the barriers during online purchase.	USA	Regression analysis
M.L. Agrawal	Customer relationship management and corporate renaissance.	2003	Journal of Services Research and Institute for International Management and Technology	Institute for International Management and Technology	CRM and Retention analysis	The paper describes the concept and mechanics of customer relationship management and illustrates how CRM helps corporate renaissance in hard times.	Customer relationship management has great impact on customer retention.	India	Theoretical study
Peter C. Verhoef	Understanding the effect of customer relationship management efforts on customer retention and customer share development.	2003	Journal of Marketing	Rotterdam School of Economics, Rotterdam .	CRM and Retention analysis	The author investigates the differential effects of customer relationship perceptions and relationship marketing instruments on customer retention and customer share development over time.	Customer relationship management , customer satisfaction, payment equity and affective commitment influence customer retention and customer share development.	Netherlands	Exploratory factor analysis and confirmatory factor analysis
Werner Reinartz ,Jacquelyn S.Thomas & V. Kumar	Balancing acquisition and retention resources to maximize customer profitability.	2005	Journal of Marketing	Sage Publication	Acquisition and Retention Analysis	The objective of this research paper is to focuses on right resource allocation model that addresses the questions of how much to invest in customer relationships and how to invest at different points of customer-firm relationship.	cost of acquisition and retention -contact channel , firmographic etc	India	Proo-bit two stage least square model
Dr. B.Kishore Babu	Customer perception towards BSNL mobile services in Narsapur , West Godavari , A.P.	2018	Journal for Advanced Research in Applied Sciences.	Koneru Lakshmaiah Education Foundation	Customer satisfaction and retention analysis	The objective of the study is to know the customer loyalty of Jio customers towards Jio after free services time was over.	Reliance JIO is paying more attention to provide relevant quality service elements (strongest fiber network, pan India presence,cheaper tariffs, advantage of broad spectrum and speed, call clarity ) to meet customer's needs.	Andhrapradesh	Purposive cum convenient sampling method,online survey questionnaire , data presented on MS excel and chart and tables.
Jonathan Donner	Customer acquisition among small and informal businesses in urban India : Comparing face to face and mediated channels.	2007	EJISDC and Microsoft Research India	Microsoft	Challenges of customer retention in Indian telecom service provider	The objective of the study is to explore the use of information and communication technologies of customer acquisition and retention in urban area.	Face to face interaction was dominant than the customer interaction with various use of ICT access.	Hyderabad	Data analysis , Anova test
Anders Gustafsson , Michael D.Johnson and Inger Roos	The Effects of Customer Satisfaction, Relationship Commitment Dimensions, and Triggers on Customer Retention.	2006	Journal of Marketing	American Marketing Association	Customer satisfaction and retention analysis	The study examine the effects of customer satisfaction, affective commitment and calculative commitment on retention in telecommunication services. The study further explores the situational and reactional trigger conditions to moderate the staisfaction cum retention relationship .	Customer satisfaction , Affective Commitment, Calculative commitment towards customers about services.	India	Survey , interview and two tail test

Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Benchmarking telecommunication service in India : An application of data envelopment analysis.	2008	Benchmarking An International Journal	Emeral Group Publishing Limited	Customer satisfaction and retention analysis	The prime focus of service providers is to create a loyal customer base by benchmarking the quality of services and retaining the existing customers in order to benefit from their loyalty.	The paper finds out the several obstacles during privatization of telecom sectors are observed. The possible obstacles are slowdown reform process, political instability, conflict of interest between policy maker and service providers, strict license conditions and unjustifiable license fees.	India	Data Envelopment Analysis(DEA)
Application of data mining techniques in customer relationship management.	2009	Expert Systems with Applications	Elsevier	CRM and Retention analysis	The author studied that analyzing and understanding the customer behavior and characteristics is the foundation of the development of a competitive CRM strategy to acquire and retain potential customers and maximizing customers value . So, application of data mining technique to CRM strategy is a useful tool to extract and gain the insight information from the customer data base and can be used as a best	CRM consist of four dimensions. These four dimensions are customer identification (Customer segmentation and target customer analysis) and customer attraction (Direct Marketing), customer retention (Loyalty program, One to One Marketing , Complete Management), customer development (Customer life time value, Cross /up selling)	China	Data mining techniques
A study on consumer switching behavior in cellular service provider: A study with reference to Chennai.	2011	Far East Journal of Psychology and Business	Far East Research Centre	Churn and Retention Analysis	The objectives of the study are to find out the factors that influence customers to switch the services from existing to new operator and to find out the likeliness of switching the service provider. The results revealed that call rate plays the most important role to switch the service provider followed by network coverage, value added	The factors that influence the consumer switching behaviors are customer service, service problems, usage cost and other.	Chennai	Descriptive research design
Principles of Marketing (14th edition).	2011	Pearson Education	Pearson Education	Customer satisfaction and retention analysis		Customer satisfaction	Delhi	
Smart phone users brand awareness to 4G mobile phone services (A study with special reference to Coimbatore city).	2011	Indian Journal of Research	Paripex	Acquisition and Retention Analysis	To study demographic and socio-economic status of the smart phone users in Coimbatore city. To analysis the smart phone users' level of awareness towards 4G services offered by various telecom operators.	Brand awareness and socio/geographic factors	India	Multistage sampling techniques
An Approach to Mobile Telecom Churn Handling in India.	2011	Bharati Vidyapeeth's Institute of Computer Applications and Management ,New Delhi	Baba Gulam Shah Badshah University	Churn and Retention Analysis	The study explores the model for churn prediction to support telecom churn management.	Customer demography analysis, bill and payment analysis, call detail records analysis and customer care or service analysis	India	Data analysis
E-satisfaction in Business-to-Consumer Electronic Commerce.	2012	The Business and Management Review	ITARC	Customer satisfaction and retention analysis	To study to develop a model to explore antecedents and consequences of ecommerce satisfaction.	Information satisfaction and system satisfaction are part of e-satisfaction.	London	Survey , Questionnaire and path analysis



Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Customer retention in mobile telecom service market in India : Opportunities and challenges.	2012	Ushas Journal of Business Management	Christ University	Customer satisfaction and retention analysis	The objective of the study is to identify the main factors which decide the customer retention in mobile telecom market in India and then to check mobile number portability is a blow to mobile telecom service provider. Also suggest a suitable	Customer satisfaction is positively affected by trust and service quality. 2) Switching barriers, customer satisfaction and MNP are the three factors to affect customer retention.	Kerala	Theoretical study from literature review
Customer Satisfaction in the Mobile Telecom Industry in Bahrain: Antecedents and Consequences.	2012	International Journal of Marketing Studies	Published by Canadian Center of Science and Education	Acquisition and Retention Analysis	The objective of this study is to investigate the importance, determinants, and consequences of customer	offers, rents, charges, customer service, user friendly websites, customer friendly experiences.	Bahrain	KMO and Bartlett's test
The Effect of Customer Satisfaction upon Customer Retention in the Jordanian Mobile Market: An Empirical Investigation.	2012	European Journal of Economics, Finance and Administrative Sciences	EuroJournals, Inc.	Customer satisfaction and retention analysis	The study focused on how consumer satisfaction led to customer retention in mobile market .	Customer care, customer service, variety of services, friendliness, speed, helpful, not wasting time.	Jordan and UK	Chi square test
Determinants Analysis of Customer switching Behavior in Ghanaian Telecommunication Industry, An Exploratory and Inferential study.	2012	Christian Service University College	Christian Service University College, Kwame Nkrumah University of Science and Technology-Kumasi	Churn and Retention Analysis	This paper deals with the problem of customer switching in Ghanaian telecommunication industry.	The most important factor that influence customer switching is the high tariffs, service failure such as billing error, service mistakes and service ruins. The level of education, income category of the customers was also found to contribute significantly to customer switching.	Kumasi-Ghana	descriptive statistics
Perceived value transaction cost and repurchase intention in online shopping: A relational perspective.	2012	Journal of Business Research and National Chengchi University, Taiwan	National Chengchi University	Acquisition and Retention Analysis	The paper explains about telecommunication issues such as level of satisfaction and how it differs from one mobile phone.	telecommunication issues	Taiwan	
An Analytical Study of Customer Satisfaction influencing Brand Loyalty and foster recommendation for Mobile Services Providers of Indian Telecom Industry.	2013	International Journal of Emerging Research in Management and Technology	Mewar University	Customer satisfaction and retention analysis	To find out the consumers' satisfaction towards the various services provided by telecom service providers. To find out the relationship between consumers' loyalty, consumers' foster recommendation and consumers' satisfaction with various services provided by the MSPs.	Brand, loyalty, Customized VAS, Convenience, Network Coverage and Call tariffs.	India	Data analysis , chi square test and Anova test
New strategies of industrial organization: outsourcing and consolidation in the mobile telecom sector in India.	2013	Ambedkar University	Capturing the Gains, Economic and Social Upgrading Production Networks	Acquisition and Retention Analysis	This paper focuses on the outsourcing model of mobile network and IT management to reduce the operation cost and increase the profitability.	The outsourcing strategy for mobile network and IT management adopted by Airtel has resulted the considerably cost saving and increase the profitability .	India	Airtel outsourcing model

Author name	Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Balwant Singh Mehta	Capabilities costs networks and innovations: impact of mobile phones in rural India.	2013	Institute for human development , Newdelhi	Capturing the Gains	Customer satisfaction and retention analysis	The objective of the study is to explore the socioeconomic impact of mobile phone usage in rural areas.	Demographic factors, Mobile Phone (Ownership access), Usage(social and economic), Activity(Education, entertainment, Innovative use) and Impact (Satisfaction, Safety,skills, Income).	Delhi	Data analysis
Md Hasebur Rahman Md Redwanuzzaman Md Masud-UI-Hasan & Md Asfaqur Rahman	Factors Affecting Customer Satisfaction on Grameenphone users in Bangladesh.	2014	Global Journal of Management and Business Research by Global Journals Inc ( USA) Marketing	Global Journals Inc	Customer satisfaction and retention analysis	The study focused on factors affecting the customer acquisition in Bangladesh telecom sector.	network, signal coverage, pricing policy, quality of offering, value added service , contribution to society and brand value.	Bangladesh	Statistical analysis and Multiple Regression
Menachem Domb Joshi Sujata Bhatia Sanjay Roy Arindam and Saini Jypti	An Empirical Study to Measure Customer Experience for Telecom Operators in Indian Telecom Industry.	2015	GSTF	Journal of Business Review	Customer satisfaction and retention analysis	This paper focuses on customer experience in telecom industry and to identify the factors of customer experience for telecom operators in Indian telecom industry.	Brand Image, Service delivery experience, Network experience, customer care experience, store or gallery experience, Billing experience and web experience.	India	Data Analysis and Factor analysis
Kiran Dahiya and Surbhi Bhatia	Customer churn analysis in telecom industry.	2015	IEEE	IEEE	Churn and Retention Analysis	The objective of the paper is to proposes a churn prediction model in telecom industry to improve customer acquisition and retention.	CRM and Data mining technique	Noida	Regression analysis and Decision tree
Sujata Joshi Abhijit Chirputkar and Yatin Jog	Influence of brand oriented factors on customer loyalty of prepaid mobile services.	2015	Indian Journal of Science and Technology	Symbiosis Institute of Telecom Management, Symbiosis International University	Acquisition and Retention Analysis	The paper focuses on the influence of brand-oriented factors to ensure customer retention and loyalty.	It explores the factors that influence customer loyalty towards a specific brand of prepaid service provider	India	Exploratory Research design and Factor analysis
Dr.Meera Arora	Role of customer service quality in customer satisfaction : An empirical study of select telecom service providers in NCR.	2015	International Journal of Engineering Technology, Management and Applied Sciences	DAVIM Faridabad	Customer satisfaction and retention analysis	The paper explores the importance of customer satisfaction for telecom service providers through constant service quality delivery with customer centric strategies to customers for long term sustainability and grabbing the market share .	Based on the study, it has been found that reliability, assurance and responsiveness are three most important dimensions of service quality influencing the customer satisfaction.	Delhi	Factor analysis
TRAI	Regulatory framework on Over-The-Top (OTT)Services.	2015	TRAI	TRAI	Challenges of customer retention in Indian telecom service provider	TRAI Report	Technology readiness, cost incentive to telecom industry, social propensity to adopt OTT, Strength of OTT platforms, scalability of services.	Delhi	NA
Monalisha Pattnaik, Abhipsa Ray, Biswa Bhusan Mall, Rosemary Kujur, Silpa Jena, Somu Jena	A study on perceived service quality of Idea Cellular Ltd.- A case study on factor analysis.	2015	Journal of Business and Management Sciences	Science and Education Publishing	Acquisition and Retention Analysis	The study focuses on perceived service quality offered by Idea Cellular Limited and to identify critical factors which are responsible for customer satisfaction.	Brand preference, customer perception, distributor perception, marketing strategy, service quality delivery.	Delhi	Factor analysis

Author name	Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Suraj Kushe Shekhar	Indian customers and retailers perception towards cellular service providers with special reference to BSNL.	2015	Business Excellence and Management	VIT Vellore	Acquisition and Retention Analysis	The study focuses examines the perception of Indian customers and retailers towards cellular service provider.	Accessibility (customer may know how to complain), visibility (Customer may know where to complain) and responsiveness (complaints need to be dealt quickly).	Tamilnadu	descriptive statistics
Pawan Kalyani	An Empirical Study on Reliance JIO Effect, Competitor's Reaction and Customer Perception on the JIO'S Pre-Launch Offer.	2016	Journal of Management Engineering and Information Technology (JMEIT)	Outlook	Acquisition and Retention Analysis	The paper finds out that effect and awareness of Jio offers. The authors also find out the competitive strategy and offering made by Vodafone, Airtel and BSNL.	Brand awareness, marketing strategy, pre-launch offer.	India	Survey , Questionnaire and Data analysis
Ascarza,Ev a., Neslin,Scott A.,	In Pursuit of Enhanced Customer Retention Management: Review, Key Issues, and Future Directions.	2017	Springer Science & Business Media LLC and University of Alberta	Springer	Customer satisfaction and retention analysis	The objective of this study is to draw on previous research and current practice to provide insights on managing retention and identify areas for future research on retention. This study has provided a broader perspective of customer retention.	Retention programs, campaign design and predictive churn.	Alberta	Statistical methods, probability models, machine learning, test mining, dynamic optimization, decision support systems and field experiment.
Veena P. Bhosale and Ashwin Nirmal Jain	Shifting of loyalties : Perception of telecom customers after launching of Jio in Jalgaon city.	2016	International Journal of Scientific Development and Research (IJS DR)	KCES's COEIT and Central Government of India	Acquisition and Retention Analysis	To study the perception of customer with changing scenario in Indian telecom industry and the impact of Jio schemes on customer's mentality in Jalgaon city.	Free data, voice calls and limitless monopoly in scheme over other telecom companies.	Jalgaon	Survey, Questionnaire and Data analysis
D Satyanarayana, Dr. K Sambasiva Rao and Dr. S Krishnamurthy Naidu	The impact of Reliance Jio on Indian mobile industry- A case study on mergers and acquisitions of idea – Vodafone and Airtel – Telenor.	2017	International Journal of Applied Research	Rayalaseema University, Kurno	Acquisition and Retention Analysis	To examine the impact of new entrant R-Jio on competitive strategies of rivals in the and analyze the major changes in Indian telecom industry.	Merger and Acquisition	India	Michael E Porter's Five Force Model.
Surbhi Bedi and Sandeep Vij	Nuances of Merger and Acquisitions.	2017	DAVU School of Business	DAV University	merger effect on retention in Indian telecom service provider	The paper presents a brief discussion about merger and acquisitions, their history, their types, their theories, the deal execution process and their motives.	Growth, hindrances and lot of issues.	Jalandhar	Theoretical study based on various research papers.
Dr.S.M. Yamuna and R. Shiji	Smart phone users brand awarness towards 4G Mobile phones services.	2017	PSG College of Arts and Science	PSG College of Arts and Science	Acquisition and Retention Analysis	To study brand awareness of smart phone users towards 4G mobile phone services in India. The author revealed that socio geographical and demographic factors are creating brand awareness of smart phone users towards 4G services for high speed internet and voice services.	Brand awareness and socio/geographic factors	India	
Noorul Haq	Impact of Reliance JIO on the Indian Telecom Industry.	2017	International Journal of Engineering and Management Research (IJEMR)	Vandana Publications	Acquisition and Retention Analysis	The objective of the paper is to study and examine the impact of Reliance Jio on the Indian telecom industry.	Unlimited voice call and 4G high speed data is being offered at lower price to customer has helped Reliance Jio to gain massive customer base and forced other telecom service operator for losses of customer base and revenue.	Delhi	Qualitative research design .

Author name	Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Rajbinder Singh	Impact of Reliance JIO on Indian Telecom Industry: An Empirical Study.	2017	International Journal of Scientific Research and Management (IJSRM)	G.S.S.D.G.S. Khalsa College, Patiala (Punjab)	Acquisition and Retention Analysis	To examine the impacts of Reliance Jio on Indian telecom industry and to analyze the major strengths, weakness, opportunities, and threats to Reliance Jio in Indian telecom industry.	Free Internet, free Calling, 4G Services, Uncertainty and Big service provider talks about merger and acquisition.	India	SWOT Analysis
M.Sankara Rao Prof. P. Srinivas Subbarao	A study on relation between customer satisfaction and mobile number portability (MNP) of various sample respondents in vizianagaram telecom district.	2017	International Journal of Multidisciplinary Advanced Research Trends.	Rayalaseema University, Kurnool	Customer satisfaction and retention analysis	The study explores the port out of BSNL have increased due to limited back end resources and unavailability of 4G spectrum.	Various factors have been identified for port outs to other operator like dissatisfaction of pre & post purchase service, lack of marketing, frustration of customer care services, less connectivity, frequent call drops to name a few.	Odisha	Survey and questionnaires
Esselaar, Stephen ; Stork, Christoph	OTT applications driving data revenue growth.	2018	International Telecommunications Society (ITS)	Econstor	Acquisition and Retention Analysis	This paper analyses the impact of over the top applications on mobile operator revenues. The paper analyses three factors impacting revenue trends are changes in usage pattern across voice, SMS and data, the impact of regulatory	There are three factors impact the revenue 1st - changes in usage pattern across voice, SMS and data , 2nd- the impact of regulatory interventions and 3rd- the choice of business models.	Seoul, Korea	Statistical analysis
Parsheera Smriti(2018)	Challenges of Competition and Regulation in the Telecom Sector.	2018	National Institute of Public Finance and Policy, New Delhi	Economic and Political Weekly	Challenges of customer retention in Indian telecom service provider	This paper discusses the changing role and regulation in the telecom sector and challenges of Competition Commission of India (CCI) and Telecom Regulatory Authority of India (TRAI).	Spectrum management , interconnection policy , diminishing role of tariff interventions, Integration of network and content, Potential areas overlap and Competition from OTT players.	New Delhi	NA
Dr. SP Maithiraj ,Sheety Deepa Thangam Geeta, R.Saroja Devi	Customer Behaviour On Mobile Phone Network Portability Services.	2018	International Journal of Scientific & Technology Research	Researchgate	Customer satisfaction and retention analysis	To study the emerging trends in mobile phone network services in India and to explore the factors that influence portage of mobile phone network in India.	Service quality, value added service, promotional offers and customer care services .	Chennai	Analytical and Descriptive statistics
Mishra, Arjyolopa ,Pradhan ,Amruta., Bisht, Oasis..	The impact of trust on leadership during mergers.	2018	International Journal of Social Sciences, Crossmark and Global	Cross Mark and Global Research & Development Services (GRDS)	merger effect on retention in Indian telecom service	This paper explores the dynamics of trust during post-merger and acquisition integration planning in the Indian Telecom Sector	Mode of takeover, cultural disparity, Difference in leadership style, Pre-merger performance differences	Odisha	Theoretical frameworks
Das, Subhasish (2018). & Mishra, Mani t (2018)	The impact of customer relationship management( CRM) practices on customer retention and the mediating effect of customer satisfaction.	2018	International Journal of Management Studies and CUTM, Jatni, Odisha	Springer	CRM and Retention analysis	This paper explores that business should create customers and keep them and CRM helps them to retain the relationship.	Customer relationship management.	Odisha	Factor analysis
Sigit Haryadi	Telecommunication on Pricing Regulation Theory and Problem Solution Examples.	2018	Institute Teknologi Bandung	INA-Rxiv	Challenges of customer retention in Indian telecom service provider	This paper basically describes the general theory of pricing theory for telecommunication networks and services.	The regulator controls the price charged by the operator rather than the firm's earning, annual price cap formula, the regulated firm is permitted to alter its average price.	Indonesia	NA

Author name	Title	Year	Name of Journal	Name of Publisher	Area of Study	Objective	Finding of factors	Location	Research design
Gunjan Malhotra Surinder Kumar Batra	Customer - switching behavior for telecom service provider.	2019	International Journal of Scientific and Technology Research	Business & Economics	Churn and Retention Analysis	This paper explains the reason why customers in telecom industry are switching from one telecom operator to other.	Low switching cost, innovative offers, publicity, trust building, convenience, price and service quality.	Chennai	Descriptive and exploratory research design
DrAbomaye Nimenibo Williams Aminadokiari Samuel Effiong and Blessing James	The effectual use of customer retention as a tool of customer relations management strategy : A study of MTN,Airtel , Glo and Etisalat communication customers in UYO metropolis.	2019	Global Journal of Management and Business Research by Global Journals Inc (USA) Marketing	Global Journals Inc	CRM and Retention analysis	The objective of the study is to identify if there is any existing /significant relationship between CRM and customer retention, and to identify the various customer relation tools used to enhance customer retention in telecommunication companies in UYO metropolis.	Effective use of CRM is the reason of customer satisfaction.	Akwa ibom state	Data analysis
Sukanta Saha and Yogesh C Joshi (2019)	Measuring mobile service satisfaction : Factor analysis based study on mobile users in Gujarat.	2019	International Journal of Basic Sciences and Applied Computing (IJBSAC)	Blue Eyes Intelligence Engineering & Sciences Publication	Churn and Retention Analysis	The research paper aims to identify the factors of satisfaction of mobile users in Gujarat with range of services and supports provided by telecom service providers. The study also explores the gaps in customer expectations and customer experiences for actual services and identify the real time issues	Innovative tariff plan and improved service quality resulted the reason of perceived satisfaction among customers.	Gujarat	Factor analysis
Abani Mohanty and Dr.Sabyasachi Das	Customer Retention Strategies of Indian Telecom Service Providers.	2018	IJSRST	Utkal University	Customer satisfaction and retention analysis	To study the customer retention strategies to keep the customer with the telecom service provider.	Retaining the existing customers than finding a new customers is easier for the companies .Customers are enjoying the benefits of retention strategies like keeping them updated, trying to find their changing needs, various trial offers of VAS, waiving of late payment fees, solving the complaints, not disconnecting the service, giving gifts and freebies.	Odisha	Descriptive method and Anova test

## VI. ARTICLE SELECTION PROCESS

The basic of this review is to explore the factors affecting the customer acquisition and retention in Indian telecom market domain. The study of literature review of 50 journals in customer retention of Indian telecom companies within the larger context of customer's prospective towards mobile connections. To achieve this aim, the Scopus database is reviewed. All the research articles published in peer -reviewed journals containing factors affecting customer retention of Indian telecom companies from customer's prospective in their title, abstract, introduction, and key words are filtered at the initial stage. During the filter stage, other articles such as conference papers, short notes, book chapters and editorial notes are excluded. The articles published during 2001-2019 along with one article published in year 1991 are considered. Article published in 1991 was considered as reason being in

that point of time the telecom just had begun operation in India by VSNNL & BSNL. In early 2010, the customer acquisition and retention of Indian telecom companies has gained its existence. Before initiating the analysis of shortlisted factors affecting customer retention articles, it is essential to define the classification of framework based on which the articles will be analyzed. Accordingly, for the present study, the shortlisted articles are analyzed on 10 broad dimensions which will provide a better understanding of this research and will also help researchers to explore future research directions in the factors affecting the customer retention of Indian telecom domain. The classification framework for the study is described as follows:

1. Author name
2. Title

3. Publishing Year.
4. Name of Journal
5. Name of Publisher or Institute or University
6. Area of study
7. Objective
8. Findings
9. Location of study
10. Research Design.

Classification in order to have a broader understanding of the factors affecting the customer retention in Indian telecom industries. Existing literature review studies on factor affecting customer retention in telecom sector has shown from next page onwards and citations are recorded till 2019.

## VII. DISCUSSION

The Indian telecom industry has seen the phenomenal growth from last two decades. The overall health of the telecom sector is going through a very tough time with rising competition, customer churn and lower price. This has resulted to shrink our country's GDP (Gross Domestic Product) and economic growth. The present study helped to explore 64 factors are influencing customers to switch current mobile services from existing service provider to new service provider and also find out the factors of likeliness of switching service provider. By identifying these factors, the future directions will unveil those discriminate between the long run customers are using mobile services and those who are switching services in a shorter period.

## VIII. FUTURE SCOPE:

- The present study of review paper can be extended to other geographical areas and can also be extended beyond mobile services with respect to different age groups, gender, education, occupation and other socio-economic factors.
- The study can also be extended the likeliness of switching behavior of customers from existing service provider to new service providers.
- The study can also be extended to the area of merger effect between telecom companies and then the challenges faced by telecom companies from telecom regulation prospective.
- The further study to these areas may explore new factors in telecom sector's customer acquisition and retention.
- The study further can also extend to the impact of OTT players on telecom sector to explore factors affecting customer retention to telecom industries

## IX. LIMITATIONS:

The study was limited to mobility services only. Although the factors identified were really verified in the telecom industry and it would be helpful to replicate the same study in other industries to gain the customer base, market share and profitability. There are only few journals available on factors affecting customer retention of Indian telecom industry and the study was restricted to Delhi, Noida, Chennai, Odisha, Andhra Pradesh, Gujarat, Kerala, Tamil Nadu very few locations in India but it did not cover remaining locations of our country. The same study was restricted globally to few regions are USA, China, Bahrain, Jordon, UK, Ghana, Taiwan, Bangladesh, Alberta, Seoul, Indonesia and Akbaibom state. The outcome of the future studies will help to explore new factors are not being identified from this study. The study on merger effect between telecom industries due to competition, impact of OTT players to telecom industries and challenges faced by telecom companies are few have been studied in this review paper.

## X. CONCLUSION

The review paper has explored 64 factors affecting the customer acquisition and retention in Indian telecom companies and then categorized these 64 sub factors in to seven significant factors. The questionnaires draft based on the seven factors will give deeper understanding of customer's perceive ness towards the telecom companies for service, support, brand, network coverage, pricing, communication and other factors. Telecom uncertainty is also arising to customers from mergers and acquisition happened between telecom companies i.e. Vodafone & Idea, Airtel & Tata etc. The review paper studied on 50 journals has limitations also as the data's collected by authors from various sources are outdated and may give bias results. There are very few research's done on customer retention of Indian telecom companies and hence a very few journals available related to the retention of Indian telecom companies. Based on the review paper and the journals selected from year 2001 to 2019, the future study further can be recommended to explore more factors in line with the customer retention of Indian telecom companies.

## REFERENCES

- [1] Jacquelyn, S Thomas., A Methodology for Linking Customer Acquisition to Customer Retention; Journal of Marketing Research 38, Issue 2, 2001
- [2] Sandra M. Forsythe and Bo Shi., Consumer patronage and risk perceptions in internet shopping; Journal of Business Research, Volume 56, issue no 11, November 2003, pages 867-875
- [3] Agrawal. Customer relationship management and corporate renaissance; Journal of Services Research and Institute for International Management and Technology; 2003.
- [4] Peter. C. Verhoef, Understanding the effect of customer relationship management efforts on customer retention and customer share development; Journal of Marketing,

- Vol.67 (Oct 2003), 30-45.
- [5] Werner. Reinartz, Jacquelyn. S. Thomas & V. Kumar. Balancing acquisition and retention resources to maximize customer profitability; *Journal of Marketing*, Vol.69, (January 2005), 64-79.
- [6] Anders, Gustaffsson. The Effects of Customer Satisfaction Relationship Commitment Dimensions and Triggers on Customer Retention; *Journal of Marketing*, Vol.69 (4), (2006), 210-218.
- [7] Debnath, Roma Mitra. Benchmarking Telecommunication Service in India; *Emerald Insights*, 2008.
- [8] EWT. Ngai, Li. Xiu, DCK. Chau, Application of data mining techniques in customer relationship management; *Expert Systems with Applications*, volume 36, Issue 2, Part 2, 2009, pages 2592-2602
- [9] Satish. M. Kumar, K. Santosh, Naveen. KJ, Jeevanantham. V, A Study on Consumer Switching Behavior in Cellular Service Provider: A Study with reference to Chennai; *Far East Journal of Psychology and Business*, Vol.5 No.2 (November 2011).
- [10] Kotler, P. and Armstrong, G. *Principles of Marketing* (14<sup>th</sup> edition); Pearson education, Delhi, 2011.
- [11] Dr. S.M. Yamuna and R. Shiji. Smart phone users brand awareness towards 4G Mobile phones services- A study with special reference to Coimbatore city; *Indian Journal of Research*, Coimbatore, Volume 6, Issue 2, February 2017.
- [12] Jamwal. Sanjay, An Approach to Mobile telecom Churn Handling in India; *Computing for Nation Development*, March 10-11, 2011.
- [13] Afshan. Azam, Fu. Qiang and Muhammad Ibrahim. Abdullah, E-satisfaction in Business-to-Consumer Electronic Commerce; *The Business and Management Review*, Vol.3 Number 1, November 2012.
- [14] Premkumar G and J. Rajan. Customer retention in mobile telecom service market in India: Opportunities and challenges; *Ushas JBMgt* 12, 2(2013), 17-29.
- [15] Jonathan Donner. Customer acquisition among small and informal businesses in urban India L: Comparing face to face and mediated channels; *EJISDC*, Volume 32, Issue 3, Pages 1-16, 2007.
- [16] Mohammed M. Almosawi. Customer satisfaction in the mobile telecom industry in Bahrain: Antecedents and consequences; *International Journal of marketing and studies*, Vol 4, No.6; 2012.
- [17] Muhammad Alshurideh Ra'ed (Moh'd Taisir) Masa'deh Barween Alkurdi. The Effect of Customer Satisfaction upon customer Retention in the Jordanian Mobile Market: An Empirical Investigation; *European Journal of Economics, Finance and Administrative Sciences*, Issue 47 (2012).
- [18] Arthur. Yarhands. Dissou, Ahenkrah. Kwaku, Asamoah. David., Determinants Analysis of Customer switching Behavior in Ghanaian Telecommunication Industry, An Exploratory and Inferential study; *International Journal of Business and Social Research (IJBSR)*, Volume -2, No.-5, October 2012
- [19] Lei Yu, Wu Kuan, Yang Chen, Po Yuan, Chen Shu, Ling Cheng. Perceived value transaction cost and repurchase intention in online shopping: A relational perspective; *Journal of Business Research*, Vol 67. (2012), 2768-2776.
- [20] Arora, Dr. Meera. Role of customer service quality in customer satisfaction: An empirical study of select telecom service providers in NCR; *International Journal of Engineering Technology, Management and Applied Sciences*, Delhi, Volume 3, Issue 3, March 2015.
- [21] Satyanarayana. D. Rao, Dr. K Sambasiva, Naidu. Dr. Krishnamurthy, (2017). The impact of Reliance JIO on Indian mobile industry – A case study on mergers and acquisitions of idea –Vodafone and Airtel-Telenor ; *International Journal of Applied Research*, 2017.
- [22] Dr.B. Kishor. Babu, A Study on Customer loyalty of JIO Users towards JIO, Vijayawada, Andhra Pradesh, *IAETSD Journal for Advanced Research in Applied Sciences*. 5, Issue 1, January 2018.
- [23] Ratnesh, Kaushik, An Analytical Study of Customer Satisfaction influencing Brand Loyalty and foster Recommendation for Mobile Services Providers of Indian Telecom Industry; *International Journal of Emerging Research in Management and Technology*, 2013.
- [24] Sumangala, Damodaran, New strategies of industrial organization: outsourcing and consolidation in the mobile telecom sector in India; *Ambedkar University*, 2013.
- [25] Mehta. Balwant. Singh. Capabilities costs networks and innovations: impact of mobile phones in rural India; *Institute for human development*, New Delhi, 2013.
- [26] Md. Hasebur, Rahman. Md. Redwanuzzaman, Md. Masud-UI-Hasan & Md. Asfaqur. Rahman. Factors Affecting Customer Satisfaction on Grameenphone users in Bangladesh; *Global Journal of Management and Business Research by Global Journals Inc (USA) Marketing*, Vol.14 Issue 3 Version 1.0 2014.
- [27] Menachem Domb Joshi Sujata Bhatia Sanjay Roy Arindam and Saini Jypti. An Empirical Study to Measure Customer Experience for Telecom Operators in Indian Telecom Industry; *GSTF Journal on Business Review (GBR)* Vol.4 No.2, December 2015.
- [28] Dahiya, Kiran. Customer churn analysis in telecom industry; *IEEE*, Noida, 2015
- [29] Sujata. Joshi, Abhijit. Chirputkar and Yatin. Jog, Influence of brand-oriented factors on consumer loyalty of prepaid mobile services; *Indian Journal of Science and Technology*, India, 2015

- [30] TRAI. Regulatory framework on Over-The-Top (OTT) Services, Delhi, 2015 and TRAI Financial Report, 2019-2020.
- [31] Monalisha. Pattnaik, Abhipsa. Ray, Biswa. Bhusan, Mall. Rosemary, Kujur. Silpa, Jena. Soma, A Study on Perceived Service Quality of IDEA Cellular Ltd. - A Case Study on Factor Analysis; *Journal of Business and Management Sciences*, Delhi, Vol .3 No.1 ,2015, 53-57.
- [32] Surah Kushe. Shekar, Indian customers and retailer's perception towards cellular service providers with special reference to BSNL; *Business Excellence and Management*, Vol.5 Issue 4, December 2015.
- [33] Ascarza. Eva, Neslin Scott. A., In Pursuit of Enhanced Customer Retention Management: Review, Key Issues, and Future Directions; Springer Science & Business Media LLC and University of Alberta, Alberta, 2016.
- [34] Bhosale. Veena, P. Jain., and Ashwin. Nirmal, Shifting of loyalties: Perception of telecom customers after launching of JIO in Jalgaon city; *International Journal of Scientific Development and Research*, Jalgaon, Volume 1, Issue 11, 2016
- [35] Pawan, Kalyani. An empirical study on Reliance JIO effect, Competitor's reaction and customer perception on the JIO's pre-launch offer; *Journal of Management Engineering and Information Technology (JMEIT)*, Vol. 3, Issue 5, Oct.2015.
- [36] D. Satyanarayana. Dr. K. Sambasiva, Rao and Dr. S. Krishnamurthy, Naidu. The impact of Reliance JIO on Indian mobile industry- A case study on mergers and acquisitions of idea –Vodafone and Airtel – Telenor; *International Journal of Applied Research*, India, Vol.3, Issue 3, 2017, 209-212
- [37] Bed, Surbhi. Nuances of Merger and Acquisitions; DAV University, Jalandhar, 2017.
- [38] Haq, Nooral., Impact of Reliance JIO on the Indian Telecom Industry; *International Journal of Engineering and Management Research (IJEMR)*, Volume 7, Issue 3, New Delhi, Vol. 7, Issue 3, May-June 2017, 259-264.
- [39] Singh, Rajbinder. Impact of Reliance JIO on Indian Telecom Industry: An Empirical Study; *International Journal of Scientific Research and Management (IJSRM)*, Volume 5, Issue 07, pages 6469-6474, 2017.
- [40] M. Sankara. Rao and Prof. P. Srinivas, Subbarao, A study on relation between customer satisfaction and mobile number portability (MNP) of various sample respondents in Vizianagaram telecom district; *International Journal of Multidisciplinary Advanced Research Trends*, Volume IV, Issue 2(4), December 2017.
- [41] Esselaar, Stephen and Stork, Christoph. OTT applications driving data revenue growth; Econstore by International Telecommunications Society (ITS), Seoul Korea, 2018.
- [42] Maithiraj, Dr.S.P., T. Sangeetha. Customer Behavior on Mobile Phone Network Portability Services; *Indian Journal of Applied Research*, Chennai, Volume 8, Issue 2018.
- [43] Mishra. Arjyolopa, Pradhan. Amruta, Bisht. Oasis, The impact of trust on leadership during mergers and acquisitions: Case studies from the Indian telecom sector; *International Journal of Social Sciences, Crossmark and Global Research and Development Services*, Odisha, 2018.
- [44] Das, Subhashish & Mishra, Mani. The impact of customer relationship management (CRM) practices on customer retention and the mediating effect of customer satisfaction; *International Journal of Management Studies and CUTM*, Jatni, Odisha, 2018.
- [45] Parsheera, Smriti. Challenges of Competition and Regulation in the Telecom Sector; *Economic and Political Weekly (EPW)*, National Institute of Public Policy and Finance, New Delhi, Volume LIII No 38, September 22, 2018.
- [46] Sigit, Haryadi. Telecommunication Pricing Regulation Theory and Problem Solution Examples; *Institute Teknologi Bandung* Maret, 2018.
- [47] Mohanty. Abani & Das. Dr. Sabyasachi, Customer Retention Strategies of Indian Telecom Service Providers; *IJSRST*, Odisha, Vol. 4, Issue 2, 2018.
- [48] Gunjan. Malhotra, Surinder. Kumar. Batra, Customer Behavior on Mobile Phone Network Portability Services; *International Journal of Scientific and Technology Research*, Chennai, 2019.
- [49] Dr. Abomaye. Nimenibo, Williams. Aminadokiari, Samuel. Effiong and Blessing. James., The effectual use of customer retention as a tool of customer relations management strategy then to improve customer relationship with the organization; *Global Journal of Management and Business Research by Global Journals Inc ( USA) Marketing*, Akwaibom state ,Vol. 19 Issue 2 Version 1.0, 2019.
- [50] Sukanta, Saha and Yogesh. C. Joshi, Measuring mobile service satisfaction: Factor Analysis based study on mobiles users of Gujarat; *International Journal of Basic Sciences and Applied Computing (IJSAC)*, Gujarat, Vol.2 Issue 8, July 2019.