



# ROLE OF KNOWLEDGE MANAGEMENT IN CRM IMPLEMENTATION: A STUDY OF INDIAN TELECOM INDUSTRY

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## **Abstract**

Managing relationships with customers requires managing knowledge for the customer, knowledge about the customer and knowledge from the customer. 'Knowledge Management' plays an important role in CRM by managing the four knowledge aspects: content, competence, collaboration and composition so as to satisfy customer requests. Through superior knowledge about customers, markets and other relevant factors, service providers can accomplish their results faster, cheaper and with higher quality than their competition. Thus for effective implementation of CRM, it is very important for the service providers to identify real knowledge about different types of customers.

The paper aims to study the role of knowledge Management in CRM implementation in Indian telecom industry and the perceptions of customers and executives of the telecom service providers towards knowledge Management related initiatives.

*Key words: Customer Relationship Management, Knowledge Management, Telecom Service Providers.*

## INTRODUCTION

The ultimate goal of CRM in telecom sector is to provide a comprehensive suite of software applications that enables to increase revenue, productivity and customer satisfaction by managing, synchronizing and coordinating customer interactions across all touch points including web, customer contact centres, field organization and distribution channels.

Knowledge management is a process that facilitates organizations to learn, synthesise and apply the required knowledge to make them more profitable and innovative. An effective Knowledge Management (KM) strategy is enabler of exceptional end-to-end customer experiences while lowering support costs thus completely transforming the customer service.

## REVIEW OF LITERATURE

### CONCEPTUALIZATION

**Schiuma et al. (2012)** iterate that Organizations today have realized that acquisition and utilization of new knowledge is a source of sustainable competitive advantage. Effective Management knowledge resources enable a organisation to successfully deliver value to the customers.

**Skyrme (2011b)** Knowledge Management is the explicit management of vital knowledge - and the processes associated with creation, diffusion and exploitation of the knowledge towards attainment of business objectives.

According to **Du Plessis (2007)** Knowledge management is a systematic approach aimed at optimizing firm's knowledge economy and involves various components like technology, human resources, culture and organizational structures.

### ROLE OF KNOWLEDGE MANAGEMENT IN CRM

**Garrido et al. (2015)** emphasise that development of appropriate knowledge management processes is a necessity of successful CRM, both in terms of financial success as well customer satisfaction, retention and loyalty. As a result, organisations need to invest in a suitable CRM technological infrastructure including software, hardware and analytical capabilities to obtain relevant customer information and build a knowledge data base. Moreover the information systems have to be integrated with all the functional areas so as to share this generated knowledge to quickly respond to customer needs.

**Attafar (2013)** The integrated approach of KM and CRM assist the organisations in serving the customers better. Knowledge management (KM) further improves the quality of the information obtained by customer relationship management (CRM).

**Sharma et al. (2010)** suggest that to effectively implement a customer relation management solution, it is very important to identify real knowledge about different types of customers. (viz. most valued customers, most

growable customers, below zero customers etc). A straight way technique is to create knowledge architecture in the form of a data warehouse so that information which is required to effectively implement CRM principles could be mined out of this data warehouse. This will reduce the risk element involved in taking strategic decisions to retain customer loyalty as the decisions would be more judicious based of past knowledge which was earlier hidden and unorganized.

**Mithas *et al.* (2005)** in their research evaluate the effect of Customer Relationship Management (CRM) on customer knowledge and customer satisfaction. The analysis shows that the use of CRM applications is positively associated with improved customer knowledge and improved Customer satisfaction. This article also shows that gains in customer knowledge are enhanced when firms share their customer related information with their supply chain partners.

**Balakrishnan (2003)** concludes that CRM is the establishment development, maintenance and optimization of long-term mutually valuable relationships between consumers and organizations. It is basically collecting the bits of information and then trading out the crucial aspects which affects the desires and expectations of customers and then integration them with the business strategy, people technology and business processes. The process of building customer relationship is creating a competitive advantage by being the best at understanding, communicating delivering and developing existing relationships in addition to creative and keeping new customers.

**Stefanou *et al.* (2003)** emphasize that current competitive challenges induced by globalization and advances in information technology have forced companies to focus on managing customer relationships, and in particular customer satisfaction, in order to efficiently maximize revenues. The study has proposed a CRM development stage model, which can assist companies to detect problematic areas in the existing customer-based information system and motivate them to improve it. Authors suggest that the adoption of modern processing technology, although essential for building customer-oriented knowledge-based and CRM systems, does not necessarily lead to advanced customer-centric initiatives. The organization, in order to really manage customer relationships, has to primarily develop a culture, motivating employees at all levels towards learning and facilitating them in capturing, selecting, using, and sharing knowledge by providing the means and the technology required to do so.

**Gebert *et al.* (2002)** in their report state that the concepts of customer relationship management (CRM) and knowledge management (KM) have been recently gaining wide attention in business and academia. Both approaches focus on allocating resources to supportive business activities in order to gain competitive advantages. CRM focus on managing the relationship between a company and its current and prospective customer base as a key to success. A good relationship with the customer leads to higher customer satisfaction. Content customers are loyal and therefore more valuable customers. This directly affects the revenue stream. KM sees the knowledge available to a company as a major success factor. Through superior knowledge companies can accomplish their results faster, cheaper and with higher quality than their competition. Knowledge about customers, markets and other relevant factors of influence allows faster utilization of opportunities and more flexible reaction to threat.

Both CRM and KM approaches promise positive impact on the cost structure and revenue streams for a company in return for allocating resources from the core business into supportive functions. Managing relationships requires managing knowledge for the customer, knowledge about the customer and knowledge from the customer. KM takes the role of a service provider for CRM, managing the four knowledge aspects: content, competence, collaboration and composition to satisfy customer requests.

**Kandampully (2002)** proposes that services lie at the very hub of the economic activity of all societies and interlink closely with all other sectors of the economy. The exponential growth of services internationally has not only intensified competition, but has also simultaneously posed a growth of services, and emerging views on what constitutes a “resource” for service organizations by examining the roles of technology, knowledge and networks as interdependent factors. It is argued here that today’s “resources” are the culmination of various advances in knowledge. Technology facilitates the maintenance of networks with customers and partners inside and outside the firm. The networks of relationships render the firm’s capabilities “amorphous” in nature. This amorphous knowledge represents the true “resource” in a service firm, and ultimately provides the creative potential for “innovation” – the so-called “core competency”. However, service innovation results only when a firm is able to focus its entire energies to think on behalf of the customer.

**Halstead et al, (1996)** in their study suggest that the role of Internet technologies have become a new challenge and also an opportunity for the way to business being done. The evolution of technology and the company’s adoption of the same occurred in different Functional areas like production, product design, accounting etc., the era of computerization has created a vast potential for marketing function area for tapping the information of customer. They analyzed that in CRM, the huge database created have to be further molded and an appropriate set of knowledge and information have to be created for marketers.

**Krishnaiah (1992)** in his study recognizes that Knowledge Management plays a significant role while preparing the marketing techniques. Further he analyzed that information is a necessary medium or material for eliciting and constructing knowledge. It affects knowledge by adding something to it or restructuring it. CRM provides a whole network of tools that helps in collecting the information through the application of Information Technology and knowledge is derived out of it, to find out measures to reach to the customers. Finally he concluded that Customer knowledge management transforms customer information into a competitive advantage, discovering new knowledge assets for a company in order to develop a greater understanding of what influences the customers and in turn, predict new ways to interact and service their experiences

## RESEARCH METHODOLOGY

### OBJECTIVES OF THE STUDY

- To study the role of knowledge Management in CRM implementation in Indian telecom industry
- To study the perceptions of customers and executives of the telecom service providers towards Knowledge Management related initiatives.

### SAMPLING PROCEDURE AND THE SAMPLE

The study is carried out through the non-random convenience sampling method. A sample of seven telecom companies (wherein responses of 40 telecom company executives have been studied) and 200 customers of telecom industry has been taken.

### RESULTS:

**Table 1.1: Percentage analysis of customer's responses towards Knowledge Management**

S. No.	KNOWLEDGE MANAGEMENT	Airtel	Idea	Vodafone	Tata	Reliance	BSNL	MTNL
1	Your service provider takes customer feedback using variety of direct and indirect measures	68.1	55.5	60.4	59.5	71.4	60.0	55.0
2	Uses information from customers to design or improve products and services	69.6	59.4	59.3	60.0	60.0	56.0	55.0
3	Sends the information of the new products /services to customers regularly	68.8	68.4	72.7	70.7	76.2	68.0	50.0
4	Does customer segmentation using customer life time value(CLV)	63.9	60.0	59.6	62.4	58.9	56.0	50.0
5	Analyses the causes of customer defection through exit interviews with the aim to win back customers	66.2	56.8	59.6	62.9	62.2	52.0	50.0

Table 1.1 shows the customer's perception towards various Knowledge Management initiatives of the service providers.

The results point out that majority of the customers of Airtel, Vodafone, TATA, Reliance and BSNL are either neutral or in agreement towards the statements that 'Your service provider takes customer feedback using a variety of direct and indirect measures' as evident from their percentage scores between 59.5 percent to 71.4 percent. In case of MTNL (55.0 percent) and Idea (55.0 percent) mostly customers either disagree or are neutral towards the statement. Airtel (69.6 percent) has the highest score for that statement that the service provider 'Uses information from customers to design or improve products and services' indicating that mostly customers are either neutral or

in agreement with the statement. The percentage scores of Idea, Vodafone, TATA and Reliance (in the range 59.3 percent to 60.0 percent), illustrate that majority of the customers of these service providers are neutral towards this statement. The lowest scorers for this statement are BSNL (56.0 percent) and MTNL (55.0 percent) signifying that most of the customers are either neutral or in disagreement with the statement. For the statement that the service provider 'Sends the information of the new products /services to customers regularly' Vodafone, TATA and Reliance have the maximum score (70.7 percent to 76.2 percent) suggesting that bulk of the customers agree to this statement. The percentage scores of Airtel, Idea and BSNL (68.0 to 68.8 percent) show that mostly customers either agree or are neutral towards the statement. MTNL has the lowest score (50.0 percent) for this statement signifying that customers are either neutral or in disagreement towards this issue. Further the statement that the service provider 'Does customer segmentation using customer life time value (CLV)', Airtel (63.9 percent) has the maximum score followed by TATA (62.4 percent), specifying that mostly customers are either in agreement or neutral towards the statement. The percentage scores of Idea, Vodafone, Reliance, and BSNL (between 56.0 percent to 60.0 percent) illustrate that majority of the customers are neutral towards this statement. The least scorer for this statement is MTNL (50.0 percent) showing that its customers are either neutral or in disagreement with this issue. Also, the percentage score of Airtel (66.2 percent) for the statement that the service provider 'Analyses the causes of customer defection through exit interviews with the aim to win back customers' points out that most of the customers are either in agreement or neutral towards the statement. In percentage scores of Reliance, Vodafone and TATA (between 59.6 percent to 62.9 percent) suggest that large number of the customers are neutral towards the statement. In case of Idea (56.8 percent), BSNL (52.0) and MTNL (50.0 percent) the scores indicate that mostly customers are either in disagreement or neutral towards the statement.

**Table 1.2 Mean and S.D of perception of customers regarding Knowledge Management initiatives of service providers**

Statements	Mean	Standard Deviation
1. Your service provider takes customer feedback using a variety of direct and indirect measures	3.18	.930
2. Uses information from customers to design or improve products and services	3.12	.847
3. Sends the information of the new products /services to customers regularly	3.52	.925
4. Does customer segmentation using customer life time value (CLV)	3.05	.786
5. Analyses the causes of customer defection through exit interviews with the aim to win back customers	3.08	.858

Table 1.2 presents the overall mean and standard deviation of perception of customers regarding Knowledge Management initiatives of service providers. It is quite evident that customers are in agreement with majority of the statements concerning Knowledge Management (mean value being more than 3.0 in all the statements). Also the value of standard-deviation (being less than 1.0) which suggests perception of customers towards knowledge management does not differ across various service providers.



**Table 1.3: Perception of Executives about Knowledge Management initiatives of their company**

KNOWLEDGE MANAGEMENT	Airtel		Idea		Vodafone		Tata		Reliance		BSNL		MTNL		F-Value	P-Value
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D		
1. Your company takes customer feedback using a variety of direct and indirect measures	4	0.00	5	0.55	4	0.45	4	0.00	4	0.00	4	0.71	4.7	0.58	2.964	0.019*
2. Your company uses information from customers to design or improve products and services	4.8	0.41	4	0.71	4	0.55	4	0.55	4	0.45	5	0.71	4.7	0.58	1.463	0.222
3. Sends the information of the new products /services to customers regularly	5	0.00	4	0.45	5	0.55	4	0.45	4	0.55	5	0.00	4.7	0.58	1.707	0.150
4. Does customer segmentation using customer life time value(CLV)	4.4	0.55	5	0.45	4	0.45	5	0.55	5	0.55	5	0.71	4.3	0.58	1.532	0.199
5. Analyses the causes of customer defection through exit interviews with the aim to win back customers	4.4	0.55	4	0.45	5	0.55	4	0.00	4	0.00	4	0.00	4.7	0.58	2.299	0.056

\* Significant at 5 percent level of significance

Table 1.3 shows the mean scores, standard deviation and F-values of the Knowledge Management initiatives of the service providers.

To find out the Knowledge Management endeavour of the telecom company five items have been studied and a five point likert scale (Strongly Disagree= 1 and Strongly Agree =5) has been used. The variation in the opinion of the executives has been studied using ANOVA.

As per the F-values it is evident that the statement that 'Your company takes customer feedback using a variety of direct and indirect measures' has significant difference at 5 percent level of significance. On the basis of mean scores of the executives for this statement, it is indicated that Idea and MTNL customers are towards strong agreement for the statement (mean score  $\geq 4.60$ ), while Airtel, Vodafone, TATA, Reliance and BSNL executives have expressed their agreement towards the statement (mean score=4.0). In case of other statements on Knowledge Management, the executives of the telecom companies do not differ significantly which means that the executives have similar opinion about the other statements.

## CONCLUSION

It is inferred from the above analysis that there exists a gap between perception of customers and perception of executives of telecom service providers towards Knowledge Management initiatives of the service providers. Therefore, it is strongly recommended that to survive in this knowledge economy and to succeed in competitive market-place, these service providers must focus on their knowledge management initiatives which is the key to create value from new customer while retaining the existing ones. The telecom players need to invest in a suitable CRM technological infrastructure to capture relevant customer information, and build knowledge data base of customers.

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