

Themed Section: Science and Technology

# Impact of Customer Relationship Management (CRM) on Telecom sector in India

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# **ABSTRACT**

The Indian telecom sector has faced with a cut-throat competition after deregulation. Many significant developments took place in the early 2000. The telecom service providers are expected to encounter complex issues of new technologies, and value added services through continuous innovations. Though almost every service industry is affected by the churn phenomenon, the problem is extremely serious in the telecom industry with customers subscribing and quitting in a relatively short period of time. As a result, the telecom industries' bottom line is getting impacted significantly due to the high churn rate. Subscribers switch over for various reasons. The ultimate goal of CRM in telecom sector is to provide a comprehensive array of software applications that enable them to enhance their revenue, productivity and customer satisfaction by managing, synchronizing and coordinating customer interactions across all touch points including web, customer contact centre's, field organization and distribution channels. The objective of this study is to identify the factors that influence the CRM strategies applied by the telecom sector. Questionnaire was the tool for primary data collection and Secondary Data were collected from Journals, Books, News Papers, Research Papers, websites, etc. Probabilistic Sampling Design is used with the sample size of 500 respondents from the capital city of Bhubaneswar, Odisha, India.

Keywords: CRM, Telecom industry, Service quality, Customer loyalty, Customer retention

# I. INTRODUCTION

Telecommunication is one of the prime support services needed for rapid growth of any developing economy and is one of the fastest developing sectors in India. Telecommunication sector in India can be divided into two segments: Fixed service providers and Cellular service providers. Fixed line services consist of basic services like national or domestic long distance and international long distance services. Cellular services can be further divided into two categories: global system for mobile communication(GSM) and Code division multiple access(CDMA). The GSM service is dominated by Airtel, Vodafone, Reliance Jio, Idea Cellular and the state run BSNL while CDMA service is dominated by Reliance infocomm and Tata Indicom. A decade ago, India was at the bottom of the pyramid in the world telecom market. But after the opening up of telecom competition, through liberalization, sector disinvestments, privatization and demonopolization initiatives adopted by the government of India, the industry, especially the mobile segment is experiencing a tremendous growth and today we are the second largest telecom market in the world. The composition of the telecom sector too has witnessed a structural change, with the private sector accounting for 88% of the total connections.

#### II. Literature Review

Phavaphan Sivarasks and Donyaprueth Krairit (2011) examines and measures the outcomes of electronic customer relationship management system implementation in the with banking industry from customers' perspectives.

According to **Newell (2000)** there are often three distinct types of relationship customers: the top, middle and lower groups. The top group (top 10 %) consists of customers with excellent loyalty and high profitability for the organization. CRM is needed to retain and offer them the best possible services in order to avoid them defecting to hungry competitors. Middle group customers (next 40% to 50%) are ones delivering good profits and who Show good potential for future growth and loyalty. These are the customers who are probably giving some of their business to competitors. The idea is to use CRM to target middle group customers effectively

as they are the greatest source of potential growth. Lower group relational (bottom 40 to 50 %) customers are those who are only marginally profitable.

**Prahalad, & Ramaswamy (2002)** map the evolution and transformation of customers from passive audience to active players in their article. They categorized this transformation from 1970s to beyond 2000 in four parts. From 1970s to 1990s customers were seen as passive buyers with a predetermined role of consumption but beyond 2000 customers are considered as part of the enhanced network; they co-create and extract business value. They are also considered as collaborators, co-developers, and competitors.

**Shrivastava & Khandai** (2002) explores customer satisfaction with mobile services by expanding the expectation and desire disconfirmation model and incorporating constructs of perceived customizability and self-efficacy.

Customer Relationship Management emphasize upon the effective management of relationship with customers, hence it is focused upon customer retention (**Light 2001**) and this idea of Customer retention helps in maintaining the existing customer rather than creating new ones (**Payne e.al.,1999 & Reichheld, 1996**).

Berry (1983) stresses that the attraction of new customers should be viewed only as intermediate step in the marketing process. Solidifying the relationship, transforming indifferent customers into loyal ones and serving customers as clients should also be considered as marketing. He has outlined five strategy elements for practicing customer relationship management: developing a core service around which to build a customer relationship, customizing the relationship to the individual customer, augmenting the core service with extra benefits, pricing services to encourage customer loyalty and marketing to employees so that they, in turn, will perform well for customers.

The objective of customer relationship management is to unite and join information technology and business processes in a fashion that enables the firm to acquire new customers, to retain existing customers, and maximize the lifetime value of its customers (**Peppard**, 2000).

As defined by **Kumar & Reinartz (2012, p. 5)** —CRM is the practice of analyzing and using marketing databases and leveraging communication technologies to determine corporate practices and methods that maximize the lifetime value of each customer to the firm.

Sin, Alan, & Yim (2005) developed a reliable and valid scale to measure the four dimensions of CRM i.e. key customer focus, CRM organization, knowledge management and technology based CRM. Since this study was conducted in Hong Kong only, the generalizability of the CRM scale has to be tested in other countries. This is the first study to provide a comprehensive, psychometrically sound, and operationally valid measure of a firm's CRM.

Khaligh et al. (2012) investigates the impact of CRM on customer loyalty and retention in the Iranian telecom industry. This study says that flexibility and explicitly of the pricing policies is an important factors to increase customer loyalty and benefit of the telecom companies.

Atul Parvatiyar & Sheth, (2001) pointed that company should select its appropriate and profitable customers and tailors its program and marketing strategy according because some customers are more profitable to the company and some are less.

Agrawal (2001) emphasizes that service marketers need to build up long-term relationship with their customers by understanding the cause behind their problem and recovering them fast to build deeper and long term relationships. Further he strengthened the marketing principle, focusing on the repeat customers, which cost less in comparison to attract ones. He studied the change in customers' attitude after solving their complaints.

One of the most important studies conducted in this field is by **Reichheld and Sasser (1990)**, which showed the large impact on profitability of small increases in customer retention rates, which made the marketing community more conscious of the need to manage customer relationships in the long term as well as prior to the first sale.

Mehdi &Venkatesh (2011) investigate the barriers for successful implementation of CRM and compare its practices in public and private sector of Iranian banking industry according to the opinion among top, middle and

lower levels management. Inadequate supporting budgets and senior management support, lack of communication and technology advancement, lack of customer management skills, lacunae in standardizing of CRM, inter-departmental inconsistencies, lack of complementary customer management skills, lack of cultural readiness and lack of scientific customer segmentation and commoditization of products and rising customer demands are the most important barriers of CRM implementation whereas these barriers to be significantly higher in the Public sector than the Private sector.

#### **Objectives:**

- i) To analyze the relationship of CRM practices on customer satisfaction in the telecom sector
- ii) To explore the most important CRM component on customer satisfaction in the telecom sector
- iii) To examine the impact of customer satisfaction on customer loyalty and customer retention practices in the telecom sector

# **Hypotheses:**

- i) **H1:** There is a significant and positive effect of CRM practices on customer satisfaction in the telecom sector
- ii) **H2:** Related CRM components have greater influence on the customer satisfaction in the telecom sector
- iii) **H3:** Customer satisfaction is significantly and positively associated with customer loyalty and customer retention practices in the telecom sector.

# III. Research Methodology

This descriptive research design has been completely depends on the primary data and the data were collected from customers who have been using the telecom services at least for last 2 consecutive years. The primary data were collected through the questionnaire. Through this questionnaire, an attempt was made to study the overall impact of CRM practices in the telecom sector on customer satisfaction. In order to examine the CRM practices, it was categorized into customer upgrading capability (eight parameters), customer orientation strategies (three parameters), customer value (six parameters), customer interaction management practices (eleven parameters) and CRM

technology (three parameters). Moreover, the above mentioned CRM practices studied its impact on customer satisfaction (four parameters), customer loyalty (nine parameters) and customer retention practices (seven parameters) in the telecom sector and also examined the relationship of customer satisfaction towards customer loyalty and their retention practices. The responses against these parameters were collected through the five-point likert scaling technique. The variables about socio-economic characteristics of the customer like gender. age group. educational qualification, occupation, monthly income, and place of living were included in the questionnaire. The responses of 500 customers were considered for the final study and the customers were selected from various types of telecom service providers. Multi-stage sampling technique is the most suitable for the present study. The theoretical inputs of the study were collected from journals, books and websites. The primary data were collected during the months of July- November, 2017. Cross tabulation, Pearson correlation (r), multiple regression and F test were used to draw the inference of the study.

Table-1: Demographic data					
	Character	No. of Customers	%		
Gender	Male	280	56		
_	Female	220	44		
Age group(in	Upto 25	80	16		
years)	26-40	39	19 5		
	40-55	180	36		
	Above55	45	9		
	School education	175	35		
F.1	Higher education	245	49		
Educational — Qualificatio	ITI/Diploma	80	16		
**	Employed	120	24		
	Self-employed	290	58		
Occupation –	Professional	90	18		
Monthly Income (in	Upto Rs. 10,000	110	22		
Rs.)	Rs.20,001- Rs.30,000	155	31		
	Above Rs. 30,000	235	47		

**Ho1:** There is a significant and positive effect of CRM practices (customer relationship upgrading capability, customer orientation strategies, customer value, customer interaction management practices, customer contact programmes and CRM technology) on customer satisfaction in the telecom sector

The above said hypothesis has been analyzed with the help of 'r' co-efficient and it is used to find the association level of CRM practices to the customer satisfaction in the telecom sector. The correlation level is

+0.2 to less than +0.6 = Moderate positive effect and vice-versa

+0.6 to +1.0 = Strong positive effect and vice-versa

Less than +0.2 = Low positive effect and vice versa (Table.2)

CRM Practices	on Customer	Association	Discussion
Customer relationship upgrading capability		0.529**	This CRM practices have significantly correlated with customer satisfaction at 1% level (p<0.01) but moderate positive effect
Customer orientation strategies		0.435**	This CRM practices have significantly correlated with customer satisfaction at 1% level (p<0.01) but moderate positive effect
Customer value	Overall Satisfacti on	0.216*	This CRM practices have significantly correlated with customer satisfaction at 5% level (p<0.05) but moderate positive effect
Customer interaction management practices		0.795**	This CRM practices have significantly correlated with customer satisfaction at 1% level (p<0.01) but strong positive effect
Customer contact programmes		0.488**	This CRM practices have significantly correlated with customer satisfaction at 1% level (p<0.01) but moderate positive effect
CRM technology		0.521**	This CRM practices have significantly correlated with customer satisfaction at 1% level (p<0.01) but moderate positive effect

# \*\*'r' is Sig. At 1% & \*'r' is Sig. At 5% level

Multiple regression analysis has been used to explore the impact of most important CRM components on the customers' satisfaction in the telecom sector. This analysis is made of Y- customer satisfaction, with the explanatory

components like X1- customer relationship upgrading capability; X2- customer orientation strategies; X3- customer value; X4- Customer interaction management practices; X5- customer contact programmes; X6- CRM technology; The following regression model is fitted for performance:

Y = Y = bo + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6X6 e

Where, b1, b2,..... are partial regression coefficients; bo constant

**Ho2:** Related CRM components have greater influence on the customer satisfaction in the telecom sector (Table 3)

Table-3: Final Frame work towards Relationship level of CRM Components on Customer Satisfaction **Unstandardized Coefficients** t Model  $R^2$ В Std. Error -.441 .170 (Constant) -2.599\* Customer interaction management practices 12.334\*\* .684 .055 .759 Customer relationship upgrading capability 4.792\*\* .252 .053 3.096\*\* Customer orientation strategies .182 .059 Dependent Variable: Customers' satisfaction

Regression Equation: Y = -0.441 + 0.252X1 + 0.182X2 + 0.684X4

It is observed from the Table -3 that significance of various CRM components on customer satisfaction coefficients is tested by t-statistic. It can be concluded that the coefficients for customer interaction management practices, customer relationship upgrading capability, and customer orientation strategies are significant at 1% level. Further, the coefficient of customer value (t = 1.929; p > 0.05), customer contact programmes (t = 0.471; p > 0.05) and CRM technology (t = 0.634; p > 0.05) has been excluded in the above model because of calculated to value is not significant at 5% level. Further, R2 value of regression model comes out 0.759 which is greater than the value of 0.50. Hence, it can be concluded that the customer interaction management practices, customer relationship upgrading capability, and customer orientation strategies are the most important CRM components to customer satisfaction in the telecom sector because of calculated value of 'f' significant at 1% level towards these CRM components to customer satisfaction (f = 100.568\*\*; p < 0.01).(Table 4)

Table-4: Analysis of Variance for Regression					
	Sum of Squares	df	Mean Square	F	
Regression	49.833	3	16.611	100.568**	
Residual	15.856	96	.165		
Total	65.690	99			

<sup>\*\*</sup>Sig. at 1% & \*Sig. At 5% level

<sup>\*\*</sup>Sig. at 1%; \*Sig. At 5%

**Ho3:** Customer satisfaction is significantly and positively associated with customer loyalty and their retention practices in the telecom sector. (Table 4)

It could be collected from the Table - 4 that the calculated value of correlation between customer satisfaction to customer loyalty (r = 0.467; p<0.01) and also to customer retention practices (r = 0.870; p<0.01) significant at 1% level. So, accept Ho3 and it can be reported that the customer satisfaction is significantly and positively associated with their loyalty and their retention practices in the telecom sector.

Table-5: Relationship of Customer satisfaction towards Customer Loyalty & Retention Practices in the Telecom Sector						
Independent variable	Dependent variable	r-value				
Customer satisfaction	Customer loyalty	0.467**				
	Customer retention practices	0.870**				

<sup>\*\*</sup>Sig. at 1%& \*Sig. at 5% level

#### **IV. Conclusion**

In this study, we came to know that for any business, it is vital to create customers and equally important is to retain them with you. In a highly competitive market place, the company that has the best understanding of its customers, will be able to respond faster to the changing circumstances. Customer Relationship Management aims at increasing customer Value, customer interaction, customer participation and it also helps in customizing products. In service sector, CRM plays a decisive role in the success of any business. It helps the company to differentiate their customers so that they can differentiate their offerings in order to develop a long term relationship with the customers which increases customer loyalty.

### V. Limitations and Scope

The study exhibits some limitations that should be considered. The limitations are as follows:

- i) The sample size of the study was comparatively small. Though this sample size fulfils the minimum requirement for research, a larger sample size will be quiet helpful to explore more about service quality and customer loyalty in the telecom sector in India.
- ii) Apart from the factors considered in this study, several other factors might have significant impact on customer loyalty.
- iii) The study was limited to the telecom sector of India as a result of which, it has limited implications for practitioners. It may include other service sector to make the service comprehensive and generalized.

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