



**“THE IMPORTANCE OF CUSTOMER RELATIONSHIP
MANAGEMENT IN SOFTWARE ENTERPRISES’ LIFE CYCLE”**

By

Kranidioti Diamanto

**A THESIS REPORT
Presented to the Project Management Program in the
School of Management of
City University of Seattle
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF SCIENCE PROJECT MANAGEMENT**



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This Master Thesis was elaborated in the frame of the collaboration of the City University of Seattle and the Graduate Technological Education Institute (T.E.I.) of Piraeus to fully implement at TEI of Piraeus Campus the CU’s MS in Project Management Program approved by the Hellenic Ministry of National Education and Religion Affairs as by decision E5/58291 published in the Hellenic Government Gazette (FEK) B/924/5- July-2005.



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To my thesis advisor, Dr. Kostas Kontesis
for his significant contribution
to the achievement of this thesis.
Also to my family for their encouragement
and patience during the period of this research.

Kranidioti Diamanto

BIOGRAPHY

Kranidioti Diamanto has a bachelor degree in Business Administration of University of Patra. For the last two years, she is working as manager in the department of sales of Themelio Software enterprise. Themelio Software is a grower company which has been activated in software development since 1989, especially for constructors of aluminum. Her responsibilities include customer service, projects development, product marketing, salesmen training, and revenue monitor and collect the appropriate data for creating an accurate input from the customers. Conclusively, the author's workplace position includes numerous project management opportunities and challenges.

For the time being, she is enrolled at City University as post-graduate of MS of Project Management program, from where she expects to get the appropriate knowledge in order to make her work more effectively.

ABSTRACT

The purpose of this study is to gain a better understanding of CRM in software enterprises. This research surveys, describes and explains the importance of CRM, how CRM is managed, and how CRM is measured and evaluated. In her quest for answers, the author has found that CRM process is significant in every phase of the project, during its life cycle, as long as the entire project is based on customer's specifications and expectations. In addition, the author highlights the main reason of failure of CRM project in software enterprises. Commonly the people who are in charge in CRM completion are technical experts with no managerial skills concerning the customer relationships and face the CRM as technology and not as business philosophy. Concluding this thesis, the author comes up with a number of issues that she believes that can be valuable to managers who are interested in receiving knowledge in the area of customer relationship management.

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CHAPTER 1

1.1. Nature of the study

In today's competitive business environment it is necessary for organizations to collaborate effectively with their customers in order to win their loyalty and trust.

This collaboration, usually, tends to be very difficult, especially in software enterprises, due to inefficient communication between organizations and their customers and due to the lack of knowledge, and qualified people with the appropriate skills in order to work closely with the customers, understand their needs, and serve them with the best way.

The nature of this study is to make clear the importance of the customer's role and the significant meaning of a well-organized and customer-focused organization, factor which is able to create a competitive position in the market.

1.2. Need Assessment

The stakeholders of this thesis are the software enterprises and their competitors, the customers, and the customer relationship managers.

This thesis will provide the stakeholders with useful knowledge in order to identify the factors that inhibit the fertile relationships between the organizations and the customers, and will help them to realize the importance of that relationship. Moreover, the stakeholders can find recommendations/solutions for improving the CRM in their organization.

1.3. Purpose of the Study

The purpose of this study will be to consider the importance of the customer's participation to ensure a financially sound organization. The author will analyze the reasons that cause organizations to tend inwards and stop focusing on the customers. Especially in the case of software enterprises, where the needs and expectations change very often due to the

runaway development of technology, the customer relationship managers should observe and follow the customer's wants. The human resources in every software enterprise are composed of people who are technical experts with excellent skills in information systems. The factor that most enterprises don't take into consideration is that these people don't have the appropriate managerial skills. The customer needs to talk with someone who talks the same language as him/her, someone who will listen to him/her and gain his/her trust. Also, it should be mentioned that the target of any organization is not just to make a good sale, but to make the customer come back for more business. Effective CRM is a method to succeed in reaching that target and securing it.

In addition, the author will identify tools and methods that will suggest the proper method in order to have a good collaboration between the customers and the organizations. These include techniques that the enterprise should follow so as to understand what the customer wants and expects. The results from this process are not only to gain a good reputation and increase the sales, but also to reduce the product cost substantially as long as the product specs are according to customer's needs so that changes are limited.

1.4. Relation to the Program of Study

As it is mentioned in the course PM 512-The Customer in the Project Process, client, customer, and stakeholder satisfaction are keys for a successful project. This course showed why it is necessary to sustain a client focus that includes techniques for promoting and maintaining client participation, marketing to clients, client and prospective client relations, training, and client presentation and selling skills.

This thesis will analyze this issue in more detail and will identify who the real customers are along with their actual needs and wants. Also, this study will stress the importance of a customer's role and how crucial is to keep the customer aware and communicate with him during the whole life cycle of any organization.

1.5. *Definition of Terms*

This part of thesis has as a purpose to point out some significant terms and analyze the complexity of them in order to help the reader to understand the meaning of these terms.

CRM: Customer Relationship Management

IT: Information Technology

SFA: Sales Force Automation

KM: Knowledge Management

CHAPTER 2

2.1. *Problem statement*

The development of customer relationship management (CRM) antedates the startup of the project, is comprised during the project execution, and continues long after project consummation. Customer relationship management is directly associated with the customer's life cycle. However, many enterprises think that CRM is dead or even though they apply this methodology they don't have the appropriate qualified people who can make this work effectively. All these have as result to lose the key for business success: customer's satisfaction, which is a key factor (together with the three principle factors of time, cost and performance) for a project successful management.

2.2. *Rationale*

Customer relationship management (CRM) is an approach that provides organizations with tools and processes in order to serve their customers with the best way. The first step that the organizations have to make for the purpose of this approach is to understand who the customer is. Understanding as clear as possible customer's needs, wants and expectations enables the organization to build strong relationships and increase sales, focusing on both receiving and delivering value.

It is widely known that it takes more effort and costs more money to attack a new customer than to keep an existing one. Throughout the process of understanding the customer's life cycle the organization supports its customer relationship management so as to stay close with the existing customers and win new ones.

In today's competitive business environment a disappointed customer automatically becomes someone else's customer. Customer relationship management helps to collect all the appropriate data and information about the customers and serve them with the way that they

expect and make them come back for more business. With this information it will be clear why do customers buy and what do they buy.

The fundamental principles of CRM are:

- Understand what motivates the customer
- Customize services and products
- Good service
- Prioritize profitability

Though this approach the organization is able to control the sales, to improve the product quality and gain competitive advantages.

Nowadays, more and more organizations adapt this new methodology of CRM by using software tools, templates, statistic metrics which help to gather, analyze and ultimately the customers' databases in order to satisfy the needs of their valued customers.

2.3. *Hypothesis*

The customer relationship management can have positive impact across the organization only by implementing the right solutions for it. Pinpoint the CRM goals of the organization and select the appropriate type of CRM is the first step for that process. Only by planning and finding the correct people for that work the organization can anticipate and respond to the customers' needs in a consistent way.

CHAPTER 3

3.1. Literature Review

The two previous chapters provide the background and the problem discussion of this study. In this chapter, the author review earlier studies within the purposed research area, having as aim to provide relevant literature in the field of CRM. The author will analyze the meaning of CRM and how it is involved in a software project life cycle. In addition, the author will highlight the importance of CRM implementation in an organization and the valuable benefits that proceed from it. Finally, the author will examine the factors the lead a software enterprise to have a frustrated CRM and point out the problems that occur due to it, and give solutions in order to improve CRM and achieve customer's satisfaction.

3.2. Understanding the meaning of CRM

For many years, the organizations have focused much of their effort on cutting costs and improving of their effectiveness. They have attempted to update internal processes such as logistics and finance, but the management effort concerning the customer into activities, such as sales and marketing, has often deferred.

As markets strengthen and suppliers become more efficient in delivering products and services it becomes harder to be competitive and strong. What differentiates one product from another similar? At the same time, as the quality of the products and services improve, customers' expectations increase the same. That gives to the customer the ability to switch supplier with easiness and becomes harder and harder for the organizations to keep their loyalty.

The spirit of Customer Relationship Management is about knowing your customers and the way they want to be treated. CRM is about customer knowledge, not about a complex

and dynamic software. CRM can have many definitions and a wide range of scopes, but it can also be easy and simple as managing your actions and keeping your promises.

Customer Relationship Management is a strategy used to learn more about customers' needs, wants and expectations in order to develop stronger relationships with them. The effective CRM can be defined as the key for business success, while it is a business philosophy which places the customer in the heart of the organization's culture, processes and actions. There are many definitions about CRM that have been developed all these years. According to Ko et al. (2004), CRM is defined as the integrated customer management strategy of a firm to resourcefully manage customers by providing customized goods and services and maximizing customers' lifetime values. Kincaid (2003) characterizes CRM as "the strategic use of information, processes, technology, and people to manage the customer's relationship with the company across the whole customer life cycle." According to Swift (2001), CRM is also defined as "an enterprise approach to understanding and influencing customer behavior through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer profitability." The quality of customer service is determined and evaluated by the customer, and this affects the desirability of a relationship with the organization. Customer service creates the moments of truth with the customer, and these service encounters need to be managed by the organization (Payne, Christopher, Clark & Peck, 2001).

The aim of CRM is to help the organization to get insight the customers' behavior and the value of them, so as to increase their loyalty. The goal of CRM is to achieve a competitive advantage in customer management and ultimately increase profit levels (Gartner Group, 2005, 2006). It is general believed that attracting new customers costs five times as much as keeping or managing existing ones, which means that existing customers contribute five times more sales than new customers do (Seo, 2001).

The crucial point of a CRM approach is the acquirement, maintenance and generally customer profitability of a particular group of customers:

Acquirement of customers: this refers to the need of organization to find new customers for their products. This means they have to develop strategies to attract potential customers to buy the product. The cost of attracting a new customer is estimated to be five times the cost of keeping a current customer happy (Kotler, 1997).

Maintenance of customers: organizations also have to focus on existing customers in order to make certain that they keep on purchasing and persist supporting the product. Organizations can raise their profitability by between 20% and 125% if they improve their customer retention rate by 5 percent (Peck, Payne, Christopher & Clark, 2004).

Profitability: Customer profitability reflects the financial performance of customers with respect to all the costs related with a business deal (Gordon, 1998). Profitability concerning CRM is defined in the light of the lifetime value of the customer to the organization, taking account the profits and expenses related with each customer and their particular dealings over time (Gordon, 1998).

3.3. *The Customer Relationship Management architecture*

The CRM architecture can be broken down into three groups: operational, collaborative, and analytical. Each of them has an important role in CRM strategy, and an organization that wants to succeed must understand the value of using these three categories effectively:

Operational CRM deals with the automation of certain processes in the organization. When a contact is made with a customer, the information of this interaction will be automatically inscribed in a database, and the organization will be able to have all the considered necessary information of that customer when it is needed.

The next essential element of CRM architecture is analytical CRM. Analytical CRM deals with analyzing data that is collected by the organization. This information will be analyzed so that the organization can improve its customer service facilities. By improving its customer service facility, the organization will be able to build stronger relationships with its customers and gain their loyalty, which can be translated as more profits. There are many ways that analytical CRM can be used in order to achieve this. It can be used to make available essential information to customers in a short period of time. Moreover, analytical CRM can evaluate the methods of sales, inventory, and profits in order to find new methods that are not consistent. Analytical CRM is also important when it is part of product development and risk management processes. It is important for the organization to understand that analytical CRM is a continuing procedure and may there is the need to adjust its methods to this information that is examined through analytical CRM process.

The third important component of CRM architecture is collaborative CRM. This aspect is important because it gives emphasis on the contacts that the organization will make with its customers. These contacts could be personal, or they could come through mediums such as telephone or mails. When contacts are made with customers, collaborative CRM

allows the organization to present them helpful information, through a powerful form of communication that will use numerous methods and technologies. Since the aim of CRM is to discover customer's needs, wants and expectations and try to filled them, collecting and analyzing the information from the contacts with the customers will help to strengthen the relationships with the customers.

Customer relationship management may be the most dynamic solution in order to stop problems before they arise. Preventing problems is much easier and costs less than trying to solve them when they occur.

3.4. The core benefits of Customer Relationship Management

CRM researchers had assumed that CRM benefits varied by the type of the organization as the methods and technologies related to CRM were customized to specific organization processes. Nowadays, however, the desired CRM benefits do not differ to a great extent across the organizations or countries, as had earlier been considered. Almost any business can benefit from a comprehensive approach to CRM, in a variety of ways:

For the organization: By collecting all the needed information in one available data base, a CRM system reduce the amount of errors an organization is possible to make in dealing with customers. Knowing that addresses and contact information are truthful and managing service agreements to allow salespeople to have access to this information through the CRM system, they become more focused on delivering brilliant customer service and as a result to increase profits. CRM can also automate communications and other functions of the organization. A CRM system can be programmed with auto responders that send information when requests are sent to exacting e-mail addresses and that from time to time send customers newsletters, new product information, reminders, relevant news and the like. Because this is followed and managed by the system, it cuts down on the time it takes to keep customers informed about the organization. Because all these data are collected in one

location, salespeople can easily manage quotes and estimates and view buying models.

For the customers: Customers benefit from CRM systems because of increasing efficiency and effectiveness of customer service. When a customer calls to place an order or receive assistance, he or she no longer has to wait for the “right” person to help, because anyone with access to the CRM system can provide assistance. This increases efficiency and gain customer’s loyalty. The customer feels that the organization is close to him, knowing his needs, wants and expectations.

For the employees: A CRM system can help the employees by empowering them to help customers more professionally, which permits them to do their job better, limiting some sources of dissatisfaction and increasing job pleasure. Since employee-customer contacts and their results are often captured in CRM system, both employees and their supervisors can invest time on areas that need improvement. Furthermore, CRM provides an early-warning system for employee effectiveness to avoid problems before it becomes embedded. The CRM system can bring to light clues to these conditions much sooner than an employee, who is busy trying to overcome the obstacles rather than change them.

For salespeople: CRM gives salespeople better and more convenient access to all the needed information. For marketing personnel, CRM offers an easier way to manage and track campaigns and other promotional movements. For customer service employees, CRM provides direct access to customer information and contacts, allowing them to avoid possible problems before they develop into issues.

The following lists of desired CRM benefits were collected and summarized from recent CRM studies.

Table 1Summary of CRM benefits

Author/Date	Core CRM benefits
Buttle (2004)	<ul style="list-style-type: none"> ▪ Increases revenue ▪ Increases customer satisfaction and loyalty
Zikmund, McLeod and Gilbert (2003)	<ul style="list-style-type: none"> ▪ Improves customer focus ▪ Increases share of customer ▪ Enhances long-term profitability ▪ Enhances satisfaction ▪ Personalizes service
Winner (2001)	<ul style="list-style-type: none"> ▪ Enables better customer attraction, conversion and retention of target customers
Verhoef (2003)	<ul style="list-style-type: none"> ▪ Improves customer commitment, satisfaction and loyalty
Thomas, Reinartz and Kumar(2004)	<ul style="list-style-type: none"> ▪ Improves marketing effectiveness ▪ Enables customization on products and services ▪ Improves marketing efforts to individual customers
Thomas, Blattberg and Fox (2004)	<ul style="list-style-type: none"> ▪ Enables organizations to win-back lost customers
The Sales Educators (2006)	<ul style="list-style-type: none"> ▪ Improves customer knowledge and feedback ▪ Supports new product development ▪ Improves customer solutions and values
Sabri (2003)	<ul style="list-style-type: none"> ▪ Enables personalized products and services ▪ Improves sales force efficiency ▪ Improves product development
Rigby and Ledingham (2004)	<ul style="list-style-type: none"> ▪ Improves information sharing with the selling organization ▪ Automates all aspects concerning the customer relationship cycle
Rigby, Reichheld and Schefter (2002)	<ul style="list-style-type: none"> ▪ Improves customer acquisition and maintenance efforts ▪ Improves the ability to offer the right products to the right target of customers ▪ Motivates employees to advance customer relationships
Jones, Sundaram and Chin (2002)	<ul style="list-style-type: none"> ▪ Improves sales force efficiency and effectiveness

	<ul style="list-style-type: none"> ▪ Improves pricing ▪ Reduces cost-to-serve
Jones, Stevens and Chonko (2005)	<ul style="list-style-type: none"> ▪ Improves ability to find, obtain and keep customers ▪ Increases salesperson efficiency ▪ Assists in gathering competitive intelligent ▪ Coordinates communication ▪ Enables salespeople to have a lifetime value perspective
Chen and Popovich (2003)	<ul style="list-style-type: none"> ▪ Increases data sharing across selling organization ▪ Improves customer service ▪ Improves cross-selling/up-selling ▪ Improves customer targeting ▪ Enables better personalization of marketing messages ▪ Provides better self-service options for customers ▪ Improves buyers-sellers integration
Croteau and Li (2003)	<ul style="list-style-type: none"> ▪ Enables customization of products and services ▪ Provides customers a “one-to-one” experience ▪ Improves sales force efficiency and effectiveness ▪ Enables customized marketing plan for each customer
Jones, Brown, Zoltners, and Weitz (2005)	<ul style="list-style-type: none"> ▪ Improves customization of services and product offerings ▪ Enhances ability to create long-term partnerships ▪ Improves salesperson efficiency and effectiveness

3.5. CRM objectives

According to Burnett (2001) there are three categories in order to describe the objectives of CRM: cost saving, revenue enhancement, and strategic impact.

To be able to find out how organizations CRM objectives can be described in terms of the first category, cost *saving*, objectives from the following sources will be used:

- Decreased general sales and marketing administrative costs (Burnett, 2001)
- Reduce cost of sales (Greenberg, 2001)
- • Increase sales representative productivity (Greenberg, 2001)

To be able to find out how organizations CRM objectives can be described in terms of the second category, *revenue enhancement*, objectives from the following sources will be used:

- Win Rates (Burnett, 2001)
- Better information for better management (Byon et al., 2002)
- Acquiring new customers (Kim et al., 2003)
- • Secure service (Kim et al., 2003)

To be able to find out how organizations CRM objectives can be described in terms of the third category, *strategic impact*, objectives from the following sources will be used:

- Improved customer satisfaction rates (Burnett, 2001)
- Improve global forecast and pipeline management (Greenberg, 2001)
- Service helps organizations to delight customers (Ryals & Knox, 2001)
- Improving channel management (Kim et al., 2003)
- Establishing relationships with customers (Kim et al., 2003)
- Building an attractive virtual community (Kim et al., 2003)

3.6. *The steps in the implementation of CRM strategy*

Successful implementation of CRM requires specific actions on the part of the organization. The accomplishment of a CRM plan as proposed by Peppers, Rogers & Dorf (1999) comprises four steps: the identification of customers, the differentiation of service, interaction with customers and the differentiation among customers.

Step 1: The identification of customers

The identification of customers allows the organizations to select those customers that they are considered as being advantageously important and who they believe can add to the success of the organization. These customers have distinctive needs and due to their value to the organization, will have products developed to meet these needs. It is important to identify and categorize these customers so as to select as much detail as possible in order to have a clear picture of the customers and their profile. Having this information makes the organization able to determine the customers that have been with the organization for a long period and have developed long-term partnerships and those that have recently started using the products and services of the organization. It can be said that indentifying new and existing clients increase the level of customer service.

Step 2: The differentiation of service

The differentiation of service means that different customers receive a different level of service and a different product from the organization, depending on their value to the organization and their particular needs. This requires the organization to identify the most important customers and adjust service accordingly. As the organization is aware of the value of each customer, service level can be adjusted consequently. Differentiate between the services offered to new and existing customers enhances the level of customer service.

Step 3: Interaction with customers

This step refers to the significance of interacting with the customer in relationship building efforts through a variety of communication tools and technology methods. This is essential as long as the relationship can only be developed and be continued only if there is efficient communication with the customers concerning their needs, expectations and desires. That means that the organization has to develop methods of communication proactively with customers regarding the organization's products and try to initiate dialogue with customers. The customers with whom communication takes place are not necessarily all the customers, but only those that the organization concerns as being strategically important. These relations with the organization enhance the expectations of the customers regarding the service received as well as the value of the relationship.

Step 4: Customization of products, services and communication

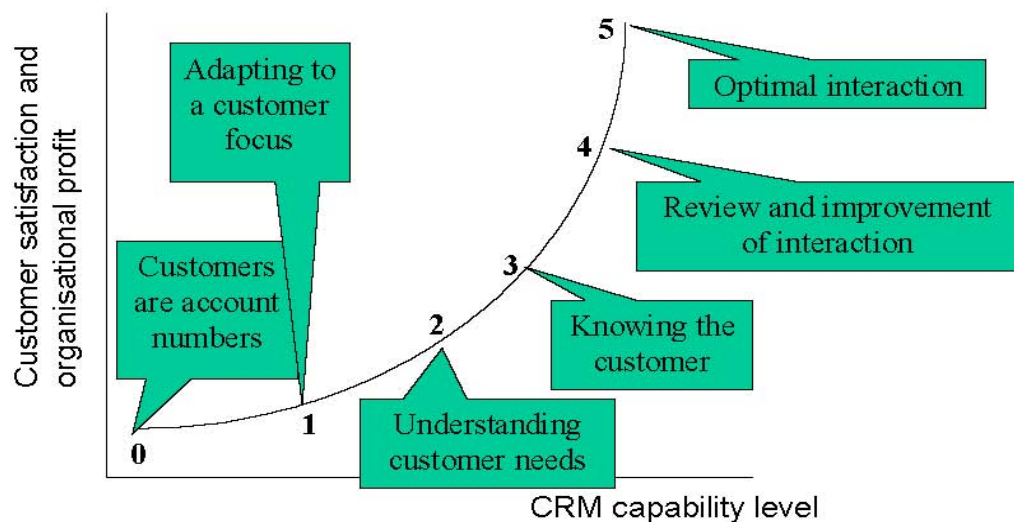
Customization is approved by the organization in order to make assured that customer needs are met. It requires that the organization adapts its product, service or communication in such a way as having something exceptional for each customer. Communication can be customized to concentrate on the specific needs and profile of the customer and organization also makes use of personalization as part of this process. Products can be customized according to the specific expectations that the customer has of the organization. The intention of customization is to enhance customer satisfaction, and the loyalty that is demonstrated by customers. The relationships with the customers are stronger if customized service is offered according to each individual customer's needs, wants and expectations.

CRM applications do definitely vary in their complexity and difficulty. Consequently, a CRM life-cycle has been planned to describe how companies move from product-centricity to customer-centricity. AIT (2001) recommends a 6-level conceptualization of the CRM development. At level-0, there is no CRM solution in process. Customer data is possible to be

stored in product with substantial replication. The most advanced CRM-appliance, at level-5, organizations can make valuable changes to the way they interact with customers based on the knowledge they have of their customer database, the market and the general business environment. This is a true multi-channel organization with incorporated customer database, analytical know-how, planned business processes, and customized value suggestions. Figure 1 shows the AIT model.

Figure 1: The AIT model of the CRM life-cycle

The CRM life-cycle

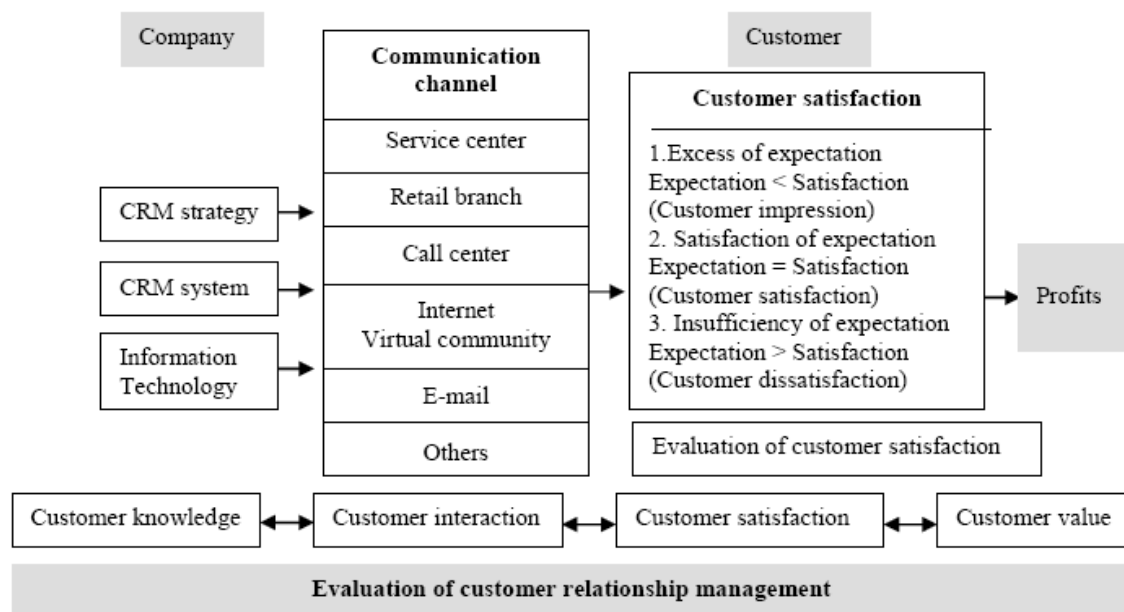


Source: AIT 2001

3.7. Metrics of CRM effectiveness

Kim, Suh & Hwang (2003) recommend an application structure for evaluating CRM effectiveness. According to Kim (2003) there are some reasons why performance measurement is so influential in enhancing business. Firstly, measurement removes the uncertainty and disagreement that enclose high-level strategic concepts. Second, measurement provides the accurate language for clearly communicating at all levels about what the organization wants to achieve and how it is going to do in order to accomplish it. Third, measurement allows the continual assessment of organizational position on strategic objectives. Last but not least, measurement not only improves the possibility but also speeds the rate at which change occurs. The four perspectives which evaluate the effectiveness of CRM are *customer knowledge*, *customer interaction*, *customer value*, and *customer satisfaction*.

Figure 2: The evaluation process of CRM



Source: Kim, Suh, & Hwang (2003), pp.14

3.7.1. Customer knowledge.

In order to implement the customer-centric business environment, organizations use data about their customers. A main problem is filtering, categorization, control, analyzing, and managing this data in order to extract information appropriate to CRM activities.

Technology learning is also essential towards understanding customers. It is necessary, therefore, to assess employee skills to use customer information successfully. Security is another crucial and significant factor when dealing with customer information. Many customers are concerned about the personal information that is enclosed in databases and how it is being used.

3.7.2. Customer interaction.

Many communication channels are developed to interact with the customer successfully. To manage various communication channels effectively, managers make an effort to monitor the business processes. The customer relationship can be reinforced by effective customer communication. Customer interaction has the following components:

- Contacts with organizational staff-front line and other
- Outbound contact management-mail, telephone, sales visits, and deliveries
- Physical service environment
- Transaction - price, value, and terms

Communication channels not only consist of classic communication channels such as letters, fax, and telephone but also include new methods such as call centers, service centers, Web sites, and virtual Internet communities.

Furthermore, organizations need to analyze the business process to estimate measures such as payment methods, delivery channels, and product multiplicity. Customer satisfaction can be increased by improving operational. Consequently, it is necessary to analyze such information as delivery time, response time, and product assortment.

3.7.3. *Customer value.*

Customer value describes substantial and insubstantial benefits gained from CRM activities, which help to organize the relationship with the customer effectively.

In order to determine the customer value, organizations need to analyze such information as marketing campaigns, number of maintenance customers, and net sales. Customer profitability should be calculated, establishing a baseline and comparing new estimations to that baseline every so often. Calculating customer value potential and using it as a guideline will be beneficial in the future.

3.7.4. *Customer Satisfaction.*

Customer satisfaction is difficult to measure because it is hard to measure the satisfaction level. Measuring customer satisfaction offers an direct, significant, and objective feedback about customer preferences and prospects.

Among the four perspectives, the customer satisfaction perspective is the most essential because customer satisfaction is directly connected to an organization's profits. Appropriate CRM practices can potentially impact customer satisfaction and can lead to improved customer maintenance.

3.8. *CRM: Strategy or technology?*

The term "customer relationship management" appeared in the information technology (IT) community in the mid-1990s. It is often used to describe technology-based customer solutions, such as sales force automation (SFA). In the academic community, the terms "relationship marketing" and CRM are often used interchangeably (Parvatiyar and Sheth 2001). However, CRM is more usually used in the perspective of technology solutions and has been described as "information-enabled relationship marketing" (Ryals and Payne 2001, p. 3). Zablah, Beuenger, and Johnston (2003, p. 116) recommend that CRM is "a

philosophically-related offspring to relationship marketing which is for the most part neglected in the literature,” and they conclude that “further exploration of CRM and its related phenomena is not only warranted but also desperately needed.”

A considerable problem that many organizations deciding to adopt CRM face stems from the great deal of confusion about what composes CRM. To some, it means direct mail, a loyalty card system, or a database, while others imagine it as a help desk or a call center. Some say that it is about populating a data store or undertaking data mining; others consider CRM as an e-commerce resolution, such as the use of a personalization engine on the Internet or a relational database for SFA. This lack of a broadly accepted and suitable definition of CRM can contribute to the failure of a CRM project when an organization examines CRM from a narrow technology point of view or undertakes CRM on a fragment basis. The meanings and definitions of CRM that different authors and systems use diverge noticeably, suggesting a variety of CRM perspectives.

A main characteristic of the CRM definition that the author wants to examine is its connection with technology. This is important because CRM technology is often incorrectly equated with CRM (Reinartz, Krafft, and Hoyer 2004), and a key reason for CRM failure is viewing CRM as a technology project (Kale 2004). Some definitions of CRM are the following:

- CRM is an e-commerce application (Khanna 2001)
- CRM is a term of methodologies, technologies and e-commerce capabilities used by companies to manage customer relationships (Stone and Woodcock 2001)
- CRM is an enterprise wide initiative that belongs in all areas of an organization (Singh and Agrawal 2003)
- CRM is a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and

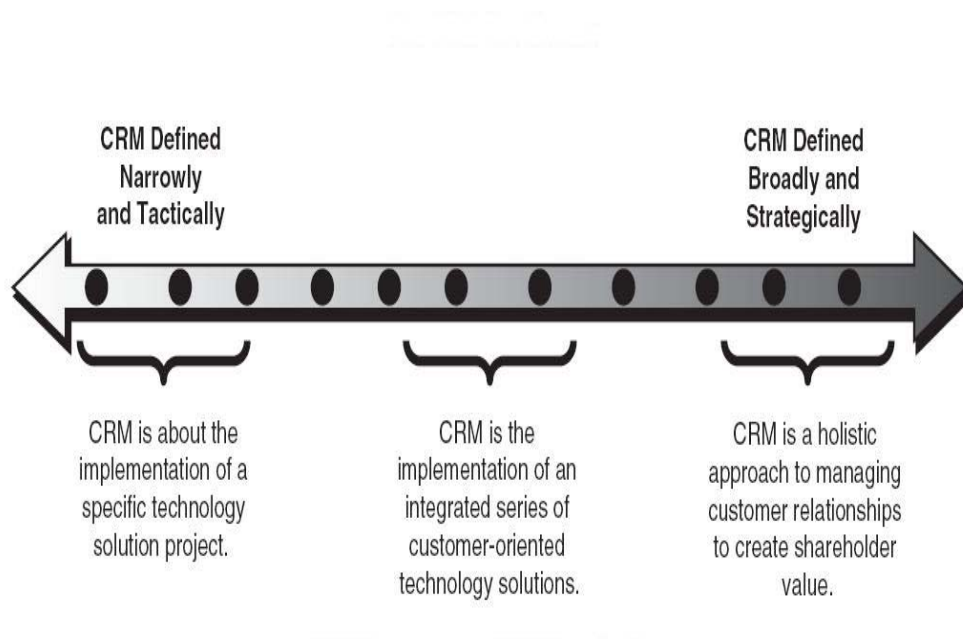
the customer (Parvitiyan and Sheth 2001)

Those definitions suggest that CRM can be distinct from at least three points of view: narrowly and tactically as a particular technology solution, wide-ranging technology, and customer centric. These perspectives can be described in the following figure (see Figure 1).

The importance of how CRM is defined is not only semantic. Its definition significantly influences the way an entire organization accepts and practices CRM. From a strategic perspective, CRM is not merely an IT solution that is used to develop and grow a customer base; it involves an insightful synthesis of planned vision; a shared understanding of the nature of customer value; the consumption of the appropriate information management and CRM applications; and high-quality operations, execution, and service. CRM has nothing to do with software. The role of the software is to store and collect the information, produce the reports, and develop the personalized communication. Installing an expensive CRM product and then waiting for something to happen is a critical mistake. A CRM project never finishes, it needs to be constantly adjusted and refined to the needs of the organizations and the customers.

There are many technical components of CRM, but thinking about CRM in technical terms only is a huge mistake. Technological applications are only the tools in order to implement that strategy. The most valuable way to think of CRM, in order to implement it successfully, is as a helpful process so as to collect important information about customers, sales, marketing effectiveness, and market tendencies.

Figure 3: The CRM Continuum



Source: Journal of Marketing, October 2005

3.9. *Knowledge requirements of CRM*

As we already mentioned the human resources in software enterprises are composed of people with excellent technical skills. That factor may be the reason of failure of many CRM projects in software enterprises. Technical experts don't have the appropriate managerial skills but it is commonly to put them into the CRM process.

Managing customer relationships requires managing knowledge for the customer, knowledge about the customer and knowledge from the customer. KM gets the role of a service supplier for CRM, managing the four knowledge aspects content, competence, collaboration and composition to please customer requirements within confirmed budget limitations.

To combine marketing, sales, and service actions, CRM has need of strong integration of business processes which engross customers. CRM processes are mostly formless and non-transactional. Their performance is predominantly influenced by the underlying supply with

knowledge about products, markets, and customers (Day, 2001, Garcia-Murillo, M. & Annabi, 2002, Schulze, 2000). CRM processes can therefore be considered as knowledge-oriented processes with the following characteristics which have a strong correlation: (Eppler, M., Seifried, P. & Röpnack, A., 1999)

Knowledge intensity: CRM processes require knowledge from heterogeneous, not necessarily computational sources, to pursue process goals.

Process complexity: CRM processes mostly have complex structures or even no clear structure at all. This implies that a high degree of knowledge is necessary for the execution of a process.

Knowledge flows in CRM processes can be classified into three categories:

Knowledge for customers is required in CRM processes to satisfy knowledge needs of customers. Examples include knowledge about products, markets and suppliers (Garcia-Murillo, M. & Annabi, H, 2002). Customer needs must be matched with the services and products available. Knowledge for customers is mostly generated in processes in the enterprise, such as research and production. Campaign management is responsible for collecting this knowledge and cleansing it according to the customer requirements. It is then circulated to the other CRM processes, mainly offer management, contract management and service management. CRM manages knowledge simplicity and distribution of knowledge for customers. Maintaining the balance between directness and accuracy is the major challenge of managing this kind of knowledge.

Knowledge about customers is accumulated to understand motivations of customers and to address them in a personalized way. This includes customer histories, connections, requirements, expectations, and purchasing activity (Davenport, T. H., Harris, J. G. & Kohli, A. K, 2001, Day, 2000). The company needs to understand the requirements of customers in order to address them. Knowledge about customers is conceived mainly by offer

management, service management, complaint management and contract management. Main users of knowledge about the customer are campaign management and service management, because both of them personalize their services. Knowledge about the customer must be translucent in the company; however its distribution beyond the border of an organization must be controlled, as knowledge about the customer can often be directly changed into competitive advantages. The progress of such knowledge is also expensive, because knowledge clarification is taking time and attention. Communication management offers possibilities of gaining knowledge about customers automatically via electronic media. The issue of how much data about the customer a company can transform into knowledge is the vital challenge of managing knowledge about the customer.

Knowledge from customers is knowledge of customers about products, suppliers and markets. Within interactions with customers this knowledge can be gathered to feed continuous improvement, e.g. service improvements or new product developments (.Garcia-Murillo, M. & Annabi, H, 2002). Finally customers gain many experiences and approaching when utilizing a product or service. This knowledge is valuable as it can be used for service and product improvements. This “knowledge from customers” must be transferred back into the company. Knowledge from customers can be detained in related ways as knowledge about customers. Gaining knowledge from customers is based on the fact, that customers gain their own expertise while using a product or service and can be seen as equal followers, when discussing changes or improvements. This aim is not commonly understood in the business world and its impacts poorly researched in academia (Garcia-Murillo, 2002). To make use of this knowledge from “outside experts” as change cause it must be transferred into the back end processes of an enterprise, such as the research and development process. Even so valuable knowledge from customers is frequently earned at the service points, the company must check its CRM processes for their ability of serving customers.

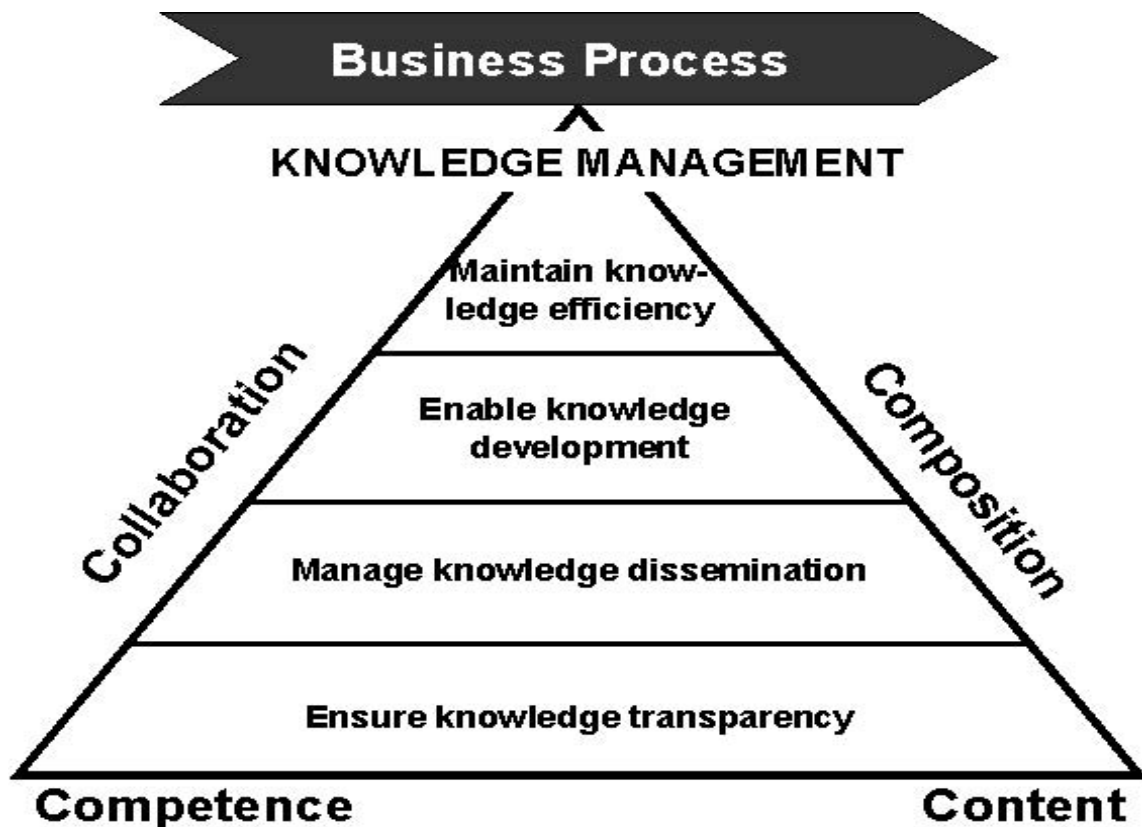
Managing these different knowledge aspects is one of the biggest challenges of CRM. The most important issue is how to collect, store, and distribute only the knowledge that is needed and not waste time and effort on collecting, storing and transferring useless knowledge (Davenport, T. H., Harris, J. G. & Kohli, 2001).

Especially important in the CRM processes the classification of potential customers as well as the detection of cross and up-selling opportunities with the accessible customer base. Although numerous companies are far highly developed in the execution of a continuous process for analytical CRM, the most of them still have difficulties in managing the related knowledge. In particular, the challenge to make certain that a reliable knowledge flow from the point of development of knowledge about the customer (in marketing, sales, and service) to the point of consumption, where the knowledge has to be obtainable in sufficient structure and complication is far from being resolved.

Another issue of significant consequence is the management of customer service. One of the most important challenges remains the provision of the right knowledge for customer-service staff to manage inquiries in a sufficient timeframe.

Closely related to customer service management is the managing of customer complaints. Although almost all companies have developed a database for complaint management, most of them fail in the analysis and consumption of complaints for continuous improvement. To achieve their goal of serving the customer the individuals performing in CRM must understand and address the customer's processes (Österle, 2001).

Figure 4: Knowledge Management -Pyramid



The KM model as represented in this figure offers goals and aspects of knowledge, which support the management of knowledge in a business environment. The four knowledge aspects of content, competence, collaboration and composition allow the management of knowledge based on the characteristics and proportions with direct impact to the process performance.

3.10. *Project Life Cycle and CRM's contribution*

As we already mentioned, customer relationship management is directly associated with the customer's life cycle. The progress of CRM antedates the startup of the project, is comprised during the project implementation and continues long after project delivery.

According to Muench¹, the development of a software project is described as a spiral model with four cycles and four quadrants as illustrated in figure 3:

- Proof of concept cycle – capture business requirements, define goals of proof of concept, produce conceptual system design, design and construct the proof of concept, produce acceptance test plans, conduct risk analysis make recommendations.
- First build cycle-derive system requirements, define goals for first build, produce logical system design, design and construct the first build, produce system test plans, evaluate the first build and make recommendations.
- Second build cycle-derive subsystems requirements, define goals for second build, produce physical design, construct the second build, produce system test plans, evaluate the second build and make recommendations.
- Final cycle-complete unit requirements, final design, construct final build, perform unit, subsystem, system, and acceptance tests.

The CRM's involvement is crucial in all of these four faces during the project's life cycle. The effective appliance of CRM can give the appropriate input for the project development and implement it according to customers' requirements.

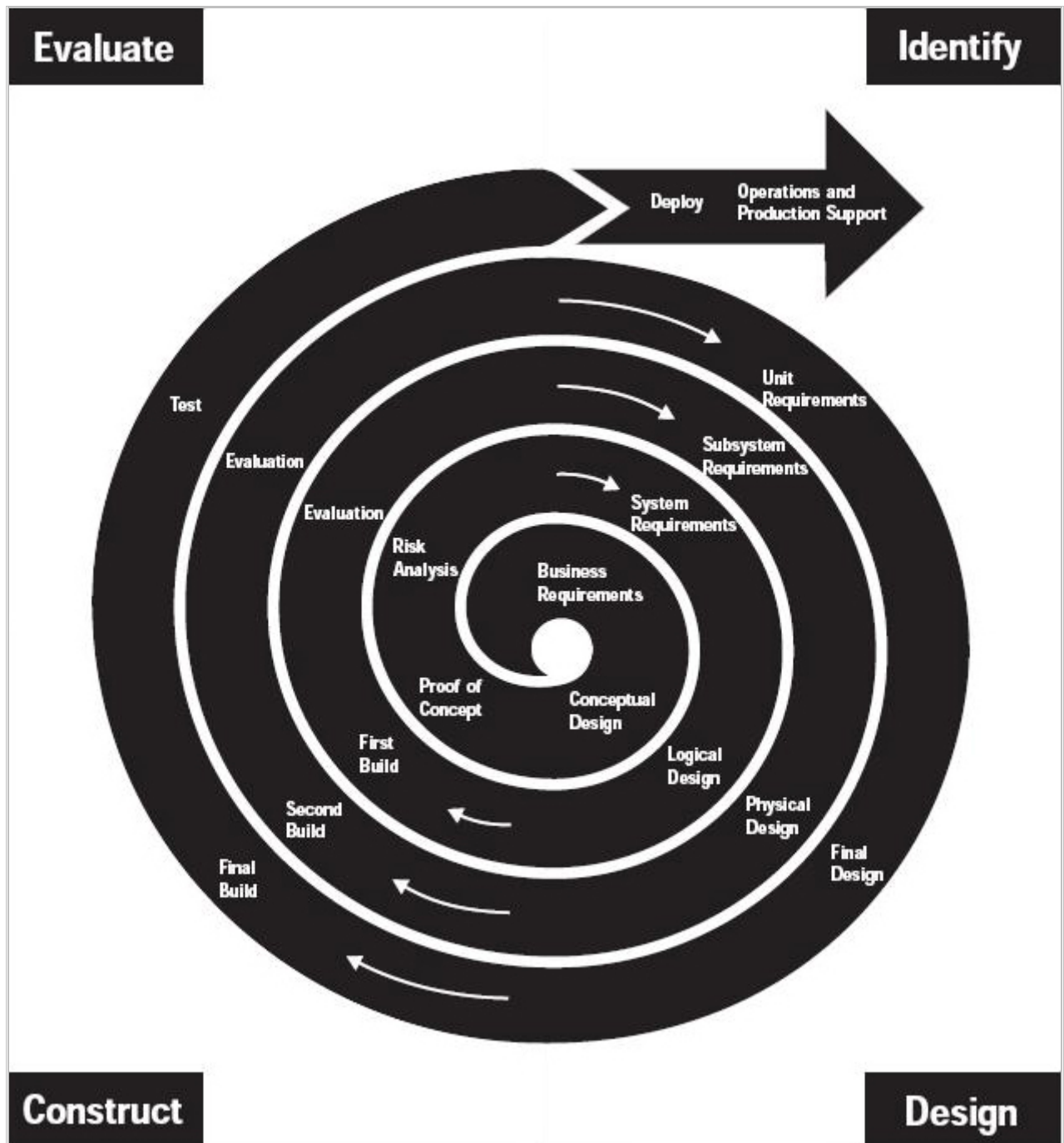
CRM involvement in all phases of the project can extremely contribute to the project success, especially to its efficient execution. Following Hyden (1976), who determined project's life to start when the company draws up a contract with the customer, and it is

¹ PMBOK 2nd ed., 1996,p.15

dissolved at the end of the execution phase when the transaction is completed, Hadjikhani (1996) focused his research on the management of the relationship left with the customer after project end and the development and marketing activities after project selling. His theory was that every project leaves sediment, and consequently studied cases focused on the phases before cooperation and after project completion. This position is also shared by Faulkner and Anderson (1987) who claimed that a project cannot be considered as isolated from previous projects; projects are connected to each other somehow.

The essential role of CRM into the project life cycle will be described analytically in chapter 4.

Figure 5: Representative Software Development Life Cycle, per Muench



Source: PMBOK 2nd ed., 1996

CHAPTER 4

4.1. *Description of Methodology*

4.1.1 *Research Purpose.*

There are many ways to carry out a research. According to Reynolds (1971), Patel and Tebelius (1987), Aaker and Day (1990), Yin (1994) and Wiedershein – Paul and Eriksson (1999), here are three available classifications of research: exploratory, descriptive, or explanatory.

Exploratory research: research is designed to allow an investigator to just “look around” to some phenomenon, with the aim being to develop suggestive ideas (Reynolds, 1971). The purpose is to collect as much information as possible for a specific problem.

Descriptive research: the purpose of descriptive research is to develop empirical generalizations, and since they appear, they worth explaining which leads to theory development (Reynolds, 1971). Furthermore, descriptive research is used when a problem is well structured and there is no intention to examine relations (Wiedeshein-Paul and Eriksson, 1999). Descriptive research is recommended when there is the need to search data in order to analyze few aspects of a well structured issue (Aaker and Day, 1990).

Explanatory research: the aim here is to develop precise theory that can be used to explain the empirical generalizations (Reynolds, 1971). According to Yin (1994), the research may be explanatory when there is a cause-effect relationship; in order to explain what causes produced these effects. A high level of flexibility characterizes the explanatory research approach, while it is suitable when a problem is difficult to discriminate.

The research purpose of this thesis is primarily descriptive, but also exploratory and explanatory as well. The purpose can be characterized as descriptive since the author’s intention is to analyze the area of research and draw some conclusions from the collected

data. At the same time, the research is also exploratory, while the aim is to collect as much information as possible for a specific issue. When the author starts to answer to the research questions and explain the relationships of causes and effects of this problem, this thesis can be partly classified as explanatory.

4.1.2 Research Approach.

The research approach is either quantitative or qualitative. Both approaches have their strengths and weaknesses and neither one of them can be detained as better than the other.

A quantitative approach implies the search for knowledge that will measure, describe and explain the phenomena of our reality (Patel and Tebelius, 1987). Quantitative research is usually associated with the natural science mode of research; data is quantitative, attained from samples and observations seeking for relationships that can be expressed in numbers rather than words.

Qualitative research is the search for knowledge in order to investigate and understand the phenomena from an inside perspective (Patel and Tebelius, 1987). Moreover, according to Yin (1994) qualitative research is related to studies where the aim is to receive information and obtain a deep understanding of the search problem.

As a result of the aforementioned, this thesis is a qualitative research. This research is seeking for answers that cannot be quantified or measured in numbers. As long as the purpose of this thesis is to gain a better understanding of the importance of CRM, a qualitative approach is the method that suits best.

4.1.3 *Data Analysis.*

The crucial goal of analyzing data is to face the facts fairly, to produce analytical conclusions, and to rule out alternative explanations. Before actually data can be analyzed, the author carrying out a case study, can choose between two general analytical strategies: relying on theoretical propositions or developing a case description (Yin, 1994).

Relying on theoretical propositions is the most common strategy. The collected data are based on research questions from previous studies, and the results of the present study will be compared from the previous. Developing a case description can be used as strategy as well, but mostly when little previous research has been accomplished.

A lot of research has been accomplished within this area of research and therefore the analytical strategy of this thesis relies on theoretical propositions.

4.1.4 *Research Strategy.*

According to Yin (1994), there are five research strategies in the social sciences: experiments, surveys, archival analysis, histories and case studies. Each strategy has advantages and disadvantages depending on the following conditions:

- The type of the research question posed
- The extent of the control the investigator has over actual behavioural events
- The degree of focus on contemporary/historical events

The following table represents these conditions in the three columns and shows how each of the five strategies are related with them.

Table 2Situations for different research strategies

Research Strategy	Form of Research Question	Requires Control over Behavioural Events	Focus on Contemporary Events
Experiment	How/Why	Yes	Yes
Survey	Who/What/Where/How much/How many	No	Yes
Archival/Analysis	Who/What/Where/How much/How many	No	Yes/No
History	How/Why	No	No
Case Study	How/Why	No	Yes

Source: Yin 1994, pp. 6.

The purpose of this study is to give a better understanding of the importance of CRM. Due to this fact there is not any required control on behavioural events. This excludes the experiment as a research strategy. Moreover, the author wants to describe how the organizations should manage their relationships with customers nowadays. This leads to the fact that the history strategy is not appropriate either. Surveys and archival/analysis are advantageous when the scope of the research is to describe the incident of a phenomenon or when it is predictive about certain outcomes (Yin, 1994). This is not what this thesis will describe, so the only remained research strategy is the case study.

4.2. Case Study: Themelio Software Company

One of the main reasons that exhorted the author to expand the CRM through this thesis is her work position as manager on the sales department on the Themelio Software Company. Her work experience determined her that the involvement of CRM during the life-cycle of a project is significant, while it is one of the main factors that can lead the project to success.

Themelio Software has been activated in software development since 1989, especially for constructors of aluminum, PVC and rolling shutters. Until to date, Themelio Software has computerized more than 3,000 companies in Greece and abroad, while it offers pioneer services. After a long-year expertise and co operations with the greatest companies in the aluminum industries of Greece, Themelio is able to offer a complete pack of services and products to all the aluminum constructors, providing superior quality and high technology.

Themelio has two main objectives for its customer relationships, which are not broken down into any specific detailed CRM objective. The CRM objectives are more or less general and CRM is more included as a natural part of Themelio's strategy, an important part of company's marketing and communication process. The objectives are ease of use and low price. However, there are other issues of importance, when it comes to the organization's customer relationships. To build and maintain relationships it is very important to make the customers loyal to Themelio. To improve the organization's knowledge about its customer is also of great importance for Themelio, while by improving this knowledge the company will be able to offer products that are more in line with the customers' needs. This, also, helps the marketing efforts while the company knows what the customer wants and searches for that. This makes the stocks smaller and the stock holding becomes more effective. For all these reasons, the company has placed to these work positions qualified people, able to manage the relationships with the customers and not technical experts. People who are able to manage

customer's complaints, comments and needs with the most effective way, and not technical experts who approach each issue only from the scientific-technological aspect.

All the aforementioned can be characterized as the general plan of CRM of the company and its objectives can be represented in the following template:

Table 3

Within case analyze of Themelio's CRM objectives

Importance of CRM objectives	Minor	Medium	Major
<i>Cost Saving Objectives</i>			
Decreased general sales and marketing administrative costs			X
Reduce cost of sales			X
Increase sales representative productivity			X
<i>Revenue Enhancement Objectives</i>			
Win rates			X
Better information for better management			X
Acquiring new customers			X
Secure service		X	
<i>Strategic Impact Objectives</i>			
Improved customer satisfaction rates			X
Improve global forecast and pipeline management			X
Service helps organizations to delight customers			X
Service helps org. differentiate their products			X
Improving channel management			X
Establishing relationships with customers			X

In an effort to analyze the Software Development Life Cycle, per Muench (see chapter 3) and through her empirical knowledge from her workplace environment, the author determined the crucial role of CRM during the project life cycle.

It is general believed that correct and frequent customer input is essential for a successful software project. If the project team doesn't get the right requirements at the design phase, it doesn't matter how well they will execute the rest project, the result will be undesirable. Knowing who your customers are, what their environment is, and what their needs and expectations are, gives to the company all the required information to plan and design a project. Customer input is doubtful unavoidable. Software teams that products without talking to customers do not successfully stay away from input. They just receive the input after the release of the product, in the form of bad news, lost sales and broken contracts. These things cost to the companies their reputation, revenues and development time. As long as customer input cannot be unavoidable, the company must manage it. Managing customer input means making sure that the company is getting the right form of input, at the right time and from the right person. All these factors are of equivalent importance for successful customer input on a product.

The purpose of every software development project is to construct a product that provides value to the customers. Effectual requirements definition enables the project team to determine the mix of product capabilities and characteristics that will best carry this customer value. Effectively exploring and crafting requirements into a set of product features and attributes helps to ensure customer needs and expectations are being met throughout the project life cycle. Moreover, the organization reduces software defects because the development team has a better understanding of the requirements and work on that.

Finally, the evaluation of the project is made from the final user, the customer. Project success can be translated into customer satisfaction. Only if the project meets customer's needs, wants and desires can be characterized as successful. As we already mentioned, the projects should not be regarded as isolated from previous projects, projects are connected

somehow. That means that the accomplishment of one project is able to win customers' loyalty and create long-term relationships with the company.

It is obvious that the main reason for CRM involvement during the project life cycle is to increase the probability that the project's outcome will be according to the customer's requirements and expectations. CRM involvement is clearly one of the most important factors that contribute to an efficient and smooth transfer of the project outcome to its users.

CHAPTER 5

5.1. Results of this Study

In this chapter, conclusions will be drawn from the findings in the analysis in order to highlight the significance of CRM process during the life cycle of a project and importance of qualified people to implement it, while this is the main factor of ineffective appliance of CRM as it was stated in chapter one. The results drawn from this study should be viewed in the light of the research methods.

5.2. The significance of CRM into the enterprise and during the project's life cycle

No matter the size of an organization customer relationship management (CRM) has proven crucial to the long-term success of any business. It is general believed that organizations that take a completed approach to implementing CRM across sales, marketing, customer service, will gain greater benefits than organizations that take an inaccessible approach to solve a restricted issue.

Quite often, organizations signify that the benefits of CRM outshine their primary expectations. The benefits related with applying an incorporated CRM strategy contains increased sales profits and increased customer satisfaction. Growing the significance and profitability of each customer is crucial to the success of a CRM approach.

Achieving sales increasing through marketing is an objective for many enterprises. To successfully achieve this goal, companies must have clean, precise, and incorporated customer data.

The best way to gain customers' loyalty is to keep them happy. Many enterprises distinguish that growing their production through the maintenance and extension of existing customer relationships is much less costly than growing their production through the gaining of new customers.

As shown throughout this research, many organizations are following CRM methods in hopes of improving their customer-facing processes. A number of organizations have effectively enhanced these processes, and many companies that have occupied with CRM projects over the past few years have recognized substantial benefits. These benefits contain improvements in customer care, increases in sales related profits, and enhancements to marketing.

There are different approaches to the implementation of CRM process. More specifically, the approaches have varied from isolated to fully approach across the company. Although both approaches have positive results, it is general believed that an incorporated approach to implement CRM offers much more benefits, from a cost reduction perception and a profit generation perspective, than a isolated approach. Following an integrated approach for a CRM appliance is probable to create greater benefits across all key tasks of the company such as sales, marketing, customer service, and therefore benefiting the company as a whole.

After the bibliographical research, it is obvious the crucial role of CRM during the project's life cycle, from the moment of vision creation until the final delivery of the project. Only by having accurate and current data of the customers the company will be able to implement a project according to customers' expectations. Having the appropriate input from the customer the project team will be able to have a clear picture of the project requirements and how they have to work so as to have the quality that the customer desires. Design the project by using the accurate input is a key element for project success. During the project construction and identification CRM process is very important also, due to the fact that the project team has to be continuously informed about customers' changes, comments and prospects so as to be prepared to face all the obstacles that may occur. Finally, knowing that the final receiver and user of the project is the customer, it is implicit the involvement of

CRM at this phase of the project's life cycle.

One of the basic causes of failure of CRM appliance that the software enterprises face is that commonly the people that are assigned to work on positions of CRM are IT experts. That means that they have the required knowledge concerning the technological issues of the project, but unfortunately they don't combine the appropriate managerial skills in order to develop valuable and successful relationships with the customers. As a result there are frequently misunderstandings due to the fact that the IT experts most of the times use a specific tech-speak, which is not understandable from the customers. The people who are assigned to manage customer relationships have to have all the appropriate skills in order to be completely understandable from the customer. Only with that way the customer could express the needed specifications for the project and thus the company could have an accurate and truthful input for the project implementation.

5.3. The impact of CRM in the organization

5.3.1 The director perspective.

Apply a CRM strategy will have far-reaching benefits across your organization, from back-office occupations (such as finance and logistics) through customer-managing activities (such as sales, marketing and service).

The cultural benefits of CRM are very essential. Historically, many projects have failed, despite effective IT implementations, because people-related with that have not been engaged in.

5.3.2 The implementer perspective.

Basically, CRM is a business philosophy and strategy, not a technology tool. All projects should be approached from a business, strategic point of view. Hence, technology is only the tool which allows your organization to accomplish its strategic ambitions.

CRM projects will fail, unless they are driven from the top and have qualified people to implement them. The companies should not face the CRM as a software solution but as a strategy and the people who will manage it must have the appropriate managerial skills and not only IT knowledge.

5.3.3 The IT perspective.

As we already mentioned CRM is a business philosophy, technology is only the tool which helps the business objectives to be achieved. Only if an organization understands the business benefits of embarking on a customer management strategy, CRM will bring success. IT developments must be strongly associated to business needs.

The key to successful customer management is to assemble a united view of each customer, collect data from a broad selection of sources, and make it available in an appropriate format to managers and users. The IT implications are enormous because, eventually, CRM will influence every system in the organization. As a result, incorporation is one of the biggest challenges which IT department has to face in the CRM field.

The appliance of CRM is expected to have impact on every job in an organization. The aim is to make available for each person all the required information so as to work and operate more efficiently. Having all the needed information for the customer the organization will be able to meet customer's wants, needs and expectations and gain his loyalty. Ongoing training for users is crucial and may finally make the difference between triumph and failure.

5.4. Components of CRM

The basic components of a CRM process can be broken down into the following elements:

- Technology
- Process
- People

- Application
- Analysis

Without one or another of these essentials, the appliance is deficient. Each of these elements plays a significant part in creating the most vital tool that a company can have: truthful, current data about the exchange activities of each customer.

Technology: It is a false impression that CRM is synonymous with technology. However, the technology component of CRM program is a very important element. If the software is too difficult to use, the users will resist or avoid the duty of putting information and the result will be unfinished data.

Process: The element of processes means to ensure that you have collected data in the best and most inclusive possible method. That requires exploratory the activities that will be used for data collection and make them as easy and clear as possible. All these valuable data must be transferred to all employees—not just those who will be involved in the data collection, but also those who may have admission to other information resources, as long as is essential to make best use of CRM data collection efforts.

People: If technology is the frame of the CRM body and processes are what keeps it running, then people are its livelihood. Firstly, an effectual CRM program needs a title holder. This is someone in the company that has as much as necessary influence to execute change. The reason is that implementing a CRM strategy is going to change the way employees collect, access and sustain information.

Employees who are on the front lines of information collecting should be assigned for input into the CRM program. It is a good idea to form a focus group of employees who will be in charge for gathering data.

By getting the feedback of employees who are doing the direct interaction with the customers, we may find that employees are more accepting of the changes necessary to lodge

the CRM system because they understand that the system will eventually help them do their jobs more successfully and probably with less time and effort.

Appropriate training should also be part of the CRM planning stages, as it will be important for employees to understand and feel contented with the system.

Application: During the development of a CRM program, the company should look for ways it can be applied to automate and manage different areas of the business. It is possible to divide customers by a variety of parameters such as geographically or by industry and offer personalized services and marketing efforts. This is the phase where CRM program implementation challenges come to light. So in practical application of the CRM program, companies should ensure that they have adequate support from their technology vendors and from the CRM champion, who may need to exert influence to overcome potential obstacles. If employees were consulted in the earlier phases, then their input should be invited again to address challenges and problems.

Analysis: It's significant to analyze the process and evaluate the results. Periodic testing for data correctness is important in order to have current and truthful information so as to develop an efficient strategy. The company has to continually check up the program's results regarding to the desirable goals. When the employees see the benefits of the program, that is producing better effectiveness, fewer customer complaints and improved results, they're more possible to maintain to support the program.

Customer relationship management is critical to compete in today's business environment. The more effectively the company uses the information about its customers in order to meet their expectations the more profitable it will be. The path to a successful business requires that the company should understand clearly its customers and their specifications, and the data mining is the necessary guide.

CHAPTER 6

6.1. Conclusions-Recommendations

Primary issue in this study is the recognition that greater clearness is needed concerning the definition of CRM, the difference between CRM approach as technology and as business philosophy and the identification of core CRM benefits. In this perspective, a clear definition is supported, where both process and strategy elements of CRM are considered as required in order providing an overall evaluation of a company's investment in process, technology and strategic projects associated to CRM. Concerning the difficulty related to defining and measuring CRM approach, no measurement effort will be without any difficulties. The truth connected with measuring CRM is that, even when well defined, it remains complex and all surrounding, which makes it difficult to estimate.

As we already mentioned the role of CRM during the project life cycle is crucial in each face of the project. For that reason the organization should collect all the required information from the customers, concerning their specifications and expectations in order to deliver a project which will meet customers' wants. If the project team does not have the accurate and truthful input according to customers' needs, wants and expectations, the project will fail, no matter their effort during the project execution. The final arbiter and user of the project is the customer. As a result every step of project implementation must be done concerning that datum line, so as the company will be able to deliver the expected quality to the customer. Customer satisfaction is one of the key elements, and may the most crucial, that characterizes the project as successful or not, and consequently the key of success for the organization and its progress in the future.

Another basic issue, that software enterprises must be very careful about, is the people who are assigned to implement the CRM process in the organization. Regularly, in software enterprises these people are technical experts who don't have the required managerial skills

for positions like these. They commonly use tech-speak resulting an ineffective communication with customers. In order to avoid these obstacles during the CRM appliance the organization should assigned to positions like these people who are qualified and know how to manage a customer relationship. They should have the appropriate communication skills so as to be able to manage conflicts and resolve them, negotiate with the customer and try to create a win-win relationship with him, and mainly to speak in customers' "language". That means that he should be completely understandable from the customer, without the use of tech-speak, so as to collect a clear and accurate input from the customer as well. Only if the customer feels that his opinion is important for the person who is talking with, the company can gain his loyalty and a long term relationship.

After concluding this research, we have come up with a number of issues we believe that can be valuable to managers who are interested in receiving knowledge in the area of customer relationship management. These recommendations are listed below:

Customer maintenance: Managers must recognize why customers leave. Analyzing customer corrosion works on the dictum that keeping an existing customer is far more cost effectual than attained a new one.

Customer service: Managers must understand the importance of customer service as a way to keep and attain customers. This is true, especially in software enterprises where after the product sale it is almost certain that the customer will need service and support for technical questions and problems that he may face.

Customer satisfaction: Managers must understand that customer satisfaction characterizes a modern method for quality in organizations, and provide the development of an accurately customer-focused company. Measuring customer satisfaction offers a direct, significant, and truthful feedback about customer needs and expectations. This is also essential since customer satisfaction is direct associated with organization's profits. Suitable

CRM performance can substantially impact customer satisfaction and lead to increased customer maintenance and loyalty.

6.2. *Recommendation for further research*

Firstly, additional qualitative research related to the main value drivers will be necessary as models of measurement are developed for observed analysis. Second, data required to test these suggestions will come from company proceedings and surveys of both customers and sellers. Even with enhanced CRM technology in use, it remains very important to collect these types of data because parties from numerous organizations must assist in the research process. Third, to determine effectiveness, consideration must be given to the costs and benefits of CRM appliance which will need the collaboration of several occupations in each company. Beyond the synchronization of academicians and organizations, further work will need to be done to turn these suggestions into testable propositions. In particular, this attempt will require a search to restrain circumstances that may impact the proposed relationships.

BIBLIOGRAPHY

- Aaker, D.A. & Day, G.S. (1990), *Marketing Research*, 4th Ed. New York: John Wiley & Sons, Inc.
- Bayon, T., Gutsche. J. & Bauer, H. (2002), Customer Equity Marketing: Touching the Intangible. *European Management Journal*, 20, 213-222. Retrieved Sunday June 8, 2008 from www.sciencedirect.com
- Burnett, K. (2001), *Handbook of Key Customer Relationship Management: The Definitive Guide to Winning, Managing and Developing Key Account Business*, New Jersey: Prentice Hall.
- Chen, I. J., & Popovich, K. (2003). Understanding customer relationship management (CRM): People, process, and technology. *Business Process Management Journal*, 9(5), 672–688. Retrieved Wednesday April 23, 2008 from www.sciencedirect.com
- Craiq Cochran.(2006).Becoming a Customer – Focused Organization.
- Croteau, A., & Li, P. (2001). Critical success factors of CRM technological initiatives. *Canadian Journal of Administrative Sciences*, 20(1), 21–34. Retrieved Monday June 2, 2008 from www.sciencedirect.com
- Davenport, T. H., Harris, J. G. & Kohli, A. K. "How Do They Know Their Customers So Well?", *MIT Sloan Management Review*, 2001, 2(42), 63-73. Retrieved Monday May 12, 2008 from www.sciencedirect.com
- Day, G. S. *Capabilities for Forging Customer Relationships*, Research Report, Marketing Science Institute, Cambridge, MA, 2000.

Eppler, M., Seifried, P. & Röpnack, A. "Improving Knowledge Intensive Processes Through an Enterprise Knowledge Medium", Proceedings, SIGCPR, New Orleans, 1999.

Faulkner R, Andersson A. Short-term projects and emergent careers: evidence from Hollywood. *Am J Sci* 1987;92(4): 879–909. Retrieved Saturday June 7, 2008 from www.sciencedirect.com

Federico Rajola.(May 7, 2003).Customer Relationship Management.

Frederick Newell.(May 3, 2003).Why CRM Doesn't Work:How to Win by Letting Customers to Manage the Relationship.

Garcia-Murillo, M. & Annabi, H. "Customer knowledge management", *Journal of the Operational Research Society*, 2002, 53), 875-884. Retrieved Tuesday May 20, 2008 from www.sciencedirect.com

Gordon, I. 1998. *Relationship Marketing: New strategies, Techniques and Technologies to win customers you want and keep them forever*. John Wiley and Sons: Canada.

Greenberg, P. (2001), *CRM at the Speed of Light: Capturing and Keeping Customers in Internet Real Time*, Berkeley: Osborne/McGraw-Hill.

Hadjikhani A. Project marketing and the management of discontinuity. *Int Bus Rev* 1996;5(3):319–36. Retrieved Saturday June 7, 2008 from www.sciencedirect.com

Hyden EW. *Technology transfer to East Europe*. New York: Praeger; 1976. Retrieved Saturday June 7, 2008 from www.sciencedirect.com

Jill Dycle.(Aug 9, 2001).*The CRM Handbook:A Business Guide to Customer Relationship Management*.

- Jones, E., Brown, S. P., Zoltners, A. A., & Weitz, B. A. (2005). The changing environment of selling and sales management. *Journal of Personal Selling and Sales Management*, XXV(2), 105–111. Retrieved Wednesday April 23, 2008 from www.sciencedirect.com
- Jones, E., Stevens, C., & Chonko, L. (2005). *Selling ASAP: Art, science, agility, performance*. South-Western Mason, Ohio: Thomson.
- Jones, E., Sundaram, S., & Chin, W. (2002). Factors leading to sales force automation use: a longitudinal analysis. *Journal of Personal Selling and Sales Management*, 22(3), 145–156. Retrieved Wednesday April 23, 2008 from www.sciencedirect.com
- Kale, Sudhir H. (2004), “CRM Failure and the Seven Deadly Sins,” *Marketing Management*, 13 (September–October), 42–46. Retrieved Sunday April 6, 2008 from www.sciencedirect.com
- Khanna, Sunil (2001), “Measuring the CRM ROI: Show Them Benefits,” (accessed November 20, 2002). Retrieved Sunday April 6, 2008 from www.sciencedirect.com
- Kincaid JW. *Customer relationship management: getting it right!* Upper Saddle River, NJ: Prentice-Hall; 2003.
- Ko E, Lee SJ, Woo JY. Current CRM adoption in the Korean apparel industry. Spring conference proceedings of Korean Society of Clothing & Textiles. Seoul; 2004.
- Kotler, P. 1997. *Marketing management: analysis, planning, implementation, and control*. New Jersey: Prentice Hall International.
- Österle, H. "Enterprise in the Information Age", in: *Business Networking: Shaping Collaboration Between Enterprises*, eds.: Österle, H., et al., Springer, 2001.

- Parvatiyar, Atul and Jagdish N. Sheth (2001), "Conceptual Framework of Customer Relationship Management," in *Customer Relationship Management—Emerging Concepts, Tools and Applications*, Jagdish N. Sheth, Atul Parvatiyar, and G. Shainesh, eds. New Delhi, India: Tata/McGraw-Hill, 3–25. Retrieved Sunday April 6, 2008 from www.sciencedirect.com
- Patel, R.& Tebelius, U. (1987), *Grundbok i Forskningsmetodik*. Lund: Studentlitteratur.
- Payne, A. Christopher, M. Clark, M. & Peck, H. 2001. *Relationship marketing for competitive advantage*. Oxford: Butterworth-Heinemann.
- Peck, H., Payne, A., Christopher, M. and Clark, M. 2004. *Relationship Marketing – Strategy and Implementation*. Burlington: Butterworth Heinemann.
- Peppers, D, Rogers, M & Dorf, B. 1999b. *Is Your Company Ready For One-To-One Marketing?* Harvard Business Review, Jan-Feb.
- Project Management Institute. (2004), *A guide to the project management body of knowledge (PMBOK® Guide) (3rd ed.)*. Newtown Square, PA: Author.
- Reinartz, Wemer, Manfred Krafft, and Wayne D. Hoyer (2004), "The Customer Relationship Management Process: Its Measurement and Impact on Performance," *Journal of Marketing Research*, 41 (August), 293–305. Retrieved Wednesday April 23, 2008 from www.sciencedirect.com
- Reynolds, P.D. (1971), *A Primer in Theory Construction*. New York: Macmillian Publishing Company.
- Ryals, Lynette and Adrian F.T. Payne (2001), "Customer Relationship Management in Financial Services: Towards Information-Enabled Relationship Marketing," *Journal*

of Strategic Marketing, 9 (March), 1–25. Retrieved Wednesday April 23, 2008 from www.sciencedirect.com

Ryals, L. & Knox, S. (2001), Cross-Functional Issues in the Implementation of Relationship Marketing Through Customer Relationship Management. *European Management Journal*, Vol. 19, No. 5, pp. 534-542. Retrieved Monday June 2, 2008 from www.sciencedirect.com

Schulze, J., et al. "Knowledge Enabled Customer Relationship Management", in: Business Networking: Shaping Enterprise Relationships on the Internet, eds.: Österle, H., et al., Springer, 2000.

Singh, Deepali and D.P Agrawal (2003), "CRM Practices in Indian Industries," *International Journal of Customer Relationship Management*, 5 (December–January), 241–57. Retrieved Wednesday April 9, 2008 from www.sciencedirect.com

Stone, Merlin and Neil Woodcock (2001), "Defining CRM and Assessing its Quality," in *Successful Customer Relationship Marketing*, Brian Foss and Merlin Stone, eds. London: Kogan Page, 3–20. Retrieved Sunday April 6, 2008 from www.sciencedirect.com

Swift RS. *Accelerating customer relationships using CRM and relationship technologies*. Upper Saddle River, NJ: Prentice-Hall PTR; 2001.

Yin, R.K. (1994), *Case Study Research: Design and Methods*. Thousand Oaks: Sage Publications; Inc.

Zablah, Alex R., Danny N. Beuenger, and Wesley J. Johnston (2003), "Customer Relationship Management: An Explication of Its Domain and Avenues for Further

Inquiry,” in Relationship Marketing, Customer Relationship Management and Marketing Management: Co-Operation–Competition–Co-Evolution, Michael Kleinaltenkamp and Michael Ehret, eds. Berlin: Freie Universität Berlin, 115–24.

Retrieved Sunday April 6, 2008 from www.sciencedirect.com

Other resources

<http://www.exforsys.com/tutorials/crm/crm-architecture.html>

http://www.entrepreneur_eBook_Customer_

AIT (2001) Payback time for CRM: the CRM investment return model. www.ait.co.uk

