A Survey of Customer Relationship Management

RumaPanda[1] , Dr. A. N. Nandakumar[2]

[1]Assistant Professor, Dept. of C.S.E. Vemana I T, VTU,Bangalore, Karnataka, India

[2]Professor & Principal, R. L. Jalappa Institute of Technology, Bangalore, Karnataka, India

ABSTRACT:In CRM domain, the most widespread applications are related to the management of the contents of clients' messages. The aim is to reroute the specific request automatically to the appropriate service or supply immediate answers to the most frequently asked questions. Different technologies are used in CRM to achieve this goal. So we are going to present a survey on CRM.

KEYWORDS: Data Mining, Text Mining, CRM, Competitive Intelligence.

I. INTRODUCTION

CRM methodologies and tools help the business to manage customer relationships in an organized way. CRM is managed through software in which companies provide the following customer's information: last name, first name, telephone number, address, places where the client prefers to purchase. It helps the company to better focus on the client and to send those offers, to provide products and services that meet their needs by reducing costs. The company has a tool that sets all the contacts. Different techniques are used to make the contact with the customers.

- Telephone is one that enables you to set your mind about the customer's needs. Sometimes, it can be difficult to break the telephone switch board and office assistant barriers to contact with the right person.
- Email is a one more tool for this. First of all, you must ensure that you have a valid mailing address that deals with the right person. The email must be neither too short nor to long and manage to get the attention of its recipient. Finally, this is a tool that doesn't imply response, whether immediate or not. So an email can contain a link, a video introducing the company, the product or the service better than by phone.
- Direct contact has the benefit of having the person standing in front of you and getting directly his attention, understanding the speech in line with what the customer or prospect says.

II. PURPOSE

It helps business to use technology and human resources to know the behaviour of customers and the value of those customers. Using a CRM strategy, a business can increase their credits by:

- Providing services and products according to the customers demand.
- Providing better customer services.
- Offering cross selling products.
- Helping sales staff to close the deals faster.
- Retaining existing customers and finding new customers.
- Make efficient and active call centers.
- Simplify the marketing and sales processes.

For small businesses, CRM includes

- CRM is helping to identify the best customers, provide quality sales leads and implement marketing campaigns with proper goals and objectives.
- CRM helps to form relationship with individual customers and provide the best service to the most profitable customers.
- CRM provides employee's information and build the relationship between the company and its customers.

CRM tools contain some software and browser based applications that can collect and organize the information about customers. A business may use a database of customer information to construct a customer satisfaction survey to decide which new product their customers might be interested in.

III. KEY ELEMENTS OF CRM

There are different components in CRM. Mainly, CRM is being used successfully in three areas:

- Customer service: In a company, there is a front office where the company people can interact with customers. These are the business processes that allow your company to sell products and provide the services to your customers, communicate with your customers and dealing with the customers. Each interaction with the customer is recorded and stored within the CRM software from where it can be retrieved by other employees if needed.
- Sales force automation: Company's sales departments are constantly looking for sales opportunities with existing and new customers. The sales force automation functionality of CRM software allows the sales team to record each customer's contact, the details of the contact. It can provide a sales force with greater efficiencies as there is little chance for duplication of effort. The other employees rather than sales team to get access to this data ensure that they have the most recent contact information with customers. This is important when customers contact employees rather than the sales team.
- Campaign management: Mainly the sales team focusing on a campaign, where a group of specific customers are aimed based on criteria. These customers will receive the targeted marketing materials and often special offers as an inducement. CRM software is used to record the campaign details, and customer responses.

Today, CRM manages business processes, spanning sales, support and marketing, creating effective customer interactions.

IV. ADVANTAGES OF CRM

- Departmental Integration: One thing that obstructs an organization's performance and ability to serve the data of different departments to the customers. If a customer calls and speaks on one matter with the sales department and later speaks with the billing department then the departmental integration reduces the chance toput the customer on hold while the departments speak to each other.
- Enhanced Customer Service: CRMs are an interesting tool for auditing, training and tracking the information. They are useful for identifying the customer's needs. Customer service representatives have a huge information to serve better to a customer. They can view contracts, prior pricing, shipping information and even personal information about a customer to make it a more personable experience.
- Improved Sales and Marketing Policies: An organization's sales team can work more efficiently with a CRM. They can monitor their pipeline and track to lead the sale process, and they can share product and contract information. A manager will be able to measure better productivity by monitoring the time that sales team spends on certain activities. It is a valuable tool because a manager can use this information to evaluate the performance of employees.

So by using CRM methodology, an enterprise can:
- Provide better customer service.
- Increase customer revenues.
- Discover new customers.
- Provides cross sell/up sell products.
- Help sales staff to close the deals faster.
- Make efficient call centers.
- Simplify marketing and sales processes.
- Reduce marketing and promotion expenses.

- Manage the marketing campaigns with proper objectives.
- Reduce service expenses with online self-service.
- Improved customer satisfaction ratings.

V. DISADVANTAGES OF CRM

However, despite the significant advantages of CRM, there are several disadvantages:

- Record loss.
- Training.
- Needs additional work for inputting data.
- Requires continuous maintenance, information updating, and system upgrading costly.
- Difficult to integrate with other management information systems.

VI. IMPLEMENTING CRM IN A COMPANY

The following are general guidelines on implementing a CRM system.

- Make a strategic decision for what problems you want to implement the CRM system and what are the improvements or changes can do in the business processes of the organization.
- Choose an appropriate project manager. Typically IT will be engaged, however a manager with a customer service/sales and marketing business focus should be involved, as the impact of the project will be mainly on the business side.
- Ensure executive will be mainly on the business side.
- Encourage the team members with the required authority to complete the tasks.
- Select the correct implementation partner. They will have both vertical and horizontal business knowledge and technical knowledge.
- Define KPI's to measure the project's success.
- Long term enterprise-sale implementation works use a phased approach through a series of smaller and phased implementations.

VII. RECENT WORKS IN CRM

In paper [1], they identified valuable customers, predict future behaviour and enable firms to make proactive, knowledge driven decisions by data mining techniques. So mainly it focuses on analysing consumer information for economic benefits. In paper [2],they classify the selected customers into clusters using RFM model to identify high-profit, gold customers. They employ data mining tools and effectively discover the current spending pattern of customers and trends of behavioural change, which will allow management to detect in a large database potential changes of customer preferences and provide as early as possible products and services desired by the customers to expand the client base and prevent customer attrition. In paper [3], the authors developed a conceptual framework for CRM that helps to understand of CRM and its role in enhancing customer value and explore definitional aspects of CRM and identify three alternative perspectives of CRM. They developed a cross-functional, process-based CRM strategy framework that aims to help companies avoid the potential problems associated with a narrow then logical definition of CRM and realize strategic benefits. This paper [4] designed a new scheme of CRM systems based on data mining. In paper [5], they used two models, classification and association for data mining in CRM. They analysed knowledge accumulation and creation concerning the application of data mining techniques in CRM. In paper [6], they proposed, analysed and validated that data mining is also a major success factor in the success of CRM. They first presented the CRM model and then explained the main role of each feature and then they added data mining feature in the CRM model. Paper [7] focused on the research of the customer classification & prediction in commercial banks based on Naïve Bayesian classifier that accommodates the uncertainty inherent in predicting customer behaviour. In paper [8], they analyzed the customer characteristics, customer behaviour,and customer structure using data mining technique. They did sales analysis and sales forecast. The aim of paper [9] is to increase the understanding of the different perspectives and the various types of and levels of CRM principles and to explore the life cycle of customer relationship management. In paper [10], a new feature selection method is proposed to resolve CRM data set with relevant features by incorporating an efficient data mining techniques to improve data quality and feature relevance

after pre-processing. In paper [11], they created a model of the whole collection by means of LSA and it identifies through FC.At this point, results are aggregated by customer, identifying areas of his or her specific interest and can be integrated with other information to extend the analysis base of CRM systems.

VIII. OPEN AREAS FOR FURTHER RESEARCH

As we see the literature survey we notice following problems in the solutions

- An integrated architecture can be designed to use automated text mining for automating text miner applications in CRM.
- Competitive intelligence can be used to overcome the challenges of reading the data and extracting knowledge in CRM framework.
- In CRM framework, the specific request can be automatically routed to the appropriate service or the service can supply immediate answers to the most frequently asked questions.
- Current CRM solutions are not used for preserving the privacy of customers.
- CRM strategy framework does not examined in small or medium-sized companies and non-profit organization.
- Text mining technology can be applied to analyze customer's behavior in order to form the right of customers' profiles.
- Data mining techniques can be used for more customer services, credit card users & for online purchaser which will help the customer to buy and sell the products & services online.
- Classification performance can be improved by combining multiple algorithms.

VII. CONCLUSIONSAND FUTURE ENHANCEMENTS

As customers and business interact more frequently, business will have to leverage on CRM and related technologies to capture and analyze massive amounts of customer information. Business that uses customer data and personal information resources effectively will have the advantage in b becoming successful. However, businesses must also bear in mind that they have to use technology responsibly in order to achieve a balance between privacy rights and economic benefits.

Different technologies vary in terms of effectiveness and ease of use. It is businesses and managers who determine how to exploit collected data, in other words, more of a policy issue than a technology issue. Several precautions have to be taken by business to assure consumers that their privacy will be respected and personal information will not be disclosed without permission. Businesses also have a duty to execute their privacy policy so as to establish and maintain good customer relationships. For such a sensitive issue as privacy, the burden is on businesses when it comes to building and keeping trust. The nature of truth is so fragile that once violated, it vanishes. Current CRM solutions focus primarily on analyzing consumer information for economic benefits, and very little touch on ensuring privacy. As privacy issues become major concerns for consumers, surely an integrated solution that streamlines and enhances the entire process of managing customer relationships will become even more necessary.

Many companies increasingly use data mining for CRM. It helps provide more customized, personal service addressing individual customer's needs. As a chain reaction, this will result in substantial cost savings for companies. The customer also will benefit to be modified of offers that are actually of interest, resulting in less waste of personal time and greater satisfaction.

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BIOGRAPHY

Ruma Panda received her M.Tech degree from West Bengal University of Technology and currently pursuing Ph.D. from VTU. She is associated with VEMANA IT as Assistant professor of CSE. Her area of interest includes Data Mining, Text mining, Design and Analysis ofAlgorithms, Formal Languages and Automata Theorem, Compiler Design.

Dr. A. N. Nandakumar is Professor & Principal in R. L.Jalappa Institute of Technology, Bangalore, Karnataka. He has done M.Tech in Computer Science & Engineering from Roorkee University in 1990. He received Ph.D. degree in Cloud Computing & Data Mining from Berhampur University in 2008.He published six papers in National Journal and four papers in International Journal.