

UNDERSTANDING ROLE OF THE CRM ELEMENTS AND THEIR ASSOCIATION WITH THE FIRMS FOR THE GROWTH.

Dr. R.S. Ramesh

HOD-MBA Dept., JSSATE, Bangalore

Prof. V.S. Chauhan

Acharya Bangalore B School, Bangalore.

Abstract

This paper enables firms in developing understanding of the role of CRM Elements and how they are associated with the growth of the firms. By combining the fundamentals of the Growth Strategy with the People, Process, and Technology, a viable business scenario can then be developed to demonstrate the impact CRM. The CRM Roadmap provides the direction and clarity necessary to begin the journey of the CRM initiatives. A well drafted roadmap outlines the specific areas in which CRM will impact the business and will define the measurable results to be expected. The roadmap ties the corporate priorities from discovery to the training requirements in implementation and should provide a clear path to achieve measurable business results. A well written Roadmap includes a set of initiatives that combines the Growth Strategy and People, Process, and Technology elements into a focused plan to achieve measurable results.

Key Words: CRM Elements, Corporate Priorities, Growth Strategy.

Introduction

India has established a strong and diversified manufacturing base for production of a variety of basic and capital goods to meet the requirements of various industry sectors like heavy electrical, power generation and transmission, process equipment, ships, aircrafts, mining, petroleum etc. The Department of Heavy Industry (DHI) is the nodal authority in India for promoting the growth of the heavy industries. DHI deals with 19 industrial sub-sectors, out of which the major ones include - Boilers, Cement Machinery, Dairy Machinery, Electrical Furnace, Material, Handling Equipment, Metallurgical Machinery, Mining Machinery, Oil Field Equipment, Rubber Machinery Sugar Machinery, Turbines & Generator sets, Machine Tools, Switchgear and Control Gear, Shunting Locomotives, Transformers, Textile Machinery. The department also supports the development of a wide range of intermediate engineering products like castings, forgings, diesel engines, industrial gears and gear boxes.

This research paper examines role of CRM elements in the growth of the firms in Indian Heavy Industry. Research also attempts to find out whether there is any association between the firms and the CRM elements namely **People Practices** that the company follows, **Technology** implemented within the firm as well at the client side, **customer** interaction and interface used, **Processes** followed, and **Innovative CRM Practices** followed by the company.

Review of Literature

The complex nature of research demands a thorough reviews. Such sophisticated literature review is the foundation and inspiration for substantial, useful research. In this chapter researcher has attempted to examine the available research studies, some of the company data and industry reports which has provided a basis for the proposed study. This section on literature review explains the need for the proposed work and appraises the informational gaps in secondary data sources.

The literature review was divided in following major categories.

- 1.Literature with regard the role of CRM in general.
- 2.Literature related to CRM Practices

- 3.Literature related to elements of CRM.
- 4.Literature regarding CRM – Processes
- 5.Literature pertaining to contribution of relationship and employees.

Lexander Schellong at National Center for Digital Government, Kennedy School of Government, Harvard University, in his paper – ‘ CRM in the Public Sector – Towards a conceptual research framework ’ has discussed Customer Relationship Management as a holistic concept for the private sector to start, maintain and optimize relationships to make customers more loyal/profitable – in sum to improve the relationship with the consumers. Many companies have invested into the customer driven CRM concept but research indicates varying outcomes. Recent publications, mainly driven by the private sector rather than academia, show a rising interest about the applications of CRM in the public sector domain. Since CRM is a concept enabled by technology, author mentioned that the long term structural change and organization of the public sector are imminent and need further attention. In this paper, author reviewed the latest findings in CRM research from the private sector and connect it to the public sector.

Khalid Rababah, Haslina Mohd, and Huda Ibrahim in their research paper on Customer Relationship Management Processes from Theory to Practice discussed customer relationship management and its potential for achieving success and growth for organizations in the present environment of competition and rapid technological development. CRM enables organizations to know their customers better and to build sustainable relationships with them. The main components of **CRM** are **People, Technology, and Processes**. This paper provided an extensive review of the literature regarding the **CRM Processes**. This review enhanced the understanding of the different perspectives and the various levels of CRM processes. The paper revealed that there are four major perspectives of CRM processes which are customer facing level processes, customer oriented processes, cross functional CRM processes, and CRM macro-level processes. This paper recommends that for ensuring the successful adoption and implementation of any CRM initiative, organization should understand the different levels of CRM process and the integrated activities among the CRM processes at each level.

Dr. Roger K. Allen an expert in leadership, team development, and personal and organizational change has discussed the tools and methods that helped hundreds of companies, and tens of thousands of people, transform the ways they work and live. In one of his articles, ‘ **People Make CRM Succeed** ’, he has discussed how the companies that focus only on the technical side of customer relationship management will either fail or achieve only partial success. If an organization is to truly become customer centric it is essential to put at least as much effort into managing the human and organizational sides of change. He emphasized that it is ultimately human beings and not technology that make organizations succeed.

Chung-Hoon Park and Young-Gul Kim of Graduate School of Management, KAIST, Dongdaemoon-Gu, Seoul, South Korea in his research paper ‘A framework of dynamic CRM: linking marketing with information strategy ’ talked about committed customers who are profitable to an organization for the long term. This paper provides a framework of dynamic customer relationship management, suggests the information technology strategy to support the framework, and illustrates the applicability of such framework and strategy through a real business case.

Ed Thompson, in his research article titled Applying Gartner's Eight Building Blocks of CRM, Gartner, Publication Date: 23 July 2009 ID Number: G00169547 talks about a framework that contains the elements necessary for a successful CRM initiative. The eight components are: vision, strategy, customer experience,

organizational collaboration, processes, information/insight, technology and metrics. The author also explains The eight building blocks in the model are the fundamental components of an effective CRM initiative. Beneath each component are a variety of interlinked capabilities. A key feature of this framework is its emphasis on the need to create and maintain a balance between the requirements of the company and the customer — symbolized by the yin/yang symbol in Figure above. Far too many CRM initiatives suffer from an inward focus on the organization — the point of CRM is to achieve a balance between value to shareholders or stakeholders and value to customers for mutually beneficial relationships. He has discussed in details various **CRM Processes, CRM Information and CRM Technology**.

CRM Success Guidelines, (www.ismsystems.com) discussed about Customer Relationship Management (CRM). It talked about the CRM which has evolved dramatically as many companies are beginning to discover the competitive advantages available when business strategy and available technology are successfully blended. Integrated Sales Management helps organizations grow by **focusing People, Process, and Technology** to successfully leverage CRM and Process Improvement. It also helps firms successfully implement CRM to grow your business.

CRM is the successful blend of business strategy and technology that enables a company to achieve measurable business results by aligning **People, Process, and Technology**. This takes many forms, however, CRM success is driven more by strong strategy supported by appropriate tools versus slick technology. The power and promise of CRM comes when companies deliberately create powerful strategies and select the right CRM technology to help employees execute. The CRM Lifecycle includes four key elements. These include **CRM Discovery, CRM Strategy, CRM Technology, and CRM Execution**.

People, Process, and Technology

With a firm Growth Strategy in place, alignment with People, Process, and Technology can begin. **People** involved in CRM include the specific members of the team that will be responsible for the tactics outlined in the Growth Strategy. These team members might include sales people, customer service, field engineers, or executives. It is also important to establish which roles and individuals will be held accountable to the specific results outlined above. **Process** involves defining existing business rules or developing new ones to support the new strategy. These existing or improved processes will be measured by the metrics outlined. Process is what gives context for the people and also defines “how” work is supposed to be accomplished. Finally, **Technology** outlines how the tools should support the people and the process. This might include data fields that are required to be captured or define integration requirements with information from other systems. This is an ideal way to define “how” the tools must support specific employees and provide relevant feedback on critical business rules.

Technology

As many people begin to evaluate CRM technology they quickly realize that many of the vendors offer very similar capabilities. The sheer volume of available CRM products can make selection difficult. A clearly defined CRM Strategy with Roadmap will reduce a lot of confusion. Although many factors influence technology selection, given the variety and number of available CRM technologies, it is often preferred to go with well established and proven vendors. As the CRM technology space matures it is often more prudent to select technology that is supported by a well established vendor with proven flexibility than newer products with similar offerings. Many companies are successfully leveraging the power of CRM to define company priorities, build effective strategy, and implement solutions to take advantage of business growth opportunities.

Research Methodology

The present research work is a study on CRM elements and their association with the firms in Indian Heavy Industry. Attempts are made to understand contribution of the CRM – Process in the integrated growth of the Organization.

Sources of the Data

Primary and secondary data were used extensively during the study Primary data were collected by the researcher through interviews, observation and administering questionnaire. To various respondents from the selected firms. Secondary sources that was already available in historical information of the firms, official statistics, government reports and web information. Relevant business journals, magazines, newspapers and internet were also used.

4. 3 Sample Size and Techniques

For the purpose of the study, a sample size of 12 organizations comprising of 10 respondents each was used. This makes a total of 120 respondents. The technique for sample selection was selective one and the selection of respondents was convenient. The break up of 12 organization as sample is 8 PSUs Organizations - 4 Navratna PSUs & 4 non- Navratna and 4 Pvt Organizations as shown below.

4.5 Tools for Analysis

SPSS was used for the analysis which helped the researcher to a great extent in bringing out the findings. The techniques considered were ranging from simple percentage analysis, cross tabulation, Pearson's, Kendall's and Spearman's correlation, linear regression and ably supported with a few pie diagrams and bar charts.

Hypotheses

Ho1: People practices used for CRM practices in the company are independent of the company

Ha1: People practices used for CRM practices in the company are associated with the company

Ho2: Technology implemented for CRM practices in the company is independent of the company

Ha2: Technology implemented for CRM practices in the company is associated with the company

Data Analysis and Interpretation of Results**Hypothesis 1:**

Ho1: People practices used for CRM practices in the company are independent of the company

Ha1: People practices used for CRM practices in the company are associated with the company

Here it is analyzed whether there is any association between companies and people practices that the company follows.

Data used:

1. CRM practices data (Table 3)

2. People practices followed within the company data

Test used: Here we are using Pearson's Chi – Square analysis

1. The research works with a total of 4000 data points from 12 companies. It has been reduced to 4 heads of 120 data points using averaging and scoring out of 100

2. Since the study is looking for test of independence case Pearson’s Chi – Square test are followed.
3. One cannot assume that we are working with a data set which Normally distributed

Steps followed:

1. Converting the current data into categorical variable into 3 categories as below
 - a. Score below 60
 - b. Score between 60 and 80
 - c. Score above 80
2. Calculate the original value for each of the companies in each of the 3 categories
3. Calculate the expected value using the formula

$$E_{i,j} = \frac{(\sum_{n_c=1}^c O_{i,n_c}) \cdot (\sum_{n_r=1}^r O_{n_r,j})}{N}$$

4. Calculate the Chi-square value using the formula

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}$$

5. Use critical value from chi-square table for 95% accuracy and degree of freedom, compare with the Chi- Square actual and based on the result accept or reject the hypothesis.

Degrees of freedom: Study deals with 12 companies with 3 categories hence degrees of freedom in this case is

$$df = (r - 1) * (c - 1) = (12 - 1) * (3 - 1)$$

$$df = 22$$

Table: 1.1 : Original Score calculations for H1

	Original Score			
	Less than 60	Between 60 and 80	More than 80	
BHEL	0	6	4	10
L & T	0	6	4	10
NTPC	0	10	0	10
ONGC	0	10	0	10
ABB	1	8	1	10
BOSCH	0	10	0	10
BEML	3	7	0	10
YOKOGAWA	1	9	0	10
SAIL	1	9	0	10
CCI	2	8	0	10
HMT	2	8	0	10
BHPV	1	7	2	10
	11	98	11	120

Table: 1.2 : Expected Score calculations for H1

Expected score	Less than 60	Between 60 and 80	More than 80
BHEL	0.917	8.167	0.917
L & T	0.917	8.167	0.917

NTPC	0.917	8.167	0.917
ONGC	0.917	8.167	0.917
ABB	0.917	8.167	0.917
BOSCH	0.917	8.167	0.917
BEML	0.917	8.167	0.917
YOKOGAWA	0.917	8.167	0.917
SAIL	0.917	8.167	0.917
CCI	0.917	8.167	0.917
HMT	0.917	8.167	0.917
BHPV	0.917	8.167	0.917

Table: 1.3 : Critical Values for Chi-Square and comparison with Calculated Chi Square

df	22
Chi Square calculated	44.171
Critical	33.924

Since Chi-Square calculated is much higher than the Chi-square critical, the **null hypothesis is rejected with 95% confidence interval**. In other words, H_{01} has been rejected and the **alternate hypothesis H_{a1} is accepted which says - “People Practices used for CRM practices in the company are associated with the company”**.

Hypothesis 2

Ho2: Technology implemented for CRM practices in the company is independent of the company

Ha2: Technology implemented for CRM practices in the company is associated with the company

Here researcher has analyzed whether there is any association between companies and technology implemented within the company as well at the client side.

Data used

- 1.CRM practices data (Table 3)
- 2.Technology implemented within the company data

Test used

Here we are using Pearson’s Chi – Square Analysis

- 1.Research data had a total of 4000 data points from 12 companies.
- 2.It has been reduced to 4 heads of 120 data points using averaging and scoring out of 100.
- 3.Since researcher was looking for test of independence case, Pearson’s Chi – Square test was considered.
- 4.In the study, data set under use was not Normally distributed.

Steps followed

- 1.Converting the current data into categorical variable into 3 categories as below
 - a.Score below 60
 - b.Score between 60 and 80
 - c.Score above 80
- 2.Calculate the original value for each of the companies in each of the 3 categories
- 3.Calculate the expected value using the formula

$$E_{i,j} = \frac{(\sum_{n_c=1}^c O_{i,n_c}) \cdot (\sum_{n_r=1}^r O_{n_r,j})}{N},$$

4. Calculate the Chi-square value using the formula

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}$$

5. Use critical value from chi-square table for 95% accuracy and degree of freedom, compare with the Chi-Square actual and based on the result accept or reject the hypothesis.

Degrees of freedom

Study deals with 12 companies with 3 categories hence degrees of freedom in this case is

$$df = (r - 1) * (c - 1) = (12 - 1) * (3 - 1)$$

$$df = 22$$

Table: 2.1 : Original Score calculations for H2

	Original Score			
	Less than 60	Between 60 and 80	More than 80	
BHEL	0	1	9	10
L & T	0	5	5	10
NTPC	0	2	8	10
ONGC	0	1	9	10
ABB	0	7	3	10
BOSCH	0	2	8	10
BEML	0	3	7	10
YOKOGAWA	2	6	2	10
SAIL	0	2	8	10
CCI	7	3	0	10
HMT	10	0	0	10
BHPV	1	7	2	10
	20	39	61	120

Table: 2.2 : Expected Score calculations for H2

Expected score	Less than 60	Between 60 and 80	More than 80
BHEL	1.667	3.250	5.083
L & T	1.667	3.250	5.083
NTPC	1.667	3.250	5.083
ONGC	1.667	3.250	5.083
ABB	1.667	3.250	5.083
BOSCH	1.667	3.250	5.083
BEML	1.667	3.250	5.083
YOKOGAWA	1.667	3.250	5.083
SAIL	1.667	3.250	5.083
CCI	1.667	3.250	5.083
HMT	1.667	3.250	5.083
BHPV	1.667	3.250	5.083

Table: 2.3 : Critical Values for Chi-Square and comparison with Calculated Chi Square

df	22
Chi Square calculated	118.710
Critical	33.924

Since Chi-Square calculated is much higher than the Chi-square critical, **null Hypothesis is rejected with 95% confidence interval.**

Thus H_{02} has been rejected and **the alternate hypothesis H_{a2}** is accepted which states that “Technology implemented for CRM practices in the company is associated with the company”

Research Findings

The research study was conducted to find out whether the CRM elements namely are People, Process & Technology, CRM Practices, and Customer Interactions, are associated with the growth of the firms. The twelve Indian firms were selected from navratna & non – navratna PSUs, and private organizations. Following are the major research findings :

- 1.The firms who are performing well have a close association with People practices used for CRM practices in the company. These firms, PSUs as well as Private ones have adopted innovative CRM practices and are highly associated with the firms. These sound association results in an overall growth of the firms.
- 2.Navratna PSUs and successful private firms like L & T, ABB, Yokogawa etc have well placed Customer interactions system which interface for CRM practices in the company.
- 3.The CRM Processes followed for CRM in the financial healthy companies are closely associated. These processes are also efficiently monitored by the senior executives at different level of hierarchy.
- 4.Technology adopted by the firm has direct impact on CRM.
- 5.The analysis for organizations like HMT Machine Tools, BHPVL etc shows clearly that they are performing poor and one of the primary reasons is that there is an absence of firm’s association with process, people, and technology. The innovative CRM practices are either not followed of or if followed, they are practiced without much commitments.

Recommendations/Suggestions

As mentioned above the Indian Heavy Industry sector is represented by twelve selected organizations. To get a balanced view, four navratna public sector enterprises, four non navratna public sector enterprises and four private organizations are chosen. BHEL, ONGC, NTPC and SAIL come under navratna public sector enterprises, BHPVL, HMT machine tools, BEML and CCI come under non navratna public sector enterprises and rest of the four organizations namely L & T , ABB, Bosch and Yokogawa come under private limited enterprises. The research based suggestions are given below :

1. Customer Relationship Management (CRM) can be explained more comprehensively if its elements are considered. The important elements of successful CRM are People (employees), processes, customers and technology. It is suggested that organizations in heavy industry sector, have to focus on all of these elements and formulate strategies for growth.
2. Toavail maximum benefits, organizations should categorize it business activities from the perspectives of customers, employees, processes and technology. Organizations also have to focus on developing long lasting bond with customers. Also the companies should concentrate on showcasing customer centric and customer focus functioning to the employee and customer.

Educating Customer benefits of CRM practices and provides training for upgrading their technical skills pays greater dividends to the organizations. Similarly, employee education and training also lead to better productivities and efficient customer handling. With regard to employees, the respondents attach greater importance to management gestures on parameters like service, durability, status etc.

3. Since people and processes are playing vital role in the business growth, organizations should develop sound relationship with people and orient their all processes to keep customer satisfied. It is suggested that non navratna PSUs should bench mark both private organizations like Larsen and Toubro (L & T) and Asian Brown Bowery (ABB) and navratna Public Sector Organizations for various CRM practices that found suitable and matching their resources for adopting to improve their overall performance.
4. It is suggested that the organizations in Indian Heavy Industry have to understand the impact of CRM practices and learn how this strategic approach influence and contribute in their integrated growth. Integrated growth refers to the overall growth of the company which can be measured either through financial measures or through market share values. Out of all CRM elements, process and people appear to be having the maximum impact on the growth of the company when compared to the other parameters. Hence it is suggested that firms should formulate their business strategies and approaches keeping in the view processes and people.
5. All except one organization has registered positive year-on-year (YOY) growth of customers retained over a 5 year time frame. There has been a steady increase in the retained customer base in the Indian heavy industry. Also a positive correlation between the customer retention and CRM practices has been observed and there for it is suggested that all firms should enhance and apply various CRM practices to ensure further business growth by retaining more and more customer.

6.3 Conclusion

There is very little work available in the area of CRM in the context of Indian Heavy Industry. To begin with the researcher needed to analyze whether CRM in Heavy industries has a correlation with the customer retention as there has been very little prior work regarding the same. In order to does so researcher to performed a correlation analysis between CRM result values obtain through a comprehensive survey conducted across the selected firms in the Indian Heavy Industry as well as the customer retention values in these firms. Clearly from the research analysis, it can be concluded that retained customers and CRM initiatives are positively correlated for Indian Heavy Industry and out of all the various weight-ages that have been used customer has to be given highest weight-age when calculating the overall CRM score. To understand the development of CRM practices researcher has considered the growth in the retained customer as an alibi for the same. From this study it can be concluded that according to the respondents who are related to Indian Heavy Industry (navratna and non navratna public sector organizations, and private organizations corporate, brand consultants and ad agencies) CRM elements –**People, Processes , Customers and Technology** play very crucial role in the growth of the firm. Business activities focused on this element become certain for more customer retention and delighted internal as well as external customers.

CRM initiatives can be on 4 fronts: process, people, customer and technology. Multivariate regression provided the understanding of how each of these impacts the growth of the organization.

Thus, it can be concluded that in Heavy Industries process and people are the 2 major parameters where the company needs to follow CRM practices to improve their overall performance and next come customer and technology.

References

1. Ahmad, R., & Buttle, F. (2002). Customer retention management: A reflection of theory and practice. *Marketing Intelligence & Planning*, 20(3), 149-161.
2. Anton, J., & Vilsoet, B. (2002). Customer relationship management technology: Infrastructure for customer collaboration. Santa Maria, CA: Benchmark Portal, Inc.
3. Aspinall, E., Nancarrow, C., & Stone, M. (2001). The meaning and measurement of customer retention. *Journal of Targeting, Measurement and Analysis for Marketing*, 10(1), 79-87.
4. Behara, R. S., Fontenot, G. F., & Gresham, A. B. (2002). Customer process approach to building loyalty. *Total Quality Management*, 13(5), 603-611.
5. Bejou, D. (1997). Relationship marketing: Evolution, present state, and future. *Psychology and Marketing*, 14(8), 727-735.
6. Bergeron, B. P. (2002). *Essentials of CRM: A guide to customer relationship management*. New York, NY: John Wiley & Sons, Inc.

Web Sites

1. BHEL : <http://www.bhel.com>
2. ONGC : <http://www.ongcindia.com>
3. NTPC : www.ntpc.co.in
4. SAIL : <http://www.sail.co.in>
5. HMT MACHINE TOOLS : <http://www.hmtmachinetools.com>
6. BEML : <http://www.bemlindia.nic.in>
7. CCI : <http://www.cementcorporation.co.in>
8. BHVPL : <http://www.bhpvl.com>
9. L & T : <http://www.larsentoubro.com>
10. ABB : <http://www.abb.co.in>
11. CO BOSCH : <http://www.boschindia.com>
12. YOKOGAWA : <http://www.yokogawa.com>