# An overview of Customer Relationship Management Software in Business Organizations

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*Abstract-* **The aim of the article is to present details of the research on focus on the customer in relation to the utilization of the customer relationship management computerized system in business organization. Customer relationship management (CRM) plays a central role in the growth and success of corporations in an environment of fast technological development and the extensive competition currently in evidence. CRM empowers corporations with better customer awareness and helps to construct sustainable relationships with customers. People, technology, and processes are the three basic components of CRM. In order to ensure the successful implementation and adoption of the CRM initiative, this paper presents a detailed review of the literature relating to CRM processes and its computerized system. Various types and levels of the CRM process as well as an understanding of the different perspectives of CRM are presented in this review. The paper suggests that it is important for an organization to understand the four major perspectives of CRM processes i.e. customer facing level processes, customer oriented processes, cross functional CRM processes and CRM macro-level processes. A survey is also conducted in this paper and a chi square test is performed to test the hypothesis relating to the efficiency of customer relationship management and the client relationship it offers. Results show that the hypothesis is statistically significant.**

Keywords: Computerized, Customer Relationship Management (CRM), processes, successful, sustainable.

## I. INTRODUCTION

The main concept of customer relationship management is that the better knowing customers enable business organizations to ensure that they remain loyal on a permanent basis and also make it possible for them to serve customers better. CRM, in brief, is still going through a growing process Business strategy, Business philosophy, Business process and Technological tools are the main elaborations of CRM as shown in Figure 1. By offering a more customized and responsive service to each customer, CRM aims to increase customer loyalty and satisfaction and behaves as a customer focused business strategy [2]. Process management creates a superior customer value and retention and behaves as a relationship oriented tool when CRM is considered as Business Philosophy [1]. When considered as a Business Process, CRM is used to create customer knowledge and prospect

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identification and behaves as a "macro-level" process that creates the above defined sub processes [3]. CRM is also a technology for an organization, designed to foster a closer relationship with customers [4]. Information Technology mediated CRM as the policy, philosophy and coordinating strategy. With the help of CRM two way communications between the customers is created. This helps organizations to have an intimate knowledge of their wants, buying, selling patterns and needs. CRM initiatives have significant knowledge. CRM initiatives gain significant benefits. Most large organizations are investing significantly in CRM initiatives. CRM initiatives are supported by large and expensive CRM software packages.

A broad set of applications and software design is covered in CRM software that helps businesses to manage customer interactions, data, marketing, customer support and also to access business information and automates sales. Vendor, partner relations and employees are also managed by CRM software. Many products are scaled to a business of any size. CRM's need to adapt to the rise of social media is examined [18]. Effective ways of using social media on house core areas of CRM are also discussed and it is concluded that CRM strategies should use social media in order to better address and recognize challenges. The implementation of the CRM process in Islamic banks is empirically examined [19]. Along with this, there is also a focus on CRM's measurement of customer based profit performance and the need to develop a standard structural equal model for predicting that performance. Theoretical examination of CRM agenda is carried out [20] in relation to those organizations that have dominated the business world in recent years. The effectiveness of CRM agenda in relation to an organization with respect to customer loyalty and satisfaction is also explored. The focus is on what is required to implement a competent CRM system. The review concluded that for a successful implementation of CRM, the pairing of specific factors is required [21]. A study was conducted [22] in which the factors that affect the deployment of CRM at Nestle Company were identified and ranked.
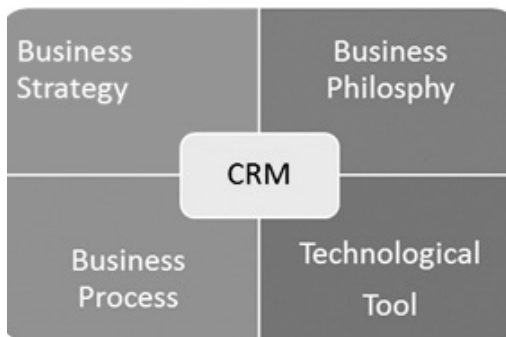


Figure 1 Elaborations of CRM



Figure 2 Levels of CRM Extension

# II. Detail Overview of CRM

## 1. *CRM LEVELS AND ITS TYPES/FORMS*

CRM will act on an organization to the extent covered by CRM types/forms. There are four levels of CRM extension as shown in Figure 2 above.

### A. *Strategic*

The creation of a customer-centric business culture is brought about by the strategic CRM. Through this culture a better value over competitors is created as it helps to determine where the resources of organizations can be better invested.

### B. *Operational*

Customer's processes automation is brought about by an operational CRM. Automation includes sales-force automation, marketing and service automation. Automation and streaming workflow at the front office is dealt with by CRM. This includes processing of transactions, controlling of sales, marketing and services, workflows and data collection. [5][6][9][10][11].

### C. *Analytical*

Using customer data, the increase in number of customers and organization value is dealt with by an analytical CRM. Operational CRM is the basis of the building of an analytical CRM which helps to analyze data of customers for information creation about customer segmentation, customer behavior and, most importantly, customer value obtained by using several statistical and data-mining tools. [5][10].

### D. *Cooperative*

This can be the subset of an operational CRM because it works at a CRM operational level. Using a set of interaction channels, it focuses on customer integration [5][6][7][12][13] and selected business partners and customer suppliers working intimately. Different communication means such as emails, phone calls, website pages and fax are included in collaborative technologies which are used for interactions by the customers [14]. The involvement of CRM processes is mandatory when dealing with customer data.

## 2. *CUSTOMER RELATIONSHIP MANAGEMENT PROCESSES*

This section discusses how the CRM processes intercommunicate and integrate within the three levels of CRM kinds. The way in which things are done in the context of cooperation is defined as the process [8][15]. Such cooperation performs certain activities which are related to CRM processes and concern the management of the customer relationship with these activities being grouped together according to a longitudinal view of the relationship. The purpose of the

CRM process is to form customers' perceptions of cooperation and its products through identifying customers, making customer knowledge, and constructing customer relationships.

### A. Categories of CRM Processes

The categories of CRM processes are shown in Figure 3.

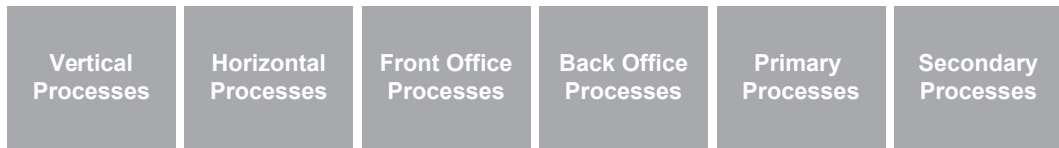| Vertical Processes | Horizontal Processes | Front Office Processes | Back Office Processes | Primary Processes | Secondary Processes |
|---|---|---|---|---|---|

Figure 3 Categories of CRM Processes

### i. Vertical processes

The business function completely places within CRM certain processes such as customer acquisition process. These processes are termed as vertical.

### ii. Horizontal processes

Cross functional processes such as product development are referred to as horizontal processes.

### iii. Front-office processes

Customer-facing processes such as the complaint management process are alluded to as front office processes.

### iv. Back-office processes

The non-facing and processes hidden from customers are referred to as back office process: for e.g. procurement processes.

### v. Primary processes

Insurance cooperation has a co- directed process and courier cooperation has logistical processes. These processes are termed as primary processes. Usually these processes have vital revenue implications and cost.

### vi. Secondary processes

The processes that have fewer cost or revenue implications for corporations are termed as secondary processes [16].

### B. Themes of CRM processes

Figure 4 shows the four different views and perspective of CRM:

Figure 4 Views of CRM

### a. Customer-facing level CRM processes

Management of the customer relationship initiation, termination and maintenance is a systematic process [16]. In order to maximize the value of the relationship portfolio management is done across all customer contact points.

There are three CRM processes at the customer-facing level of CRM:

- *Relationship initiation*
- *Relationship maintenance,*
- *Relationship termination* [16].

### i. Relationship initiation

The activities that take place in the early stages or before the relationship, are referred to as initiation processes. These include identification of potential customers.

### ii. Relationship maintenance

The activities by which normal customer relationships are portrayed are referred to as maintenance processes such as upselling, retention for organization and cross-selling.

### iii. Relationship termination

The activities that help to resolve the problem of ending a bad relationship are such as are involved in termination processes. Termination management activities are connected to low-value customers. Unprofitable relationships that end are examples of relationship termination [16].

### b. Customer-oriented CRM processes

The customer activities that are formed for need and satisfaction and act as a problem solver are encompassed in customer processes. The semi-structured and knowledge intensive nature of the

Customer oriented CRM processes.

There are three distinguished kinds of customer oriented CRM processes:
- *CRM delivery processes,*
- *CRM support processes,*
- *CRM analysis processes.*

### i.   *CRM delivery processes*

The processes of direct contact with customers are the CRM delivery processes. They are contemplated as part of the customer process inventory such as sales, campaign, complaint and service management processes.

### i.   *CRM support processes*

The processes used to deal for the accomplishment of supporting processes are the CRM support processes. It accomplishes this goal through loyalty management process and market research process.

### ii.   *CRM analysis processes.*

The process that concentrates on analyzing and combining the collected customer knowledge in other CRM processes is mentioned as CRM analysis processes. For example, feedback and knowledge management.
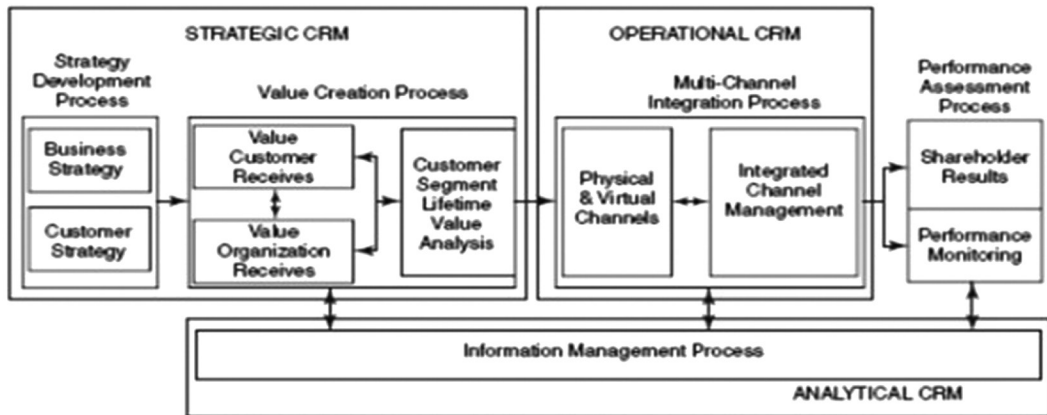


Figure 5. CRM forms and Processes

### c.   *Cross-functional CRM processes*

There are five generic cross-functional CRM processes which are based on a holistic approach of [17]:
- *the strategy development process*
- *the value creation process*

- *the multichannel integration process*
- *the information management process*
- *the performance assessment process.*

The CRM forms mentioned before and analytical, strategic and operations have the allocation of the CRM processes and how these processes inter-communicates with each other as shown in Figure 5. Four CRM processes involving strategic planning, information management, customer value, and performance measurement processes.

*d. CRM Macro-level processes*

The undertaken activities of cooperation that help to make market intelligence are referred to as macro-level processes. These processes help co-operations; through two sub processes i.e. knowledge management process and intercommunication management process, to sustain and construct a profit maximizing portfolios of customer relationships.

*3. CRM PROCESS MODEL*

In Figure illustrates the CRM process model. This model is demonstrated on the marketing and cooperate requirements for a successful CRM process.
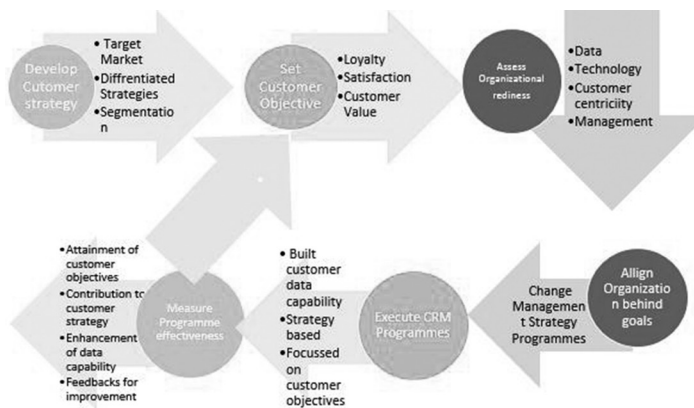


Figure 6 Illustration of CRM Process Model

The first step is the customer strategy development in which identification of target market is done. Development of differentiated strategies is done to deal with the customer's segments based on their profitability. For achieving customer satisfaction, value and loyalty, the setting of the customer objective is performed. After that the organization is focused on the customer rather than the product in order to access organizational readiness. Top management support and commitment are ensured for the planning of the CRM system implementation. In the next stage, the accomplishment of the enterprise wide program is done in such a way as to include changes made to the fundamental

processes of the organization or to transform the organizational culture i.e. product-centric to customer-centric. The above stage or step is needed to align the organization for CRM goals. After that specific programs help to focus on the differentiated strategies for all customer segments. In this way CRM programs are properly executed. The last stage involves measuring the effectiveness of CRM programs. For this purpose, a set of metrics is developed. This set is used to measure the effectiveness of CRM programs. For this purpose, a set of metrics is developed. This set is used for the measurement of certain metrics i.e. the contribution of each individual program to the overall CRM initiative. It is also designed to help measure the contribution of each program towards the enhancement of an organization's data capability and also to measure the potential for improving future programs. This model serves the purpose of illustrating the CRM process in simple terms. The model can, for the sake of better representation, can, of course, be improved and enhanced. A customer- oriented culture module can be added at the beginning. This helps to generate the need for and create an awareness of the importance of CRM. Another important aspect is the need to incorporate a feedback module for the purpose of developing an appropriate customer strategy. With the help of such a feedback module and on the basis of differentiated strategies and customer segmentation, the requisite target marketing can be accomplished.

## III. Crm Software Based System

CRM software is designed to help businesses meet the overall goals of customer relationship management. Today's CRM software is highly measurable and customizable. It allows businesses to gain actionable customer awareness with a back-end analytical engine, enabling them to view business opportunities with the aid of predictive analytics and to streamline operations and privatize customer service on the basis of a customer awareness history and prior intercommunications with a given business.  CRM software is commonly utilized to manage a business-customer relationship. However, CRM software systems are also utilized in the same way to manage business contacts, clients, contract wins and sales leads.

Cloud CRM is customer relationship management technology, where the CRM software, CRM tools and the cooperation's customer data resides in the cloud and is delivered to end-utilizers via the Internet. Cloud CRM typically offers retrieval to the application via Web-based tools logins where the CRM system administrator has previously defined retrieve levels over the cooperation. Employees can log in to the CRM system, simultaneously, from any Internet-allowed computer or device. Often, cloud CRM produces utilizers with mobile apps to make it easier to utilize the CRM on smartphones and tablets. Figure 7 shows the CRM dashboards.

Here, in the example of cloud CRM software from salesforce there are seven CRM software Functions classified in two kinds:

A.  *Sales & Marketing CRM Functionalities.*
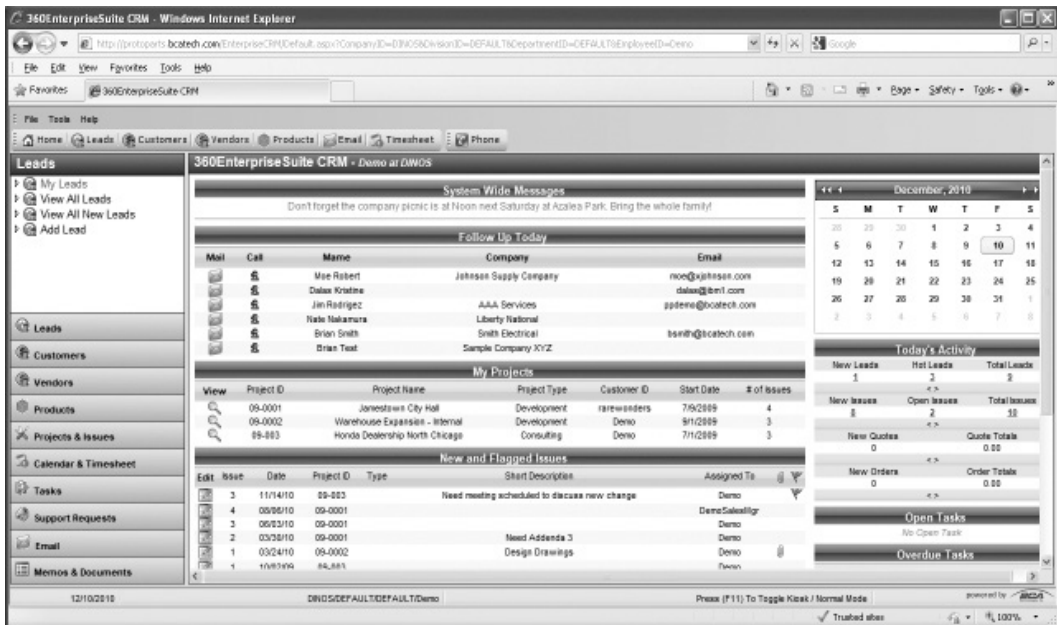B.  *Customer Service CRM Functionalities.*



Figure 7 CRM dashboards

A.  *Sales & Marketing CRM Dashboard.*

These dashboards are developed to relax people in different sales and marketing roles to measure the reference of campaigns, leads, and opportunities for themselves and for their cooperation teams.

i.  *Marketing Executive Dashboard*

The dashboard is used by VPs and directors to discover if they are generating competent campaigns and generating and converting leads.

ii.  *Sales Executive Dashboard*

Sales executives can utilize this dashboard to discover how their cooperation is doing in a particular month.

iii.  *Sales Manager Dashboard*

Sales managers can utilize this dashboard to discover how their team is doing in a particular month.

iv.  *Salesperson Dashboard*

Salespeople can utilize this dashboard to track their sales against the quota.

*B.    Customer Service CRM Dashboard.*

These dashboards make it easy for people in different service and support roles to keep track of customer cases for their cooperation and agents, involving trends and key performance indicators.

*i.    Service Executive Overview Dashboard*

This dashboard is operated by service executives to achieve prominence in their daily operations. How are the cooperation handling support issues? What are the risks? Which areas need attention? Are the goals meeting by the organizations? It also ascertains at-risk accounts, something that is imperative for executives.

*ii.    Agent Supervisor Overview Dashboard*

It is similar to the Service Executive Overview Dashboard, but focuses on the line managers. A similar visibility at the team level is produced by this dashboard and important agent-level metrics are also ascertained.

*iii.    Service KPIs Dashboard*

This dashboard is targeted at service executives and produces awareness of important trends, which helps them make staffing and training decisions. Executives can also observe performance against set key performance indicators (KPIs), which helps them refine cooperation goals on the basis of past performance.

## IV.    RESEARCH METHODOLOGY AND RESULTS

*A.    Research Design*

In order to find out the relation between the efficiency of CRM software and the client relationship it has helped maintain, a descriptive research is conducted based on survey questioning.

*B.    Corpus for Data Collection*

This research is based on primary data. A survey questionnaire was circulated via email in business organizations. The questionnaire is structured and based on the questions relating to the efficiency of the CRM and the client relationship. The respondents were asked to choose only one option.

*C.    Sample Size*

Business organizations are the sampling units. The total sample size was fifty. Banks and Multinational national companies participated in this survey. The respondent score is then statistically analyzed using chi-square test in MIINITAB.  The result of the analysis is the basis for the findings.

## D. Research Hypothesis

A hypothesis was formulated for the CRM efficiency and the client relationship.

| Null Hypothesis (H$_{\circ}$) | = | The Efficiency of CRM software and client relationship is independent on each other |
|---|---|---|
| Alternate Hypothesis (H$_1$) | = | The Efficiency of CRM software and client relationship is dependent on each other |

## E. Chi Square Test Analysis and Interpretations

Table I shows the respondents feedback to the questionnaire regarding the efficiency of CRM and the client relationship.

TABLE I
RESPONDENTS FEEDBACK OF THE QUESTIONNAIRE

| Efficiency of CRM (%) | Client Relationship offered by CRM | | | |
|---|---|---|---|---|
| | **Very Good** | **Good** | **Average** | **Not at all good** |
| 80-100 | 8 | 4 | 2 | 1 |
| 60-80 | 1 | 8 | 5 | 3 |
| 40-60 | 1 | 1 | 12 | 4 |

The chi Square test was conducted on Table 1 results and the analysis of chi square test is shown in Figure 8. Category 1 is 80-100%, category 2 is 60-80% and category 3 is 40-60%. It is shown that at 5% level of significance (α), the overall chi square value is 25.607 and p-value is =0.000. As the p-value is less than α, we reject the null hypothesis and take this to mean that the Efficiency of the CRM in business organizations and client relationship offered by CRM are dependent on each other and that the result is statistically significant.

**Chi-Square Test: Very Good, Good, Average, Not at all good**

Expected Counts are printed below observe counts

Chi-Square contributions are printed below expected counts

| | Very Good | Good | Average | Not at all good | Total |
|---|---|---|---|---|---|
| 1 | 8 | 4 | 2 | 1 | 15 |
| | 3.00 | 3.90 | 5.70 | 2.40 | |
| | 8.333 | 0.003 | 2.402 | 0.817 | |
| 2 | 1 | 8 | 5 | 3 | 17 |
| | 3.40 | 4.42 | 6.46 | 2.72 | |
| | 1.694 | 2.900 | 0.330 | 0.029 | |
| 3 | 1 | 1 | 12 | 4 | 18 |
| | 3.60 | 4.68 | 6.84 | 2.88 | |
| | 1.878 | 2.894 | 3.893 | 0.436 | |
| Total | 10 | 13 | 19 | 8 | 50 |

**Chi-Sq = 25.607, DF = 6, P-Value = 0.000**

Figure 8 Chi square results on Minitab

The chart of expected and observed values and contribution to the chi square value by category for very good, good, average and not at all good are shown in Fig 9(a), 9 (b), 9(c), 9(d) respectively. It is shown that for 'Very Good', the contribution of chi square value is highest for 80-100%. This is because of the fact that the difference between the expected and observed value is large in this category.
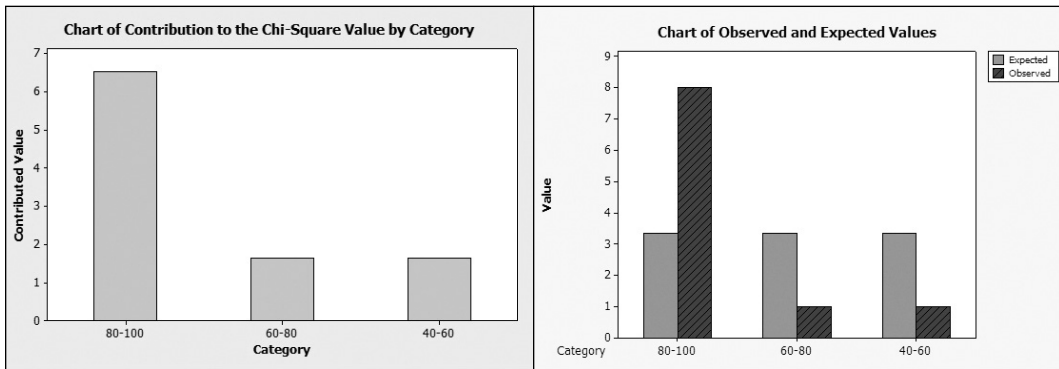


Figure 9 (a) Goodness of Fit charts for 'Very Good'

For 'Good' the highest chi square distribution is shown for the 60-80% category and the difference between expected and observed value is largest in this category as indicated in Figure 9(b).
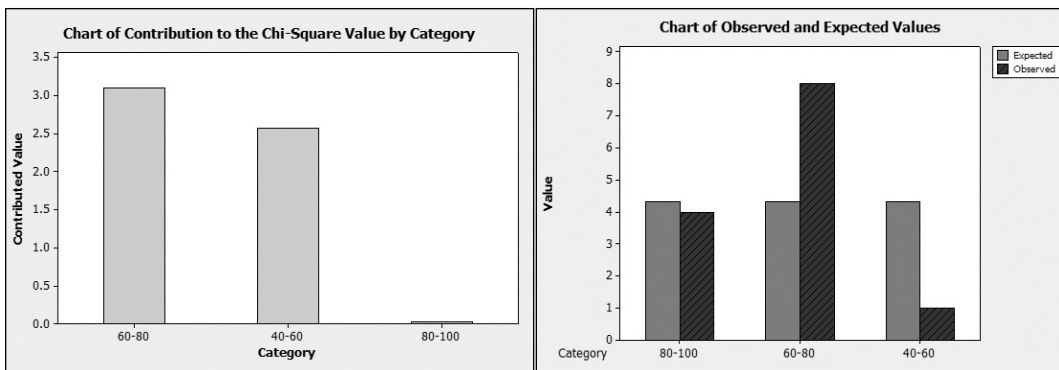


Figure 9 (b) Goodness of Fit charts for 'Good'

For the 'Average' case the highest contribution is in category 40-60% and so the difference is largest between the expected and observed value. For the 'not at all' good the chi square value is highest in the 80-100% category and the difference between the expected and observed value is largest.
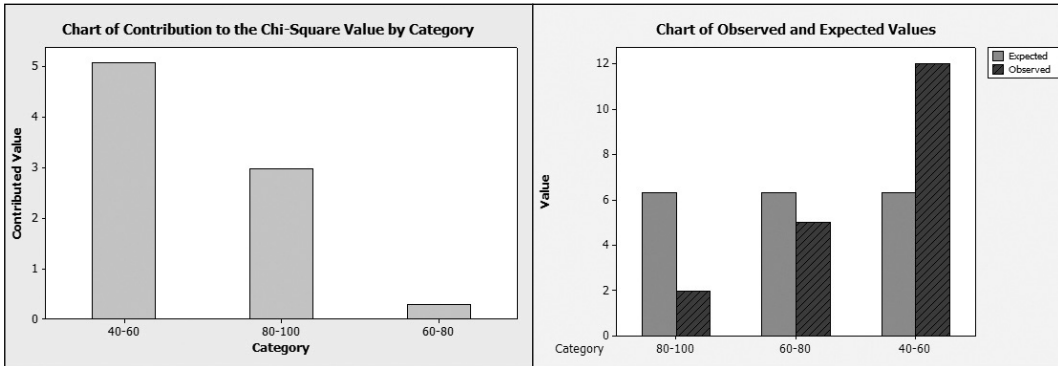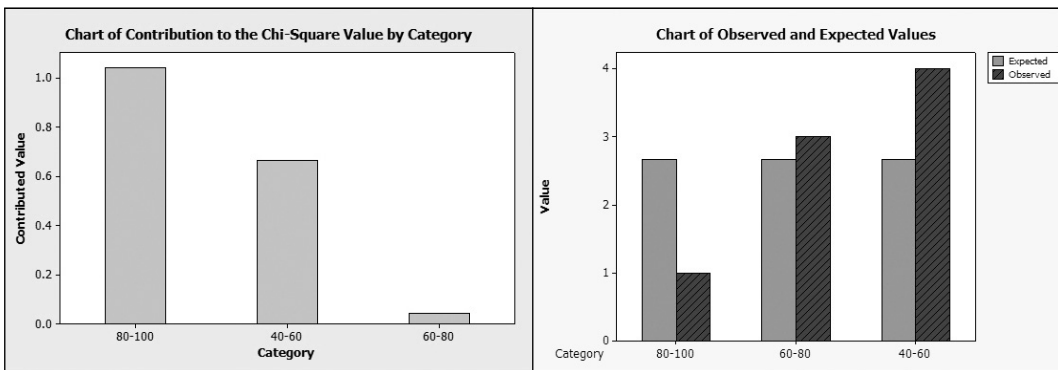
Fig 9(c) Goodness of Fit charts for 'Average'



Fig 9(d) Goodness of Fit charts for 'Not at all'

## V. CONCLUSION

Overall we believe the CRM software does help in implementing CRM processes and in managing customer relationship and loyalty by producing the complete analysis of your sales and business contacts, clients, contract wins and sales leads. The software is not utilized to its maximum as it has the potential to become more efficient. The software can be utilized in the cooperation as vital software for customer relationship management as the company's main purpose is to construct customer relationships and loyalty. Another department, where this software can be targeted, is trading desk or Sales (institutional and retail). It can be utilized in the sales department achieving the core purpose of the department i.e. execute trade in respective clients' accounts. The chi test results showed that the CRM efficiency and client relationship are dependent on each other with the Goodness of fit graphs implying that the overall contribution to the chi square value for 'very good' is highest for category '80-100'%.

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