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CUSTOMER RELATIONSHIP MANAGEMENT ADOPTION IN MEDICAL CENTERS

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15.1 INTRODUCTION

Nowadays, with the rapid change of business competitive environment, Customer Relationship Management (CRM) becomes one of the key factors to business improvement, development and stability of any organization. Enterprise resource integration and innovative subjects of business operation have slowly become the most crucial issues for businesses. In addition, many companies have implemented new information technology and developing the innovative electronic business applications systems such as knowledge management (KM), supply chain management (SCM), enterprise resource planning (ERP) and customer relationship management (CRM) to increase their competitive advantages.

The customers cause organizations, companies and all enterprise to continue their business, because without customer, there is not any goal to achieve for them. Deliver services to customer and consumer are the main mission for organization. Some organizations prepare facility, some other product utility and production and some else deliver services in various types such as healthcare, security, education and so on.

CRM systems can help organizations to attract potential new customers, encourage the existing customers to spend more, maintain good relationship with customers as well as to enhance

the customer value, thus can improve the enterprise reputation.

What is Customer Relationship Management? How can enterprise develop the CRM? These are the key questions we are going to answer with literature review in the first part of this paper and in the next part, we will focus on customer relationship management adoption in medical centers and expanding CRM strategy for hospital.

The concept of CRM is strategically to keep current customers satisfied and gain new customer in order to increase company's profit. In today competitive business, CRM is base line for enhancing better services, increasing company's life cycle and increasing profit. Over the past decades, there has been an explosion of interest in customer relationship management by both academics and practitioners. However, despite an increasing amount of published material, most of them are practitioner oriented work, there remains a lack of agreement about what CRM is and how CRM strategy should be developed [10].

15.2 CUSTOMER RELATIONSHIP MANAGEMENT

CRM is a complete business and marketing strategy that integrates technology, process, and all business activities around the customer [1].

In recent years, an understanding of how to manage customer relationships effectively has become a crucial issue for both researchers and practitioners [12]. "Organizations are realizing that customers have different economic value to the company, and they are subsequently adapting their customer offerings and communications strategy accordingly [7]. Thus, organizations are, in essence, moving away from product- or brand-centric marketing toward a customer-centric approach."

15.3 ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT

With the very high speed growth in electronic commerce and proliferate in internet-based services, electronic customer relationship management (e-CRM), a new concept of CRM is born. E-CRM covers and surrounds all the process needed to acquire, build and maintain relationship between customer and business through electronic business operations [7]. An investigation conducted in e-CRM and found that "Internet technology enables companies to track customers' performances and online behavior [8]. It can lead to customizing communications, products, services, and prices. Analysis of customers and customer interactions for electronic customer relationship management (e-CRM) can be performed by way of using data mining (DM), optimization methods, or combined approaches."

Electronic environments such as Internet, Wireless instrument and etc. have been providing the facility to introduce productions, services and all information to customers. Different new technologies give us the ability to keep close to customers. When customers visit the website of an organization, enterprise or a company, it is critically crucial for business to guess customers' concern and requirements to provide relevant information and suitable facility to increase satisfaction and loyalty of customer.

Marketing management can solidify ephemeral relationships with customers into long-term ones if it can discover and predict changes in customer behavior. By Internet, customers easily can access to information on various products from numerous companies. With information, then can influence their purchase decisions. Furthermore, companies can collect and analyze the customers' information in order to make better decisions in marketing policy through many types of information technology [8].

15.4 CUSTOMER RELATIONSHIP MANAGEMENT PERSPECTIVES AND DEFINITIONS

The term “customer relationship management” emerged in the information technology (IT) vendor community and practitioner community in the mid-1990s [10]. It is often used to describe technology-based customer solutions, such as Sales Force Automation (SFA). Their article also suggested that CRM can be defined from at least three perspectives: narrowly and tactically as a particular technology solution, wide-ranging technology, and customer centric [10]. These perspectives can be portrayed as a continuum (see Figure 15.1).

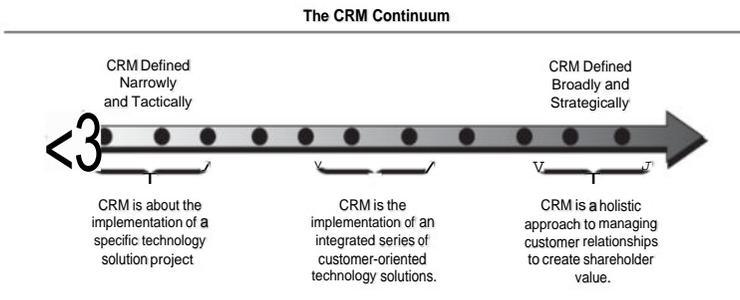


Figure 15.1 The CRM Continuum

One organization that Payne and Frow interviewed, which spent more than \$30 million systems integration, described CRM merely in terms of its SFA project. CRM is defined narrowly and tactically as a particular technology solution. They called this CRM “Perspective 1.”

In another organization that interviewed, the term CRM was used to refer to a wide range of customer oriented IT and Internet solutions [10]. This represented CRM “Perspective 2,” a point near the middle of the continuum.

“Perspective 3” reflects a more strategic and holistic approach to CRM that emphasizes the selective management of customer relationships to create shareholder value.

“CRM is a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments. CRM unites the potential of relationship marketing strategies and IT to create profitable, long-term relationships with customers and other key stakeholders. CRM provides enhanced opportunities to use data and information to both understand customers and co-create value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology, and applications.” [10]

Various definitions of CRM have been suggested. From managerial point of view, CRM is a relationship between business and customer consist of potential customers and current customers in order to increase customers' satisfaction and create customers' loyalty by improving services' quality to achieve and gain more profit. "CRM is an organizational method which is used to improve customer acquisition, customer retention, customer loyalty, and customer profitability through a meaningful way of communication that understands and influences customer behavior" [15].

Researchers also viewed CRM from both managerial and technological perspectives. CRM from a more accurate and IT centric viewpoint, is one-to-one marketing which equipped with computer technologies, such as database, interactive technologies, and mass production in order to make better and manageable learning relationship between customers and organizations [11]. Through the tracking of customer response rate, interactive information, and historical transaction information, organizations are able to provide the products and services which are required by each individual customer.

CRM considers two different perspectives [6]. The first one is on how to utilize customers effectively and define customers, not only current customer but also potential customer in high value. The second one is who to optimize customer relationship from customer's point of view and increase and maximize

customer's profitability for organizations. Ling and his college also defined CRM as: "A managerial strategy that helps organizations collect, analyze, and manage customer related information through the use of information technology tools and techniques in order to satisfy customer needs and establish a long term and mutually beneficial relationship".

15.5 CUSTOMER RELATIONSHIP MANAGEMENT PROCESS

15.5.1 Payne and Frow CRM processes

Payne and Frow also identified five key cross-functional CRM processes: a strategy development process, a value creation process, a multichannel integration process, an information management process, and a performance assessment process. They develop a new conceptual framework based on these processes and explore the role and function of each element in the framework. Short descriptions of these five key cross-functional processes are follows:

15.5.1.1 Strategy Development Process

This process is focused on a couple of parts, business strategy and customer strategy of organization. These two interrelated parts affect CRM strategy to succeed or fail. While business strategy is usually the responsibility of the chief executive officer, the board, and the director, customer strategy is typically the responsibility of the marketing department.

- (a) Business strategy: The business strategy begins with a review or statement of an organization's vision, especially as it relates to CRM
- (b) Customer strategy: Customer strategy consists of examining

the customers which involves existing and potential customers and identifying which kind of segmentations are most suitable.

15.5.1.2 Value Creation Process

The outputs of the first process, the strategy development process will transform to the program by the value creation process. Value creation process extracts and delivers value. Value creation process consists of three key elements:

- (a) What value the company can provides to its customer.
- (b) What value the company can receives from its customers.
- (c) By successfully managing this value exchange, which involves a process of co-creation or co-production, maximizing the lifetime value of desirable customer segments.

15.5.1.3 Multichannel Integration Process

This process is one of the most important processes in CRM because the outputs of the business strategy and value creation processes will be translated into value-added activities with the customers.

15.5.1.4 Information Management Process

This process is related with the collection, collation, and use of information and date of customer behavior from all customer contact points to generate customer insight and appropriate marketing responses. The key components of the information management process are the IT systems, data repository, analysis tools and front office and back office applications.

- (a) Data repository: provides a corporate memory of customers.
- (b) IT system: includes the organization's computer hardware, software, and middleware.

- (c) Analysis tools, front office and back office applications: support many activities which involve in interfacing directly with customers and managing internal operations, administration, and supplier relationships.

15.5.1.5 Performance Assessment Process

The performance assessment process covers the essential task of ensuring that the organization's strategic aims in terms of CRM are being delivered to an appropriate and acceptable standard and that a basis for future improvement is established. Two main components can be considered for this process: Shareholder Results and Performance Monitoring.

- (a) Shareholder Results: provide a macro view of the overall relationships that drive performance.
- (b) Performance Monitoring: provides a more detailed, micro view of metrics and key performance indicators.

15.6 SWIFT CRM PROCESS

CRM process consists of four parts [15].

15.6.1 Knowledge Discovery Process

KD process involves the analysis of customer information in order to assure marketing opportunities and investment strategies. Detailed customer information that enables the sales department to make the best decision based on developed historical marketing records and analysis of customer attributes is provided by Knowledge Discovery.

15.6.2 Market Planning Process

MP process defines products specifically, time, sales channels, and

some related factors to support the development of strategic communication plans or activities, such as services, preferences of channel, pre-defined marketing types, and product development.

15.6.3 Customer Interaction Process

CI process consists of the use of relevant and real time information through communication channels and front office applications, including interactive applications, customer contact applications, sales applications, and customer service applications to communicate with customers.

15.6.4 Analysis and Refinement Process

AR process represents communication with customers and ongoing learning from customers. Organization with the analysis of the customers' behavior can adjust product price, communication model, and quantity. CRM is an ongoing cycle of these four processes.

15.7 Customer Relationship Management in Healthcare

Over the past five decades, strategies of the marketing and practices have changed sharply, from public marketing to one-on-one marketing. Thus, the supporting IT applications have also been evolving. Organizations utilize a series of technologies for CRM purposes, such as Internet, database management systems, online analytical processing (OLAP), data mining, data mart, data warehousing and call centers. In order to retain a long-term relationship with customers, organizations should establish a long-term and continuous “learning relationship” [11].

Supportive technologies include several kinds of interactive media, for example, telephone service centers, Web sites, sales automation, and automation at the point-of sale, allowing

customers to specify what types of services they desire.

Improvement of healthcare quality services and customer satisfaction are the key factor to increase customer loyalty. Healthcare Information and Management Systems Society (HIMSS) in 2009 reported that "the chief information officers (CIO) in hospitals ranked consumer considerations as the second most important business issue that has an impact on the healthcare sector" [14]. The top issues confronting hospitals based on a survey among 1080 hospitals in 2007. CRM related issues (care for the uninsured, physician/hospital relations, and customer satisfaction) which most concern the chief executive officers (CEO) have been in the top-nine list for three consecutive years.

Healthcare providers of CRM is an approach to learn all about their customers and respects, to communicate relevantly, timely information to them, and to track results to make program adjustments necessary. From a non-profit point of view, hospitals as a firm should provide quality medical services to those who are not insured and insured. It is most important for hospitals to manage customer relationships in order to keep finance in balance, target those who can afford the health insurance, increase their loyalty, and generate more profits in order to cover the extra expenses of the uninsured.

"From the business perspective, patients represent the major customers of the hospital who receive and feel the healthcare services directly. Customer satisfaction is the key to maintain hospitals' profitability since the customers' choice of a favorable hospital is frequently based on their inquiry into healthcare information and the experiences of their friends, family members, or colleagues. In the United States, customers who have medical insurance still have the right to choose a hospital from among several alternatives given by the insurance company. Thus, hospitals need to provide quality CRM to their customers in order to build a positive public image" [4].

An investigation on a hospital information system in Linköpings University Hospital in Sweden [2], short description of "hospital's structure" and "hospital as a firm" are discussed in this

review.

15.8 Hospital's Structure

An analysis of the structure of the hospital sector is hard to accomplish since there is nothing as a typical hospital. Hospitals reflect a wide range of differences and a diversity of features with which they are associated. They can vary in patterns of ownership, from private for-profit and non-profit institutions, and in functional type.

Vertical and horizontal information linkages are used to provide relevant information among people within organizations. The emphasis in efficiency and control is associated with the following features:

Specialized tasks vs. shared tasks, empowerment.

(a) Strict hierarchy, many rules vs. relaxed hierarchy.

(b) Vertical communication and reporting systems vs. horizontal communication.

(c) Centralized decision making vs. decentralized decision making.

When the external environment is stable, the internal organization will be characterized by rules, procedures and a clear hierarchy of authority, which is the case of a health care institute, believed that "the patient is uncertain over time because illness itself is unpredictable") [2].

15.9 Hospital as a Firm

Hospital output might be seen as a type of good with a number of characteristics, quality being one. Hospital's outputs are usually separated into medically necessary treatments and amenities. The latter seen as type of final products and treated like any other similar market good. Therefore they operate in two markets:

(a) An intermediate market with healthcare supplied as a result of

the demand for health.

- (b) A final market for amenity consumption goods (food and hotel-type services)

Hospital's product markets may be conceptually distinguished. Quality and quantity of these products are subject to a budget constraint with the medical staff reinforcing the maximization of quality levels. The hospital is seen as a single product firm whose physical product is measurable and the administrator conducts the decision-making process.

15.10 Hospital CRM System

The rapid increase in the amount of medical information has pushed hospitals to confront a critical issue, which is how to utilize information technologies to manage large amounts of customer information and then improve the quality of customer services [4]. The adoption of a customer relationship management system (CRMS) thus is increased globally among hospitals. One of the most important media which influence patients' satisfaction is web site. Hospital's web site has a critical role to increase satisfaction, because of patients can give more medical information and follow medical services remotely. Nowadays hospitals utilize themselves by web site and linking these web sites to their HIS.

15.11 Hospital Customer Relationship Management System Adoption Factors

In this study we reviewed previous literature to find crucial factors which influence CRM adoption in medical centers. According to previous study, five important features imply medical centers to accept, adopt and use of CRM in CRM system or in Hospital Information System (HIS). These five characteristics are divided in two categories [4]. Characteristics of organization and

characteristics of system.

15.11.1 Size of Organization

Small businesses usually endure more restrictions, such as lack of resources, financial constraints, lack of experts, and management with short-term insight [5]. Thus, the size of organization is positively related to the adoption of CRMS

15.11.2 The Information System Capabilities of Staff

Small European organizations failed because they lacked knowledge of information systems (IS) [9]. Because of the obstacle lack of skill and technical knowledge required in the development process, many organizations delay innovation adoption, and tend to wait until they have sufficient technical expertise.

15.11.3 Innovation of Senior Executives

The characteristics of senior executives in organizations affect the adoption of IS [16]. The positions and roles of senior executives have different effects on the organization's behavior towards innovation. Some studies pointed out that the important factors in organizations should not be ignored.

15.11.4 Knowledge Management Capabilities

The meaning of knowledge management capabilities is that organizations based on reliable information capture, manage, and transmit real-time customer product and service information in order to enable organizations to make rapid decisions and improve customer response [3]. The growth of enterprises should be

focused on customers, data warehousing, data mining, and the integration of computer technology and explicit knowledge used in order to identify potential customers.

15.11.5 Relative Advantage

Perceived characteristics of the innovation based on what affects the adoption of innovation of the organization implementing the innovation [13]. The perception of IS from the potential implementing organizations is importantly used for judging whether IS will be implemented.

15.11.6 Complexity

“Diffusion means a process of adopting a specific innovation from introduction to acceptance by the members of the social system “[13]. He also identifies innovation diffusion as the process of disseminating an innovative object through certain channels for a period of time, and then it is being accepted by the members of the social system.

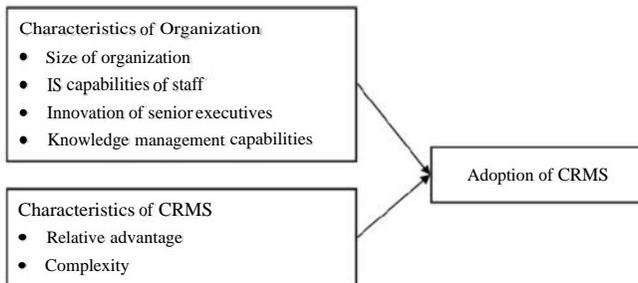


Figure 15.2 Adoption of CRMS

15.12 Chapter Summary

CRM is a key policy and crucial factor for organizations to improve and develop its delivery services and getting the customer closer. IT helps organizations to achieve most important goal. CRMS have been implemented in a various type of organization. For example, medical centers use CRM in CRMS or HIS to deliver better services to patients, to increase satisfaction and loyalty to their customers. Adopting CRM in hospitals is dependent on different features and factors. According to previous literatures, size of organization, IS capabilities of staff, innovation of senior executives, knowledge management capabilities, relative advantages and complexities are the most important factors which influencing hospital to adopt CRMS.

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