

A Case Study: CRM Adoption Success Factor Analysis and Six Sigma DMAIC Application

Zhedan Pan, Hoyeon Ryu, and Jongmoon Baik
Information and Communications University
119, Munji-ro, Yuseong-Gu, Daejeon, 305-714, South Korea
{panzhedan, hoyeon, jbaik}@icu.ac.kr

Abstract

With today's increasingly competitive economy, many organizations have initiated customer relationship management (CRM) projects to improve customer satisfaction, revenue growth and employee productivity gains. However, only a few successful CRM implementations have successfully completed. In order to enhance the CRM implementation process and increase the success rate, in this paper, first we present the most significant success factors for CRM implementation identified by the results of literature reviews and a survey we conducted. Then we propose a strategy to integrate Six Sigma DMAIC methodology with the CRM implementation process addressing five critical success factors (CSF). Finally, we provide a case study to show how the proposed approach can be applied in the real CRM implementation projects. We conclude that by considering the critical success factors, the proposed approach can emphasize the critical part of implementation process and provide high possibility of CRM adoption success.

1. Introduction

Customer Relationship Management (CRM) was first introduced in the United States in 1990 and has evolved from the Sales Force Automation (SFA), Customer Service System (CSS) to Call Center. It integrates the concepts of modern marketing and field services. It also combines Computer Telephone Integrated Technology (CTIT) and Internet Technology (IT). Throughout more than ten years of evolution, CRM products have become multifarious. In the Chinese market, there are not only many world-famous vendors of CRM products, such as SAP, Microsoft, Oracle, and Siebel, but also local Chinese vendors such as Unifa, Kingdee and Powerise. Many companies in China have already adopted these CRM applications and have gained benefits such as high

customer satisfaction, fast revenue growth and employees' productivity improvement.

In this paper, the meaning of CRM implementation has been extended to cover CRM adoption processes including CRM products evaluation, selection, purchase, customization, installation and training. In CRM implementation, two kinds of situations can be regarded as failures. One is the case where the adopted CRM system has been used for less than 6 months [1]. This can be considered as a total failure because it wastes efforts and money, i.e. there is no return on investment. The other situation is the case where the CRM system does not meet the initial expectations. This can be regarded as a half failure. It is well known that the CRM implementation success rate is not high. Gartner Group reported that 50% of all CRM projects failed to meet initial expectations, and InfoWorld reported that 30% of chief officers think CRM is an over-hyped technology [2].

In order to identify critical success factors for CRM adoptions we performed literature review and a survey. First we identified the most significant success factors for CRM implementations based upon the results of the literature review and the survey. From these analyses, we ascertain which part should be emphasized in order to increase the success rate of CRM implementations. Then, we propose a strategy to integrate Six Sigma DMAIC methodology with the CRM implementation process while addressing five critical success factors (CSF) we identified as most significant factors. Finally, a case study is provided to show how the proposed integrated process can be utilized in the real CRM implementation projects.

The paper is organized as follows. In Section 2, the related works are described. In Section 3, identified critical success factors are presented. In section 4, the integration of Six Sigma DMAIC methodology with a CRM implementation process is described. Section 5 presents a case study of adopting CRM products in China. Lastly, the conclusion is given.

2. Related Works

The success factors for CRM implementations have been described in many previous publications. Rainer Alt and Thomas Puschmann [1] described six successful CRM implementation case studies and summarizes six critical success factors. These factors include evolution path, timeframe, change management, organization redesign, top management support and integrated system architecture. However, they focused on finding success factors and did not propose any method about how to integrate those into the CRM implementation process. Anne-Marie Croteau and Peter Li [3] proposed a model to identify the relationships between critical factors (operational and strategic perceived benefits, top management support, organizational readiness and knowledge management capabilities) and the impact of CRM on the actual benefits that organizations can obtain by using the CRM. Most critical factors have a positive relationship with the impact of CRM. However, they did not mention how to use these relationships to encourage the successful implementation of CRM applications. Hee-Woong Kim [5] proposed a process model for successful CRM developments, which includes factors such as process management, organizational commitment, strategy and process, technology, and consequences. By using one successful and one failed case study, this model was justified. However, he focused mostly on the success factors and the interrelationship among them, and did not provide any detailed steps of how to use this model to lead a successful CRM implementation. Katja Harej [4] presented the importance of CRM implementation at a business level, described the main phases of successful CRM implementations, and finally listed key success factors such as top management commitment and promotion of CRM to the whole organization. However, these key success factors are just listed without detailed explanation and they are not mapped to each main phase of CRM implementation.

3. Critical Success Factor Identification

In this section, first we introduce the identified success factors, and then, present the analysis results of the survey we performed on 15 Chinese companies.

3.1. Critical Success Factors for CRM Implementations

Critical success factors are the essential ingredients which must be considered for CRM implementations.

Without considering critical success factors, a CRM project would stand little chance of success. We summarized the critical success factors of CRM implementation from [1] [5] [12] [13] as well as GCCRM [11] and CTI forum [10]. According to the criteria that the success factors should be addressed at least in two sources among [1] [5] [12] [13] [10] [11], we identified 11 success factors, which are also agreed on by all the survey respondents. The identified 11 success factors are as follows:

- 1) Evolution path: Based on the concepts of CRM, the CRM implementation process for an organization should start from operational CRM, to analytical CRM and then to cooperative CRM.
- 2) Timeframe: A CRM implementation should be divided into different phases with the initial phase about 7 months and the continued phases about six months each.
- 3) Reorganization: Before implementing a CRM, the organization should be reorganized based on business goals for which they pursue.
- 4) Minimize customization: A CRM implementation should try to use standard products provided by ISV (Independent Software Vendor) and reduce works as much as possible for the customization.
- 5) Time and budget management: A CRM implementation should be controlled according to the whole project time and budget.
- 6) Customer involvement: Customers should also be involved in the early phase of CRM implementation.
- 7) No culture conflict: A CRM implementation should not cause a conflict with the current organization culture.
- 8) Use of the CRM system by managers: Make sure that the organization managers also use CRM system.
- 9) Measurement: According to the goals of the CRM implementation, measurements should be carried out. Such measurements may include data about customer complaints, customer satisfactions and so on.
- 10) Management involvement: The organization managers should be involved in to support the CRM implementation.
- 11) Training of CRM concepts: The CRM manager and related staff should be trained about the concepts of CRM and how to apply them to their day-to-day works.

3.2. Analysis Results of A Survey

We performed a survey on a sample of 20 CRM project managers who have been involved in the CRM system implementations for more than 3 years and

have had first-hand experiences with CRM implementations. Among the survey respondents, 8 are from software organizations, 4 are from trading companies and 3 are from manufacturing companies. These companies include Microsoft in China, SAP partners, DigitalChina and Bertelsman and so on.

From the survey, we were able to prioritize the critical success factors with their scores. After adding all the scores, we calculated the total score of each success factor. Figure 1 illustrates the total scores of each factor, in which we can see that there is a big gap between two groups of success factors: (9, 10, 11, 5, and 4) and the rest of factors (more than 120 versus less than 60). Thus factors 9, 10, 11, 5 and 4, which are correspondingly measurements, management involvement, training of CRM concepts, time and budget management, and minimizing customization, are the five critical success factors needed to be focused on.

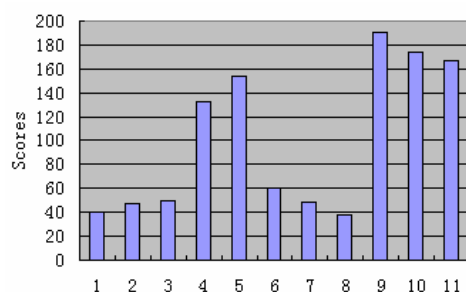


Figure 1: Scores of each success factor

4. Enhancement of CRM implementations through Six Sigma

We can increase the success rate of CRM implementations by enhancing the CRM product functionalities or improving the CRM implementation processes. CRM products are mainly composed of 3 modules: marketing module, sales module and service module [5]. As for the enhancement of CRM product functionalities, there are some insights about integrating CRM system with supply chain systems or mobile technologies [1]. As for the enhancement of processes, it can be achieved by well-defined implementation processes. In this paper, we focus on the enhancement of CRM implementation process. We adopt a Six Sigma DMAIC methodology with detailed steps to achieve the enhancement of CRM implementation processes.

Six Sigma [6] was invented by Motorola in 1986 as a powerful, continuous quality improvement strategy for reducing variations and improving quality of processes and products. Nowadays it has become a

robust business improvement methodology focusing on customer satisfaction, process alignment, analytical rigor and timely execution. The Six Sigma DMAIC methodology consists of Define, Measure, Analyze, Improve and Control phases (DMAIC), which is used to improve existing processes or products.

Since Six Sigma and CRM both focus on improving customer relationships and increasing customer satisfaction and loyalty, the methodology and tools used in Six Sigma can also be adopted in CRM implementation processes. We adopted the DMAIC methodology and the flow chart for the adopted DMAIC approach in CRM implementations is illustrated in the Figure 2. Each phase is described in the following subsections

4.1. Define

- Step 1: Set project goal and align it with business goal

Each organization has its own business goals. Before implementing the CRM system, project initiators need to define project goals which are aligned with the company's business goals. Project goals must be specific, measurable, attainable, relevant, and time-bound (SMART). Examples of measurable project goals are improving 20% of marketing promotion efficiency, reducing 30% of sales process life cycle or increasing 50% of customer satisfaction. Project goals can be refined in Step 11.

- Step 2: Map current (AS-IS) process

Based on project goals, the current process (AS-IS) should be documented through a tool called process map. A process map is created for the process or processes that the project will improve, and this makes it easy to grasp the current process of the organization.

- Step 3: Define process metrics

Process metrics should be defined based on project goals. Six Sigma provides three basic process metrics: CTQ (Critical to Quality), CTC (Critical to Cost) and CTS (Critical to Schedule) [7]. These basic process metrics can be adopted into the CRM implementation processes, and can be defined more specifically, such as cycle time of sales orders, missed delivery deadlines, product defects, sales opportunity cost, and customer complaint for services.

- Step 4 Build an effective team

To implement CRM adoption successfully, an effective team must be organized. For a Six Sigma project, several key players are champion, black belt and green belt. The team is built based on the knowledge, skills, abilities, and personal attributes (KSAP). In a CRM implementation, there are corresponding key players like project sponsor, project manager and team members, and the CRM

implementation team can be established based on KSAP.

- Step 5 Develop a project charter

The project charter is a written document issued by the project team, which includes information about project goals, budget, project start time and end time, and the team members. The project schedule includes the tasks, resources, times and milestones for each step of the CRM implementation.

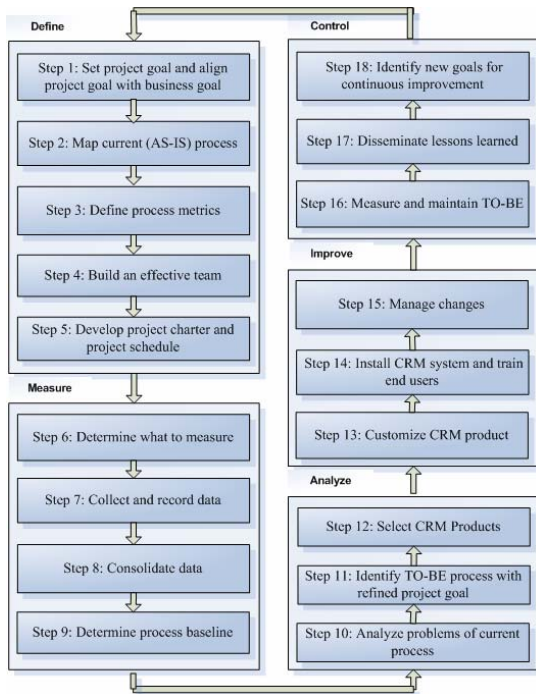


Figure 2 Integration of DMAIC with CRM implementation process

4.2. Measure

- Step 6: Determine what to measure
Before starting to measure, first is to determine what kind of data to be measured. Decisions should be made based on project goals, current processes and process metrics defined above.
- Step 7: Collect and record data
Questionnaire, documents and database are good sources for data collection. In order to collect and record necessary data, we need to execute surveys, review related documents and access databases if available.
- Step 8: Consolidate data
Data needs to be consolidated in order to ensure its consistency, completeness, and validity. First we need to check the consistency and completeness of data which come from different sources. Then data validity checking must be done rationally. If there is some

inconsistency or invalidity, an interview must be followed to consolidate data.

- Step 9: Determine process baseline
All the collected data is used to identify the baseline of the current process. In Six Sigma, process performance can be measured by defects per million opportunities (DPMO), and Six Sigma's target is to achieve no more than 3.4 DPMO. We can use the collected data to calculate DPMO as well as Sigma level which indicate process performance. These DPMO and Sigma level is considered as current process performance baselines.

4.3. Analyze

- Step 10: Analyze problems of the current process
Some dissatisfactions related to the current process will be found out, such as low Sigma level of sales orders' cycle time or high DPMO of customer complaints. Root causes of the problems are needed to be analyzed. A very useful Six Sigma tool for finding root cause: Cause and Effect Diagram [8] can be applied in this step.
- Step 11: Identify future process with refined project goals
After the problems of the current process are identified, the future process, i.e. what kind of process will be after a CRM implementation, should be defined. Then the project goals can be refined based on current process performance baseline. For example, the project goal can be refined to be 1 Sigma level increase in sales orders' cycle time, or 50% decrease of DPMO in customer complaints. Risks need to be identified and analyzed to mitigate the problems that might happen in the project. One of the Six Sigma tools, FMEA (Failure Mode Effect Analysis) can be used to analyze the risks [7].

- Step 12: Select CRM Products
A careful study of CRM product functionalities must be performed to make sure whether it can help to get the future process and achieve the project goals by adopting a CRM product. CRM products belong to COTS(Commercial-Off-The-Shelf) products. Normally customization of the selected CRM product is the most costly and time-consuming. Therefore, in order to reduce time and efforts as well as risks, minimizing customization of CRM product should be emphasized when CRM products are evaluated and selected.

4.4. Improve

- Step 13: Customize CRM product

The management of customization is the same as the normal software project management, starting from requirement acquisition, to design, coding and then testing. Over-customization is one of the serious problems which can cause budget overruns and missed deadlines in the CRM implementations. The time and budget of the customization should be controlled according to the customization plan as well as the whole project schedule defined in the Define phase. Technical supports from ISV (Independent Software Vendor) or its partners are very important for this control.

- Step 14: Install CRM system and train end users
After the customization of the CRM products, the CRM system should be installed for the end users. The initial configuration of the CRM products should be considered. After installation, training must be provided throughout the whole organization. The CRM concepts and how to use the CRM systems are the main contents of the training.
- Step 15: Manage changes
After the CRM system is used by employees and managers, changes, such as working style and working process changes, will happen. A change management approach is needed to assist the organization to adapt itself to these changes. All possible new changes should be documented through a change map, similar to a process map. Employees need to be notified to understand how these changes with the CRM system can help increase customer satisfaction and make them work more effectively.

4.5. Control

- Step 16: Measure and maintain TO-BE
After the CRM system is implemented, measurement and maintenance of the results from the CRM implementation are needed. After the required data is collected and analyzed, it is able to know whether the project goals are achieved or not. All the improvements (TO-BE process) need to be controlled and maintained; otherwise process improvements will not be achieved.
- Step 17: Disseminate lessons learned
During the implementation of the CRM system, there may be many lessons learned. The summary of these lessons are very useful for continuous process improvements. During this step, actual accomplishment by the CRM implementation must be determined and then summarized with lessons learned and best practices.
- Step 18: Identify new goals
Improvement is endless and continuous. After the CRM system has been used for some times, dissatisfaction or new ideas about the current process

may come out and new improvements are needed for future changes. Therefore, continuous CRM implementations will happen with the help of Six Sigma methodology to achieve other project goals.

5. A Case Study

In order to validate the effectiveness of the proposed approach, we applied it to a company's CRM implementation project in China. This company is a large human resource service company, which provides human resource service, financial outsourcing, legal consulting and foreign business registration to other companies and individual foreigners. This company has its own ERP system for all business operations, including customer, service, financial and resource management. In order to maintain a good relationship with customers, manage KPI (Key Performance Indicator) based on each salesperson, and increase customer satisfaction as well as company profits, the CEO of the company decided to adopt a CRM system at the beginning of 2006. According to the integrated process proposed above, the CRM adoption project was implemented as follows:

5.1. Define

1) Set Project Goals: Defined by top managers, the project goals were to improve the sale and service process, specially reduce 20% of loss of opportunity and reduce 50% of customer complaints. These goals are aligned with the business goal of the company, 50% increase of the sales profits for the year.

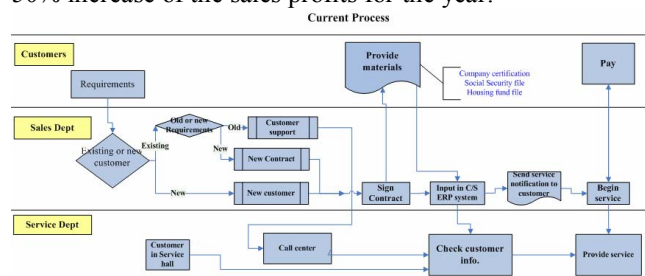


Figure 3: As-Is process of sales and service

2) As-Is process mapping: The company created a "As-Is" process by mapping business events into relative logics as shown in Figure 3. First, a customer provides their requirements to the sales department. If it is an existing customer to ask for support(s), the requirements will be transferred to the call center in the service department. Otherwise, a new customer will be added and a new contract will be signed off. After checking the customer's certification information and the payment information, the customer becomes a valid

customer and the contract status goes into service status.

3) Process metrics: Based on project goals, process metrics, which are critical to sales quality and service quality (CTQ) were defined. For simplicity, two important process metrics are listed in Table 1. In the table, loss of opportunities is the process metric to measure how many opportunities are lost among all the opportunities. Here the opportunities mean the sale opportunities, which may be lost due to high competition or be won to become a contract. Customer complaint is a process metric to measure the number of the complaints received from the customers.

Table 1: Process metric

Process metrics	Description	Data to measure
Loss of opportunities	Measure how many opportunities are lost among all the opportunities.	Potential customer info, opportunity product, loss or not, competitors info.
Customer complaints	Measure the number of the complaints received among all the possible complaints	Customer info, complaint problem, solved or not

4) Build a Team: the team was organized with one project sponsor (CEO), one project manager, one IT expert (ERP system maintainer), one domain expert and one CRM product consultant. The team was organized based on KSAP and project needs which could lead the project to a success.

5) Project charter: Project charter was built based on the template in [7]. Project start date, end date, milestones and other information on were identified in this document. Figure 4 shows the project charter used for the project.

Project Charter

Project Name: <input type="text" value="Adopting CRM system"/>		Project Number: <input type="text" value="IT-CRM-20060201"/>	
Sponsoring Organization: <input type="text" value="Company A- A human resource service company"/>			
Project Sponsor	Name: <input type="text" value="Paul-CEO"/>	Phone: <input type="text" value="*****"/>	
	Office: <input type="text" value="F1201"/>	eMail: <input type="text" value="*****"/>	
Project Leader	Name: <input type="text" value="Andy, Zhang-Dept Mgr"/>	Phone: <input type="text" value="*****"/>	
	Office: <input type="text" value="F1117"/>	eMail: <input type="text" value="*****"/>	
Teams			
Team Member(Name)	Title/Role	Phone	Office
An, Ron	Domain Expert	***	F0901
Xin, Chen	IT expert (ERP system maintaine)	***	F0901
Maggie, Pan	CRM product consultant	***	F0901
Milestone			
Define: Start	<input type="text" value="2006-02-01"/>	End:	<input type="text" value="2006-02-19"/>
Analyze: Start	<input type="text" value="2006-03-06"/>	End:	<input type="text" value="2006-03-19"/>
Control: Start	<input type="text" value="2006-06-05"/>	End:	<input type="text" value="2006-06-30"/>
Measure: Start	<input type="text" value="2006-02-20"/>	End:	<input type="text" value="2006-03-05"/>
Improve: Start	<input type="text" value="2006-03-20"/>	End:	<input type="text" value="2006-06-04"/>
Project: Start	<input type="text" value="2006-02-01"/>	End:	<input type="text" value="2006-06-30"/>
Project Mission Statement			
<input type="text" value="To increase customer satisfaction as well as company profits, the company A decided to adopt a CRM system. By using this system, the company can also improve the sale process, and increase the efficiency of service hall, and increase customer satisfaction to the call center."/>			
Problem Statement			
<input type="text" value="Nowadays, the customer complaints are increasing and no one can explain the reason of these complaints. Also sale managers complains that there is no standard sales process to manage sales and to follow up the sales opportunities, so that many opportunities are lost."/>			

Figure 4: Project charter

5.2. Measure

6) What to measure: Based on the metrics identified earlier, the list of data to measure are shown in Table 1. As for the first metric, loss of opportunities, data to measure were customer name, address and telephone number, interesting services, opportunity loss or won, and competitors. As for the second metric, customer complaints, the data such as customer information, complaint problems and problems solved or not are the measurements.

7) Data collection: Data was collected in the following ways:

- Collect data from each salesperson about opportunities information;
- Send survey to customers and service staffs to collect customer complaints.

8) Data Consolidation: Data was consolidated in the following ways:

- Check errors or inconsistencies of opportunities data and validate data with sales managers;
- Check errors or inconsistencies of complaints data and validate data with service managers.

9) Determine process baseline: Through the formula provided in [7] or Six Sigma calculator [14], DPMO for each metric is calculated. For loss of opportunity: DPMO=800,000 and Sigma Level = 0.22. For customer complaints: DPMO=70,000 and Sigma Level=2.98. Here we assumed that every customer might have 1 possible complaint. From these baselines, we can recognize that improvements are needed to reduce the loss of opportunity and customer complaints.

5.3. Analyze

10) Problem analysis: From the current process of the sales and service department, there were 3 main problems:

- First, there was no standardized process for sales. Current sales process was like a black box. Each sales opportunity was operated according to each salesperson’s sales style, which caused ad hoc of sales process and loss of many opportunities.
- Second, in the call center, service information such as which customer called, what question was asked and how the service staff answered, is neither saved into any database nor tracked. And no knowledge bases were provided to help answering customers’ questions.
- Third, salesperson and service staffs need to connect to the ERP system to get the valid customer’s information. Because many staffs’

access to the ERP system, this causes performance and safety problem to the system.

Cause and Effect Diagram in Figure 5 was used to analyze the problems in the current process.

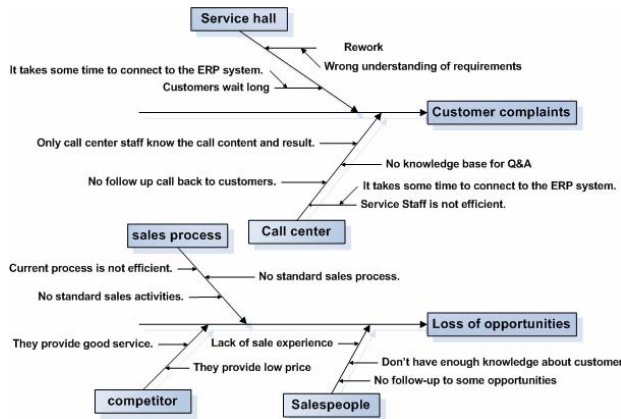


Figure 5: Cause and Effect Diagram

11) To-Be process mapping and project goals refinement: As pointed out earlier, a future process should have a standardized sales process, which provides a clear flow of the process from leads, to opportunity, quote, and contract. Any calls to the call-center will be input to a software system with the questions and answers, which can also be used as a knowledge base for future reference. The project goals are refined to standardize the sales and service process, and increase 1 sigma level of loss of opportunities, and increase 1 sigma level of customer complaints.

12) CRM product selection: After careful study on candidate CRM products, they have decided to purchase the MSCRM, because it has a standardized sales process and provides easy interfaces to call center agents, which require minimal customization of the CRM product.

5.4. Improve

13) CRM customization: the selected MSCRM product provides a customization tool which can be easily used to customize some functions according to the organization's needs. All the functions needed in this project were completed through the customization tool (Connector to call center agent was not included in this project), so it saved many time and efforts.

14) Installation and training: After the MSCRM system was installed, training was provided. three different levels of training were provided: system administer training, manager training, and user training. Through the training, everybody got good understanding of the CRM concepts with MSCRM system.

15) Management process changes: Two major changes occurred on the current process; one was the sales process and the other was the process of the call center. All these changes were documented and notified to the salespersons and call center staffs.

5.5. Control

16) Measurement and maintenance of To-Be: Three months after the CRM system implementation, several surveys were conducted to measure the performance of the newly implemented system with the MSCRM. For loss of opportunity: DPMO=600,000 and Sigma Level =1.25. For customer complaints: DPMO=10,000 and Sigma Level=3.83. It turned out that all the project goals were achieved.

17) Disseminate lessons learned: In this project, one online forum was built up for users to question and comment while using the system. The whole project summary report was provided on that forum to share with all the members.

18) Identify new goals for continuous improvement: Since connector to call center agent is not included in this project, it will be included as the next project goal so that MSCRM system can integrate with call center agent. The service efficiency of the call center will be improved continuously.

In summary, through the utilization of the proposed approach, the project was carried out successfully with all project goals achieved. This case study shows that the proposed approach and the emphasis of the critical success factors for CRM implementation can lead to the success of CRM adoption.

6. Conclusion

A well-defined business process/implementation process can increase customer satisfaction with a company's high-quality products or services, and be regarded as a key factor to a company's success as well as long-term competitiveness in the market. In this paper, we focused on process improvement to achieve the high success rate of CRM implementations. First, we identified 5 critical success factors for CRM implementations based upon the results of the literature review and the survey. Then, we proposed a strategy to integrate the Six Sigma DMAIC methodology with the CRM implementation process addressing these 5 critical success factors. Finally, we provided a case study, in which the proposed approach was used for the CRM adoption at a human service company in China. Not only all the project goals were achieved and the project was successfully completed with the

standardized sales process and efficient service process, but also the business goals of the company in that year were also achieved. By considering the critical success factors, the proposed approach can emphasize the critical parts of CRM implementation processes and provide high possibility to succeed the CRM adoption.

Acknowledgement: This research is supported by the MIC(Ministry of Information and Communication), Korea, under the ITRC(Information Technology Research Center) support program supervised by the IITA(Institute of Information Technology Advancement) (IITA-2006-(C1090-0603-0032))

7. References

- [1] Rainer Alt, Thomas Puschmann, "Successful Practices in Customer Relationship Management" System science, Jan. 2004, pp 9
- [2] Timothy R. Coltman, "Where are the benefits in CRM Technology Investment?", Proceedings of the 39th Hawaii International Conference on System Sciences , January, 2006.
- [3] Anne-Marie Croteau, Peter Li, "Critical Success factors of CRM technological initiatives",Canadian Journal of administrative science, 2003
- [4] Katja Harej, Romana V. Horvat, "Customer Relationship Management Momentum for Business improvement", Information Technology Interfaces, Vol.1, 2001,pp. 107- 111
- [5] Hee-Woong Kim, "A Process Model for Successful CRM System Development", IEEE Computer Society, v.21.4,July 2004, pp 22-28.
- [6] Jeannine Sivi, M. Lynn Penn, and Erin Harper, "Relationships Between CMMI and Six Sigma", Software Engineering Institute, CMU/SEI-2005-TN-005, 2005
- [7] Thomas Pyzdek, The Six Sigma Project Planner-A Step-by-Step Guide to Leading a Six Sigma Project Through DMAIC, McGraw-Hill, 2003
- [8] Redzic C., Jongmoon Baik, "Six Sigma Approach in Software Quality Improvement", SERA, Sep. 2006, pp 396-406
- [9] Rahul Bhaskar, Yi Zhang, "CRM Systems Used for Targeting Market: A Case at Cisco Systems", IEEE International Conference on e-Business Engineering (ICEBE), Oct.2005
- [10] CTIforum: <http://www.ctiforum.com>
- [11] GC CRM website: <http://www.gccrm.com>
- [12] Goldenberg, Barton J., "CRM automation", Prentice Hall PTR , 2002
- [13] Dyche, Jill, "The CRM handbook: a business guide to customer relationship management", Addison Wesley, c2002
- [14] Six Sigma calculator:
http://www.isixsigma.com/sixsigma/six_sigma_calculator.asp