December 2004

A Framework for Understanding Customer Relationship Management System Benefits

Malini Jayaganesh
Monash University

Graeme Shanks
Monash University

Sven Carlsson
Lund University, Sweden

Follow this and additional works at: http://aisel.aisnet.org/acis2004

Recommended Citation
http://aisel.aisnet.org/acis2004/4

This material is brought to you by the Australasian (ACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ACIS 2004 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
A Framework for Understanding Customer Relationship Management System Benefits

Malini Jayaganesh  
Prof Graeme Shanks  
Prof Sven Carlsson  
Monash University  
Lund University

School of Business Systems  
Monash University  
Melbourne, Victoria  
Email: malini.jayaganesh@infotech.monash.edu.au  
graeme.shanks@infotech.monash.edu.au

School of Economics and Management  
Lund University  
Sweden  
Email: sven.carlsson@ics.lu.se

Abstract

This paper proposes a framework for understanding the benefits of CRM systems. Analysis of multiple case studies is used to validate and extend the framework. The framework will provide practitioners with a means of defining objectives for CRM projects and for conducting post-implementation reviews. It will also provide academics with a systematic approach to exploring CRM system benefits.

Keywords
Customer Relationship Management, Implementation benefits.

INTRODUCTION

The implementation of Customer Relationship Management (CRM) systems is both expensive and risky. Reports from industry suggest a high level of failure (Ericson 2001). In spite of these deterrents, firms continue to adopt CRM systems because they are no longer perceived as a niche frill but as a strategic imperative (Dyche 2002) and a necessity for survival in increasingly globalised and uncertain markets (Band 1991). Spending on CRM licenses increased from US $2.8 billion in 2002 to over US $3.02 billion in 2003 and is expected to rise through 2004 (Gartner Group 2003). Forrester research group estimates that CRM revenue is expected to grow from US $42.8 billion in 2002 to US $73.8 billion in 2007 while AMR research suggests that CRM investment is expected to reach US $10.8 billion in 2004 (Surmacz 2002).

Anticipation of benefits is the driver for any information system implementation and CRM systems are no exception. Low awareness of benefits is perceived as a barrier to successful implementation of CRM systems (Ryals et al. 2001). A search of relevant literature established that there was no comprehensive framework for understanding the benefits of CRM systems. This paper identifies benefits of CRM systems across the length and breadth of organisations and proposes a framework that will be useful for both practitioners and academics.

For practitioners, identification of benefits that can be achieved assists in defining the goals of CRM projects and serves to provide specific direction. Apart from providing the vision, benefits can also be mapped to specific applicable CRM tactics and technology, thus defining the path to the goal. Furthermore, existing and potential opportunities to exploit CRM capabilities are made visible and organizations can attempt to gain maximum leverage from the investment. By providing answers to the “what’s in it for me?” question, benefits identification helps to obtain stakeholder sponsorship and enthusiastic co-operation from users. Combined with metrics for measurement and evaluation, benefits identification can be used to ascertain feasibility of projects and to serve as a benchmark for continuous monitoring of progress and judging effectiveness. The proposed framework also provides academics with
a systematic approach to identifying and exploring CRM system benefits. The framework can be used to organize CRM studies in order to build cumulative CRM research. An understanding of benefits that can be achieved is fundamental to enquiries into other aspects of CRM systems implementation including critical success factors and roadblocks to successful implementations.

THE CONTEXT OF CRM SYSTEMS

Customers are every organization’s best asset (Li 2001) and the ultimate purpose of a business is the creation of customers (Drucker 1993). This has been reflected in traditional marketing approaches with a product-centric focus. Mass promotion of product via television and other advertising channels has been widely used to gain a larger share of the market (Kotler et al. 1998).

Over time, the very nature of competition has altered. Businesses find that promotion based solely on product-differentiation is no longer enough. Indeed, in some industries such as banking, differences between competitor’s products is almost minimal (Brown 2000a). Furthermore, the emergence of new sales channels such as the Internet, has accelerated competition. Geographic buffers have given way and a click of the mouse literally opens up worldwide competition (Li 2001). These realities have forced businesses to re-structure their marketing approach and shift the focus from product to customer.

CRM is a formal practice that enables a business to develop a one to one relationship with its customers and maintain this on a continual basis (Peppers et al. 2000, Gummesson1999). CRM is concerned with the creation, development and enhancement of individualised customer relationships with carefully targeted customers and customer groups so as to maximise their total customer life-time value (Ryals et al. 2001). Small, highly localized businesses have always thrived on customer-centric marketing. By developing a degree of intimacy with the customer, the business is able to provide a highly personalized level of service. The customized service then becomes the primary differentiator between competing businesses.

Emphasis on economies of scale resulting in mass production and mass marketing had rendered individual relationships with customers virtually impossible for large firms. Developments in information technology have made it possible for these firms to develop relationships with customers on an individual basis (Peppers et al. 2000). Products and services are customized to suit specific customer or market segment needs even where the number of customers is large and the business is geographically distributed. Customer acquisition, which was regarded as the target of traditional marketing, has now become the starting point of the CRM journey (Brown 2000b). By acquiring pertinent information about customers and recording all interactions between the customers and the business and using this information to improve customer service and satisfaction, organizations are able to enjoy increased revenue and profitability – economies of knowing.

CRM technology, as we know it today, has evolved from a range of stand-alone technologies including call center systems, sales force automation systems and customer information files (Buttle 2004). CRM systems consist of technologies that facilitate data capture, storage, management, delivery and analysis (Zikmund et al. 2003). Examples include databases, websites, point of sale systems, data warehouses, OLAP tools, data mining software, reporting tools and phone call routing systems. This range of technologies can be classified into two areas – operational and analytical. Operational CRM system components are focused on the automation of front-office CRM processes. Analytical CRM system components are concerned with analysing customer data to enhance customer knowledge in order to decide and act to increase customer and firm value.

RESEARCH APPROACH

In this paper, we construct a CRM benefits framework based on an extensive literature review. The framework includes both benefits and CRM components that are drivers for these benefits. Following this, case studies of practical CRM systems implementation were reviewed to ascertain whether the benefits identified in the framework have been achieved. This was obtained through an extensive search for CRM implementation case studies in books, journals, conferences and a Google search on the Web. Approximately 30 case studies and vignettes were reviewed. Case studies of CRM systems implementations across a range of industries including banking and finance, health insurance, pharmaceutical, aviation, food, telecommunications, IT hardware, electrical appliances, textile, automobile, Internet services, education and the non-profit sector are included.
Qualitative data analysis techniques were then applied to the selected case studies of CRM system implementations. Coding of empirical data was followed by pattern matching with the framework. The observations have been documented and the framework has been revised and extended to incorporate additional considerations.

**CRM BENEFITS FRAMEWORK**

Companies adopt CRM for defensive and offensive motivations (Buttle 2004). Defensive motivations are driven by competitors adopting CRM successfully and the possibility of losing customers and revenue. Offensive motivations are driven by the desire to improve productivity by reducing costs and increasing revenues through improved customer satisfaction. Irrespective of the motivation, CRM systems have the potential to offer a range of benefits for the organization.

In this section of the paper, a framework of benefits has been developed from an extensive review of literature on CRM systems (Figure 1). The framework consists of 3 aspects – domain (functional areas in which the benefits are achieved), drivers of benefits and the identified benefits and grouped according to the levels of management that experience these benefits.

![Figure 1: CRM Benefits Framework](image)

The scope of the benefits is initially confined to the sales, marketing and customer service functions as these are the primary domain of CRM systems. Although CRM systems were initially designed to help solve operational and tactical problems, they have since evolved to support strategic improvements (Dyche 2002). Therefore, the benefits are categorised from the perspective of users at operational, tactical and strategic levels of the management (Anthony 1965) within the sales, marketing and customer service functions. The framework also incorporates the drivers of CRM system benefits. The technological drivers include CRM Infrastructure (also known as Operational CRM components) and CRM Analytics (also known as Analytical CRM components). An additional non-technical driver, Organisational CRM Culture, has also been included. As with all types of information systems development, it is evident that the technological components alone cannot account for achievement of benefits. Overlaying CRM technology on archaic corporate policies is akin to paving the cowpath (Dyche 2002). At best, technology is an enabler and the best technology cannot make up for deficiencies of inefficient processes. An organizational culture that is customer-centric and is supported by processes, business strategies and people is also essential in order to bring these benefits within reach. When technology is used to create and empower a culture of customer service, it will be difficult to ascertain which accounts more for success – technology or culture (Peppers et al. 2000). The following section of this paper consists of a detailed explanation of benefits categorized according to level of management to which each benefit is most appropriate.

**Benefits for Operational level of management**

These benefits pertain to day to day operations of the business.
Improved data and knowledge management

Customer data is recorded at numerous locations throughout organizations which are spread across different systems, functions and technology media. In order to manage individual customer relationships, organisations must be able to view their entire relationships with customers (Ryals et al. 2001). CRM systems seek to integrate these islands of data and provide a panoramic view of the customer at every interface between the organization and the customer.

Improved process management

CRM systems are successful when there is alignment of technology with business processes. Consolidated data coupled with a focus on creating value for the customer results in seamless integration of processes and identification of blockages to customer satisfaction.

Improved customer service

The integration of customer data provides employees with as much information as possible about customers, thus helping them to provide better service at the time of contact. Elimination of the need to access multiple systems for information and use of specific technologies such as load balancing, call routing and precision call distribution lead to reduction in time taken for service (Dyche 2002).

Empowerment of staff

By giving employees access to more information, the organization gives them more autonomy in their tasks. Sales force automation systems and related products empower employees with pertinent information that assists in contact and lead management, configuration support and knowledge management (Dyche 2002).

Benefits for Tactical level of management

These benefits relate to medium term planning and the development of tactical strategies such as specific marketing campaigns.

Facilitates market segmentation and target marketing

CRM analytics enables profiling of customers from a heterogeneous market to appropriate levels of aggregation to obtain smaller, more homogenous groups (Zikmund et al. 2003). Marketing strategies can then be adjusted accordingly. CRM also makes it easier to track the effectiveness of a given campaign as opposed to traditional mass-media marketing (Handen 2000).

Enables real-time responsiveness of marketing strategy to trends and promotes proactive marketing and continuous learning

High technology enhances relationships with customers by facilitating immediate response to their needs (McKenna 1991). An interesting analogy compares this to a dance between two partners – the organization and the customer (Brown 2000b). As the customer swings in one direction, the organization keeps up the pace. The market intelligent enterprise soon begin to anticipate the moves of its customer and refines its response with such efficiency that it would be difficult to discern who is leading.

Facilitates key account management

Acknowledging that not all customers are profitable, or equally so, is one of the cornerstones of CRM. CRM systems facilitate isolation of high-potential customers, develop a deeper understanding of what they want, determine how much should be spent to satisfy them, and calculate what the returns might be (Band 1991). Profitable customers who exhibit the propensity to leave can be identified, as also customers who are a liability to the organization. Multi-tiered service levels can be developed for each level of profitability. One of the most useful constructs of the integrated customer database is the ability to calculate the lifetime value of the customer (Vavra 1995).

Improved channel management

CRM systems assist in strategic channel management. One aspect of this is ascertaining customer channel preferences. The other aspect is that it allows organizations to increase profitability by ensuring that the most effective channel is used for specific products and customers (Brown 2000b). By combining knowledge about
customer propensity to use a sales channel with organizational channel preferences, effective strategies can be deployed to propel customers towards the more cost-effective channels.

Productivity improvement through improved resource management

While prospective users of CRM indicate that growth in revenue is the biggest expected benefit, existing users report that biggest benefits have been observed in the area of productivity improvements (Aberdeen 2003). This is particularly significant during economic downturn when productivity gains translate into increased profit margins via reduction in costs.

Cost control and cost reduction

Acquisition and operational cost benefits are enabled through process improvements, channel optimization, customer segmentation, key account management and improved resource management (Brown 2000b, McKenna 1991). By identifying customers on the basis of lifetime profitability, organizations can avoid over-spending on customers who are a liability rather than an asset. By supporting customer retention, CRM systems can result in reduced cost per sale.

Improved analysis, reporting and forecasting

By subjecting integrated data to superior business intelligence scrutiny, organizations can improve analysis and produce more accurate forecasts. CRM systems are usually equipped with the ability to generate predefined and ad hoc reports. Operational systems can be effectively used to support planning functions such as forecasting and resource management (Dyche 2002).

Benefits for Strategic level of management

Improved customer satisfaction

All of the factors discussed so far have a positive impact on value creation for the customer. By delivering expected or more than expected value to the customer, customer satisfaction increases. This has a direct impact on overall business performance as discussed below.

Improved business performance

While customer acquisition is fundamental to business, keeping customers is more important (Zikmund et al. 2003). A well-implemented CRM system results in reduced customer attrition, increased customer retention, increased revenue and profitability (Handen 2000, Dyche 2002, Buttle 2004). It can assist organizations to maintain/gain a competitive edge in their industry by promoting a favourable image among their customers, thus strengthening their leadership in the market.

CASE STUDY ANALYSIS

The selected case studies of CRM implementations were analysed with particular reference to the CRM benefits framework. A number of patterns in this context were observed. These observations are discussed individually in this section of the paper. Case study evidence has been included to substantiate the findings.

Sales, Marketing and Customer Service functional areas are the initial domain of CRM system benefits

Analysis of the case studies revealed that many CRM programs start off as small, pilot projects with specific objectives within the sales, marketing and customer service functional areas of the business. These include implementation of sales force automation systems, sales channel integration systems, call center systems and others. The following case study examples illustrate this trend.

Roche is a leader in research-based development and manufacture of pharmaceutical and diagnostic systems (Buttle 2004). Information about medical practitioners who are the customers, was previously obtained through multiple, mutually exclusive sources that were recorded on disparate systems. In a bid to understand the customers better, the company implemented a sales force automation system that integrated data from the disparate sources and made it accessible throughout the organization.
Likewise, the CRM initiative at AMP Financial Services commenced with the recognition of the need to provide seamless service to customers across four channels including phone, Internet, mail and the financial planner community (Aberdeen 2003). Financial planners are responsible for 75% of the company’s business and the primary focus of the CRM systems implementation was on the provision of functionality to this channel to maximize customer satisfaction and increase revenue. The system provides lead-generation, routing and monitoring capabilities as well as integration of data to provide a unified view of the customer.

Empire Blue Cross, which is New York’s largest health insurance provider, embarked on its CRM journey with the need to reduce sales costs and increase productivity (IBM 2004b). Inefficient processes were being deployed to manage Empire’s 29,000 plus corporate employer accounts. The negative impacts of these inefficiencies included delays, errors and high costs. The new CRM system includes a browser-based quote engine that empowers brokers to generate and revise quotes themselves. As a result, brokers who are using this facility are able to handle an average of 45% more quotes and the enrolment process has been reduced from over 27 days to under 3 days. The company has since recorded a 274% increase in sales, a portion of which is believed to have been directly enabled by the implementation of the new system.

CRM system benefits are experienced by users across all levels of management

At the commencement of case study review and analysis, it was not expected that every CRM implementation would achieve all the benefits identified in the framework. However, it was found that some of the benefits identified in the framework are not independent and are in fact, complementary to each other. As a result, they are seen to occur in concurrence. Improved data management is perhaps, the single benefit with the highest propensity to trigger related benefits. Virtually every other benefit identified in the framework is in some way dependent on high quality, integrated data. In all the cases that were reviewed in this study, integration of data from disparate sources and improved data management resulted in related benefits including productivity improvements, improved customer service, greater depth of analysis, more useful reporting, more accurate forecasting, cost reduction, empowerment of staff, better understanding of customer behaviour and improved marketing. All of these in turn, led to improvement in overall business performance. Thus, the benefits are experienced by users at all levels of management within the sales, marketing and customer service functional areas of the organization.

A typical example of this is illustrated in the experience of CRM systems implementation at Boots the Chemist (IBM 2004a). Boots the Chemist is the leading retailer of health and beauty products with over 60% of U.K.’s population regularly shopping in its 1,300 stores. The company wanted to have a better understanding and relationship with some of its 30 million shoppers. What began as loyalty card scheme in 1993 eventually transformed into a comprehensive and successful CRM program. The older systems provided information as to what products was sold at which store and when but did not provide any further information about consumer behaviour. Currently, sophisticated data management and analysis tools have been deployed to provide useful insights into the behaviour and preferences of its customers. The system facilitates capture and integration of richer customer data to build multi-dimensional pictures of the customers and perform complex analysis such as RFM (Recency, Frequency and Monetary value) analysis. Apart from distinguishing the best customers, the system also includes data mining capabilities that are used for market segmentation and predictive modeling. The campaign management component of the system is used for effective target marketing and combined with analytical capabilities, supports campaign response measurement. Productivity improvements have been significant, particularly in query response times (data retrieval). Apart from improving the marketing process, the system has resulted in an increase in sales of approximately 4%.

The implementation of e-business strategy at Hitachi Japan iPD, a division of the $70 billion multinational conglomerate Hitachi Japan, has been heralded as one of the CRM success stories of 2003 (Aberdeen 2003). Some of the major issues that initiated a new strategy included distributed, unstructured and expensive business processes, disparate multiple back-office systems, reliance on paper-based documents for some processes and little automation capabilities to assist configuration and sales. Many of these had a less than desirable impact on the level of customer service and costs. The new system provides an accessible self-service environment with online quotation, ordering and configuration for approximately 20 product lines and variations and models within each group. Quoting and pricing has become more accurate and consistent and sales cycle time has been reduced. Transaction and other related costs have also been reduced. Other productivity benefits include reduction in staff, higher job approval and improved transaction performance leading to increased customer satisfaction. The system is able to guide customers with the purchasing process and in the selection of complementary components and options. Increased accessibility
to higher quality data has made a significant improvement in the sales planning and forecasting process. Improved analysis capabilities have contributed to a better understanding of customer requirements. All of these factors have contributed to increasing the efficiency of the sales process and thereby prompting an increase in repeat business.

**CRM System Benefits can extend to other functional areas within the organization and beyond**

Interestingly, while the initial focus of CRM systems has been related to the sales, marketing and customer service functions of the organization, it was noted that the benefits generated by these systems typically expanded beyond the scope of these functions. Data and system sharing was also found to promote inter-departmental or inter-functional synergy, leading to organizational efficiencies. Integration of data and processes also serves to present the customer with a unified view of the organization.

Furthermore, by adopting an enterprise-wide CRM culture and consciously extending the underlying CRM infrastructure and analytical capabilities, relationships with external partners such as suppliers, can also be improved thus resulting in achievement of mutual benefits.

Examples of integration of CRM systems with supply chain management abound. Dell Computer is one of the world’s largest PC manufacturers and markets directly to customers. The company has electronically linked its customer order placing front-end system with its back-end assembly, manufacturing and parts functions. The customer’s order is transmitted directly down the supply chain. By integrating its CRM system with its supply chain, Dell maintains only approximately 8 days’ worth of inventory with considerable cost savings. (Brown 2000b).

**REVISED CRM BENEFITS FRAMEWORK**

In the preceding section of this paper, three broad observations from the case study analysis were discussed. The first two observations confirm/substantiate the benefits framework with evidence from actual implementations. The third observation highlights aspects for further consideration which require the benefits framework to be revised and extended to incorporate the findings. The scope of the initial benefits framework was restricted to the sales, marketing and customer service functional areas of the business. The case study analysis has revealed that successful CRM implementations often exhibit a tendency to extend the drivers such that benefits are felt across other functional areas of the organization as well as by external partners. These are discussed briefly as follows:

**CRM benefits for other functional areas internal to the organization**

The following are CRM system benefits that extend beyond the sales, marketing and functional areas of the organization.

**Establishment of cross-functional goals and quality standards**

The implementation of CRM systems encourage establishment of cross-functional goals since the entire organization is focused on maximising value for the customer. Integration of data from disparate sources, system sharing and alignment of processes throughout the organisation also necessitates formulation of quality standards.

**Improved cross-functional management**

Process synchronisation across the organization results in improvements in co-ordination between functional areas. Constant monitoring and review of cross-functional processes supports conflict resolution, joint opportunity analysis, planning, cost reduction, productivity improvements and resource optimisation. This leads to overall improvements in cross-functional management. For example, Heineken USA, the world’s second largest brewery, built an intranet to provide company wide access to sales and inventory data thus enabling simultaneous collaboration between sales and marketing and other functions including manufacturing, warehouse, logistics and finance (Brown 2000a). The result is that time taken from brewery to retail shelves has been reduced from 12 weeks to 6 weeks. Furthermore, distributors and manufacturers are able to provide better service by using the same current data.

**Product development and innovation**

CRM systems enable proactive responsiveness of marketing strategy to trends and foster continuous learning within the sales, marketing and customer service functional areas. The same information about customer behaviour and
preferences can also be used by the research and development functional areas of the organization for successful product innovation. The CRM initiative at Capital One has resulted in significant benefits in product development and innovation (Brown 2000b).

**CRM benefits for the external partners of the organisation**

The following are benefits that are experienced in the organisation’s relationships with its external partners.

**Improved value added partnerships**

Case study analysis has demonstrated that CRM systems also have the potential to provide benefits in areas of interaction between the organization and its external partners. Improved value-added partnerships/external linkages are enabled particularly in the context of B2B trading & supply chain management. A successful example of integration of supply chain management with customer ordering is at Spanish automobile manufacturer SEAT. The company receives an order for a new car every 35 seconds and co-ordinates supply of 95,500 components to manufacture 2335 cars on a daily basis (Buttle 2004).

**Improved communication**

CRM systems are primarily concerned with establishing and improving ongoing relationships with customers. Often, the culture of relationship management is also extended to other external players such as suppliers, legislative departments and other business partners. Benefits from improved communication are particularly evident as in the case of the following example. The city council of Lynchburg, USA, implemented a CRM system to enable open lines of communication and to automate services it provides to its 69,000 citizens (Buttle 2004). In the process, the level of communication between the city council and various municipal departments have improved.

**The Revised CRM Benefits Framework**

Based on the observations discussed in the preceding sections of this paper, the benefits framework has been revised (Figure 2) to expand the scope from sales, marketing and customer service functions to include other functional areas internal to the organization and external partners of the business. The drivers that enable achievement of CRM benefits – CRM Infrastructure, CRM Analytics and Organisational CRM Culture – also shown to extend beyond the initial scope of sales, marketing and customer service functions to exploit maximum potential of CRM system capabilities.

![Figure 2: Revised CRM Benefits Framework](image-url)
The revised framework serves to highlight that although most CRM programs start off as small, pilot projects with specific objectives and often, limited impact on the organization as a whole, the benefits generated often spill over into other areas of the business. Indeed, these projects often act as the fuse to trigger subsequent enterprise-wide CRM explosion (Dyche 2002). Eventually CRM systems evolve into core infrastructure that shape the very future of businesses.

CONCLUSION

This study has proposed a framework for CRM systems benefits across organizations that will be of significant benefit to both practitioners and researchers. A limitation of this study is that many of the case studies used to validate and refine the framework have been sourced from vendor websites and reports of industry research groups. A search of relevant literature established that this is the main source of CRM case studies at this time. However, it is felt that the information derived from these sources is of significance as it is a direct reflection of industry experience and makes a valuable contribution to this study. A further limitation is that many of those case studies only reported successful implementations.

These limitations, however, indicate the direction for further research. One such enhancement would be in-depth case studies and surveys of current CRM practice to further confirm and extend the framework. Additional dimensions/categorization such as tangible and intangible benefits would also be of practical use. There is also a need to extend the framework to incorporate metrics for measurement and evaluation including assignment of weights and prioritisation of benefits. These could be used to identify conflict of interests between the parties involved in and affected by the project. The role of the drivers of CRM benefits viz. CRM Infrastructure, CRM Analytics and Organisational CRM Culture, and their interplay is another aspect to be explored in order to understand how CRM benefits are generated. It would be beneficial, also, to conduct an enquiry into the benefits that were not achieved, with a view to understanding why this was so. Since the potential for enterprise-wide benefits of CRM systems have been identified, this could also be linked to a holistic evaluation of CRM implementations using such techniques as balanced score card analysis. These additions to the study would contribute to the practical application of the framework to uses identified earlier in this paper.

REFERENCES


COPYRIGHT

[Malini Jayaganesh, Graeme Shanks, Sven Carlsson] © 2004. The authors assign to ACIS and educational and non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to ACIS to publish this document in full in the Conference Papers and Proceedings. Those documents may be published on the World Wide Web, CD-ROM, in printed form, and on mirror sites on the World Wide Web. Any other usage is prohibited without the express permission of the authors.