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An Evaluation Framework for Electronic Customer Relationship Management (eCRM)

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Abstract

In order to become more efficient and effective in delivering products and services to customers, organizations have forced themselves to rethink the ways in which they build relationships with their customers by initiating electronic customer relationship management projects. However, inappropriate electronic customer relationship management (eCRM) decision-making and implementation can result in multi-million dollar losses, which can translate into a loss of competitiveness and thus jobs. The costs associated with such losses are invariably passed on to the customer. Therefore, this research aims to develop an evaluation model that can be used to assess the extent of benefits and costs associated of eCRM so as to offer management with a more realistic insight about the impact of their investment on their business.

Keywords

Electronic CRM, Investment evaluation, Benefits realization, Evaluation framework

INTRODUCTION

Electronic customer relationship management (eCRM) is forecast to become increasingly important as businesses seek to deliver their services and information as well as to provide transactional facilities via online and wireless platforms, in additional to the more traditional means of communication channels (e.g. call centers, sales force automation, and customer service & support) (Pan and Lee, 2003; Tan et al., 2002). The market worldwide for eCRM applications is predicted to grow from US$3.4 billion in 2000 to US$10.5 billion in 2005 (EPS, 2001). Moreover, according to Karakostas et al. (2005), a 5% increase in customer retention can result in an 18% reduction in operating costs.

Yet, despite widespread agreement that eCRM has direct and indirect impact on customer satisfaction, loyalty, sales and profit, the significance of eCRM and its features in influencing customer satisfaction has not been well researched (Feinberg et al., 2002). Moreover, only about 63% of organizations have deployed or are deploying some sort of customer relationship management system (Alter, 2004). It has also been reported that stalled or failed CRM projects are often the result of organizations lacking a thorough understanding of what customer relationship management initiatives entail (Chen and Popovich, 2003). It has been found that 70% of eCRM solutions that have been implemented by businesses fail (Feinberg et al., 2002). Moreover, Gartner claims that 60% of customer relationship management implementations do not return the expected ROI and, not surprisingly, Forrester, AMR Research and the Yankee Group all draw similar conclusions (Foley, 2002).

This is because management tends to be myopic when considering their IT decisions, primarily because they have no framework to evaluate eCRM applications (Ernst and Young, 1999). Needless to say, providing good pre-decision information to senior managers becomes critical as inaccurate evaluation processes may reward and encourage suboptimal IS/IT investment projects. To address this issue, this paper sets out to: (1) determine the current evaluation practices and key issues by Australian organisations implementing eCRM applications; and (2) develop a framework that can be used to assess the extent of benefits and costs of implementing electronic customer relationship management (eCRM) so organizations can better manage their investment and its contribution to improving their long term performance or profitability.

ECRM: DEFINITIONS AND CHARACTERISTICS

Customer relationship management is a term for methodologies, processes, systems and software that help a business to manage customer relationships in an organized and effective manner (Bernett and Kuhn, 2002). Advances in information technologies have provided businesses with an opportunity to deliver customer relationship management functions more effectively. IT broadens and facilitates the connectivity among customers and businesses, and organizations are embracing the Internet technologies to provide them with more effectively managed customer relationships through any direct or indirect customer channel (Tan et al., 2002). The use of such technologies to deliver customer relationship management has lead to the emergence of electronic customer relationship management (eCRM) and specialist software vendors in the marketplace. According to Steinmueller (2002), eCRM is the collection of techniques that is employed, or that might be employed, to capture, retain, analyze, and productively utilize information about customers (or potential customers) for the purposes of pre-sales support, making sales and arranging delivery, and providing post-sales support.

eCRM shares some of the characteristics of ERP and SCM systems. eCRM is essentially database technologies, offers opportunities for interaction with the customer and for records to be kept of this interaction, and has the potential for mass customization for customers (McKay and Marshall, 2004). It also allows organizations to learn more about their customers through acquisition and analysis of customer data as well as to customize their products and services in order to satisfy the needs of their customers (Moon, 2000).

eCRM falls into three main types: operational, analytical and collaborative (Fjermestad and Romano, 2003; Hewson Consulting, 2000). Operational eCRM is concerned with the customer touch points such as automating sales force while the analytical eCRM requires technology to process large amounts of customer data and to analyze customer data (Fjermestad and Romano, 2003; Sigala, 2004). Collaborative eCRM is a business model based upon an enterprise architecture designed to meet organizations' complex and dynamic environment and it focuses on creating a real-time eCRM infrastructure for enterprise sales, service, marketing, and product development to better support customer requirements (eBest, 2003). In the long run, analytical eCRM, operational eCRM, and collaborative eCRM will move closer together to overcome the complexities and breadth of components required in order to collect better customer data to improve the quality of customer service, and, as a result, increase customer satisfaction and loyalty.

On the other hand, the infrastructure that supports eCRM applications play an important role in successful implementation of eCRM. Needless to say, an organization's eCRM strategy will only be successful if its infrastructure supports it. IT infrastructure in electronic commerce initiatives such as eCRM has been shown to be critical to successful implementation (Kumar, 2004). The infrastructure has two components: (1) a technical IT infrastructure which is a set of tangible, shared, and physical IT resources and capabilities; and (2) human IT infrastructure which includes the necessary individual skills and knowledge required to develop, maintain, and support organizations in their abilities to leverage the technical infrastructure (Chen and Chen, 2004). The up-front costs for the eCRM infrastructure can be a lot higher than the individual eCRM applications although the benefits are also higher (Goodhue et al., 2002).

EVALUATION OF INVESTMENTS IN ECRM

The concept of eCRM is at the heart of an organization's ability to extract benefits from its customers, employees, and business partners. According to Chen and Chen (2004), organizations implement eCRM for different reasons and its implementation brings both tangible and intangible benefits to the organizations. In fact, a Gartner survey of retail companies indicated that 52% of respondents rated eCRM as one of their highest business priorities (O'Connor, 2002).

However, eCRM had received a lot of attention on extremely high failure rates, unhappy customers and wasted money. While most eCRM vendors promised lots of benefits and dramatic return on investment results, it is difficult to substantiate their claims without proper evaluation and benefits realization processes by organizations. For example, an Accenture global study of government agencies in 15 countries found that 90% of the respondents said their agencies have not yet delivered superior customer service (eCRM Guide, 2003). Another research conducted by Capgemini indicated that 52% of organizations surveyed could not measure their eCRM investments (Capgemini, 2004).

Despite the plethora of IS/IT investment evaluation and benefits realization research undertaken, the availability of many evaluation methodologies, and the increased spending on IT projects (e.g. eCRM), many organizations simply do not know how to measure them (Lin and Pervan, 2003; Love et al., 2005; Willcocks, 1992). The less precisely bounded environment of electronic commerce technology such as eCRM adds more complexity to the

IS/IT measurement problem as this type of investment is physically distributed between suppliers and customers, making the evaluation process even more difficult (Torkzadeh and Dhillon, 2002; Straub et al., 2002). Consequently, many organizations are faced with a dilemma, that is, how to manage the performance of an enterprise system that has both an internal and external focus and thus adds value for stakeholders (Dibb, 2001).

There are several difficulties associated with the study of such a link. Firstly, whilst factors affecting the depth of such relationships have long been studied in the marketing field, the idea of looking at the impact of technology on relationships is relatively new (Rigby et al., 2002). Consequently, limited literature exists in the marketing area that is of direct relevance. Secondly, the use of the term eCRM to describe wide-ranging software systems has led to confusion over its precise meaning (Kotorov, 2002). Thirdly, the difficulty in measuring eCRM stems from an unclear understanding of where the organizations started and what the measure for customer management performance was before these investments were made (Richards, 2001; Steinmueller, 2002). It is difficult to attribute increased revenue, for example, to one specific cause, and it is also difficult to relate financial returns to any customer service improvements (Capgemini, 2004). Another difficulty is to identify the potential risks of investing in eCRM as well as defining appropriate benefits and costs to measure because investments in most eCRM systems have been taken as a matter of faith (Hewson Consulting, 2000).

Although several studies had attempted to evaluate eCRM, almost all of the models and frameworks came out from these studies evaluate only some aspects of eCRM (Table 1). For example, Jutla et al. (2001) tried to measure only eCRM readiness using a comprehensive customer-focused evaluation framework while Verhoef and Donkers (2001) developed an evaluation model to predict and evaluate customer potential value in insurance industry. Stamoulis et al. (2002) suggested a model for evaluating customer interaction in the communication channel only. Kim et al. (2003) provided a revised model for evaluating the effectiveness of eCRM from four perspectives only: customer knowledge, customer interaction, customer value, and customer satisfaction. McCalla et al. (2003) developed an evaluation framework of CRM to analyze only employees behavior through the inclusion of emotions. Mendes-Filho and Fontes (2004) evaluated eCRM usage in the Brazilian Health Insurance sector.

Citations	Focus of evaluation
Jutla et al. (2001)	eCRM readiness
Verhoef and Donkers (2001)	Customer potential value
Stamoulis et al. (2002)	Customer interaction in the communication channels
Kim et al. (2003)	The effectiveness of customer knowledge, customer interaction, customer value, and customer satisfaction
McCalla et al. (2003)	Employees behavior through the inclusion of emotions
Mendes-Filho and Fontes (2004)	eCRM usage

Table 1: Various eCRM evaluation studies

While these frameworks and models are useful for evaluating some aspects of eCRM, senior executives within organizations still face with difficulties in evaluating eCRM projects as a whole and in ensuring the benefits planned beforehand are actually realized.

RESEARCH OBJECTIVES AND METHODOLOGY

This research aims to determine the benefits and costs of implementing electronic customer relationship management (eCRM) so business organizations can better manage their investment and its contribution to improving their long term profitability. Specific objectives of the research are to:

1. determine the current evaluation practices and key issues by Australian organizations implementing eCRM applications; and

2. design and develop an evaluation model that organizations can use to assess eCRM applications.

The study reported in this paper uses a combination of multiple and single case study research approaches (Figure 1). According to Remenyi and Williams (1996) and Tellis (1997), case study is one of the most frequently used research methods in information systems research. Case study utilising semi-structured interviews (tape-recorded), observation, and document review were employed for this research, since the need for using multiple sources of data arises from the ethical need to increase the reliability and validity of the research processes (Tellis, 1997).

Before case study was commenced, initial understanding of the evaluation of eCRM implementation process

was synthesized from the literature to provide an initial framework for study. Issues, factors and problems affecting eCRM evaluation were identified. Two stages of case study research approaches were then conducted (Figure 1).

The first stage of the research served as the level 1 analysis and its main purpose was to obtain an overview of the evaluation process in Australian organizations. A series of exploratory in-depth formal and informal interviews were therefore conducted in Western Australia with senior managers and key personnel from several organizations to gain an overview of the business processes and the evaluation practices of their eCRM investments. Interviews were carried out within 15 organizations in WA that were involved in eCRM projects. Some of these organizations' customers were also interviewed. At least two interviews were conducted for each organization. The questions asked during the interview were related to these organizations' eCRM projects, the objectives, benefits, costs and risks of implementing an eCRM project, IS/IT investment evaluation methodologies deployed, benefits realization process used, and change management. Each organization was treated as an independent case in order to investigate their evaluation processes for eCRM.

The second stage served as the level 2 analysis which compared and analysed the important issues identified previously. The main objective for this stage was to further analyze the issues identified earlier and develop an evaluation model that organizations can use to assess their eCRM applications. Extensive interviews with 8 key personnel involved in the eCRM pilot study were undertaken with another organization. Further interviews were not conducted as little new material came out from subsequent interviews. Some company documentation such as internal reports, eCRM project reports, and eCRM analysis reports were obtained and analysed. The data collection methodologies that were used for this stage included semi-structured interviews, observation, and document review. During the analysis process, the researcher compared and contrasted the findings with the literature and the previous multiple case studies, taking into account both the positive and negative findings. The researcher also conducted the analysis through integrating and triangulating facts from the above-mentioned data sources.

In addition to the use of the semi-structured interviews and observation data collection techniques, the researcher examined more than 1000 pages of relevant documents (e.g. annual reports, project reports) that were collected from the participating organizations. These documents provided some useful means of corroborating data from the other sources (e.g. observation and interview data) and expanded on details in order to eliminate or minimize the weakness of human memory when dealing with history. Moreover, participants interviewed were from different levels of management and therefore, should provide different perspectives. Furthermore, tracing the conclusions to the interview data was maintained as the chain of evidence. The qualitative content analysis was then used to analyse the qualitative data (Miles and Huberman, 1994). Hopefully, these steps should enhance the construct validity, reliability and overall quality of the research (Yin, 1994).
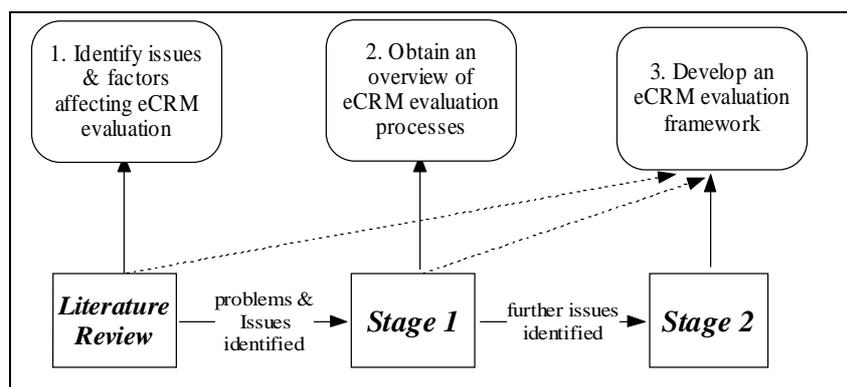

Figure 1: Research Design

RESEARCH FINDINGS

As part of the learning process, more revised problems and issues were identified. For example, the results from the stage 1 investigation indicated that most organization undertaking eCRM projects had no formal evaluation processes. Some of the issues and problems identified in stage 1 are as follows:

- almost all organizations saw the implementation of eCRM systems as a vehicle for bringing benefits to themselves and to increase customer satisfaction;

- many users and customers were not happy about using the eCRM systems;

- most organizations failed to understand and proper manage the changes required for implementation of eCRM systems;

- most organizations failed to undertake proper pre-project justification process for their eCRM systems;

- most organizations failed to carry out proper evaluation of their eCRM systems;

- almost all of the organizations interviewed failed to ensure that the expected benefits were realized after the implementation of eCRM;

- many organizations allowed some of their business processes to be turned into software driven by their eCRM systems;

- some of the factors for successful eCRM implementations were identified; and

- some common mistakes made by organizations about their eCRM implementations were identified.

The in-depth case study carried out in stage 2 was conducted in order to investigate these problems and issues identified in stage 1 and therefore served as the level 2 analysis. This in-depth case study was also conducted to refine and develop an evaluation model that organizations can use to assess eCRM systems. However, due to space limitations, only a number of key issues are presented below in some detail.

(1) Lack of formal project evaluation methodology – According to the interview data, less than one-third of the organizations interviewed had evaluation process. Only five out of 16 organizations interviewed had carried out some sort of evaluation processes (ie. Scorecard, KPI analysis, qualitative and quantitative analysis). The rest were simply relied on their senior management's impressions or gut feeling/intuition. When asked about the evaluation process, one participant said: *"I have said to myself how much time it takes and what is the efficiency? If it can give me nil gain or plus gain that's good. If it gives me negative gain then I am not interested."* Most organizations indicated that they did not have the capability and resources to do so or they did not know they had no evaluation process. One project manager even did not know about the evaluation process and suggested the executive director might be responsible for doing the evaluation. While almost all of them thought it would be worthwhile to do it, most of them simply did not do it or relied on their intuition. This is consistent with finding by Karakostas et al. (2005) where most of the respondents did not have an universal acceptance of metrics and failed to evaluate the performance of their eCRM. The following factors were mentioned by organizations interviewed that had affected an organization's ability to evaluate their eCRM: *IT resources, organizational resources, change management, pressures from customers and competitors, nature of business / industry, complexity of eCRM, use of eCRM / acceptance by users and customers,* and *size of the* organizations.

(2) The use of the eCRM system within an organization depended on the job responsibility - Different people (depending on the positions they held) had different needs of eCRM system and used it differently. The top management tended to use eCRM more often and considered the strategic benefits when using it. For example, the operation manager of a hotel said: *"the eCRM has allowed us to keep proper accounting records, sales information and customer data. We can also use it to do useful planning......it also saves us some costs."* On the other hand, the middle-level managers and low-level users tended to look for tactical/operational benefits such as ease of use when using the eCRM. Other stakeholders and users would use it more widely and effectively if the benefits expected could be related to them. The office supervisor of the same hotel said: *"I still believe that the new system is not as flexible and versatile as the old system. I am still more comfortable using* the old system."

(3) Lack of obvious linkage between the expected outcomes of the eCRM implementation and organizational objectives - customer related benefits dominated the benefits that were expected by the organizations interviewed. Benefits such as improved customer satisfaction, relationship and services were mentioned by all respondents. Benefits related to the effective use of the system were second most mentioned benefits by organizations: improved information response time, consolidate customer information/data, and ease of review of customer contact information before making sales calls. Better understanding of customers and markets

segmentation, reduced costs of providing product and service, and time saving were also mentioned by most organizations. However, these expected benefits need to be carefully planned and realized. According to Ward (2001), only 50% of the responding organizations were happy with their ability to existing customers and 33% were happy with their level of customer services. Responding organizations were most unhappy with their ability to segment customers as well as to cross-sell and up-sell to customers (15%) (Ward, 2001). The finding here confirms that the ultimate factor that determines an Internet application (such as eCRM) success is providing a satisfactory user experience (King and Liou, 2004).

Increase accuracy and simplified sales forecast call and report preparation was also mentioned by many organizations. The only exception here is that the real estate industry did not see improved information response time as a benefits because of the nature of the industry. Instead, organizations within this sector emphasized strongly on personalized service. For instance, when asked about the objectives and benefits of having an eCRM, one senior sales representative said: *"The system is here to draw customer details and help us to sell more properties only."* The eCRM was not seen as a tool to quickly provide information to customers, rather it was used to increase sales by using it to track customers.

Surprisingly, increases in revenue and profitability were not high on most organizations' expected benefit lists. Most organizations did not see eCRM as a tool that would enable to increase their profits and revenue in the short term. Furthermore, most organizations interviewed used eCRM because their competitors were already using it or to improved customer services, instead of implementing it to gain competitive advantages.

(4) Lack of integration with other systems – As mentioned earlier, lack of eCRM system integration is one of the most cited cause for eCRM failure (Ward, 2001). Most organizations interviewed either had decided not to integrate their eCRM system with other functions or had difficulties in doing so (Goodhue et al., 2002). They implemented eCRM just to obtain gains promised by the vendors. For example, one coordinator of customer service division said: *"no, eCRM is not going to be integrated with our other functions at the moment. It is going to be used for quick enquiries."* Proper integration of eCRM and other functions of organizations clearly required a lot of managerial, financial, and technical resources as well as organizational capabilities. The opportunities for cross-selling and up-selling were hence been hampered by the lack of integration with other functions. It appeared that only the hospitality sector organizations had expected this benefit from the implementation of eCRM although they were still struggling to do so. Organizations in other industries did not see it as a main benefit of having an eCRM. Furthermore, only larger organizations which had more sophisticated eCRM and had been using it for a while had seen the integration of various functions as a main benefit. In fact, only one organization had its eCRM extensively integrate with other functions within the organization. This is consistent with the finding by Steinmueller (2002) in which most organizations did not seem to be moving towards higher levels of integration in the short term and integration occurred in a piece-meal and incremental fashion. The strategies employed were mainly towards getting tangible short-term gains (Steinmueller, 2002).

(5) Lack of benefits realization process – Almost all participants readily admitted that there was no formal benefits realisation methodology or process within their organizations. Those who indicated some process existed were actually referring to the informal evaluation mechanisms such as KPIs. No formal IS/IT benefits realisation methodology (such as the Cranfield Process Model of Benefit Management (Ward et al., 1996)), technique, or process was mentioned or specified by any of the participants or in any available documents. Overall, the result is consistent with other research whereby IT benefits realization process was not adopted by most organizations (eg. Lin and Pervan, 2003; Ward et al., 1996). The fact that no organizations had a benefits management methodology or process is not really surprising as much attention is paid to ways of justifying investments, with little effort being extended to ensuring that the benefits expected are realised (Ward and Griffiths 1996).

Some of the other issues arising from the analysis are listed below but are not discussed due to space limitations. Details are available from the author. These are as follows: *lack of proper assessment of business needs, lack of user involvement, difficulties in identifying indirect costs (or intangible costs), a gap in theory and practice in risk assessment by most organizations, lack of proper change management by many organizations,* and *lack of incentives to use the eCRM systems.*

THE ECRM EVALUATION FRAMEWORK

As mentioned earlier, one of the main objectives of this research is to develop an evaluation framework which can help senior managers to justify and assess their eCRM projects as well as to ensure that the benefits expected are actually realized. This framework has been developed from the extensive literature review and results analysed from the case studies (Figure 2). The following paragraphs briefly describe the framework.

The first thing an organization should consider before initiating an eCRM project is to make sure that the initiative meets the needs of the organization. Then the organization should ensure that the business strategies and benefits expected from the eCRM initiative are aligned with the organizational business objectives and goals. If the eCRM initiatives meet organizational needs and are aligned with business objectives, the organization should carefully assess its level of change management capability and IT maturity. Organizations with low level of change management capability but high IT maturity (Quadrant 2) should first attempt to identify the key stakeholders and customers and try to get their involvement and support in the process (McKay and Marshall, 2004). Action plans should be developed to evaluate eCRM and achieve the targets spelled out by the stakeholders. The involvement of stakeholders starts with the specification of benefits objectives through meetings.

Change management and IT maturity play an important part in organizations' ability to effectively implement an IT project such as eCRM. Effective change management helps organizations to embrace the new ways of doing things and minimize users resistance. Organizations' IT maturity is concerned with the underlying 'maturity' of an organization in terms of its willingness and cultural capability to undertake necessary changes and processes as well as to implement desired IT projects as part of its decision-making. Various stages of growth models have been presented by the researchers to help to determine organizational IT maturity (e.g. Galliers and Sutherland (1991); Prananto et al. (2004)). Organizations with low level of change management capability and low IT maturity (Quadrant 4) should not rush to implement eCRM at this moment. Instead, these organizations should rethink their investment needs and assess their capabilities first. Organizations with high level of change management capability and high level of IT maturity (Quadrant 1) can quickly assess the factors included in the framework and prepare justification documents for executive approval for their eCRM initiatives. These factors were identify through the extensive literature review and analysis of case study results.

Organizations with high level of change management capability but low IT maturity should assess these factors carefully before gaining executive approval. Organizations should ask themselves whether they have sufficient IT and organizational resources and infrastructure to undertake the eCRM initiatives (Orlikowski and Iacono, 2001). Organizations' electronic commerce capability is also another important factor to consider (Barua et al., 2004). Pressures from the competitors and customers can also influence the organizations' decision to implement eCRM. The size of the organizations and the industry which the organizations is in can also determine the level of sophistication/integration of eCRM systems needed. The eCRM can be extremely complicated and expensive if the level of sophistication/integration of eCRM required is high (Adebanjo, 2003). Lastly, organizations should also assess themselves whether they have the will and the expertise to proper manage and evaluate the eCRM initiatives. In general, eCRM capabilities refer to the mix of human, technological, and organizational resources that enable organizations to execute the knowledge and interaction management processes.

If the results of the assessment of these factors prove to be unsatisfactory then the organizations should consider whether the initiatives should be put on halt for a while. Otherwise, the organizations can prepare pre-project justification documents and make a business case for the project to go ahead. Once the project is approved organizations should prepare to adopt IS/IT investment evaluation and benefits realization processes/methodologies for the eCRM projects. The processes can articulate how the benefits will be achieved and how the costs will be tracked. More importantly, the processes will identify accountability and responsibility for achieving benefits, tracking costs, and mitigating risks within the organizations. The iterative evaluation processes should be continuously assessed, monitored, reviewed, and managed to ensure organizations can achieve the objectives for evaluation and bring expected business benefits. Furthermore, successful realization of eCRM benefits relies on careful planning and reviewing, and organizations should be spending more time and money on the planning of the realization of IT evaluation process. IT investment and benefits realization cannot succeed without appropriate staffing and it requires a lot of detailed planning and precise execution. It is a costly process which organizations should only undertake after appropriate consideration. Finally, the evaluation should provide timely feedback and refinement to organizations' eCRM processes, vision and strategies to ensure top management support as well as that they are still on the right track.

The application of the eCRM evaluation framework

Organizations are urged to consider using this framework to examine the current state of their eCRM initiative. It is hoped that the framework will encourage those organizations managing and evaluating eCRM to think carefully about their evaluation effort, and to search for ways to gain more benefits from their eCRM initiatives by integrating it to other systems within the organization in order to reap the benefits of having an eCRM supply chain. This framework can also help to guide the organizations to formulate a strategy for eCRM evaluation. Having specified a relationship management strategy, organizations can proceed to define the relevant eCRM

processes and process roles and to assist in achieving organizational objectives and overcome some of the difficulties encountered during the evaluation process.
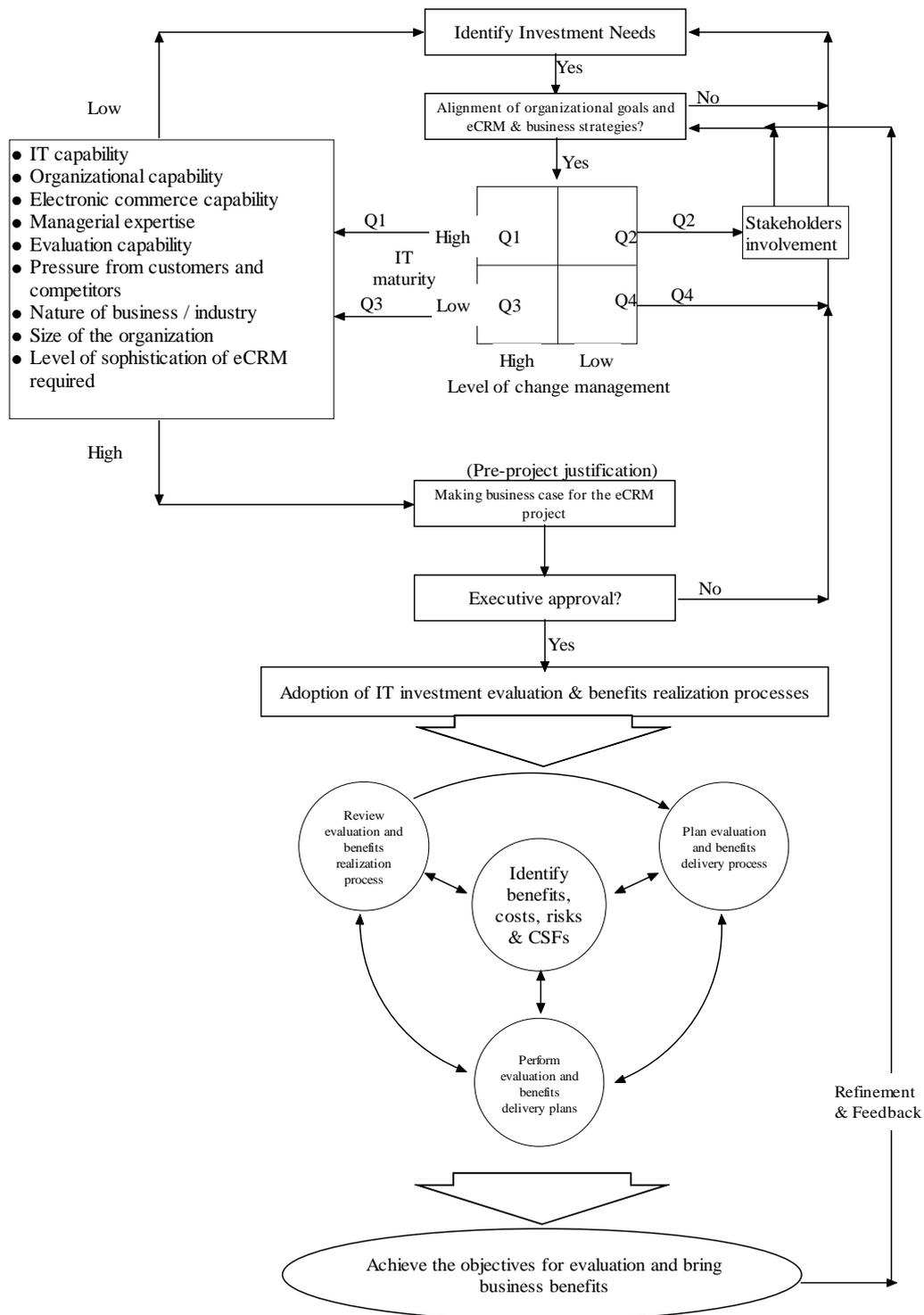

Figure 2: An evaluation framework for eCRM

The use of this framework will reinforce the need for organizations to undertake the suggested route to eCRM evaluation and benefits realization. This will ensure that an appropriate methodology is implemented in order to overcome or minimize some of the problems that many organizations had faced during their evaluation effort. The implementation of this framework will enable organizations to reduce the extent of concealment and overstatement of costs of eCRM initiatives. In addition, the framework will assist organizations in identifying and assessing the risks and qualitative costs and benefits of their eCRM investment. Additionally, this

framework will also give organizations engaged in eCRM a systematic way to evaluate and improve their eCRM performance.

DISCUSSION AND CONCLUSIONS

The eCRM has generated a lot of discussion about its effectiveness and risks amongst many organizations and researchers. eCRM remains a priority for organizations, even as economic conditions cause IT budgets to be scrutinized. The results show that objectives/reasons for implementing the eCRM systems by organizations varied greatly. The objectives mentioned by most organizations were basically customer-related benefits (eg. improving customer satisfaction) that were expected to be delivered by the eCRM systems. However, most organizations interviewed appeared to fail in some ways to conduct a proper assessment of business needs before implementing eCRM. Pre-project planning and justification processes were not properly carried out to assess the needs and feasibility of the eCRM projects. Most users were not involved in the initial phases of implementing eCRM systems and the use of eCRM was generally forced upon the them by the senior management. This was often done without any incentives to the users. Those organizations who were more successful and had implemented more complicated eCRM provided employees with timely and accurate information as well as necessary training.

In addition, the extent to which the eCRM system was used was largely depending on the type of the industry, size of the organizations, and type of job responsibilities. Large organizations and organizations in certain industries such as hospitality, and computer hardware and software were most likely to adopt eCRM. Most of eCRM systems adopted by the organizations interviewed were not integrated with other systems within the organizations. In fact, only one was effectively integrated with most of the functions within the organization.

Moreover, most organizations did not carry out pre-project justification processes. Only half of the organizations interviewed had some sort of justification process. Those which did carry out had very basic form of justification processes such as assessment of the vendor's demo or simple cost/benefit analysis. Moreover, most organizations claimed to use a variety of criteria to evaluate the IT projects. However, only less than one-third of the organizations interviewed had carried out some sort of evaluation processes (ie. Scorecard, KPI analysis, qualitative and quantitative analysis).

Furthermore, no formal IS/IT benefits realisation methodology (such as the Cranfield Process Model of Benefit Management (Ward et al., 1996)), technique, or process was mentioned or specified by any of the participants or any contract documents. This is really a cause for concern as successful eCRM requires that organizations allocate sufficient resources for building customer relationships and continuously evaluating eCRM initiatives. The evaluation and benefits realization mechanisms can expedite the organizational learning process and help make eCRM work to the benefits of all customers and external partners, whether viewed from a narrow buyer/seller perspective or a broader supply chain perspective (McGaughey, 2002).

The major limitation of the present study relates to the generalizability of the research findings. The study involved only 16 organizations (15 in the first stage and 1 in the second stage) in Australia and the findings are based on the Australian context. Therefore, the results need to be read in this context and can not be readily generalisable beyond this study. It would be interesting to conduct the research in other countries and different industries. Finally, the evaluation framework developed has not been tested and validated. It is the hope of the researcher that this framework can be tested and revised. Hopefully, this research work will spur further research on evaluating frameworks and models for electronic commerce initiatives such as ERP, SCM and other B2B websites.

REFERENCES

Adebanjo, D. (2003) Classifying and Selecting e-CRM Applications: An Analysis-based Proposal, *Management Decision*, 41(5/6), 570-577.

Alter, A. E. (2004) CRM 2004: Will Old Problems Sink New Users, *CIO Insight*, Source: [On-Line] http://www.cioinsight.com/article2/0,1397,1633477,00.asp.

Barua, A., Konana, P. and Whinston, A. B. (2004) An Empirical Investigation of Net-Enabled Business Value, *MIS Quarterly*, 28(4), 585-620.

Bernett, H. G. and Kuhn, M. D. (2002) The Emergence of Electronic Customer Relationship Management, *The Telecommunications Review*, 91-96.

Capgemini (2004) *Realizaing Return on Investment from CRM*, Capgemini Consulting Technology Outsourcing, Source: [On-Line]: http://www.capgemini.com.

Chen, Q. and Chen, H. (2004) Exploring the Success Factors of eCRM Strategies in Practice, *Journal of Database Marketing and Customer Strategy Management*, 11(4), 333-343.

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Chad Lin

Chen, I. J. and Popovich, K. (2003) Understanding Customer Relationship Management (CRM): People, Process and Technology, *Business Process Management Journal*, 9(5), 672-688.

Dibb, S. (2001). Customer Relationship Management and Barriers to the One Segment. *Journal of Financial Services Marketing*, 6(1), pp.10-23.

eBest (2003) *Collaborative CRM*, eBest! Inc., Source: [On-Line] http://www.ebestinc.com/collaboration/crm.asp.

eCRM Guide (2003) Moderate, Steady CRM Growth Through 2006, *eCRM Guide*, 3 July.

Ernst and Young (1999). *Customer Relationship Management. Special Report: Technology in Financial Services*, New York, NY.

EPS (2001) eCRM: Putting the Customers First, *EPS Monthly Briefing Paper*, December, Source: [On-Line] http://www.epsltd.com.

Feinberg, R., Kadam, R., Hokama, L., and Kim, I. (2002). The State of Electronic Customer Relationship Management in Retailing. *International Journal of Physical Distribution and Logistics Management*, 30(10), pp.470-481.

Fjermestad, J. and Romano, N. C. Jr. (2003) Electronic Customer Relationship Management: Revisiting the General Principles of Usability and Resistance – An integrative Implementation Framework, *Business Process Management Journal*, 9(5), 572-591.

Foley, T. (2002) Critical Success Factors for a Winning CRM Program, *Inforte Corporation*, Source: [On-Line] http://www.realmarket.com/required/inforte2.pdf.

Galliers, R. D. and Sutherland, A. R. (1991) Information Systems Management and Strategy Formulation: The 'Stages of Growth' Model Revisited, *Journal of Information Systems*, Vol. 1, 89-114.

Goodhue, D. L., Wixom, B. H., and Watson, H. J. (2002) Realizing Business Benefits Through CRM: Hitting the Right Target in the Right Way, *MIS Quarterly Executive*, 1(2), 79-94.

Hewson Consulting (2000) *Making A Compelling Business Case for CRM*, Hewson Consulting, Source: [On-Line] http:///www.hewson.co.uk.

Jutla, D., Craig, J., and Bodorik, P. (2001) Enabling and Measuring Electronic Customer Relationship Management Readiness, *Proceedings of the 34th Annual Hawaii International Conference on System Sciences (HICCSS 2001)*, Big Island, Hawaii, 1-10.

Karakostas, B., Kardaras, D., and Papathanassiou, E. (2005) The State of CRM Adoption by the Financial Services in the UK: An Empirical Investigation, *Information and Management*. (In Press)

Kim, J., Suh, E., and Hwang, H. (2003) A Model for Evaluating the Effectiveness of CRM Using the Balanced Scorecard, *Journal of Interactive Marketing*, 17(2), 5-19.

King, S. F. and Liou, J. (2004) A Framework for Internet Channel Evaluation, *International Journal of Information Management*, 24, 473-488.

Kotorov, R.P. (2002). Ubiquitous Organisation: Organisational Design for eCRM. *Business Process Management Journal*, 8(2), 218-232.

Kumar, R. L. (2004) A Framework for Assessing the Business Value of Information Technology Infrastructures, *Journal of Management Information Systems*, 21(2), 11-32.

Lin, C. and Pervan, G. (2003) The Practice of IS/IT Benefits Management in Large Australian Organizations, *Information and Management*, 41(1), 13-24.

Love, P.E.D., Irani, Z., Standing, C., Lin, C. and Burn, J. (2005) The Enigma of Evaluation: Benefits, Costs and Risks of IT in Small-Medium Sized Enterprises, *Information and Management*, 42(6) (In Press).

McCalla, R., Ezingeard, J., and Money, K. (2003) A Behavioural Approach to CRM Systems Evaluation, *Electronic Journal of Information Systems Evaluation*, 6(2), 145-154.

McKay, J. and Marshall, P. (2004) *Strategic Management of eBusiness*, John Wiley and Sons Australia, Ltd, Queensland.

McGaughey, R. E. (2002) Benchmarking Business-to-business Electronic Commerce, *Benchmarking: An International Journal*, 9(5), 471-484.

Mendes-Filho and Fontes (2004) An Evaluation of the Use of E-CRM in a Brazilian Health Insurance Company, *Proceedings of the 15th International Conference of the Information Resources Management Association (IRMA 2004)*, New Orleans, LA, USA, 23-26 May, 1167-1168.

Miles, M.B. and Huberman, A.M. (1994) *Qualitative Data Analysis: An Expanded Sourcebook*, Sage Publications, California.

Moon, Y. (2000) *Interactive Technologies and Relationship Marketing Strategies, Business and the Internet*, Business Fundamentals Series (2nd Edition), Harvard Business School Publishing, Boston, USA.

O'Connor, A. (2002) ECRM: The Good News and the Bad News, *ClickZ Today*, 21 February, Source: [On-Line]: www.clickz.com/crm/crm_strat/article.php/978061.

Orlikowski, W.J. and C. S. Iacono (2001) "Research Commentary: Desperately Seeking the "IT" in IT Research - A Call to Theorizing the IT Artifact?" *Information Systems Research*, 12(2), June 2001, 121-134.

Pan, S. L. and Lee, J. (2003) Using E-CRM for a Unified View of the Customer, *Communications of the ACM*, 46(4), 95-99.

Prananto, A., McKay, J. and Marshall, P. (2004) Exploring the Perceptions of Inhibitors and Drivers of E-Business Progression Among SMEs at Different Stages of E-Business Maturity, *The 12th European Conference on Information Systems (ECIS2004)* , Turku, Finland, June 14-16.

Remenyi, D. and Williams, B. (1996) The Nature of Research: Qualitative or Quantitative, Narrative or Paradigmatic?, *Information Systems Journal*, Vol. 6, 131-146.

Richards, T. (2001) *Measuring ROI in CRM*, Meridien Research, Source: [On-Line]   http://www.meridien-research.com.

Rigby, D. K., Reichheld, F. F., and Schefter, P. (2002) Avoid the Four Perils of CRM, *Harvard Business Review*, February, 5-11.

Sigala, M. (2004) Customer Relationship Management (CRM) Evaluation: Diffusing CRM Benefits into Business Processes, *The 12th European Conference on Information Systems (ECIS2004)*, Turku, Finland, June 14-16.

Steinmueller, W. E. (2002) *Settling the e-CRM Frontier: The Experience of Innovating European Firms, Socio-Economic Trends Assessment for the Digital Resolution (STAR)*, Issue Report No. 23, September.

Straub, D. W., Hoffman, D. L., Weber, B. W., and Steinfield, C. (2002) Measuring e-Commerce in Net-Enabled Organizations: An Introduction to the Special Issue, *Information Systems Research,* 13(2), 115-124.

Tan, X., Yen, D. C., and Fang, X. (2002) Internet Integrated Customer Relationship Management: A Key Success Factor for Companies in the E-commerce Arena, *The Journal of Computer Information Systems*, 42(3), 77-86.

Tellis, W. (1997) Introduction to Case Study, The Qualitative Report, Vol. 3, No. 2, July, Source: [On-Line] http://www.nova.edu/ssss/QR/QR3-2/tellis1.html.

Torkzadeh, G. and Dhillon, G. (2002) Measuring Factors that Influence the Success of Internet Commerce, *Information Systems Research*, 13(2), 187-204.

Verhoef, P. C. and Donkers, B. (2001) Predicting Customer Potential Value an Application in the Insurance Industry, *Decision Support Systems*, 32, 189-199.

Ward, H. (2001) CRM Initiatives Fail Due to Lack of Integration, *ComputerWeekly.com*, Source: [On-Line] http://www.computerweekly.com/Article106986.htm.

Ward, J. and Griffiths, P. (1996) *Strategic Planning For Information Systems*, John Wiley & Sons Ltd, Chichester, UK.

Ward, J., Taylor, P. and Bond, P. (1996) Evaluation and Realization of IS/IT Benefits: An Empirical Study of Current Practice, *European Journal of Information Systems*, 4, 214-225.

Willcocks, L. (1992) Evaluating Information Technology Investments: Research Findings and Reappraisal, *Journal of Information Systems*, 2, 243-268.

Yin R.K. (1994). *Case Study Research: Design and Methods*. Applied Social Research Methods Series, Sage, USA.

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