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December 2002

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EXPLORING THE CRITICAL SUCCESS FACTORS FOR CUSTOMER RELATIONSHIP MANAGEMENT AND ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT SYSTEMS

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Abstract

Both customer relationship management (CRM) and electronic customer relationship management (eCRM) systems have unique characteristics that support customer-business interactions and are linked to internal business processes and systems across different areas for operational and analytical purposes. Such characteristics may imply that different critical success factors are required for both to be successfully implemented. This exploratory study identifies the factors and the interrelationships associated with the success of CRM and eCRM, compares the differences between CRM and eCRM, and discusses the reasons of the differences. Since there are only a few cases of CRM or eCRM systems fully implemented across marketing, technology, people, and business processes, an exploratory multiple-case study is conducted. The current status of CRM research and future research direction are discussed.

Keywords: Customer relationship management (CRM), electronic customer relationship management (eCRM), IS success, critical success factors (CSF)

1 INTRODUCTION

An increasing number of companies are considering implementing customer relationship management (CRM) or electronic customer relationship management (eCRM) systems to satisfy the growing expectation of customer service. CRM is a strategy that provides seamless integration of every area of business that touches the customer—namely marketing, sales, customer service and field support—through integration of people, process, and technology. On the other hand, with the advent of Internet-based technology, eCRM systems expand the traditional CRM techniques by integrating technologies of new electronic channels with e-business applications into the overall enterprise CRM strategy (Pan and Lee 2002).

Both CRM and eCRM systems have unique characteristics that support customer-business interactions. They are linked to internal business processes and systems across different areas for operational and analytical purposes. Such characteristics may imply different critical success factors (CSFs), which are required for both to be successfully implemented. Thus, the goal in this research is to identify the causal relationships between the CSFs and CRM and eCRM success. Much of the research into information systems (IS) success is focused on identifying the factors leading to success or failure. However, the mechanism and

the interrelationships among related factors leading to success are unknown (Akkerman and von Helden 2002; Williams and Ramaprasad 1996). Specifically, this research poses two questions: *(1) How are the critical success factors interrelated with the success of CRM and eCRM systems? (2) Are there any differences between the factors associated with the success for CRM and eCRM systems and, if so, why are they different?*

2 THEORETICAL FOUNDATION

A comprehensive list of variables proposed in the IS and marketing literature with additional CRM-related variables was considered for the research. The variables were first reviewed by IS academics and CRM consultants. We then classified the variables into four domains: organizational, process, technological, and project factors. Based on this classification, we developed a conceptual framework as shown in Figure 1.

Related with the success of CRM/eCRM systems, we selected three well-known dimensions of systems success. First, systems quality (DeLone and McLean 1992; Seddon 1997) was selected to measure the CRM/eCRM system in terms of information-processing: functionality, response time, flexibility, and integration of subsystems. Second, information quality (Bailey and Pearson 1983; DeLone and McLean 1992; Seddon 1997) was picked to measure the CRM/eCRM system's output: completeness, correctness, consistency, and relevance. Third, user satisfaction (Bailey and Pearson 1983; DeLone and McLean 1992; Seddon 1997) was selected to measure the response of recipients to the output of CRM/eCRM systems: information satisfaction, usefulness of the system functions, and perceived utility.

Under organizational factors, we grouped three variables into organizational issues: champion (Beath 1991; Reich and Benbasat 1990), management support (Desai et al. 1998; Guimaraes et al. 1992), and resource (Beath 1991; Wixom and Watson 2001).

We grouped two variables into process issues: CRM strategy and CRM process. A CRM strategy means a way to manage customer relationships with key initiatives and plans. No clear strategy is one of the barriers for the successful implementation of database marketing (Desai et al. 1998). A CRM process means a chain of activities for managing customer relationships from customer creation to retention and development. The internal integration of customer-oriented processes is suggested as a prerequisite for successful database marketing (Desai et al. 1998) and management of customer relationships (Day 2000; Massey et al. 2001; Puschmann 2001; Ryals and Knox 2001).

We grouped four variables into technological issues: complexity (Kwon and Zmud 1987), compatibility (Goodhue and Thompson 1995; Kwon and Zmud 1987), source systems (Wixom and Watson 2001), and channel integration (Desai et al. 1998; Jutla et al. 2001; Pan and Lee 2002; Puschmann 2001). Source systems are the legacy systems that provide data to the target system (Wixom and Watson 2001). The data standard should be set across source systems for operational efficiency and a more successful system (Wixom and Watson 2001). The integration of source systems is also required for operational efficiency and customer-centered service (Desai et al. 1998; Jutla et al. 2001; Pan and Lee 2002; Puschmann 2001). Channel integration is concerned with providing a common and consolidated view of customer across all channels (Peppard 2000).
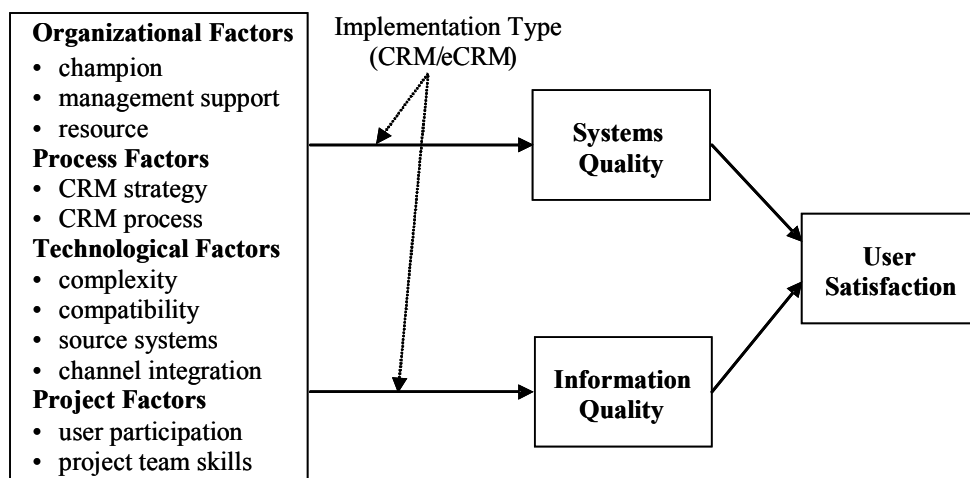

Figure 1. Conceptual Framework of CSFs for CRM and eCRM Systems

We grouped two variables into project issues: user participation (Desai et al. 1998; Hartwick and Barki 1994) and project team skills (Wixom and Watson 2001). Project team skills refer to the technical, interpersonal, and managerial abilities of the project team.

3   CASE STUDIES

We selected four cases of CRM and eCRM the systems in service industry: a success and a failure case, each for the CRM and eCRM systems. Profiles of the selected four cases are summarized in Table 1. The level of analysis was the organization and the subunits of organization. Retrospective data were collected by conducting interviews with some of the informed employees (executives, CRM/eCRM project managers, project members, and CRM/eCRM systems users). We describe only two success cases because of length constraints.

Table 1. Profile of Selected Four Cases

Cases/Background	H-Bank	L-Capital	L.com	P.net
Business	Retail bank	Credit card	Internet shopping	Informediary company
# of employee	26,662	2,750	170	76
# of customers	19 million	12 million	1.7 million	0.3 million
Implementation type	CRM	CRM	eCRM	eCRM
Project scope	Sales, Service, Marketing	Sales, Service, Marketing	Sales, Service, Marketing	Service, Marketing
CRM solution	Solutions from three outsourcing companies	CRM package solution	In-house development	Solution from outsourcing company
Project period	2000/10 ~ 2002/1	2001/6 ~ 2002/3	1996/1 ~ 2000/10	2000/9 ~ 2001/8
Development approach	Big-bang and Gradual	Big-bang	Gradual	Big-bang
Project lead	IT & Marketing departments	IT department	IT department	Marketing department

3.1 H-Bank

By using an influence diagram (Diffenbach 1982), we analyzed the interrelationships among the factors for the success of CRM in H-bank (see Figure 2). In this case, the CEO decided to implement a CRM system and invested a huge amount of resources for it. There was a strong championship from the CEO which led management to support the project from the beginning. Representatives of business teams participated in the cross-functional project team. In addition, an outside consulting firm and several system development companies joined the project. The project team designed the target system adequately based on the CRM process and defined project directions, which resulted in high compatibility with the legacy system. Adequate systems design facilitated good systems functionality, quick system response time, systems flexibility, and systems integration. Sub-systems integration also enabled the target system to respond quickly. In short, based on the clear CRM strategies, user participation, and the high skills of project team, H-bank was able to manage the direction and scope of the project.

Technically, the project direction and scope included source systems integration and channel integration, which made the project complex. Channel integration across branches, call centers, and private bankers (PB) except the Internet facilitated the system's flexibility and subsystems integration. The project also included the integration of redundant customer databases and legacy systems integration. The integrated customer database possessed correct and consistent data. However, it needed more completeness because redundant customer databases had some different data attributes which needed to be filled in. The bank developed a data warehouse (DW) as part of this project. Data accumulation in the DW was insufficient for diverse information retrieval and manipulation. However, the information quality was acceptable for the system's users in H-Bank.
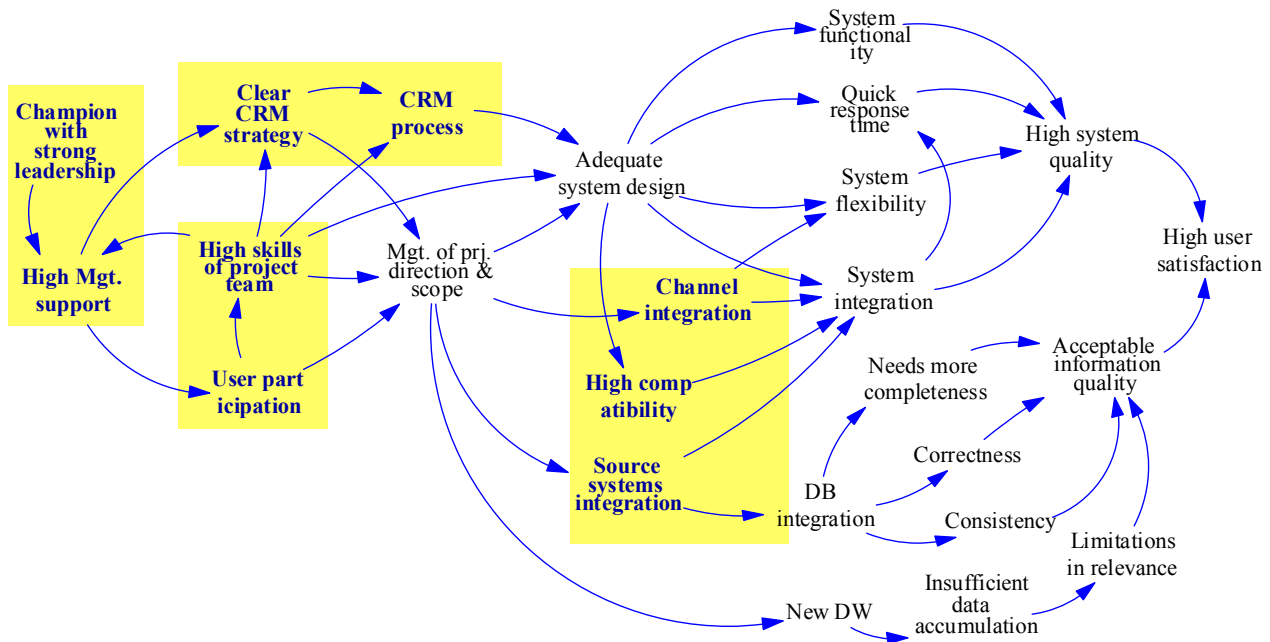
Figure 2. Interrelationships Among the Factors for the Success of CRM in H-Bank

3.2 L.com

Figure 3 shows the interrelationships among the factors for the success of eCRM in L.com. Similar to H-Bank, strong championship and personal involvement from the CEO led management to support the project. L.com developed a clear CRM strategy and process from the beginning. The project team possessed Internet business knowledge of L.com with a high level of technical skills. Even without user participation from business departments, the project team members had no problem understanding the business and IT issues. Since the CEO personally supervised the project, the project direction and scope were managed well. Moreover, since L.com invested only a small budget for this project, they had to adopt a gradual development approach which resulted in low complexity. Despite limited funding, the project team was still able to design the target system adequately based on the CRM process and project direction. This facilitated high compatibility with the legacy system.

Technically, this project did not include the integration of source systems and channel integration. However, there was an integrated customer database which has accumulated data and been used for diverse information retrieval. For this reason, L.com was able to keep high information quality. There were only two channels: the Internet and the call center. These two channels already shared a single customer database and used integrated legacy system.

4   PRELIMINARY RESULTS AND CONCLUSION

We applied the taxonomy of CSFs as suggested by Williams and Ramaprasad (1996) for understanding the characteristics of each associated factor. We matched 11 critical factors defined in the preliminary conceptual framework and two more factors, which are identified from the case studies, to the taxonomy in Table 2.

Based on the exploratory study, we were able to understand the associated relationships between the implementation factors and the success of CRM/eCRM systems. The interrelationships among the associated factors showed the different temporal precedence among them. In this paper, we also identified and discussed the differences in the associated factors between CRM and eCRM, which resulted from the different characteristics and scope of off-line business and on-line business. Our exploratory findings conclude that research in CRM is still at its adolescent stage. There are few testable theories or theoretical frameworks. We developed a theoretical research framework and research questions that could lead to more meaningful hypotheses for future research.
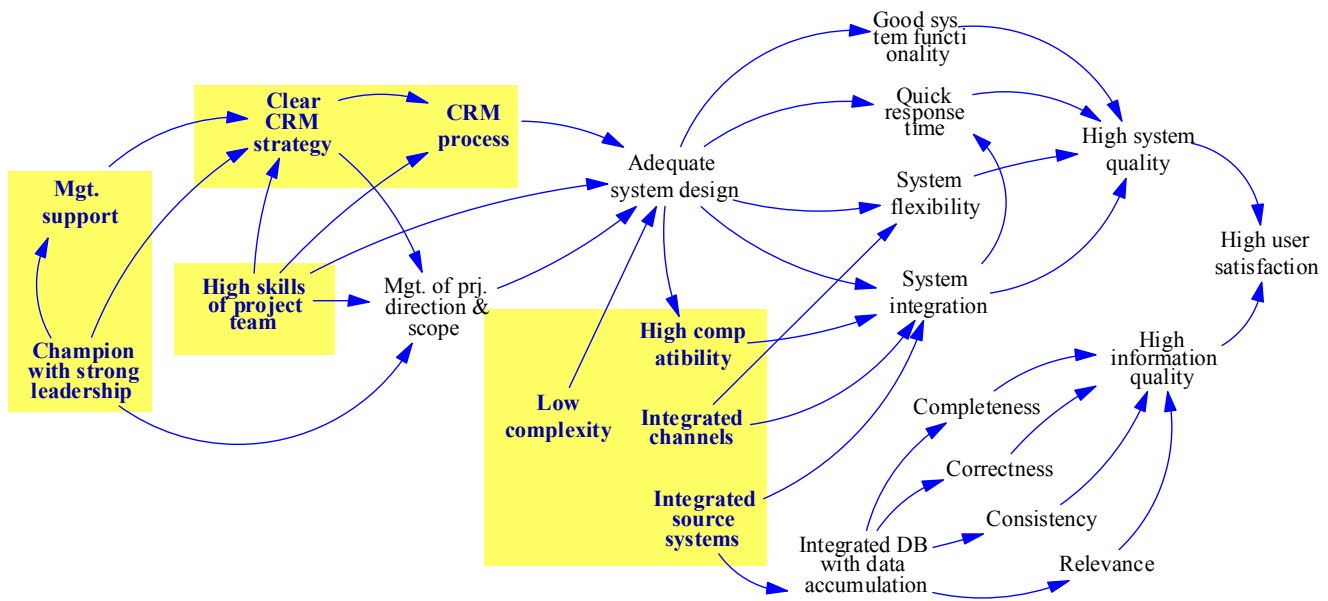
Figure 3. Interrelationships Among the Factors for the Success of eCRM in L.com

Table 2. Matching the Associated Factors to the Taxonomy of CSFs

Issue	Factor	Type of criticality	Standing/ Instigating	Direct/Indirect	Enhancing/ Inhibiting
Organization	**Championship** (Revised)	Necessary	Standing	Indirect	Enhancing
	Management support	Necessary	Standing	Indirect	Enhancing
	Resource	**Not explicit**	**Not explicit**	**Not explicit**	**Not explicit**
Process	CRM strategy	Necessary	Standing	Indirect	Enhancing
	CRM process	Necessary	Standing	Indirect	Enhancing
Technology	**Complexity**	**Not explicit**	**Not explicit**	**Not explicit**	**Not explicit**
	Compatibility	Necessary	Standing	Direct	Enhancing
	Source systems	Necessary	Standing	Direct	Enhancing
	Chanel integration	Necessary	Standing	Direct	Enhancing
	System design (New)	Necessary and sufficient	Standing	Direct	Enhancing
Project	User participation	Necessary	Standing	Indirect	Enhancing
	Project team skills	Necessary	Standing	Indirect	Enhancing
	Management of project direction and scope (New)	Necessary	Standing	Indirect	Enhancing

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