INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT



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OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

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CONTRIBUTIONS TO BOOKS

 Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

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CONFERENCE PAPERS

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CRM IN VARIOUS DIMENSIONS

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ABSTRACT

Customer Relationship Management is a multi-disciplinary concept. It is no longer a consulting buzzword but reality for many MNCs. As competition in business sector increases and excellent service is a critical success factor, therefore importance of CRM increases. This paper highlights the various dimensions of CRM and contributes to some successful factors in CRM application. It covers E-commerce, WAP mail services and short message services for mobile; E-business, E-business environment, electronic CRM, data mining, education and power supply industry. Firstly, we discuss some basics of CRM integration and its importance for corporate performance. It gives the information that how CRM is useful in the various fields of life. It also focuses on enhancing the e-business aspects of interactions to provide a consistent customer experience. Store of previous data and its mining is very important in the application of CRM. At last, it gives some guidance for future study on CRM, its scope and research area left behind.

KEYWORDS

Customer Relationship Management, E-commerce, power supply enterprise, short message system, wireless application protocol.

INTRODUCTION

person who enquires and buys the goods and commodity from the same place is a customer. ISO 9000 standard defines the term "customer" as an organization or a person that receives a product. Example of a customer is Consumer, client, end-user, retailer, beneficiary and purchaser. A customer can be internal or external to the organization. Furthermore, ISO 9000 standard also defines a "customer satisfaction". It is a customer's perception of the degree to which customer's requirements have been fulfilled. Term defining the activities to achieve customer satisfaction is "customer care". It is a customer service that seeks to acquire new customers, provide superior customer satisfaction and build customer loyalty. Today, the term customer care is known as "customer relationship management". The network which interacts with the customers is relationship management. The interaction of customer's is due to different reasons in various dimensions. The relationship management plays a vital role in interacting the customers. Today's customers expect expert supports assistance from the companies anytime, anywhere and anyhow. And also they dream for seamless transactions in every field. Anyhow the demands, dreams and expectations of the customers are in measurable extent, because these imaginations are possible in practical in today's world. These imaginations are in measurable extent. So these are dimensions and are in various fields. As the term CRM suggests, there are three main areas of focus: (1) the Customer, (2) the Relationship, and (3) the Management of the relationship [6]. Loyal customers are valuable assets for a business. Studies have shown that a 5% increase in customer retention can lead to a 25-100% increase in customer value [7]. Relationships with customers are driven primacy by the value the customers perceive from the relationship. Heskett et al. [8] have offered a model of customer value as shown below:

Results + pro	cess quality			
Value =		(1)		
Price + acqui	sition cost			
The CRM is defined as:			- Contractor - Con	

ACCORDING TO WALTON O.ANDERSON "Having the technology to provide in integrated view of all customer interactions and changing the corporate culture to leverage this information to maximize the benefits to the customer and the company."

ACCORDING TO PETER COFFEE "For buyer and seller both, CRM enables a return to win-win thinking, transforming information into services that can lower the buyer costs without erasing vendor's profits."

The various dimensions of CRM are:

E-COMMERCE

It is not only a transaction but it is customer service which duplicates the store-shopping experience through internet. It joins all the customer to a central point. The web-based buying and selling experience of shares, good and commodities have become successful through e-commerce.

On the other hand e-commerce lacks the personal contact quality with the customers. Most of the e-commerce based companies lack both audio and video. If this combination is present then it can cover the communication gap. CRM fulfill this gap. Most of the customers do not read web-page word by word. They only read the bold and highlighted words. If they click on an icon then they will be in direct connection with the live agent of company for their further assistance. To make this possible to the finest level multimedia standards, real time protocol (RTP) and digital audio have to be maintained in the proper and perfect way.

WAP MAIL SERVICE AND SHORT MESSAGE SERVICE FOR MOBILE

Wireless Application Protocol (WAP) like pager, walky-talky for audio messages and short messages through internet to various mobiles plays an important role in customer relationship management. Due to high mobility and multi functions property of mobiles it is very useful device. Any store can invite the people and old customers at clearance sale and discount sale by sending them short messages.

Wireless internet infrastructures emerge in 1997. WAP has played a key role in the inception of wireless internet. Due to this universal access of information has become possible. Wireless handheld device screen are small, therefore the information size should be tears down for such devices. Because long information's and fancy pictures cannot be displayed on the small screens.

WAP Protocol structure shows the five (5) different layers in which WAP gateway does most of the jobs. The basic element of WAP protocol is the structure which is similar to pages in HTML document.

SMS (Short Message System) is very useful to send the message to mobile users. Initially it was restricted to GSM mobiles only. But now it is possible in CDMA also. In north Europe SMS is widely used and even users are ready to pay for the service. Users are having drink from vending machine by sending the SMS. For this they are charged on their mobile bills. Now a day in India also many AC users are switching on the AC before reaching the office or home through SMS. People are using mobile phones to control the garage gate. There are different varieties of services for users. Whatever services are useful for the people for that they are ready to pay. SMS are of two basic types. They are

(1) One-way (2) Two-way

In one-way SMS just information is passed by the users. Whereas two-way SMS the result of passed information is send back to users.

The above argument shows that CRM can be handled by the SMS. Wireless internet with CRM supported should improve customer service and boost productivity and increase operation efficiency. It helps in financial services, health care, transportation, Enterprise resource planning (ERP) and customer relationship management (CRM).

When a person submit the form in municipality office or e-seva centers for his child birth certificate / income certificate / caste certificate / residential certificate then immediately he receives the SMS in his mobile regarding submission and registration no. Of form. After the required enquiry when certificate is printed in municipality office then again the person gets SMS that his/her certificate is ready and he/she can collect it. This complete system shows CRM through SMS.

E-BUSINESS

In 1998 there were 55 billion online sales, whereas in 1999 I was 145 billion. But by the end of 2005 it increased to \$3 trillion. This big change becomes possible due to electronic commerce (EC). E-commerce has become very common due to high performance and cost effective technology. Now there are many web sites like amazon.com and del.com for web shopping. Even commodities are less priced by the companies in which mediators i.e. wholesaler and retailer charges are not included. High performance and cost effective integrated circuits (IC) made affordable web services even for middle class people. People are deviating from the traditional commerce and taking the advantages of information system (IS). Day to day SDMs are developing new business models to exploit the full potential of electronic commerce (EC).

In e-business system there are five basic building blocks.

- (1) An electronic storefront (e-store).
- (2) An automatic order management system.
- (3) An automatic scheduling system.
- (4) A product customization process.
- (5) A network core business functions.

These basic building blocks play the role in CRM and it becomes customer centric e-business model. In the all above semiconductor industry is very important due to which high performance ICs are vital.

E- BUSINESS ENVIRONMENT

The e-business environment emerged due to high expectations of customers. With the rise in the expectations the companies started working more on it. Cable and telephone companies have aggressively improved their infrastructure and they succeeded in providing digital broadband communications. Now they are providing new services to the customers by upgraded facilities. Both the incumbent and competitive local exchange companies are offering DSL high speed digital service.

There are seven (7) market drivers for the telecommunication companies which makes them to think of their present style of doing business and how to improve it.

- (1) Rising customer expectations.
- (2) Deregulation.
- (3) Consolidation.
- (4) Convergence.
- (5) Technology innovation.
- (6) Economy viability.
- (7) Accelerating demand for bandwidth.

To meet above challenges companies need huge investment. The investment should not be too large that the services become costly. It is to avoid the cut throat price competition. Most of the investments are used in technology innovation.

More expectations generate more environments which lead to innovation of sophisticated technology and can be affordable by everyone. In this way a firm, company or an organization interacts the people easily and vice versa. This is customer relationship management software application captures the customer interactions which are provided by CRM. Business analysis and competitor analysis leaded by marketing campaigns and database marketing. The database which is used by the service people in the company is used in pre-sales and post sales opportunity management, account management, activity tracking, forecasting and sales reporting etc. comes under pre sales information which is stored in same database. After the close of sale or close of customer contact with company the post sale process start in which order entry, provisioning implementation services, service activation, billing, incentives, compensations and sales reporting comes. The up sell and cross sell opportunity is present always whenever customer contacts the company. The existing customers can demand for the promotion of new service offerings through a customer service representative (CSR). It is possible if the customer's data is present with the company.

Billing inquiries, service trouble and orderings are more with telecommunication companies via internet. Most of the customers regularly encounter the problems while trying to conduct online business.

During the customer care, service delivery and operation processes there are many challenges associated to these like

- > With the challenge of legacy i.e. front-end and back-end, business operations are inefficient and costly.
- Customer expectations are high.
- High investment of time and many on unprofitable and low value customers.
- Customer acquisition is costly.
- Most of the business models are product centric instead of customer centric.

These challenges are addressed by CRM transformation and CRM implementation. CRM software enhances the customer facing portion. The transformations become successful only in the corporate culture.

THE CRM TRANSFORMATION

1. Become functional. 2. Gain operational excellence. 3. Mass customization. 4. Achieve customer intimacy.

Source: IBM Global Service

These are the four different aspects of the transformation. For a new organization, the CRM must address all four aspects of the transformation. Each aspect provides an input to organization design.

Customer needs and desires can be responded by multi channel approach of CRM and even customers can be distributed based on their value. Lower cost channels are provided for less valued customers and higher cost channels are provided for more valued customers. The possible channels for CRM are

- 1. Web
- 2. IVR (Integrated Voice Response)
- 3. CSR (Contact Center Representative)
- 4. Email
- 5. Direct mail
- 6. Direct sales force
- 7. Direct retail
- 8. Indirect retail
- 9. Fax
- 10. Field service
- 11. Interactive TV.

ELECTRONIC CRM

One of the first applications of eCRM has been is call centers. Multimedia technology provides more effective sales and customer services. Web collaboration, text chat and Voiceover Internet Protocol (VoIP) telephony are multimedia technologies, which are integrated with conventional voice only call centers. The internet call Manager provide the service between the Web callers and existing call center system.

Web services are also a model for eCRM. These services are internet applications which perform the particular tasks to carry out the business transactions. Web services operate in a language i.e. HyperText Markup Language (HTML) and data exchange occur by using eXtensible Markup Language (XML). XML provides a framework for creating HTML.

CRM PROCESS MAPPING



The process and people gap should be analyzed first. In chosen groups, mapping can be done in parallel stream. CRM priorities always remain for the corporate world. The eCRM market is still young. Still high quality multiple channel services are required for corporate world to provide more mature and feature rich solution.

DATA MINING

Data mining technology plays an important role in the formulation of business strategies for different customer bases more precisely. Many of the high complexity problems are solved by using an emerging technology of computational intelligence. With the population of e-commerce the electronic means are also gaining importance.

As computer use started in the business field to store data, then a new approach of assigning navigation through the data base evolve in data mining technology. Purpose of data mining in businesses is to help in the extraction of required, important and useful information from stored large database. In this previous known situations are used to build a new model and which is applied on unknown situations.

Customers are different with each other in many aspects. Even in sub small groups customers need to be identified as individuals. It is due to personalization. Data mining not only helps in the interest finding of small groups but it also helps to find out the interest of an individual. Lack of customer focus and less adaptation of their unique requirement results in dissatisfaction of businesses with the current CRM. It can be solved by data mining. Data mining formulate specific customer focused strategies more easily and scientifically. It can enhance the understanding of different components of customer value. Customers are sub-divided into segments. First customer segments should be identified for the relationship enhancement. In marketing research it is known as market segmentation. In each segment there are many heterogeneous groups in which each group is cluster of many homogeneous groups. Then the homogeneous groups comprises of many individuals. In CRM customer base segmentation of market is prepared. To understand a customer the relevant data must be analyzed. Thus data mining is the intelligence behind a successful CRM strategy. Data mining is of two main types.

The second se	DATA MINING	
Descriptive	predictive	

It generates information about data.

It predicts the future information based on previous data.

The data mining solutions can be implemented successfully in the following five (5) steps.

- 1. Setting goals.
- 2. Data collection.
- 3. Data preparation.
- 4. Analysis and prediction.
- 5. Measurement and feedback.

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To study the wants and needs of the customers from the past and existing customer's first knowledge is collected for a data mining model. Then customers are segmented within the data warehouse which makes possible to identify smaller subsets. The subset data pool is more homogeneous in each segment which is more suitable for target analysis. There must be two data warehouses, on to maintain the customer profile and another to store the information about products or services provided by the company. Based on same basic rules a data analyst should match the products from a segment to prepare the data marts.

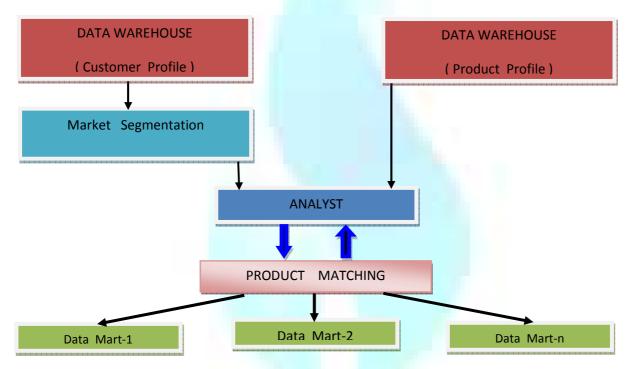
Based on data mining customer value increases. CRM is product centric to customer centric. In CRM customer value is also equally important as customer segmentation. Marketing management is most important in today's competition. Business management evolved from product centric to a market centric, to the current customer centric process of dynamic change. The success deciding factor of any company is to develop and maintain the clients. It is customer focused management philosophy. CRM is based on customer respect and customer life cycle understanding and company enhance the more efficient services for customer satisfaction and loyalty. CRM is a new concept of precision marketing. It emphasis on analyze the dynamic point of view changes in customer demands.

Customer segmentation is the base of any effective customer relationship management and it is the core concept of CRM. Even though segmentation is meaningful to a company's management, but cannot answer some of the important issues of CRM to which customer is more valuable.

Business to provide superior customer value capacity is considered the most successful. Customer value is a tactical marketing and strategic issues. According to Kenichi Ohmae "the strategy based on customer value will be a non-zero-sum game."

Many companies treating the marketing as business discipline and taking scientific approach for it. Companies are applying more sense to capture, analyze and manipulate the customers data to resonant with customers specific wants and needs. This process is called precision marketing. It evaluates the segment deeply and treats different customers with different marketing models to meet their specific wants and needs. According to GAO JIE of Shanghai University precision marketing can be regarded as a "solder uncertain situation, the water has no fixed form."

DATA MINING FOR THE CRM MODEL



EDUCATION

CRM is the term which covers almost all the mode of customer interaction. If enables the companies to acquire more knowledge of their customer to improve the business. Educational institutes, universities and research institutes also need to cater to the needs of their clients. Their directions of relationship are general society, students, researchers, collaborates and government etc. CRM provide an environment to manage all kinds of relationships in various scenarios. The concepts of CRM emerge with the customer centric thoughts of business. They need to have the profile of customers. It is easy with small no. of customers. By knowing customers well the businesses could avoid financial wastage. They will not stock the product and will not develop such services which are not demand by the customers.

In olden days there was communication gap between company and client. But in the mid 80s direct communication path with the client was developed via mail and phone for which specific data was not available to reply the customers. After words with the development of technology the data storage become possible which help in replying the specific client. Their strategies got the name of CRM.

Educational institutes, universities, colleges and research institutes are generally non-profitable organizations. Often it is assumed that for such organizations client satisfactions do not need to be adopted. But for the success to the peak level and accreditation of "A" grade, such organizations do also need to attempt the client satisfaction. In such organizations there is scientific environment, innovations and high quality standards are present. To maintain all this CRM plays on important role.

The survival of any research institute is mainly based on financing of research. In most of the cases it is done by the government. For every need and satisfaction is use of money then the financial aid will not be sufficient. If there are proper relationships of an educational organization with other necessary organizations then needs can be achieved even in less expense. The time gap is also a problem for the universities. If they have the complete information of their students and researchers then thy can overcome this. A scientific CRM contribute to

- 1- Formation of research groups.
- 2- Creation of successful partnerships.
- 3- Keeping the contact among professionals and the institutions where they had studied.
- 4- Identification of new possible relationship and
- 5- Through time, the fortification of profitable relationship among others.
- All these create a healthy completion among the educational institutes.

As in the business customer centric strategies are needed, similarly customer has a prominent space in the scientific environment. In educational organizations the types of customers are

1- Students.

- 2- Collaborates
- 3- Institutions.
- 4- Researchers.
- 5- Teachers.
- 6- Society.

The types of relationships for the scientific environment customers are

1- Class

- 2- Evaluation of quality of education
- 3- Evaluation of the institution
- 4- Evaluation of the professional
- 5- Collaboration
- 6- Consultant
- 7- Co-supervising
- 8- Employee 9- Training
- 10- Financing of research projects
- 11- Education
- 12- Supervising
- 13- Partnership in academic works
- 14- Partnership in research project
- 15- Participation on thesis examination
- 16- Participation in research projects

Managing the above customers and relationships is the scientific CRM. It improves the quality of educational organizations due to which a quality output is possible.

The CRM plays the role even in adult education. In adult education the CRM requirement is more than the education of a regular student. If a person does not meet his/her goals based on present knowledge and education, he/she desire to study more. In such cases there are less chances of deviation from the goal. Because adult always dream to meet their requirement as early as possible. Therefore they need goal oriented studies, for which an institute or educational organization require to have perfect plan. In that case the major role of CRM starts.

In a company private/govt. organization for the up gradation of employees knowledge orientation training programs are conducted with the collaboration of organization and training providing institutes. If the institute to have CRM the degree of success of training program increases. The objectives of training institute to implement CRM to achieve maximum balance between adult's requirement value and training benefits so that they can achieve "win-win" of adults and training institutes.

In the same way CRM implies on distance education, which fulfill the requirements of non-formal students in distance mode, through contact classes or online program. The directorates for distance education use CRM to more extent to inform the students at every occasion through transformation of information with mode of mail.

POWER SUPPLY ENTERPRISES

The end users of power and alternative energy sources exert a great pressure on power supply industry. By applying CRM the industry can overcome the pressure, through which they can discover the effective solutions from the customers' feedback. The common existing issues of power supply enterprise are analyzed to put forward the practicing CRM with the assistance of modern management system. To integrate the enterprise resources CRM is strengthen which promotes the core competitive ability of the enterprise and leads to sustainable development.

Traditional marketing modes are facing severe challenges. It is sue to the quick knowledge development of the customers and the improvement in their economy. "Customers are God" comes true in the present world. For any company the customers are the most important resources. To maximize the benefits of company it is must to provide perfect customer services by deep analysis of the customers. This can satisfy the demand of their customers and realize the maximization of benefits.

Earlier the power industry was in monopolization state. But now power supply companies not only face the pressure from suppliers of other energies, it also has threat from other power selling companies, retailers and even independent power plants. Like other public industries the power supply companies should come into CRM in their marketing. The Pharmaceutical, Hospital, Star hotels and manufacturing industries etc. are the big retailers for power supply enterprises. The meeting of their wants and needs from a power supply company make them to retain. Otherwise they look for other alternatives. Always up gradation in the services according to the requirement of customers leads to the retention. General problems with the power supply companies are,

- 1. Lack of "human care" during the electricity marketing process and of customers.
- 2. Ignorance of right to learn the truth of their customers.
- 3. Partition of target customers by user's quality and voltage.
- 4. Demographic partiality.

In power supply enterprises CRM implementation can be obtained by adopting the following factors.

- 1. Improving the supply chain of services.
- 2. Improving customer satisfaction.
- 3. Improving customer loyalty.
- 4. Cut the cost of services.
- 5. Innovation of marketing concept.
- 6. Designing the CRM system.

Unless there is no proper supply system of electricity, the production is not useful, for which a perfect supply system is needed. To improve the supply system and leading the position as supplier, installation of quality equipments, systems and services in the field of conversion is required. The values for supply system must be

- ✓ Meeting commitments made to external and internal customers
- ✓ Foster bearing, creativity and speed of response
- ✓ Respect for dignity and potential of individuals
- ✓ Team paying
- ✓ Zeal to excel
- ✓ Integration and fairness in all matters

For the goal of CRM customer satisfaction is necessary. Some comments about the customer satisfaction are,

Philips Kotler, who is the very famous scholars in marketing, said in 1994 that satisfaction is a level of persons' feelings which derives from the compare between the imagined results and output of a product and people's expectation.

Richard Oliver(1997) defines satisfaction as follows: satisfaction is the feedback of customers'

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content, which is the appraise of products and services themselves, it has given or is giving a level of happiness related to customers' satisfaction, whether it's lower or higher.

Domestic scholars YongXin Wang and Yi Wang (1994) defined customer satisfaction as the degree of happiness experienced by customers briefly and directly, they also emphasized the prominent influence of customer satisfaction on the profits of companies.

Based on above comments it is necessary to meet the expectations of customers to improve the business. The faithfulness of customers to companies called loyalty of customers. The proper CRM improves the customer loyalty which has close relation with customer satisfaction. Retaining of old customer is easier than the attraction of new ones. The percentage (%) of profit depends on the loyalty of customers. Even less increase in the loyalty of customers maximizes the profit of the company. 60% of new customers are introduced by the old customers due to their loyalty towards the company. As Americans are famous for recognition of feelings of people, we should design corresponding modes in CRM system, by taking advantage of

Information of customers, we should send gifts and regards to VIP customers to please them. By providing long term and outstanding services the company should develop customer satisfaction, which leads to loyalty of customers.

Cutting cost is also one of the marketing strategy in power supply industry. By the integration of scattered information in different sections of company there may be quick responses to demand mechanism.

Customers are the most important resources in power supply companies. It creates the CRM concept in the companies. CRM improves the relationship between power supply power supply companies and their customers. The power supply companies must deviate from the old traditional marketing conceptions.

The use of CRM software and marketing transform conception are keys to successful implementation of CRM. The emerging of power supply company management system is due to the development of Internet and computer technology. CRM in power supply companies includes Customer Information Management (CIM), Customer Service Management (CSM), Marketing Management (MM), and Grand Customer Management (GCM). Based on different functions the CRM is divided into following three (3) types in power supply companies.

- 1. Operative CRM System To realize share of customer resources and to improve working efficiency of employees.
- 2. Annalistic CRM System It includes data digging.
- 3. Cooperative CRM System Communicates the information between companies and customers.

SUCCESSFUL PRACTICES IN CRM

Study of customer relationship management is not sufficient to improve the business strategy of any enterprise, company and industry. Unless CRM does not come in practice, there is no use of data collection and data maintenance. For effective CRM by data mining the data should be analyzed to achieve proper and perfect results. The probability of customer satisfaction and customer loyalty increases with the practice of CRM in production and service industries. Success of products and services of an industry mainly based on the successful practices of CRM, which initially emphasize and analyze the data mined and then rule forming for the CRM in current situation and finally practiced. For the goal oriented practices in following things has to be done by the company.

- 1. Collection of customers data.
- 2. Collection of present products and services.
- 3. Maintenance of collected data in data warehouse.
- 4. Mining of required and specific data from data warehouse.
- 5. Analyzing the data.
- 6. Improving the products and services based on data analysis to achieve the customer satisfaction.
- 7. Acknowledging the production of improved products and services to the customers who enquired about such products and services in the past.
- 8. Informing the old and new customers about the new products and services.
- 9. Adopting various and appropriate modes of marketing.
- 10. Announcing the incentives and cost cutting at different occasions.
- 11. Providing guaranty and warranty of products for some period of time.
- 12. Provision of cost cutting on repetition of services from a service industry.

RESEARCH AREAS OF CRM

Inquiry and careful search of any information of anything in any field is research. Twentieth century ends with revolution of science and technology and twenty first century starts with the zeal of further new technology development. Customers are most important in business for its improvement, therefore any company need to attain the customer satisfaction by adopting various modes. Firstly there must be good and strong relationship with the customers for their satisfaction and loyalty towards the company, which develops with the heart winning services.

As in North Europe SMS services play a big role in buying the soft drinks from the vending machines, it can also be applicable in other countries of the world. But there is need to develop such environment by the study of economical conditions of the customers and the taste and interest of the people. For the application of such practices in the other parts of the world, it requires to do the research in CRM.

In most of the shopping malls and hypermarkets there is more rush at the cash counters particularly on the weekends. Some time it becomes very difficult to control the rush, even the number of cash counters are more. With the invention of bar-code reader trolleys, super malls and hypermarkets can overcome this problem. As the customers pick items from racks and put them into the trolley, immediately bar-code reader of trolley should read the code of item and should display the cost and name of the item on the digital screen of trolley. Before taking the exit of customer, the total amount should transfer to the mall from the customer with the help of customers mobile. By providing good and effective services it saves the time of customers.

Now a day's medical and hospital services are becoming a big industry. CRM in hospitals and medical services plays a vital role in its success. Particularly the metro cities of India are becoming medical hub. It is due to maintenance of good and perfect CRM by the hospital industry. Patients and their attendants are like customers for hospitals. But still further improvement of CRM is needed for the growth of industry, which can be achieved by doing the research.

In context of booking LPG gas cylinder even now most of the countries have manual system. If they offer online booking system then also it is not so effective to the level of customer satisfaction. Further research in this field can put forward the more effective system by sending SMS and short messages and the booking no. can be received through acknowledge message from gas company.

In future, research has to further assess our results. More details are needed to conceptualize CRM integration in a way that can be applied to practice. Case study research can help to obtain a better view of real life challenges and help to find the set of questions for further quantitative research. The systematic assessment of the questions relating to which theories of the firm support which parts of the CRM integration model provides a logical next step. Finally, there is room for further investigation in CRM.

FUTURE SCOPE OF CRM

CRM emerge and enhance in early nineties and develop to maximum extent in the present situation. With the current uses and benefits of CRM it looks that in future it will play the key role in every field of life. As "Customers are God" come true in the business and customer relationship management got the prominent position, similarly in future CRM will occupy the further high and base position in every business. The transactions will become so easy that one can save the maximum time of bill payments of services and products. As CRM is not only a set of software and technology, but also a management concept, therefore its scopes will increase with the development of software, invention of technology and improvement in management skills.

CONCLUSION

According to Howard Berg, (4) "Corporate investment in customer relationship management (CRM) products and services shows no signs of a slowdown. In fact, it would be hard to find a CEO of a Global 2000 company who isn't consumed by improving customer relationships. . . . Implementing CRM is tough, particularly for companies looking to integrate all points of customer contact with the Web."

True, CRM will significantly improve customer interactions, reduce operations costs and grow revenue by providing more cross-sell and up-sell opportunities. CRM is as important that it is widely used in every direction of the business. Data collection and its maintenance is the bases for CRM implementation. Its role in e-commerce is to duplicate the store shopping experience on internet. In WAP mail services and short message services for mobile plays a vital role in sudden and outdoor shopping of customers and passing the merge information to many customers at a time. Due to high performance and cost effective technology e-commerce is very common in e-business due to which online sale increased to maximum extent. This environment generated to fulfill the high expectations of customers. Emerge and enhancement of call centers is due to CRM technology. Multimedia technology provide more effective sales and customer services. Business strategies are derived based on data mining technology. CRM is the initiative for data collection, maintenance and mining technology. Even it gives the solution for many high complexity problems.

In power supply industry, textile industry and also in manufacturing industry there is broad role of CRM. Here made its own place by vanishing the old traditional marketing methods. Educational institute and universities are of the people, for the people and by the people. Use of sophisticated technology in Universities and Research Institutes (URIs) minimize the administration time and maximize the satisfactory facilities to students.

REFERENCES

- 1. "Epicor Announces CRM Application on Microsofi .NET Platform," TMCnet.com, May 23,2002.
- 2. "Staying Ahead of the CRM Curve," CIO, 2000.
- 3. Aberdeen Group, "Salesforce.com Providing the CRM ASP Model," April 2002.
- 4. Carothers, Michael, "Integrating Contact Center Channels," Customer Solutions, August 2002.
- 5. Charles Waltner, Putting On A Show Special To Interactive Week, Interactive Week, May 21,2001
- 6. CRM in E-commerce a call center solution, Kelechi Ohaegbu and Satinderpaul **S.** Devgan, Department of Electrical and Computer Engineering, Tennessee State University
- 7. Customer relationship management in an e-business environment, walton 0. anderson, jr.
- 8. Customer Relationship Management in Universities and Research Centers, Proceedings of the 2007 11th International Conference on Computer Supported Cooperative Work in Design
- 9. Eisenfeld, Beth and Denashish Sinha, "CRM Services Market Size and Forecast, 2001- 2006," Gartner, Dataquest, March 13,2002.
- 10. Eisenfeld, Beth and Denashish Sinha, "Strategy Remains Key for CRM," Gartner Dataquest, April 11, 2002.
- 11. ETSI, "Alphabets and language-specific idormation (GSM 03.38)," http://www.etsi.orgl
- 12. ETSI, "Technical realization of the Short Message Service, http://www.etsi.orgl
- 13. Forrester research, "e-Commerce Integration Is a Seller's Market", December 1999. http://www.forrester. Com
- 14. H. Schulzrinne, S. Casner, R. Frederick, and V. Jacobson RTP: A Transport Protocol for Real-Time Applications, RFC 1889, Jan. 1996. http://www .pcdr .com/support/CIE/RFC
- 15. Howard Berg, "Avoiding the Stress After CRM Installations", Berkley Enterprise partners, January 15,2001
- 16. International Engineering Consortium, "Internet Telephony Tutorial", February 2000. http://www.webproforum.com/wpf-all.html
- 17. K.W. Wong, B. Griner, W.R. Dillon, and T.D. Gedeon, "Intelligent Data Mining for Customer Relationship Management," Australian J. of Intelligent Injormafiun, Processing Systems, vol. 7, no. 1/2, pp. 64-71, 2001.
- 18. Nokia, "Nokia WAP on Web," http://www.nokia.com/wap/ Emcsson, "Ericsson WAp" http://www.ericsson.com/WAP/
- 19. O'Conner, Arthur, "E-CRM: The Good News and the Bad News," clickz.com, February 2 1,2002.
- 20. P. M. Clarkson, "Optimal and Adaptive Signal Processing", CRC Press Inc., 1993.
- 21. Peter Coffee, "E-CRM: Making the Customer King?", eWEEK, p. 39,2001 Volume 18, Number 20, May 2 1,2001
- 22. Phone.com, "Phone.com," http://www.phone.com/
- 23. Read, Brenda, "Special Report: The Outsourcing Alternative," Call Center Magazine, November 5,
- 24. Seybold, Patricia, "The Five Waves of CRM," Customers.com, March 7,2002.
- 25. Sun Microsystems, "Java 2 Enterprise Edition Technology Center", http://developer.java.sun.com/developer/products/j2ee/
- 26. Sun Microsystems, "Java 2 Standard Edition Technology center", http://developer.java.sun.com/developer/products/j2sel
- 27. Sun Microsystems, "Java Mail MI," http://java. sun.com/products/javamaillindex.html
- 28. Sun Microsystems, "Java Message Service," http://java. sun.com/products/jms/index.html
- 29. Sun Microsystems, "JAVA Telephony API (JTAPI)" A White PaDer October 27, 1997., http://j ava. sun.com/products/j tapi
- 30. The CRM Report, May 17,2001
- 31. Trillium Digital Systems, Inc. "H.323 Tutorial", November 1996. http://www.webproforum.com/wpf-all.html
- 32. WAP Forum, "Wneless Application Protocol Architecture, Specification", http://www.wapforum.orgl
- 33. WAP Mail Service and Short Message Service for Mobile CRM, Kevin H.W. Shen and Daniel C.H. Lee, Momowa Mobile Internet Service.

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