DISSERTATION
ON

STUDY ON EFFECTIVE CRM SYSTEM IN COLLABARATION WITH IT

AT
JAYPEE HOSPITAL

UNDER THE GUIDANCE OF

Dr. A. K. KHOKHAR

SUBMITTED BY

Dr. ARPITA SRIVASTAVA

PG/13/007

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT & RESEARCH

Internship Training

at

Jaypee Hospital, Noida

Effective CRM system in collaboration with IT at Jaypee Hospital, Noida

by

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Under the guidance of

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The certificate is awarded to

Dr. Arpita Srivastava

In recognition of having successfully completed her
Internship in the department of

Hospital Operations Department

and has successfully completed her Project on

Effective CRM system in collaboration with IT at Jaypee Hospital

28/05/2015

Jaypee Hospital, Noida

She comes across as a committed, sincere & diligent
person who has a strong drive & zeal for learning

We wish her all the best for future endeavors

Pooja Chauhan

Human Resources

Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Arpita Srivastava,** a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. She is submitting this dissertation titled "Effective CRM system in collaboration with IT" at "JAYPEE HOSPITAL" in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Dr. A. K. Khokhar
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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Arpita Srivastava student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at Jaypee Hospital, Noida from February to April.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Dr. A.K. Agarwal
Dean, Academics and Student Affairs
IIHMR, New Delhi

Dr. A. K. Khokhar
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Certificate Of Approval

The following dissertation titled **"Effective CRM system in collaboration with IT"** at **JAYPEE HOSPITAL** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation **Effective CRM system in collaboration with IT at Jaypee Hospital** submitted by Dr. Arpita Srivastava Enrollment No. PG/13/007 under the supervision of Dr. A.K. Khokhar for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from February. to April embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

FEEDBACK FORM

Name of the Student: Arpita Srivastava

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ABSTRACT

- Healthcare is implementing CRM as a strategy for managing interactions and communication with patients which involves using Information and Communication Technology (ICT) to organize, automate, and coordinate business processes. CRM with the Web technology provides healthcare the ability to broaden service beyond its usual practices, and thus provides a particular advantageous environment for them that want to use ICT to achieve complex healthcare goal. This paper will discuss importance of technology in CRM and how will it help the healthcare increasing their customer support, and promoting better health to patient. The patients benefited from the customized personal service so that they have full information access to perform self-managed their own health and the healthcare provider will have a loyal and retains the right customer. A conceptual framework of approach will be highlighted. Customer centric paradigm in social network's era and value creation of healthcare' business process will be taken into consideration.
- The study "Effective CRM System" first focuses on implementation and analysis of current requirements for an effective CRM at Jaypee hospital. Secondly it focuses on how Management Information System implementation can be helpful in representing the basis for improvement of relationship with customers, better information deployment of employees and better strategic decision. Main goal of the study is to collaborate Information Technology to CRM which contribute to the larger success of the organization.

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It is my radiant sentiment to place on record my best regards, deepest sense of gratitude to my Husband, my parent, my brother, and friends for their careful and precious guidance which were extremely valuable for my study both theoretically and practically.

I perceive as this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to attain desired career objectives. Hope to continue cooperation with all of you in the future.

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CHAPTER 1
INTRODUCTION

INTRODUCTION

Customer relationship management (**CRM**) is an approach to managing a company's interactions with current and future customers. It often involves using technology to organize, automate, and synchronize sales, marketing, customer services and technical support.

Characteristics of CRM

- Relationship management is a customer-oriented feature with service response based on customer input, one-to-one solutions to customers' requirements, direct online communications with customer and customer service centers that help customers solve their issues.
- Sales force automation. This function can implement sales promotion analysis, automate tracking of a client's account history for repeated sales or future sales, and also do-ordinate sales, marketing, call centers, and retail outlets in order to realize the salesforce automation.
- Use of technology. This feature is about following the technology trends and skills of value delivering using technology to make "up-to-the-second" customer data available. It applies data warehouse technology in order to aggregate transaction information, to merge the information with CRM products, and to provide KPI
- Opportunity management. This feature helps the company to manage unpredictable growth and demand and implement a good fore casting model to integrate sales history with sales projections
- CRM in developing and maintaining client relationships.
- Increasingly CRM is expanding outside of the core sales and marketing areas and systems are available that incorporate support and finance data also into the CRM view that a user gets, enabling a wider holistic view of a customer from one screen for a user.
- Customer relationship management systems track and measure marketing campaigns over multiple networks. These systems can track customer analysis by customer clicks and sales.

Implementing CRM in a hospital

The following are general guidelines on implementing a CRM system.

1. Make a strategic decision on what problems you want your CRM system to address, what improvements or changes it should bring in the business processes of the organization.
2. 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.
3. Ensure executive sponsorship and top management support.
4. Empower team members with the required authority to complete the tasks.
5. Select the correct implementation partner. They must have both vertical and horizontal business knowledge, as well as technical expertise.
6. Define KPI's that will measure the project's success.
7. Use a phased approach. Work towards long-term enterprise-scale implementation through a series of smaller, phased implementations.

The Impact of Implementing CRM System on Customer Satisfaction

According to Bolton's work, Customer satisfaction has significant implications for the economic performance of firms. Because customer satisfaction has been found to have a negative impact on customer complaints and a positive impact on customer loyalty and usage behavior.

The benefits of implementing CRM are many, for example,

1. Increased customer loyalty may increase usage levels
2. Secure future revenues
3. And minimize the likelihood of customer defection

History of CRM

CRM hasn't always been the robust, stand-alone software that so many businesses rely on today. Over the past four decades, it has evolved out of a variety of other business programs. During that time, the CRM industry has undergone sea-changes and shakeups that could have derailed the entire concept.

The 1980s: Digital Rolodexes and Database Marketing

Pioneered by Robert and Kate Kestnbaum, database marketing collected and analyzed customer information. Using statistical modeling, that data was then used to help customize communications with other potential customers.

In 1986, ACT! Introduced the business world to contact management software. Essentially a digital rolodex, ACT! Allowed for the efficient storage and organization of customer contact information. Goldmine and other vendors also released CMS programs throughout the 80s.

Near the close of the decade, the proliferation of personal computers and the advent of server/client architecture paved the way for an explosive growth in software development.

The 1990s: Birth of an Acronym and Growth of an Industry

The beginning of the 90s brought the first major step toward true CRM software. Early innovators like Brock Control Systems helped push the evolution of contact management software toward sales force automation (SFA). SFA took many of the features of database marketing, automated them, and combined them with contact management. This provided businesses with much more useful customer information. It also automated business tasks like inventory control, and sales tasks like customer interaction tracking.

In 1993, Tom Siebel left Oracle to create Siebel Systems. While at Oracle, Siebel tried unsuccessfully to convince CEO Larry Ellison to package and sell their internal sales application as a standalone product. Siebel Systems quickly became the leading SFA provider on the market.

By 1995, SFA and contact management had evolved to closely resemble modern CRM software. However, this emerging product still didn't have a proper name. A number of terms like enterprise customer management (ECM) and customer information system (CIS) were in use. By the end of 1995, CRM won out. Some attribute this to the technology research company Gartner, while Tom Siebel is also named as a possible source. Either way, the CRM industry finally had a name.

The last half of the decade brought huge changes to the CRM industry. Enterprise resource management (ERP) vendors like Oracle and Baan entered the CRM market, hoping to use their size and ERP in-roads to dominate the industry. Unlike other software companies that were transitioning to CRM, SAP entered the market with the sole purpose of capitalizing on emerging applications. All of this competition pushed CRM vendors to provide a broader suite of services. More marketing, sales, and service applications were added to CRM on a near-constant basis.

1999 was a busy year for the CRM industry. A number of notable, high-value acquisitions consolidated the overall market, while emerging e-CRM vendors provided fierce competition.

Using intranet, extranet, and internet, e-CRM vendors offered a level of intra-organizational collaboration that hadn't previously been available in the CRM industry. CRM also made its first foray into the mobile market, with the introduction of Siebel Handheld.

The 90s came to an end with the debut of the first major Software as a Service (SaaS) vendor. Geared toward smaller businesses, Salesforce was initially ignored by larger vendors. Under the leadership of Mark Benioff, Salesforce eventually grew to rival CRM industry giants like Siebel Systems.

The 2000s: From Near Death to Floating On Clouds

Like most software industries, the CRM industry was hit hard by the bursting of the dot-com bubble. The entire industry retracted, with giants like Oracle reporting license losses of more than twenty-five percent. Due to a reluctance to use "dot-com" technologies, e-CRM vendors were hit the hardest.

In the early years of the 00's, Paul Greenberg's book "CRM at the Speed of Light" suggested a more comprehensive CRM system that manages all business relationships. By the end of the decade, this became the common thinking across the CRM industry.

Through the middle of the decade, interoperability with legacy software became more important. Software giant Microsoft entered the CRM market with Dynamics CRM, and Oracle acquired Siebel and numerous other enterprise application vendors.

In 2007, Salesforce created the next big change in the CRM industry. Force.com introduced the world to cloud-based CRM. Force.com addressed the criticism that cloud-based applications weren't customizable.

Social CRM exploded onto the market with the introduction of Comcast Cares—an application that focused more on interaction than transaction. Most large corporations quickly followed Comcast's example, solidifying the place of social CRM.

Through the end of the first decade, and up to the present day, cloud-based and SaaS CRM solutions continue to integrate more features like customer service and social CRM. Cloud-based and SaaS CRM solutions continue to gain popularity, largely due to their lower initial cost and easy integration with mobile devices.

Importance of CRM in Healthcare Industry

In today's market, the medical industry is finding the need to know more details of the patients so that they can provide efficient service to them.

With all the patients history, medical records, present medication or any tests performed it is even better to respond to the patient's present complaints. Healthcare industry has now found **CRM** the most effective way of handling the medical records.

Millions of patients contact the hospital every day through phone, email or fax as well as direct visits. All these increases the need to have a system in place to keep a track of everything and record each information of the patient.

CRM in healthcare sector helps to reduce operation costs, reduces errors and facilitates better relationships with patients.

CHAPTER 2

COMPANY PROFILE

ABOUT JAYPEE HOSPITAL

Jaypee Hospital at Noida is the flagship hospital of the Jaypee Group, which heralds the group's noble intention to enter the healthcare space. This hospital has been planned and designed as a 1200 bedded tertiary care multi-specialty facility and has commissioned 525 beds in the first phase.

The Jaypee Hospital is constructed across a sprawling twenty-five acre campus in Sector 128, Noida which is easily accessible from Delhi, Noida and the Yamuna Expressway. The plan, design and construction of the hospital positions itself amongst very few LEED certified hospital buildings in India.

The Jaypee hospital is established on the following fundamental principles:

- Patient centric high quality care
- Evidence based medicine
- Ethical treatment
- Value for money

Vision

Promoting healthcare to the common masses with the growing needs of society by providing quality and affordable healthcare with commitment.

Mission

The Jaypee Group is committed to building Jaypee Hospital as a super-specialty hospital with advanced healthcare facilities, the latest diagnostic services and state-of-the-art technology focused on medical specialties that meet the healthcare needs of the population. The Jaypee Hospital will be the ultimate choice for medical care.

Core Values

- **Quality:** Jaypee hospital maintains the highest standards and achieve them by continually measuring and improving outcomes

- **Innovation:** Jaypee hospital welcomes and encourages change and continuously seek better and more efficient ways to target success

- **Teamwork:** Jaypee hospital collaborates and share knowledge, for the advancement of the mission
- **Service:** Jaypee hospital strives to exceed their patients and fellow colleagues expectations for comfort and convenience

- **Integrity:** Jaypee hospital adheres to the highest moral and professional standards of honesty, confidentiality, trust, respect and transparency

- **Compassion:** Jaypee hospital adheres to provide a caring and supportive environment for all patients, their families and fellow colleagues

Infrastructure Highlights

- 525 beds in first phase
- 150 Critical Care beds
- 24 bedded Advanced Neonatal ICU
- 20 bedded Dialysis Unit
- 325 ward beds with Suite, Deluxe, Twin Sharing and Economy options
- 18 Modular OTs
- 4 Cardiac Catheterization Lab with Hybrid Operating Room
- 2 Linear Accelerator (IMRT, IGRT and VMAT), 1 Brachytherapy Suite, Wide Bore CT Simulator
- 2 MRI (3.0 Tesla) with High Intensity Focused Ultrasound
- 256 Slice CT Scan, CT Simulation
- 64 Slice PET CT, Dual Head 6 Slice SPECT CT, Gamma Camera
- Da Vinci Robotic Surgery for comprehensive robotic surgical solutions

Future Plans of Jaypee Hospital

The Jaypee Group has extensive plans to expand its healthcare project in the coming years by developing 7 more hospitals:

- A 250 bedded hospital at Bulandshahar
- A 200 bedded hospital at Anupshahar
- A 500 bedded hospital at Sahibabad
- A 500 bedded hospital at Agra
- A 500 bedded hospital at Kanpur
- A 300 bedded hospital at Dehradun
- A 300 bedded hospital at Rewa

CHAPTER 3

LITERATURE REVIEW

LITERATURE REVIEW

Gartner defined CRM as a broad term and widely implemented strategy for managing interactions with customers which involves using technology to organize, automate, and synchronize business processes—principally customer service, marketing, and sales activities. The overall goals are to find, attract, and win new customers, nurture and retain those the company already has, attract former customers back into the fold, and reduce the costs of marketing and customer service. Greenberg stated that CRM is a philosophy and a business strategy supported by a system and a technology designed to improve human interactions in a business environment. Furthermore, it is an operational and transactional approach to customer management that is focused around the customer facing departments, sales, marketing and customer service. Furthermore, the early CRM initiatives was the process for modification, culture change, technology and automation through use of data to support the management of customers so it can meet a business value of corporate objectives such as increase in revenue, higher margins, increase in selling time, campaign effectiveness, reduction in call queuing time, etc. CRM strategy must be aligned to the organization's mission and objectives in order to bring about a sustained performance of business objectives and effective customer relationships. The organization must adopt customer's perspective and work on developing a comprehensive planning write up and specific business objectives. The strategies should be laid down in such a way so that they provide benefits to the company and customers, shorter cycle times, greater customer involvement in service development and reduce operation costs by redesigning business process that eliminates work which does not add value to customers. Yina examined healthcare providers in adopting CRM as a strategy in building trust to their patients as well as helping patients to avoid feel alienated in the healthcare environment and at the same time improving the service quality and efficiency of healthcare. With the Web technology, CRM also affords healthcare providers the ability to extend services beyond its traditional practices, and it provides a competitive advantage environment for a healthcare provider to achieve a complex patient care goal. CRM enables a healthcare provider to capture essential patient (customer) information to be utilized effectively, especially in integrating the patients' information in a system to promote superb service. Many studies also have reported that many organizations have failed to adopt CRM as a strategy. The main reasons for high rate of failure when implementing CRM are: 1) related to people's behavior and 2) CRM is viewed as a merely technology, not as a long-term strategy. These notable failures encourage further studies on the implementation issue especially in dealing with change of management. Organizational change is always expected in CRM initiative. Hence, there is a possible area to explore further CRM initiative that

focuses on people, technology and culture. There is also research examining the development of CRM within healthcare environment. There are many challenges in adopting CRM for healthcare organizations. Due to the complexity of the business nature in healthcare, there are many issues dealing with patients that must be considered.

A healthcare is undergoing a paradigm shift, from 'Industrial Age Medicine to Information Age Healthcare'. This 'paradigm shift' is reshaping health systems. It is also transforming the healthcare-patient relationship .For example, World Wide Web has changed the way the public engages with health information. According to Pew Internet and American Life Project, large shares of Internet users say that they will first use Internet when they need Information about healthcare. People are beginning to use Internet resources for research on the health information and services that they are interested in using. Batista studied about the Internet in becoming a crucial medium in supporting CRM. Indeed, the Web technology is a powerful channel available for organizations to utilize to enhance interactions and strengthen relationship with customers. Social CRM or CRM 2.0 is based on the Web 2.0. The Web 2.0 could be used as enablers in creating close and long term relationships between an organizations with its customers.

Greenberg defined Social CRM as a philosophy and a business strategy, supported by a technology platform, business rules, processes, and social characteristics, designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted and transparent business environment. It's the company's response to the customer's ownership of the conversation.

The use of ICT in healthcare organizations has grown in the same pattern it is the growing within the larger industry landscape. The use of web technology, database management systems and network infrastructure are part of ICT initiative that will influence of healthcare practice and administration. One such trend is the slowly adoption of e-health systems toward the use of EMR. The systems move patient information from paper to electronic file formats so they can be easily and effectively managed. However, an interesting fact to be noted is the tendency of people to know more and actively participate in the health promotion, prevention, and care together with the rights that will become a standard legislature guide the development of information systems that support these tendencies. Thus, the trend is towards more involvement of patient or citizen in receiving information, in decision making and in responsibility for own health. The prime feature of this trend to shift from healthcare-institution centered care to the citizen-centered care is the emphasis on continuity of care from prevention to rehabilitation. This vision can be achieved through shared care which

builds on health telematics networks and services, linking hospitals, laboratories, pharmacies, primary care and social centers offering to individuals a 'virtual healthcare center' with a single point of entry. Furthermore, this vision implies provision of health services to homes with innovative services such as personal health monitoring and support systems and user-friendly information systems for supporting health education and awareness. There are various emerging tools and technologies in creating and managing HIS. Semantic Web is an extension of the World Wide Web which offers a united approach to knowledge management and information processing by using standards to represent machine interpretable information. Thus semantic Web technology helps computers and people to work better together by giving the contents well-defined meanings. The semantic Web has also drawn attention in the medical research communities. Semantic web services can support a service description language that can be used to enable an intelligent agent to behave more like a human user in locating suitable Web services. While Web services are software components or applications, which interact using open XML and Internet technologies. These technologies are used for expressing application logic and information, and for transporting information as messages. They have significantly increased interest in Service oriented architectures (SOAs). The benefits of Web services include loose coupling, ease of integration and ease of accessibility. Furthermore, Web 2.0 refers to Web-oriented applications and services that use the Internet as a platform, with its unique features, relying on its strengths rather than trying to make the Internet suit a particular application. With its promise of a more powerful, engaging and interactive user experience, Web 2.0 seems poised to revolutionize the way in which we interact with information resources. Web 2.0 is commonly associated with technologies such as weblogs (blogs), social bookmarking, wikis, podcasts, Really Simple Syndication (RSS) feeds (and other forms of many-to-many publishing), social software, and Web application programming interfaces (APIs).

A Health Grid allows the gathering and sharing of many medical, health and clinical records/databanks maintained by disparate hospitals, health organizations, and drug companies. In other words, Health Grid is an environment in which data of medical interest can be stored and made easily available to different actors in the healthcare system: physicians, allied professions, healthcare centers, administrators and, of course, patients and citizens in general. Also, the driving forces for the individual and commercial adoption of the VoIP are the significant cost savings, portability, and functionality that can be realized by switching some or all of their voice services to VoIP. Chen et al showed the integration of mobile health information system with VoIP technology in a wireless hospital.

Ubiquitous computing is a paradigm shift where technology becomes virtually invisible in our lives. The ubiquitous computing environment will make possible new forms of organizing, communicating, working and living. However, ubiquitous computing systems create new risks to security and privacy. To organize the healthcare infrastructure, it is necessary to establish a context-aware framework appropriate for the wearable computer or small-sized.

2) Customer Relationship Management (CRM) is how to attract new customers coming to an organization, retaining them throughout the entire lifetime of a relationship, and extending other services or products to the existing customers. Likewise, in the healthcare environment, healthcare providers are challenged to acquiring potential customers for the healthcare services, retaining them to use the services, and extending various services in the future. In order to achieve those strategies, healthcare provider must consider establishing closeness of relationship between patient-healthcare providers, offer convenience of services, and build trust of information sharing. As a business, healthcare organization stands in need of the same standards of customer service as other business organizations. The fact that customer service expectations in healthcare organization are high poses a serious challenge for healthcare providers as they have to make exceptional impression on every customer. In the competitive commercial healthcare market, poor service and distrusted service leads customers to switch healthcare providers because poor service indicates inefficiency, higher cost and lower quality of care. Nowadays, more patients have more choices in where they seek care and how they interact with their healthcare providers. A great customer service can lead to major improvements in the health care system. Customer service is not an "extra"— it is an essential requirement for providing high quality healthcare and for staying in highly competitive business (Stanton, 2009). Patients are making clear choices about where they receive care based on service experiences and it is crucial for organizations to create an institutional ability to sense and respond empathetically (Katzenbach Partners, 2008). Healthcare organization strategies should transform customer strategies and systems to customer engagement. The one is more focused on the conversation that is going on between organization and customer. Conversation between healthcare organization and customers is important to initiate trust between both parties. Proactive strategies will improve customer services. And great customer support will increase loyalty, revenue, brand recognition, and business opportunity.

This paper was partially motivated by the case between a patients whose name is PritaMulyasari (Prita) with the Omni International Hospital Tangerang, Indonesia (Omni).

The case generated massive public attention channels through various media, including social network sites. Prita Mulyasari, house mother of two children, for allegedly defaming a hospital via an online complaint, triggered unprecedented public protest across the country. The case started when she wrote an email to her friends in September 2008 detailing her complaint and dissatisfaction towards her experiences at Omni International Hospital Alam Sutera Tangerang; she felt a poor treatment, wrong diagnoses, physician who always late in visiting the patient, and inaccessibility of medical records prompted her dissatisfaction to the hospital's service, which was soon the email rapidly distributed across forums via online mailing lists. Once the email became public knowledge, Omni responded by filing a criminal complaint and a civil lawsuit against Prita. 75 International Seminar "Green Technology, Social Work and Public Health for Development of Indonesia Ramada D'MA Hotel, Bangkok, 28-29 October 2011 Then, verdict against Prita, at Banten District Court on May 13, 2009, she was sentenced to six years jail and fines for defamation and sending complaint email publicly. The case generated massive public attention, rallies were held across the country. Virtual community supported through Facebook by collecting coins to support Prita paying her fines to the Hospital. While significant pressure eventually led to Prita being released from detention on June 3, 2009, and ordered to remain under city arrest due to humanitarian reasons. (Detik.com, 2008; Caveat, 2009) We will use this case to deploy a CRM model to address relationship management between customer (patient) and healthcare organizations that incorporate the latest development in Information and Communication Technology (ICT).

Customer Relationship Management CRM is a broad term and widely-implemented strategy for managing interactions with customers which involves using technology to organize, automate, and synchronize business processes—principally customer service, marketing, and sales activities. The overall goals are to find, attract, and win new customers, nurture and retain those the company already has, entice former customers back into the fold, and reduce the costs of marketing and customer service (Gartner, 2009).. Furthermore, it is an operational, transactional approach to customer management that is focused around the customer facing departments, sales, marketing and customer service. Furthermore, the early CRM initiatives was the process for modification, culture change, technology and automation through use of data for support the management of customers so it can meet a business value of corporate objectives such as increases in revenue, higher margins, increase in selling time, campaign effectiveness, reduction in call queuing time, etc. Although the development of CRM has been mature, there are many challenges in adopting CRM for healthcare organizations. Due to the complexity of the business nature in healthcare there are many

issues dealing with patients must be considered. A healthcare is undergoing a paradigm shift, from 'Industrial Age Medicine to Information Age Healthcare' (R. Smith, 1997). This 'paradigm shift' is shaping health systems (Haux et.al, 2002). It is also transforming the healthcare-patient relationship (Ball, 2001). For example, World Wide Web has changed the way the public engage with health information (Powell et al., 2003). According to Pew Internet and American Life Project, large shares of Internet users say that they will first use Internet when they need Information about healthcare (Pew Internet, 2005). People begin to use Internet resources for research on the health information and services that they are interested in using. ICT creates an environment where patients can explore clinical records and health education programs at a time. CRM 2.0. Business Strategy and CRM Model the customer acquisition is the process of attracting customer for the first of their purchase or use services. The customer retention is the customer return to us and uses the service for the second time. We keep them as customer. And the customer extension is introducing new product or service line to our loyal customers that may not relate to the original service or product. Growth the numbers of new or retain customers use the product or service through marketing orientation, value creation and innovative IT. Web 2.0, which play a significant part in the CRM transition drives social change that impacts all institution including business and healthcare organizations. It is a revolution on how people communicate. It facilitates peerto-peer collaboration and easy access to real time communication and that is core of social change. Because much of the communication transition is organized around web based technologies, it is called Web 2.0 (P. Greenberg, 2009). Patients participate in these social network can share information about their diagnoses, medications, healthcare experiences, and other information. It is often in form of unstructured communication which can provide new insights for people involved in the management of health status and chronic care conditions. Social CRM is based on the Web 2.0. The Web 2.0 could be used as enablers in creating close and long term relationships between an organization with its customers (As Kool, and Nakata, 2010). The concept of Web 2.0 began with a conference brainstorming session between O'Reilly and Media Live International (O'Reilly, 2005). It has been defined as a set of economic, social, and technology trend that collectively form the basis for next 76 International Seminar "Green Technology, Social Work and Public Health for Development of Indonesia Ramada D'MA Hotel, Bangkok, 28-29 October 2011 generation of the Internet – a distinctive medium characterized by user participation, openness network effects (O'Reilly, 2006). Recently, the Web 2.0 tools such as Facebook, Twitter, Myspace, Friendster, LinkedIn, etc. have grown rapidly facilitating peer-to-peer collaboration, ease of participation, and ease of networking. However, the effects of Web 2.0, particularly in addressing the issues of customer relationship have not been explored. As the main

advantages of Web 2.0 are the linkage among people, ideas, processes, systems, contents and other organizational activities (Askool, and Nakata, 2010). Therefore, Web 2.0 definitely will affect performance of the organization as it is about engaging relationships, sharing experience & information, and collaboration. Greenberg (2009) defined Social CRM as a philosophy and a business strategy, supported by a technology platform, business rules, processes, and social characteristics, designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted and transparent business environment. It's the company's response to the customer's ownership of the conversation. The term of Social CRM and CRM 2.0 is used interchangeably. Both share new special capabilities of social media and social networks that provide powerful new approaches to surpass traditional CRM. Figure 2. Evolution of CRM landscape (Fabio Capriani) Fabio Cipriani described the fundamental changes that Social CRM is introducing to the current, traditional CRM in term of landscape. Figure 3 is reflection of the evolving CRM 2.0 which is different from CRM 1.0. It is a revolution in how people communicate, customers establish conversation not only with the service provider but it is also with others. Connection type in CRM 1.0 is limited view of the customer which affect to less informed customer, on the other hand, CRM 2.0 enable for multiple connections allow better understanding and more knowledgeable customer. CRM 1.0 of value creation is constricted from targeted messages, and CRM 2.0 offers diverse value creation even from informal conversation of customers within social networks. Social networking could generate a way to strengthen relationship between organization and their customers. The Web 2.0 is an important tool for the development of social network. In addition, Web 2.0 which plays a significant part in the CRM transition, stimulated fundamental changes in consumer behavior (Greenberg, 2009). This revolution is having a broad and deep impact on an interpersonal relationship in all areas, and health is no exception. The booming number of social networking groups and supports groups for patients on the internet and their influence on health behavior is only beginning to be explored (Rimer and others, 2005) and remains an important area for future research. The concept of a social network defines organizations as a system that contains objects such as people, groups, and other organizations linked together by a range of relationships (Askool, and Nakata, 2010). III. DISCUSSION The gap between existing CRM systems and customer care needs make it more complex. CRM can be viewed as strategy to attract new customers coming to an organization, retaining them throughout the entire lifetime of a relationship, and extending other services or products to the existing customers. In the healthcare environment, healthcare organizations are challenged to acquire potential customers for the healthcare services, retaining them to use the services, and extending various services in the future. To take the challenges, healthcare organization must

consider establishing close of relationship with their patients offer convenience of services, and provide transparency in services through information sharing. Therefore, the healthcare organization should perform reengineering process to adapt their CRM strategy and tool in order to acquire potential customer coming for the service (Anshari and Almunawar, 2011). Figure 3. Model of CRM 2.0 in E-Health Services Figure 3 shows the components of CRM 2.0 in the ehealth scenario. CRM 2.0 promotes openness which all activities involve with patient recorded on systems and patients/families are able to access them online. The service is more or less the same with the traditional healthcare system; however the different is the privileges to access medical records, patient personal data, appointment with physician, scheduling, and any other features of Web 2.0 added to establish conversation, convenience, and creating trust to the service is innermost for healthcare that employ CRM 2.0. 77 International Seminar "Green Technology, Social Work and Public Health for Development of Indonesia Ramada D'MA Hotel, Bangkok, 28-29 October 2011 The model differentiates two social networks linkages to the patient; they are Enterprises Social Networks and Internal Social Networks. The Enterprises Social Networks in this framework refers to external and popular Web 2.0 applications such as Facebook, Twitter, Linkedln, MySpace, etc. which patient may belong to any of those social networks for interaction. The dashed line connected enterprises social networks and CRM systems mean that none of those networks have control over the others directly, but constructive conversation and information from enterprises social networks should be captured for creating strategy, innovation, better service and at the same time responded accurately. Lesson learnt from Prita's case, the hospital was not proficient capturing the message from the customers at social networks because they did not consider in their CRM strategy that the customers have changed and they made conversation, judging hospital's value, criticizing their services at those networks which led to distrust towards the hospital's allegation and jeopardized the business for the long run. Additionally, the framework proposes Internal Social Networks that operated, managed, and maintained within healthcare's infrastructure. This is more targeted to internal patients/families within the healthcare to have conversation patient with the same interest or health problem/ illness. For example, patient with diabetic would motivate to share his/her experiences, learning, and knowledge with other diabetic patients. Since patient/family who generates the contents of the Web, it can promote useful learning center for others, not only promoting health among each other's, but also it could be the best place supporting each other and sharing their experiences related to all issues such as; how the healthcare does a treatment, how much it will cost them, what insurance accepted by healthcare, how is the food and nutrition provided, etc. Therefore, this is generic group that will grow depends on the need of patients in that healthcare. For instant, N1 is internal social networks for Diabetic, N2 is for Cancer,

and N3 is for heart disease, and so on. Creating Internal Social Networks is part of the strategy to isolating problem into small space or more focus to the local's problem so it can be easily monitored and solved. Moreover, this strategy will promote loyalty of customers to keep using service from the healthcare. The absence of this strategy in the Prita's case, the hospital was late to realize that the patient dissatisfied with the service from beginning, and the hospital assumed that everything was fine, until she communicated her dissatisfaction through her social networks. Responding this problem, the hospital should isolate the internal problem like dissatisfaction of patient by quick response to resolve the issue before it gets bigger and uncontrolled. And the Internal Social Networks could be solution to prevent the same problem in the future. In general, the aim to put together linkage of internal and external social networks are to engage patients and export ideas, foster innovations of new services, quick response/feedback for existing service, and technologies from people inside and outside organization. Both provide a range of roles for patient or his/her family. The relationships can create emotional support, substantial aid and service, influence, advice, and information that a person can use to deal with a problem. In addition, listening tool between Social Networks and CRM systems is mechanism to capture actual data from social media and propagates this information forward to the CRM. This tool should be capable to filter noise from actual data that needs to be communicated to CRM. The foundation of CRM 2.0 which is based on Web 2.0, it empowers patient/family to have ability controlling their own data. Once patient/family registers to have service from healthcare, it will enable them to have personalized e-health systems with Social CRM as frontline of the system. The system will create account for each patient then; the authorization and self-managed account/service are granted to access all applications and data offered by the systems. This authorization is expected to be in the long run since the information and contents continue to grow. Technical assistant is available through manual or health informatics officer (just like any other customer service in business/organization) who stand by online assisting patient/family in utilizing the systems especially for the first timer. Furthermore, since all the information (medical records) can be accessed online everywhere and anytime, it will enable collaborative treatment from telemedicine. CRM 2.0 functionalities compose from Marketing, Sales, and Customer Service. The different from the traditional CRM, the state to empowering for self-managed data and authorization will encourage patient willingly to provide full data without hesitation. More data provided more information available for the sake of analyzing for the interest of marketing, sales, and customer service. Suppose this scenario; we go to Physician for diagnose, and the doctor is well known physician in town with long queue patients waited, once we get the chance for diagnose, how long he will have time to investigate the symptom of the problems? The system will improve the customer service because it helps both parties

either physician or patient in diagnose activity. The doctor will have complete information, knowledge, and saving a lot of time to learn about patient history because patient participate in the detailing his medical records data through the system, and patient benefits from quality of diagnoses' time because his medical records are overviewed in full scene. The other feature of the model is robustness of systems because more applications/services will be added as characteristics of Web 2.0. Some of the features that available to the user are; updating personal data, Medical Records & History (medical treatment received, medicine consumption history, family illness history, genetic, medical imaging, x-ray, etc.), Preference services, Transaction, Payment/Billing data, Activities, Personal Health Promotion and Education, Email, Appointment, Friend in networks, forums, chatting, etc. 78 International Seminar "Green Technology, Social Work and Public Health for Development of Indonesia Ramada D'MA Hotel, Bangkok, 28-29 October 2011 One of the goals CRM 2.0 in healthcare is providing value-added services to patients like openness of medical records, improving patient loyalty, creating better healthcare-patient communication, improving brand image and recognition, and self-managed data which will improve health literacy to reduce economic burden for society to the whole. The raw data material arrives in one state, and leave in another state. The patient enters ill and leaves well. The activities of value creation in healthcare are; arriving from registration, patient care, discharge, marketing, and service—producing data at respective state. The own unique characteristics value creation by adopting CRM 2.0; generate contents from both parties either from healthcare and also patients. The other features of CRM 2.0 in healthcare come into view in respond to better customer service. By empowering patients with medical data and personalized e-health needs healthcare to provide health educator or health promoter to interpret medical data to easily understood by patient/family or in respond to online query/consultation. Officer in duty is required to have an ability to interpret medical data and also familiar with the technical details of the systems. Another instance from the framework is Social/Commercial Marketing team. Social marketing is more prevalence to the government healthcare that operates as an agent of the public at large. On the other hand, commercial marketing is standard marketing strategy exist for any business entities. Both are acting in responds to the public demands like social networks, Mailing list, etc. The adoption of Social CRM to healthcare prevents any dispute and avoiding conflict between healthcare and patient. Prita's case in introduction took place because; the hospital needs to understand that behavior and expectation of patients continue to change eventually. And this study proposes that CRM 2.0 framework as alternative solution to the hospital. Once the case became a public knowledge, it affects survival ability of the hospital in the long run jeopardize due to loosing of the trust towards the service.

Therefore, the hospital should perform re-engineering process to adapt their CRM strategy and tool in order to acquire potential customer coming for the service.

The complexity of healthcare's business process manages relationship between patient and healthcare is one of the most remarkable aspects in medical process. In fact, patient expectations in healthcare are high, which need trust in delivering service. A new paradigm has appeared in CRM systems namely Social CRM or CRM 2.0 as a result of the development of Web 2.0 technology. By inheriting features from the Web 2.0 technology, CRM 2.0 offers new outlook either from patient or healthcare. Some of the features offered by Social CRM framework are robustness of the systems, trust of information sharing, and closeness of relationship between patient-healthcare and patient with others. The systems create value in each activity to the customer. And those values will make the healthcare a better service than its competitors. Moreover, it empowers patients with the data accessibility in returns of loyalty and trust relationship with their patients.

3) Customer relationship management research is utilized to explain the need for a more patient-oriented support in patient care. One of the article presents a European study on how various hospital units of a single healthcare organization have utilized a patient relationship management system—in particular a patient treatment follow-up system—and how it affects patient care and the knowledge work performed by the medical staff. Eight physicians were interviewed at a university hospital on whether patient treatment was improved through a follow-up system that had been in use in the case organization for three years. The interviewees represented various hospital units, and all of them had used the system at their own unit. The results indicate that it is possible to improve patient care through more personalized treatment. The follow-up treatment system seems to be a tool to create and maintain better communication with the patients rather than just a technological solution. It may help better understand and analyze both individual patients and patient groups. For individual physicians it provides a way to reflect professional skills. The system was lacking in its support for one-to-one communication with patients. Nevertheless, the system is an example of patient relationship management which may help healthcare units to move towards a more patient-oriented care in order to increase revenue. This loyalty usually benefits the customer because of associated low prices and quality customer service. Healthcare organizations have all the potential to build the same kind of relationship with patients, 8and it can offer more tangible benefits, too.

The first benefit is by using the same hospital a patient's treatment history should be relatively well known by the organization. Oftentimes, different hospitals use different

patient information systems which are not always compatible with each other. If a patient keeps changing the hospital, his or her medical record can be scattered around various sites. Ideally, if the patient is treated by the same physician in every visit, that physician will get more familiar with the patient, which could improve treatment.14 The most tangible benefit, however, is time. If the patient goes to the same physician every time, there is no need for long check-ups at the beginning of each visit. A PRM application also can provide better care for patients by allowing hospitals a better understanding of patients' needs and wants16 through improved communication via follow-up systems. Understanding how the treatment has worked is crucial for physicians. By letting the physicians know, how satisfied the patients are, physicians can have a better understanding on how the treatments and operations they perform are working. Thus, having better patient relationships and better patient loyalty benefits both the healthcare organization and the patient. CRM applications may be categorized either as marketing or operational applications. Marketing applications aim at identifying potential customers and their needs, whereas operational applications focus on improving the experience between patients and physicians. In many hospitals, management strategies have changed recently. Hospitals and physicians are communicating in a more detailed manner with patients.14 the patients' portraits have also evolved.

Today, patients can easily find instructions for their treatment from the Web. When hospitals provide real-time information and disseminate it to their current and potential patients it will help them to stay in touch with people as well as compete with other healthcare organizations for customers.14 Hospital management strategies should consider comprehensive, efficient hospital.

Information systems which support a shift of focus to patients. With the idea of PRM, hospitals may be able to move on towards more customer-centric operations than before. For studying how PRM applications affect knowledge work, we utilize a conceptual framework for organizational knowledge creation, known as the 7C model.13 the model suggests that the following seven Cs play a critical role in the creation of organizational knowledge: Connectivity, Concurrency, Comprehension, Communication, Conceptualization, Collaboration and Collective intelligence. The first two Cs (connectivity and concurrency) are somewhat trivial. They point out that connectivity of all stakeholders with the joint information space and with people (potentially concurrently) is provided in a technologically sound manner through the Web, wireless and mobile applications and other technologies. These may promote options and allow freedom of choice with contextual support, providing users with a rich environment for comprehending and communicating information they find.

Knowledge is conceptualized as artifacts, which serve as a vehicle for collaboration through interaction between information producers and consumers, within a team of co-workers or among other stakeholders. All six preceding Cs contribute to the growth of collective intelligence. The creation of organizational knowledge is not a linear process, but rather a multi-cycle spiral process.13 it is important to notice that the 7C model does not try to define how information systems should manage knowledge. Rather, it models the processes of how individuals interact with information and knowledge (and with each other) to increase the collective intelligence of the organization. In a hospital, physicians and nurses can learn and understand new things (comprehension) while they perform their daily work. They can then share their work-related experiences with colleagues (communication). As they share, they collectively add to the knowledge of the group and create best-practice guidelines (conceptualization) to help them perform better in the future (collaboration). Over time, as these processes repeat, the hospital unit will get better at providing care for its patients (collective intelligence). The follow-up procedure within the case hospital provides three options for patients to provide feedback. A patient may answer via a short text message (a mobile phone), a Web questionnaire oar phone service. Summaries of replies are provided for the physicians. The questions have been defined and accepted by the physicians in the treatment units. The follow-up is carried out two weeks after treatment. It should be noted that before using the follow-up system the physicians had no real data about the actual recovery of the patients

Eight physicians were interviewed at the case hospital about whether patient treatment was improved through a follow-up treatment system that had been in use for three years. The interviewees represented different hospital units, and all of them had used the system in their own unit. Two of the interviewees were women, six were men. The interviewees' specialties were child surgery, urology, pediatrics, orthopedics and traumatology, anesthesiology and intensive care, surgery and otology, rhinology and laryngology. The questions were gathered from research literature and pre-examined by a medical doctor. The interviews were conducted during April and May 2007. The interviews were recorded and transliterated. The duration of a single interview was approximately 30 minutes. We used an interpretive approach to analyze the data. Interpretive research aims at "producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context."17 In our case we tried to produce an understanding of how PRM affects the knowledge work performed by the medical staff, and the quality of care patients received. It should be noted that quality of care is a very difficult

concept and we were not able to measure it statistically in this research setting. A limitation of this research is that it relies on the interviewees' interpretations on the subject.

The PRM system affected the knowledge work performed by the physicians. The system supported physicians' Comprehension mainly in issues related to patient/treatment information (e.g., patient satisfaction, wound inflammations), self-awareness ("information about my own actions"), and in patient care process (why a patient had to wait long in certain parts of the process).Physicians also felt that with a PRM application, they may understand better the actual patient care process in their hospital. For example, which situations may cause a backlog for certain parts of the treatment process and idle time in other parts? The physicians felt it was important to gain deeper insight on patient satisfaction after a hospital stay. This supports comprehension as it allows physicians to understand which treatments satisfied patient needs. One physician gave an example of this: "[I]understand …what [problems ...] patients want treatments for, what their actual problem is and where special attention should be directed." A physician may acquire quantitative evidence about symptoms and treatments over time which may help him/her become a better physician in the clinical setting. This information may also help a physician's self-awareness: "[…I get] information about my own actions." A physician may reflect upon the treatments and operations he or she assigned and/or performed for a patient, and even self-question whether he or she had made the right diagnosis. This reflection becomes crucial for the creation of new tacit knowledge because he or she is able to identify problems, needs and opportunities13. For example, if a physician can work on skills that need improvement by identifying re-occurring problems with treatments. As another example, physicians can use the PRM system to get an idea about the length of sick leaves and determine how long sick leaves are normally necessary after a specific treatment. It should be noted, however, that we were not able to measure this statistically in our research. According to the interviews, communication between medical staff was improved through PRM. One interviewee indicated that there may have been more communication between the medical staff through the application and that the communication had been clearer. Another interviewee indicated that if nurses understand work-related issues better, they are also able to communicate about them better.

Communication between medical staff and patients was improved through a PRM application by enabling patients who had already been sent home to provide feedback for physicians on how the treatments had really worked. Normally, this could be done over the phone, but it may be more efficient through a software application, as it does not require physicians or nurses to answer phones or listen to voicemail. Also, the need for feedback was increased

since physicians “can’t […always…] issue a control visit as it is too expensive.” Through a PRM system “we can easily get feedback from the patients.” This kind of communication may be even further improved as “it would be more efficient if we could direct [the feedback] straight to the personnel who were treating the patient.”

The physicians felt that they can gain new insight from patients to carry out their work. Yet, a PRM application could also improve communication toward patients. For example: “We can explain [better] to patients what part of the treatment is and what is not. When all goes normal, the patient does not need a control visit.” It seems to be that the information provided by a hospital information system may help conceptualization at the unit level .The interviews revealed that the different knowledge management-processes can be remarkably supported through PRM applications. In particular, comprehension and communication seemed to be improved by the system, whereas conceptualization seemed to be the most difficult to support. It also seemed that the collective intelligence of a hospital unit might be improved to a great extent through the usage of a PRM system. For a hospital, this would mean that the physicians would improve at their work both through individual comprehension and through communication with patients and colleagues. For patients, this would mean a possibility to express how the treatments are operating on them, which ideally would result on a better care in the long run. In the analysis of the interviews it was sometimes difficult to separate between various knowledge-creation sub-processes.

When the physicians were talking about conceptualization they often referred to communication. Also, sometimes physicians explained how a PRM system provided them with a lot of information that they tried to communicate to patients, but the success of this seemed to rely on whether or not the patient comprehended what was communicated to him. The same probably occurs in the communication between medical staff. It may be that many of the knowledge creation sub-processes operate simultaneously or with very rapid cycles. Physicians communicate while they collaborate and comprehend while the working community conceptualizes an issue. And, more importantly, there might be many knowledge creation spirals going simultaneously within an organization.

In overall, the PRM system clearly helps the communication between patients and hospital staff. The follow-up system provides information and knowledge that can help physicians to comprehend how the treatments they perform are working. This is crucial for the professional development as he can reflect on his actions and actual results. The different hospital units can also obtain statistics on how they succeed in comparison with other units. This can reveal areas of improvement. In more general terms, this study demonstrated that follow-up

treatment systems may be used in many circumstances. All units use information in their own specific manner. Indeed, a patient relationship management system seems to allow units to concentrate on the issues they are mostly interested in. Naturally, the PRM systems should be well integrated into the workflow of the hospital units. A follow-up treatment system is not just a technological solution but rather a tool to create and maintain better communication with the patients. It may help better understand both individual patients and patient groups which both may be analyzed through the system. Naturally, the case system was not found to be without criticism. It should provide better one-to-one communication support with patients. The very physician who treated a patient should receive more detailed feedback from patients. This would help both in providing better care for the patient (the physician is more familiar with the patient's case) and to the professional skills of the physician (to understand how the treatment operates). Organizationally, a relatively large change would be needed in how the medical people view patients (customers). Nevertheless, the follow-up treatment system is an example of PRM which may help the healthcare units to move towards a more patient-oriented care than ever before.

A qualitative approach was used in this study. A quantitative study could provide additional insights for some of the finding of this study. In a matter of fact, since the patient follow-up information is stored in the PRM system getting an access to it for research purposes would provide a great data, for instance to carry out longitudinal analyses. This would provide new understanding for hospitals, physicians as well as academic readers. Nevertheless, information security and legal constraints may limit some of these opportunities.

4) Since IT firm Siebel popularized CRM in 1993, industry executives have operated under the misconception that CRM is at heart an IT-centric function. Role in disrupting CRM programs across industries, as firms underemphasized the strategic and organizational elements of CRM and overemphasized CRM tech-based systems. Today the truth remains that businesses must understand CRM as an inclusive process. As a broad term, CRM highlights initiatives that firms can implement to win over customers for related profit. In sum, the goal of CRM is to align "business processes with customer strategies to build customer loyalty and increase profits over time."3multifaceted CRM cycle, segmented to indicate the tools at a company's disposal. This misconception played a key role

Subsequently the goal of this document is to equip companies with an outline of best practices in CRM and also in Loyalty programs. Where relevant we provide anecdotes, drawing from a variety of industries. Finally, we examine the implications of CRM and

loyalty programs on customer segmentation, specifically so that companies might better identify brand loyalists and advocates.

Best Practices – CRM

The more successful CRM programs shared some key traits in common. We list a selection of them below.

Brass-Level Sponsorship and Coordination

Successful CRM implementation requires collaboration across departments and functions in view of CRM's broad influence. Consequently support from management is critical to breaking down silos. Of organizational myopia and indifference. Example. In wanting to boost sales, the new CEO at Avail identified daunting obstacles in unreliable IT systems and an inadequately-trained and overly-burdened sales team. The cumbersome IT system required sales reps to input order information, thereby increasing their workloads and preventing them from maximizing the number of sales calls. For their part, the passive sales team did not work to solve specific process-related problems which had roots in IT and operations. Nor did they have the authority to make system-wide changes. In addition the company did not train "the sales reps in proper time and territory management," leading to "inefficient phone call routing and haphazard calling schedules." Takeaway. Solutions to such problems require cooperation from a variety of departments. In the above example, company leadership enlisted the support of the head of sales and marketing and the chief of technology. Stakeholders and considered people, process, and technology in laying out CRM objectives.

NARROW IN SCOPE, MODEST IN GOALS

Purchasing a license to deploy a single all-encompassing CRM system may seem tempting enough, especially to busy executives. But the introduction of large-scale measures with Moreover a compelling vision and strategy would diminish the effects © 2012 Hanover Research Market Insight Center wide intended effects runs contrary to best practice. Such an unrefined approach disrupts business activities and leads to wasted technology capacity, many passwords or log-ins for users" and "inconsistent guidelines for entering data in different units."8

The better idea is to take a more disciplined and focused approach with modest ambitions. Successful companies seem to begin by solving "clearly defined problems within their customer relationship cycle. Leadership to identify clear business goals that minimize

complexity and cost.10Example. Continuing with the above example, management at Avail decided to install only sales-force, order-entry, and call-center applications to achieve the desired efficiencies in sales. The focused approach minimized costs and allowed sales reps to learn the new system without being overwhelmed. Moreover the quick victory gave momentum to the cause of CRM. Such successes often light "the way to subsequent projects."11 Takeaway. Taking inches instead of leaps allows the company to identify flaws or problems before they become too expensive or entrenched. This approach also allows employees who are most familiar with new systems to provide useful feedback, and for management to alter the implementation as necessary.

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INTER-DEPARTMENTAL COLLABORATION

The need for collaboration across departments is critical to boosting returns on CRM. Globally, firms spent $35bn on CRM applications in 2005, with good results. The returns may have been even greater if more companies enhanced coordination across channels and product groups, providing uniform and actionable data to employees across the company.

Example. A wireless company recorded five million unique visitors to its website each month. Of this total, only 10,000 purchased mobile phones. Untapped opportunity lay in the 27,000 customers who placed products in their shopping carts but did not finalize the transaction. The company's new case-management system collected data from these customers and distributed them to sales teams, which followed up and generated 8,000 more subscribers a month. Further, the ones who did not place products in their shopping carts were treated as lower-priority leads and received the attention of the sales force.

Takeaway: Automation of the right pieces of data, sent to the right people for further action, can be highly valuable. In other words, knowledge sharing can raise revenues.

CHAPTER 4 -

OBJECTIVES OF THE STUDY & RESEARCH METHODOLOGY

OBJECTIVES OF THE STUDY

The following are the ***general objectives*** of the study:

To study effective implementation of CRM with the collaboration of IT in Jaypee Hospital.

The following are the ***specific objectives*** of the study:

1. To find out various requirements of Jaypee Hospitals for implementation of effective CRM model through MIS software.

2. To define various modules required for MIS software for effective CRM and sales activity.

3. To suggest better way to build relationship with patients and means to retain them.

RESEARCH METHODOLOGY

PURPOSE OF THE STUDY

- The research focuses on conducting a study on the requirements of Jaypee Hospital for effective implementation of CRM with the collaboration of IT in Jaypee hospital.
- With the study, the hospital would be able to establish an idea about the practice of ideal CRM in Jaypee hospital along with building good relation with the customers, meeting the need, demand and expectation of the customers. It would also help the hospital to tune its services up to the expectation of the customers and give them the opportunity to improve upon its existing services.

SAMPLE SIZE

A sample size of 50 is taken which includes the employee of Jaypee hospital, sector 128, Noida

DATA COLLECTION

PRIMARY DATA COLLECTION

- Questionnaire-employee perspective
- Direct observation

The questionnaires were collected from 50 respondents from Jaypee hospital. They have been given a set of 09 questions which were based on the study objectives. Through the questionnaire designed, employee oriented requirements for MIS software will be generated which further help in developing effective CRM with the convenience of employees.

SECONDARY DATA COLLECTION

- Internal organization records
- Study of previous research in this field

1. Research Design Formulation- Descriptive research design was followed, in which the employees of the organization (Jaypee hospital) were surveyed.

2. Sampling Plan**:**

- Sampling Units: Employees of Jaypee hospital (department of marketing and sales)
- Sample Technique: Convenient Sampling.
- Research Instrument: Structured Questionnaire (set of 09 close ended questions)
- Sample Size: 50

- Data analysis plan- The data collected through questionnaires has been analyzed and interpreted with the help of Microsoft Excel in order to obtain the desired information.

Limitations

- Time constraint due to which detail study of the topic was not feasible.
- Busy schedule of employees and outstation activities in the department, delayed the survey and decreased the sample size.
- As a trainee, and not having enough knowledge related to IT, it was difficult to understand about MIS software.
- Being a part of Department of Operations, it was difficult to understand sales activities and IT implementations both being major part of the study.

CHAPTER 5

DATA ANALYSIS AND INTERPRETATIONS

DATA ANALYSIS AND FINDINGS

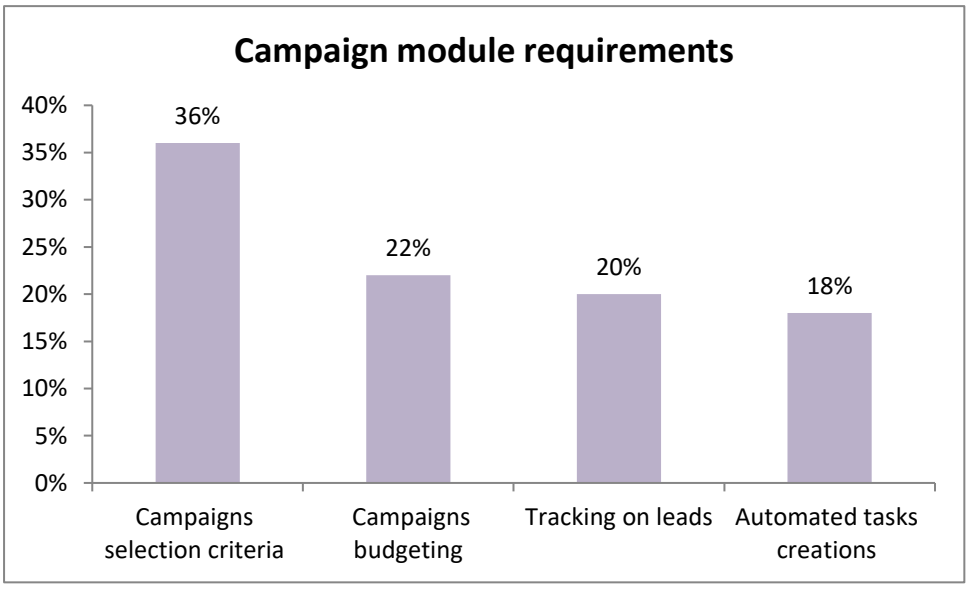
As described in the methodology a survey was done amongst the sales and marketing team and following data findings were recorded:

According to the survey technology will help the team to manage campaigns conducted by the sales team more efficiently. Managing CME meets, health checkup campaigns conferences etc. which are targeted towards doctor suspected patients corporates etc. will become easy to operate with scheduling .FIG 1 depicts that 89 % of members will prefer a technology oriented system for managing campaigns.

As shown in FIG 2 members 36% of members would like to include campaign selection criteria as one of the major requirements. Selection criteria may include conducting campaigns Specialty wise, demography (gender wise/age wise/location wise) or by the name of renowned doctors of the organization. Second major requirements for campaign was budgeting of campaigns which will help them to understand actual budget required for the campaign and other resources required

Automated task creations (18 %) was also demanded so that information pass on is convenient while tracking of leads were chosen by 20 % of people who think leads will help them to plan for future selection requirements

Fig: 1



Also sales and marketing team believes that MIS will be helpful in tracking different sales activities like calls, emails, no. of visits to doctors .AS per table 1 usage of MIS for different sales activity were given 8 and 9 points out of 10 by maximum members (8 by 14 members and 9 by 18 members) while none of the members gave less than 5.

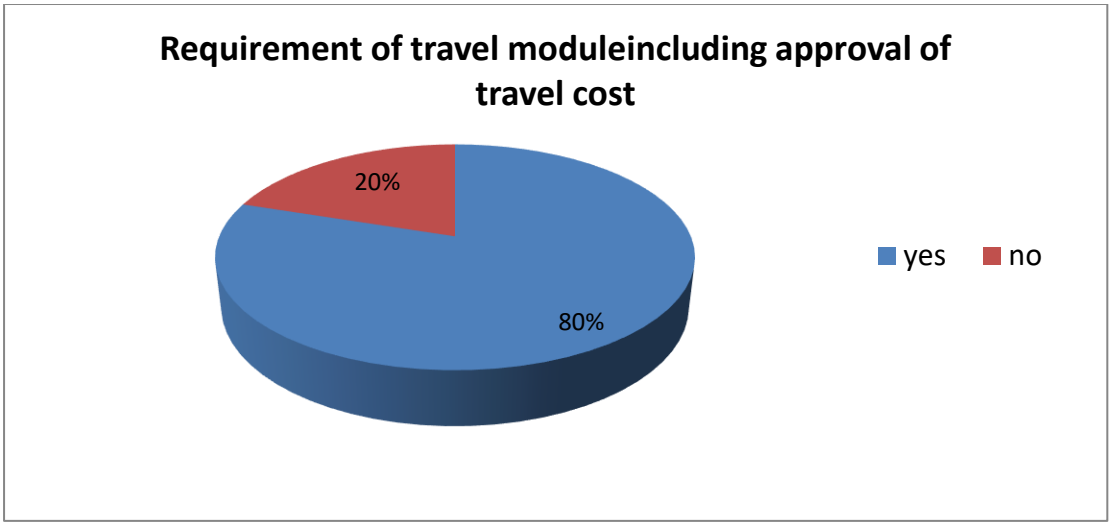
Table 1: RATING (1-10): Ease through MIS for tracking Sales activities.

Rating	1	2	3	4	5	6	7	8	9	10
FREQUENCY	0	0	0	0	7	2	4	14	18	5

Travelling is a regular feature for sales team. As a new start up many OPDs and campaigns are being conducted for increasing the footfall and branding new ventures of Jaypee hospital.

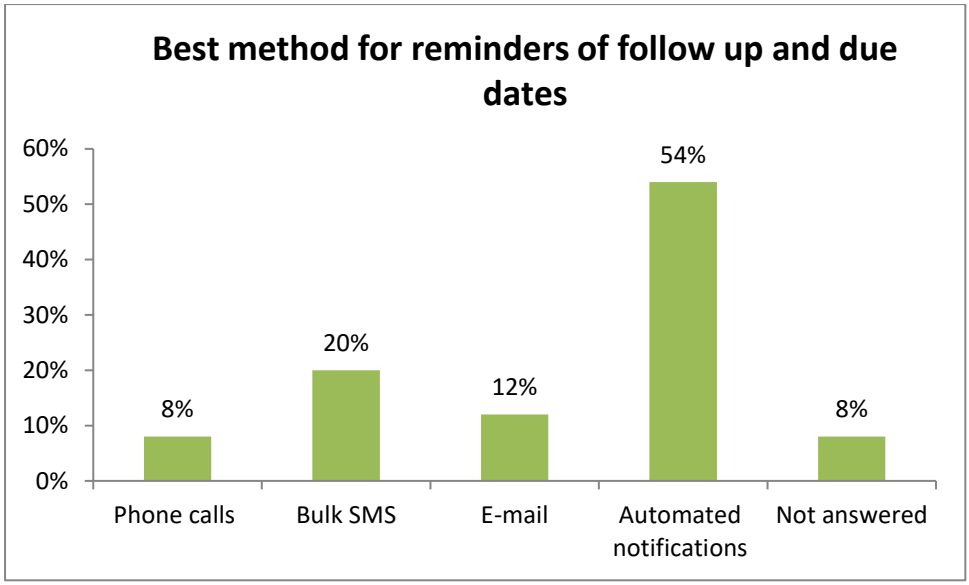
80% of members believe that an Information technology system will help them to manage their travel and check availability of team members at different activity sites. Also major default of approval of travel cost will be define in systemic for with proper breakups of the expense. So, travel management and travel cost can be selected as one of the module as required by the organization.

Fig 2...



According to FIG.....54% of members think that follow ups of the patients, reminders of the due date, taking follow up from the referrals and other stakeholders will become more convenient if automated notifications are generated for the reminders in spite of making phone calls which were selected by 8 % of them. As currently followed here, few of them still believe that making a call will effect more to the customers as it defines personnel relation towards them. Bulk SMS through personnel/official phone is a major cost for the team members, still followed here. Email (12 %) still remains to be used for senior officials and formal invites.

Fig 3...



The world of technology has grown and smart phones are the basic necessities today. 76 % of the members require mobile version enabling of the MIS so that it becomes anytime possible for them to update the modules and generate notifications accordingly. On the other hand 24 % do not require mobile app and feel MIS on systems are enough helpful.

Fig.....4

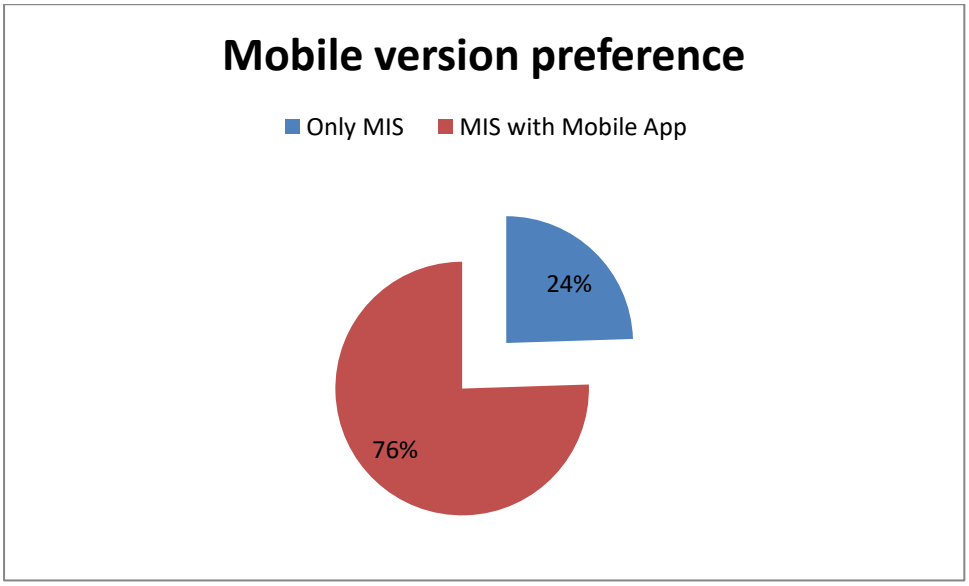
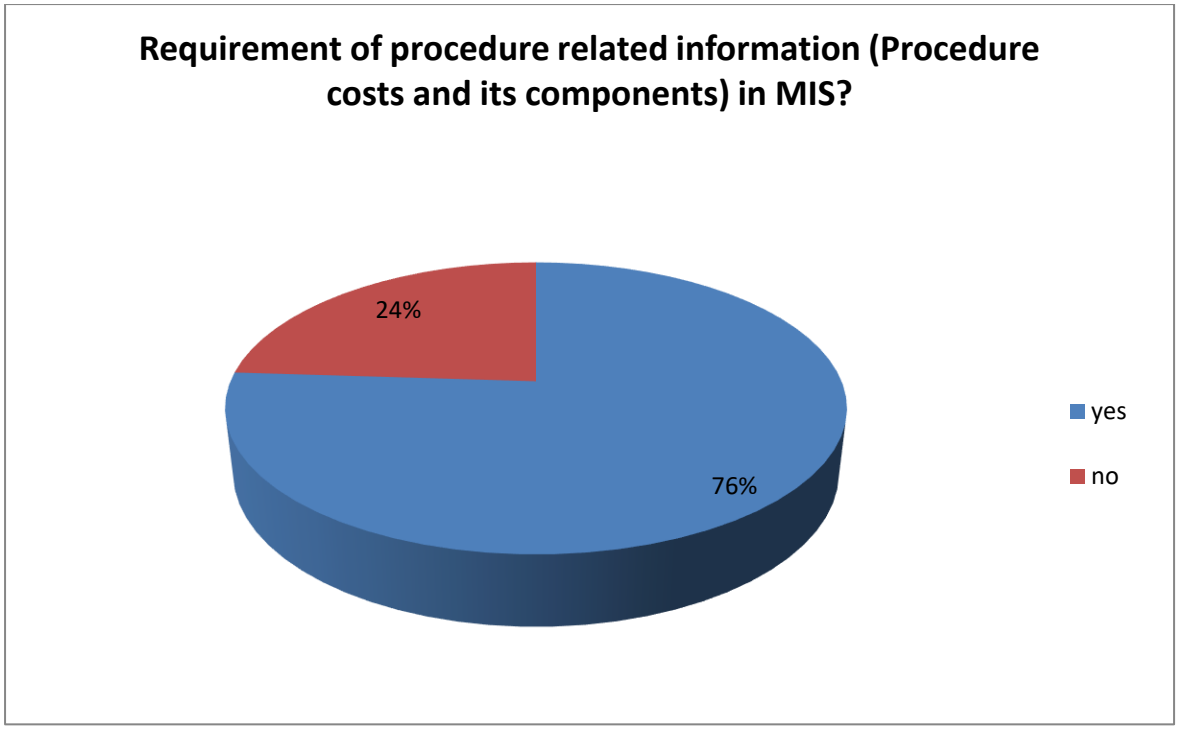


Fig...5.



According to fig.5... 76 % of individuals would like to store procedure related information in MIS software which to track so that any kind of procedure performed on patient can be tracked and with the cost of procedure and components involved. Order management can be used to track the same. Referral information would be tracked for procedures which are to be performed on the patients referred by doctors or hospitals.

Real time enquiry management is another a functional requirement where 42% (fig 6) of members think it will become for them to respond to various enquiries of the individual customers as early as possible, source of enquiry should also be tracked. Auto response for leads should be created for all stakeholders enquiries via e-mail. On the other 28 % of members report that inquiries can be better solved manually rather than using any technology, whereas, 20 % of them think it will not make any difference in solving enquiries as soon as they are generated.

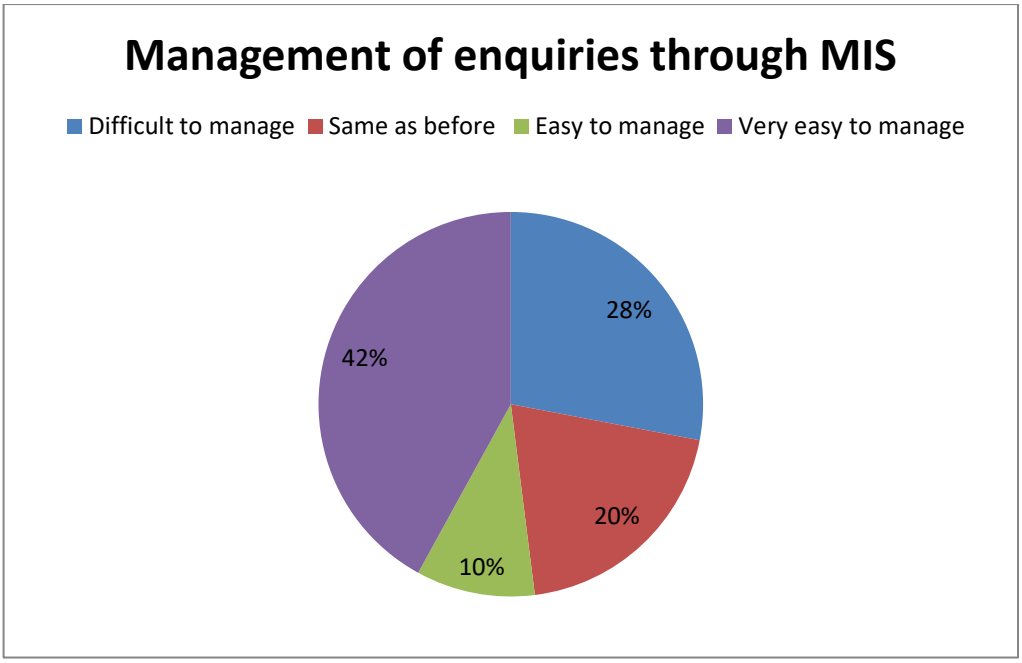


Fig6

On finding out the requirements and further designing of the modules preference of the employees were recommended. According to the respondents most preferred module was Contact management, ranked 1st by maximum (21/50) members amongst all. 2nd most preferred module was Referral tracking selected as 1st preference by 14 members and 2nd preference by 18 members.

Sales and calendar scheduling was preferred at the 3rd space while non-preferred was the package module selected on 1st only by 5 members. (Fig...7...)

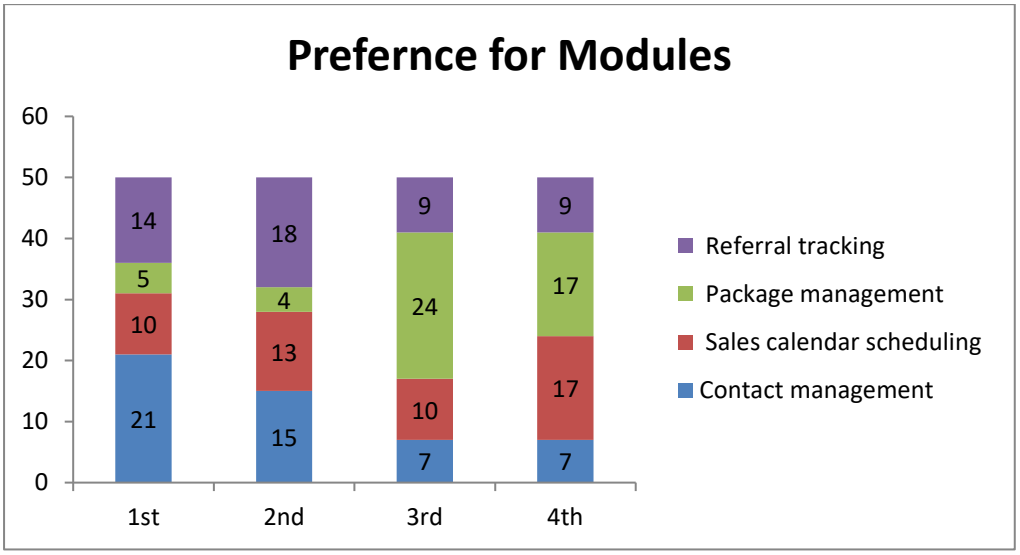


Fig 7

On further discussions with senior heads of marketing and sales and IT department all four modules were selected for designing MIS software with inclusion of other modules like

campaign management, travel management and Inquiry management as per the requirements. Thereafter recognizing the requirements of Jaypee Hospital, following were some of the findings for designing MIS software modules:

- Campaign Management - Enable the marketing teams to do Campaign Management and tracking

- Inquiry Management - Enable Sales teams to do Inquiry management & Lead management

- Account & Contact Management - Enabling Sales team to record and manage different type of accounts and contacts

- Referrals - Enable sales team to track all the referrals received from hospitals, doctors or internal employees. Track the benefit received to hospital from different contacts like doctors
- Reporting - Capture, Track and Report on all interactions with doctors, patients. Faster decision making with real-time proactive Reports and Dashboards with key performance metrics
- Travel Management - Managing and tracking of all travel related expenses

- Automation - Enabling sales team with automation to provide high quality of data validations and work flows. Automated Alerts and Reminders to all stakeholders at key stages.

  Below Table.... represents the modules designed for consideration and implementation into Computerized MIS for an efficient CRM system of Jaypee hospital.

  TABLE: 2: Designed modules with functional requirements of Jaypee Hospital

Module/ Functional Area	Functional Requirement
Campaign	Management of Marketing Campaigns like

Management	CME Meet, Health Check-up campaigns, Conferences etc. targeted towards Doctors, Suspected patients, Corporates etc. □ Automation such as tasks and notifications □ Campaign Management functionality is present in Salesforce. Actual Cost, budgeted cost can be captured for a campaign. Number of targeted Doctors, Corporates, and Individual patients can be easily Tracked through campaigns. This functionality would be further customized to meet customers' Requirements. □ Fields required as per the customer would be created.
Lead Management	Management of Leads received from different sources
Account & Contact Management	Managing details of various accounts and contacts in these accounts e.g. Hospitals & respective doctors, Corporates and respective employees, other organizations Like schools/NGO/ Media agencies, Individual Patients or Individual Doctors. □ Tracking of activities done by Sales team

	On all the accounts and contacts. □ Categorization of accounts based on type of institution like Hospitals, Schools, Corporate companies, NGO's, NRI's etc. □ Capturing details like Deciding authority, tie-up details, discount offered, any special package offered to account and respective contacts
Sales - Activity Management, Calendar scheduling	Capture/record all customer touch points - Meeting set, Demo, Calls, Email, Customer Not Available, Asked to come Another Day □ View open and closed Activities/Meetings, Design page layouts for easy Mobile interface □ Create meeting schedules via calendar □ Tracking of visits made to hospital by patients
Procedure Information	Any kind of procedure performed on patient need to be tracked with the cost of procedure and components involved
Package Management	Managing of packages Like Health insurance plans etc. which are offered to customers
Travel Management	Capturing Travel related details for all the Users.

	□ Having approval mechanism for Travel cost
Mobile Version Enabling	User can view tasks, Created tasks, Complete tasks, View and create Orders, Add products to orders, change status of order and update payment & delivery status on mobile app

CHAPTER 6
CONCLUSION

CONCLUSIONS

In the health care business, technology is really important in managing the customer and employee relationship to guarantee the best service, and most important of all prevent errors. That is because in the area of healthcare, a small mistake might lead to a permanent error or even death. This is made possible by using special application healthcare software. Nowadays, many healthcare centers use special application software in order to run their services. Many companies develop software compete to provide the market with the best software, which guarantees high performance, and thus more benefits for employees, and of course for the patients. Technology is healthcare not only support patients, but also helps employees such as doctors and nurses, and managers in order to take the right decisions.

Healthcare software helps in managing the duties of each employee, and givens the bottom line for important decisions on how to deal with different situations. In an industry such as medical health care, the main keys are speed and accuracy. That is because, as we mentioned earlier, the industry affects patients' lives directly. So technology is a major element in this industry in order to guarantee the best treatment for the patients, and the best coordination of employees.

For example, a CRM system can transform a patient's medical record into an analytical tool for optimizing the care of each patient individually. Not only do organizations user systems or detecting, reporting, and correcting the sources of fraudulent activities, but also helps them to proactively evaluate the quality of patient care and how the workers are performing their daily tasks.

Business strategy for Effective CRM system includes:

- Acquire customers (marketing prospective)
- Retain customers (service oriented departments like Patient care services, Operations/quality, Nursing, Medical services, Housekeeping, F & B and more...)
- Extend customers (IT prospective)

Fig 8

Business strategy: CRM model

CHAPTER 7

RECOMMENDATIONS & SUGGESTIONS

RECOMMENDATIONS AND SOLUTIONS:

1. Management should slowly change its services from traditional to technology based services by acquiring new technology i.e. implementing effective CRM system.

2. Computerized MIS should be implemented to build relationship with patients, referrals and other stakeholders and means to retain them. Recruitment and training of staff should be done for the same.

3. An effective CRM system can be used to transform a patient's medical record into an analytical tool for optimizing the care of each patient individually

4. A hospital customer relationship management (CRM) solution can help revitalize your broken processes and drive efficiency while boosting the loyalty of your patients and the physicians who refer those patients to your facility.

5. Hospital CRM systems that ensure visibility of the vital data needed to track referrals and manage patient care. Easily access information in real-time with confidence that it is complete and accurate.

6. Automated Processes: Minimize time wasted on manual processes and the opportunity for delays in care caused by gaps in communication with automated appointment reminders.

7. Standardized Procedures: Maximize agility and proficient coordination of care by creating standardized procedures to support agreements with the various organizations and physicians you work with.

8. Consistent Communications: Ensure consistent, quality care to patients by easily sharing patient information with practitioners and referring offices in a secure system.

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LIST OF ABBREVIATIONS

1.	HR	Human Resource
2.	LEED	Leadership in Energy & Environmental Design
3.	CRM	Customer Relation management
4.	MIS	Management Information System
5.	CME	Continuing medical education
6.	CEO	Chief executive officers
7.	IT	Information Technology
8.	PRM	Patient relationship management

LIST OF FIGURES & TABLE

ANNEXURE

QUESTIONNAIRE

ON

Requirements of Jaypee Hospital for developing Computerized modules for effective CRM system

QUESTIONNAIRE

S. No: …….....

Respondent No: …….

Department: ……

Q-1 Do you feel that Computerized MIS can be helpful in managing different campaigns and report submission of campaigns?

Yes ☐ No ☐

Q-2 what criteria do you like to campaigns module?

a. Campaigns selection criteria

(Specialty wise, demographic criteria's', doctors) ☐

b. Campaigns budgeting ☐

c. Tracking on leads ☐

d. Automated tasks creations ☐

Q-3 Rate on a scale of 10, how Computerized MIS will be helpful in tracking different sales activities like calls, emails, no. of visits to doctors?

…… (1-10)

Q-4 Do you feel Computerized MIS will be helpful in managing your travel related to sales activities and approval of travel cost?

Yes ☐ No ☐

Q-5 what is the best way for due date and follow up reminders according to you?

a. Phone calls ☐

b. Bulk SMS ☐

c. E-mail ☐

d. Automated notifications ☐

Q-6 what will you prefer …….

A. Only MIS on systems ☐

b. MIS + Mobile version (App) ☐

Q-7 Would you like to store procedure related information (Procedure costs and its components) in Computerized MIS?

Yes ☐ No ☐

Q-8 How easy will it be manages customer inquiries and tracking leads through Computerized MIS?

A. Difficult to manage ☐

b. Same as before ☐

C. Easy to manage ☐

d. Very easy to manage ☐

Q-9 Rank to 1-4 for your preference of modules?

a. Contact management ☐

b. Sales calendar scheduling ☐

c. Package management ☐

d. Referral tracking ☐

Thank you for your consideration.