

CRM IN INSURANCE SERVICES

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Abstract- Analytical CRM can be deployed to understand processing of claims in Insurance sector. Deregulation of Insurance industry in the global has resulted in increased number of layers in the market hence competition. Worldwide service organizations have been pioneers in developing customer retention strategies. Reichheld and Teal (1996) found out those customers who have been around long enough to get familiar with the company's procedures, will create more valuable business relationships, will acquire more products and will be less price sensitive on individual offers.

The data used in this study were collected through a survey among insurance companies in India. Among the 49 members of the India Insurers Association, 30 companies were selected at random from the directory of members contained in the 2011 Insurance Digest published by the Association. We have formulated 3 hypotheses that serve to provide a clear direction for the conduct of this research and these were tested, using the Kolmogorov-smirnov test. This research attempts to find out how customer relationship can become more effective with the aid of information technology and to examine the view that CRM when properly carried out using adequate information technology can yield optimal results for organizations.

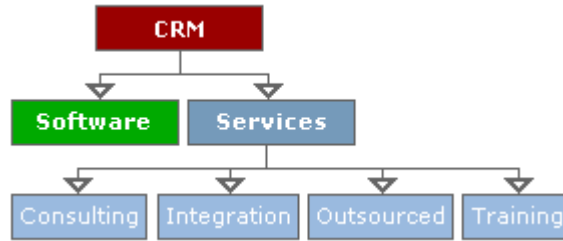
This paper is based on a limited initial review of the literature and provides a brief summary of the theoretical part of the study.

Keywords – Deregulation , Customer Relation , Information Technology

I. INTRODUCTION

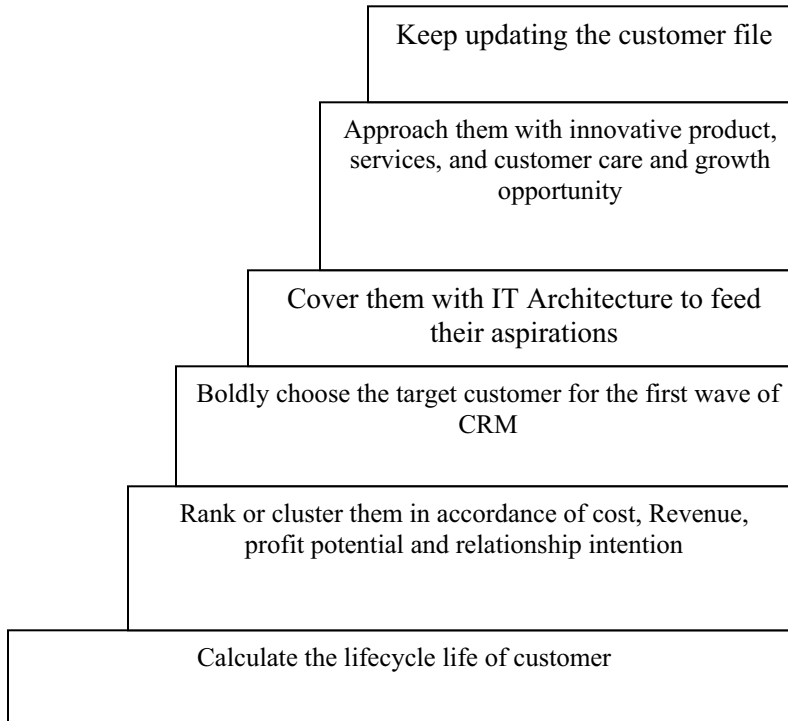
Relationship marketing is emerging as the core marketing activity for businesses operating in fiercely competitive environments. On average, businesses spend six times more to acquire customers than they do to keep them. Therefore, many firms are now paying more attention to their relationships with existing customers to retain them and increase their share of customer's purchases. Deregulation of Insurance industry in the global has resulted in increased number of layers in the market hence competition. Worldwide service organizations have been pioneers in developing customer retention strategies. Banks have relationship managers for select customers, airlines have frequent flyer programs to reward loyal customers, credit cards offer redeemable bonus points for increased card usage, telecom service operators provide customized services to their heavy users, and hotels have personalized services for their regular guests. It is important to acknowledge the fact that for effective management and growth of an organization in any sector, whether banking, insurance, engineering, entertainment, etc, there has to be a conscious effort by the management towards making it customer oriented. Customer relationship activities also include learning a customer's individual interest and then tailoring services to meet them. Such programs help companies retain customers not only by providing a useful service but also by making customer feel appreciated. Information technology is the processing and distribution of data using computer hardware and software, telecommunications, and digital electronics. A study on Indian banking industry shows that information technology enhances efficiency and strengthens service quality. Researchers found out that information technology (IT) practices could help enhance customer service by increasing convenience, collecting service performance information for management use, and offering extra services. Several competitive roles of IT in services, including creation of barriers to entry, productivity enhancement, and revenue generation have been explored

CRM Market Segments



- Cost to acquire customers
- Cost to sell
- Cost to serve
- Time to serve

- Customer satisfaction
- Return on relationship
- Competitive advantages
- Number of customers
- Retention rate
- Assessment in the collection of analytics customer's value
- Revenue per customer
- Impact of order fulfillment returns and call center actively or actual sales performance



Six Steps to CRM Strategy

Literature Review

The concept of customer relationship management (CRM) was derived from the term 'contact management in the 1980s and it essentially relates to collecting all the information when customers come in contact with companies (Knox et al., 2003). It may be described as a process companies utilize to understand and react to customers' evolving desires, utilizing detailed customer behaviour and transaction information, to drive customer acquisition, loyalty, satisfaction and profitability. It has been defined as an enterprise approach to developing full knowledge about customer behavior and preferences and to developing programs and strategies that encourage customers to continually enhance their business relationship with the company (Parvatiyar and Sheth, 2002). Information technology on the other hand is the processing and distribution of data using computer hardware and software, telecommunications and digital electronics. CRM is not only a technology application for marketing purposes, it is a cross functional, customer driven, technology integrated into business process and a management strategy that maximizes relationships which encompasses the entire organization (Goldenberg, 2000). The origins of CRM are found in relationship marketing theory which is aimed at improving long term profitability by shifting from transaction based marketing, with its emphasis on winning new customers, to customer retention through effective management of customer relationships (Christopher et al., 1991). Reichheld and Teal (1996) found out those customers who have been around long enough to get familiar with the company's procedures, will create more valuable business relationships, will acquire more products and will be less price sensitive on individual offers.

Research Objectives

The current research was aimed at determining the approach being adopted by businesses in India for relationship marketing. The research focused on the following major issues –

1. Do managers in service firms believe that their processes are customer centric?
2. Do they select technology based on an understanding of customer needs?
3. Have they empowered their employees to deliver superior service?
4. Do they have a customer knowledge strategy? How well do they manage their customer relationships?

It adopted the framework recommended by Peppers, Rogers and Dorf (1999) for the survey to understand the status of relationship marketing across service businesses in India.

II. RESEARCH METHODOLOGY

Methodological background

The data used in this study were collected through a survey among insurance companies in India. Among the 49 members of the India Insurers Association, 30 companies were selected at random from the directory of members contained in the 2011 Insurance Digest published by the Association. A total of 90 copies of the questionnaire were sent. 3 copies of the questionnaire (meant for IT manager, marketing manager and underwriting manager, respectively) accompanied by a covering letter explaining the objectives of this survey were personally handed to each company and this was followed up by telephone calls to motivate them to act. To ensure a high response rate, copies of the questionnaire were sent a second time to those companies who lost the earlier ones. Again, this was followed up by regular visits in order to clarify any difficulty the respondents might have in filling the questionnaire. Eventually, among the 86 copies retrieved, 78 were correctly completed and these were analyzed for this research.

Research questions

1. Could major transactions like the filling of proposal forms and claim forms be done on line by the customers without physical contact with insurance companies?
2. With the aid of IT, do the insurance firms in India have a comprehensive database of their customers?

3. What are the effects of application of information technology on the profitability of an insurance organization?

III. EXPERIMENT AND RESULT

DATA ANALYSIS

Analysis of the research questions

Question 1

Could major transactions like the filling of proposal forms and claim forms be done on line by the customers without physical contact with insurance companies? As presented in Table 1. About 46% of the respondents agreed that customers could perform major transactions on line without necessarily coming in contact with the company in person, while the rest disagreed. This shows the low level of development of online business activities in the market.

Alternatives	Response	Percentage	Aggregate (%)
Strongly agree	07	08.97	46.15
Agree	29	37.18	
Undecided	27	34.62	34.62
Disagree	11	14.10	19.23
Strongly disagree	04	05.13	
Total	78	100	100

Question 2

With the aid of IT, do the insurance firms in India have a comprehensive database of their customers? As presented in Table 2. 82% of the respondents agreed that they have a comprehensive database of their customers. This result is an interesting one because customer relationship marketing in practice involves the purchase of hardware and software that will enable a company to capture detailed information about individual customers that can be used for better target marketing (Achumba, 1995).

Alternatives	Response	Percentage	Aggregate (%)
Strongly agree	30	38.46	82.05
Agree	34	43.59	
Undecided	09	11.54	11.54
Disagree	04	05.13	06.41
Strongly disagree	01	01.28	
Total	78	100	100

Question 3

What are the effects of application of information technology on the profitability of an insurance organization? As presented in Table 3, while about 34% agreed that a combination of IT and CRM has not given an impressive increase in the level of profitability, 41% disagreed, while 24% were undecided. This shows that efficient use of IT in insurance organizations results in increased profitability. Again, this result aligns with an earlier research conducted by Jeffers (2003) that IT on itself does not necessarily account for differences in performance level among firms, but its true contribution in that regard may lie in its complementarily effect on other firm-specific resources. In simple terms, IT supported by adequate human and business resources as well as IT managerial capability may help to make profitable resources even more so.

Alternatives	Response	Percentage	Aggregate (%)
Strongly agree	03	03.85	34.62
Agree	24	30.77	
Undecided	19	24.36	24.36
Disagree	20	25.64	41.02
Strongly disagree	12	15.38	
Total	78	100	100

Research hypotheses

The following hypotheses stated in null form will serve as a guide for this research.

H1: Insurance organizations in India have been able to fully integrate IT with CRM

H2: Information technology does not enhance service delivery in insurance organizations

H3: Efficient combination of IT and CRM does not increase the level of profitability in insurance organizations

Test of hypotheses

The test of hypotheses seeks to further analyze research questions which relate to the effect of information technology on customer relationship in insurance industry. We have formulated 3 hypotheses that serve to provide a clear direction for the conduct of this research and these were tested, using the Kolmogorov-smirnov test. The Kolmogorov-Smirnov test is appropriate because it is a non parametric tool used to test the goodness of fit of an ordinal data (Cooper and Schindler, 2000). The test focuses on the largest value of the deviations among observed and theoretical proportions. The Kolmogorov-Smirnov test is given as:

$$D_N = \max F^0(X) - F^0(X)$$

Where, F is the number of observations; $F^0(X)$ is the specified (or theoretical) cumulative frequency distribution under H_0 for any value of X; $F(x)$ O is the observed cumulative frequency distribution of a random sample of N

observation for any value of X . The procedure is as follows: specify the null hypothesis; specify the level of significance; state the decision rule.

Hypothesis 1

Insurance organizations in India have been able to fully integrate IT with CRM. From the Kolmogorov-Smirnov frequency table for Hypothesis 1, the calculated D value is the point of greatest divergence between the cumulative observed and cumulative theoretical distributions, which is 0.1846. The tabulated D from the Kolmogorov-Smirnov test

table at $(\alpha/\sqrt{N} = 1.36/\sqrt{78})$ is given as:

$$D = \alpha = 1.36$$

$$\sqrt{N} \sqrt{78} = 0.1540$$

In this case, D_{cal} is greater than D_{tab} ($0.1846 > 0.1540$), thus, in accordance with the decision rule, the null hypothesis (H_0), stating that Insurance organizations in India have been able to fully integrate IT with CRM is rejected (Table 4). This indicates that insurance organizations in India have not been able to fully integrate IT with CRM. Once more, this supports the earlier findings of Achimugu et al. (2009) that in developing countries like India, only a few organizations in the economy have adopted the IT and others have not really integrated such with their total organization process.

Kolmogorov-Smirnov frequency table for Hypothesis1.

Hypothesis	Rank of view of respondents				
	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
F = Number of respondents according to their views that insurance companies have not been able to fully integrate IT with CRM	06	33	16	14	09
$F^0(X)$ = Theoretical cumulative distribution of choices under H_0	0.2000	0.4000	0.6000	0.8000	1
$F^0(X)$ = Cumulative distribution of observed choices under H_0	0.0769	0.5000	0.6795	0.8846	1
$F^0(X) - F^0(X)$	0.1231	0.1000	0.0795	0.1846	0

Hypothesis 2

Information technology does not enhance service delivery in insurance organizations. From the Kolmogorov-Smirnov frequency table for the hypothesis, the calculated D value is the point of greatest divergence between the cumulative observed and cumulative theoretical distributions, which is 0.4974. The tabulated D from the Kolmogorov-Smirnov test table at $(\alpha/\sqrt{N} = 1.36/\sqrt{78})$ is given as:

$$D = \alpha = 1.36$$

$$\sqrt{N} \sqrt{78} = 0.1540$$

In this case, D_{cal} is greater than D_{ta} ($0.4974 > 0.1540$), thus, in accordance with the decision rule, the null hypothesis (H_0), stating that information technology does not enhance service delivery in insurance organizations is rejected at $\alpha = 0.05$ (Table 5). We can then conclude that information technology does enhance service delivery in insurance organizations in India.

Kolmogorov-Smirnov frequency table for Hypothesis 2.

Hypothesis	Rank of view of respondents				
	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
F = Number of respondents according to their views that information technology does not enhance service delivery in an insurance organization	34	36	03	03	02
F⁰(X) = Theoretical cumulative distribution of choices under H_0	0.2000	0.4000	0.6000	0.8000	1
F⁰(X) = Cumulative distribution of observed choices under H_0	0.4359	0.8974	0.9359	0.9744	1
F⁰(X) - F⁰(X)	0.2359	0.4974	0.3359	0.1744	0

Hypothesis 3

Efficient combination of IT and CRM does not increase the level of profitability in insurance organizations. From the Kolmogorov- Smirnov frequency table for the hypothesis, the calculated D value is the point of greatest divergence between the cumulative observed and cumulative theoretical distributions, which is 0.1616. The tabulated D from the Kolmogorov-Smirnov test table at ($\alpha/\sqrt{N} = 1.36/\sqrt{78}$) is given as:

$$D = \alpha = 1.36$$

$$\sqrt{N} \sqrt{78} = 0.1540$$

In this case, D_{cal} is greater than D_{tab} ($0.1616 > 0.1540$), thus, in accordance with the decision rule, the null hypothesis (H_0), stating that effective combination of IT and CRM does not increase the level of profitability in insurance organizations is rejected at $\alpha = 0.05$ (Table 6). We can then conclude that effective combination of IT does result in profitability of insurance organizations. Therefore, we reject the null hypothesis and accept the alternative hypothesis stating that effective and efficient combination of high level customer relationship and information technology will increase the level of profitability in insurance organizations. This confirms the earlier study of Harding et al.

(2001) that IT contributes to the firm's ability to assess the needs of its customers and then adapt its operations to best match its products or services to those needs, in order to maximize customer's utility and company's profitability.

Kolmogorov-Smirnov frequency table for Hypothesis 3.

Hypothesis	Rank of view of respondents				
	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
F = Number of respondents according to their views that efficient combination of IT and CRM does not increase the level of profitability in insurance organizations	03	24	19	20	12
$F^0(X)$ = Theoretical cumulative distribution of choices under H_0	0.2000	0.4000	0.6000	0.8000	1
$F^0(X)$ = Cumulative distribution of observed choices under H_0	0.0384	0.3462	0.5897	0.8461	1
$F^0(X) - F^0(X)$	0.1616	0.0538	0.0103	0.0461	0

IV. CONCLUSION

This research attempts to find out how customer relationship can become more effective with the aid of information technology and to examine the view that CRM when properly carried out using adequate information technology can yield optimal results for organizations. Based on the results of research questions and hypotheses tested for selected insurance companies, we found out that in majority of companies, customers could not perform major transactions on line without necessarily coming in contact with the company in person. This is because not all companies have fully integrated IT with their CRM. Also, we discover that a good number of insurance companies have a comprehensive database of their customers with the aid of information technology. Consistent with some previous studies, this study supports the view that the use of IT can enhance service delivery. Apart from that, another finding is that effective and efficient combination of high level of CRM and IT will increase the level of customers' patronage and ultimately the organization's profitability. The importance of combining IT with CRM cannot be overemphasized. This view represents the opinions of major authors cited in the course of this research study. This research reveals that customer relationship can be improved using information system, and this is being adopted and albeit gradually by the insurance companies in India. In summary, the study revealed that CRM and IT, if effectively and appropriately combined in service delivery, would minimize delay in customer service delivery and ultimately result in increased profit.

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