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# Enhancing organizational performance via electronic customer relationship management

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## **ABSTRACT**

*An Electronic Customer Relationship Management system or eCRM helps organizations shift from mass marketing of goods and services to customized marketing of personalized offers. As consumers are constantly getting more technologically savvy and sophisticated, eCRM systems allow businesses to tune-in to their customers' needs and design appropriate personalized marketing campaigns. They not only allow more intelligent customer interactions and responses, but also do it in a cost effective manner. The primary purpose of this paper is to explain the eCRM concept and describe the major organizational benefits of eCRM.*

## **INTRODUCTION**

We now live in a world in which the customer is in control of the business relationship. In this emerging "customer based economy," successful organizations must strive to meet or exceed customer needs, or risk losing them to the competition. Enterprises in nearly every region of the world are experiencing this shift in control and are recognizing the value of building stronger customer relationships (Walsh, 2001).

In the last decade, we have developed a technology infrastructure that allows us to perform tasks in a way that were unimaginable or prohibitively expensive. Organizations, however, are facing some new and exciting (but also very challenging) issues in this Internet era. Some of these challenges include intense competition, price margin pressures, disloyal customers, and very finicky capital markets that tend to either handsomely reward companies that exceed expectations, or brutally punish organizations which miss the mark. We are witnessing the evolution of the "new" economy.

One significant outcome of the Internet based economy is a transfer of power from the seller to the buyer. Modern consumers have an enormous amount of information at their fingertips, and have the power to take their business to another vendor if there is a significant difference in cost or service. Today, many customers like to do their own online investigation of the market,

and take appropriate purchasing actions - and do so willingly because they believe that it will result in greater benefits for themselves. It is, therefore, important for organizations to realize this shift in market power, and take the prudent course of action - to constantly exceed customer expectations.

Many innovative organizations have devised a strategy, called *Electronic Customer Relationship Management (eCRM)* to manage their customer relationships. A successful eCRM strategy should engage the customer in a relationship with the organization so that the customer will keep returning for multiple transactions. It is equally important for businesses to fully utilize all available communication channels (web, e-mail, chat, video, voice, fax, letters, etc.) to serve and support their customers - and then integrate and learn from all these interactions. By doing so, organizations can engage their customers in an ongoing "knowledge exchange," from which they can learn more about their customers' needs. The organization is thus able to develop and deliver products and services that can regularly exceed their customers' expectations. The primary purpose of this paper is to explain the concept of electronic customer relationship management, and describe the major benefits of eCRM.

### WHAT IS eCRM?

Electronic Customer Relationship Management is not just a technological solution. It is a business model that understands the power of the consumer, and then uses information systems technology to attract new customers, retain existing customers, and finally coax customers to do more business with them. An effective eCRM system aims to ensure that every customer who contacts a company by any communications channel (such as phone, fax, e-mail and interactive web site) gets the information or assistance that they need in a timely and cost-effective manner. An eCRM system should also *integrate* the customer-interactions across all communications channels (i.e., it doesn't matter **HOW** the customer contacted the organization), and create a comprehensive profile of the customer for any employee of the company that is dealing with a customer (Waltz, 2000).

An example of an eCRM strategy is to target or reward only the "most profitable" customers, thereby saving millions of marketing dollars while increasing revenue. Businesses can then design campaigns for their "moderately profitable" customers, essentially persuading them to become more profitable customers. Finally, it can discover customer segments that are not profitable, and drop them.

A successful eCRM strategy is designed to engage the customer in a relationship with the company beyond a single transaction, so that the customer will keep coming back. "The company that tries to live by the online transaction will die by it" (Keen, 2001). This requires that the business engage the entire enterprise (from service and support to sales and marketing to product development) in servicing the customer at *every point of contact*. Organizations must realize that relationships exist at the discretion of the consumers. They have to find value in interacting with the organization.

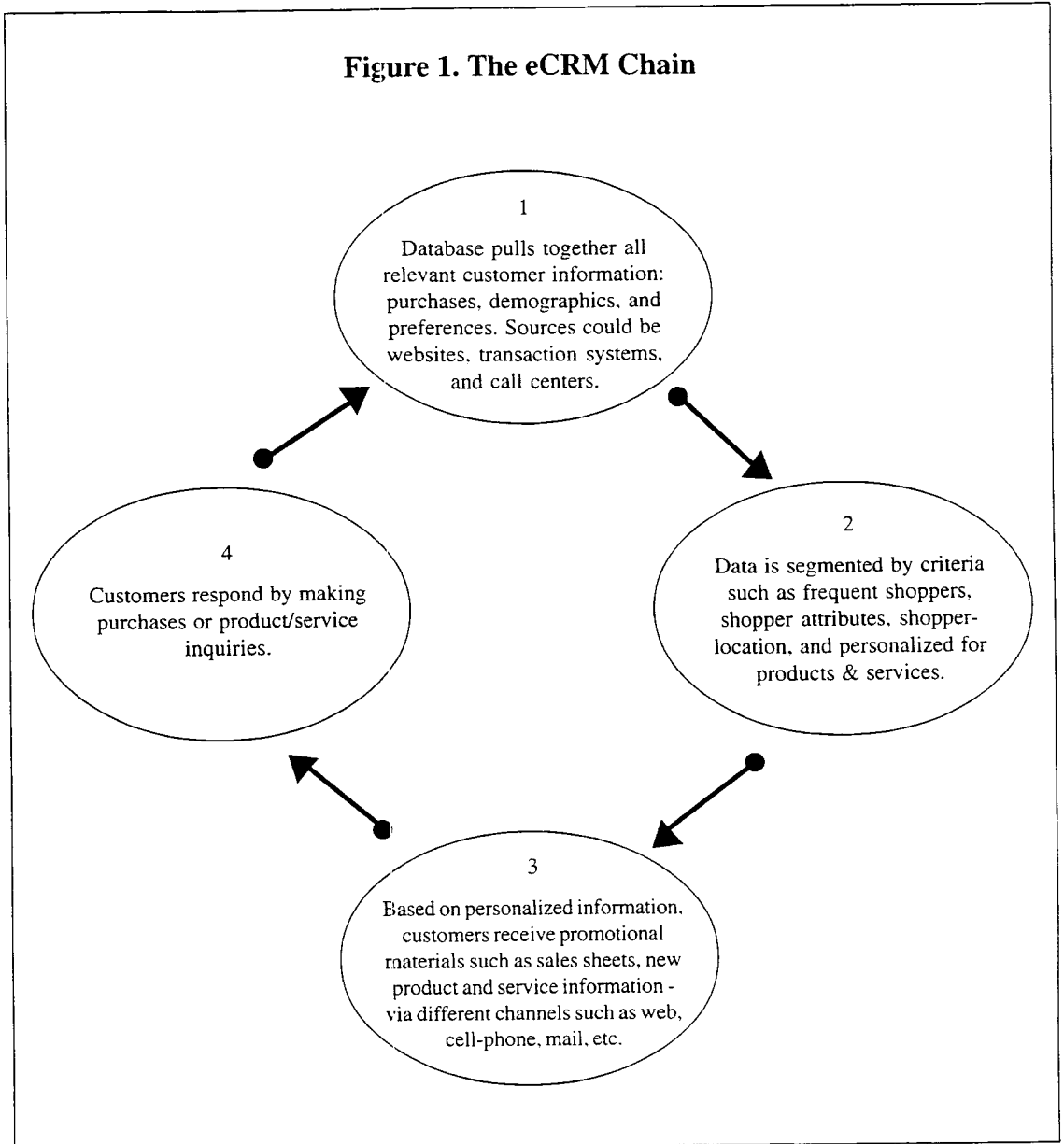
The following four tenets (Guadagno, 2000) help us understand some of the basic requirements of eCRM. It helps organizations evaluate the current state of their eCRM strategy, and take any remedial actions if needed. The *first* eCRM tenet is that *customers must be allowed to communicate via any communication channel*, or any combination of channels that they choose. In other words, customers must be able to choose the communication channel that best fits their immediate business needs, their individual working styles, and their current access to the business. Many customers, for example, prefer using e-mail as an initial contact mechanism, with the option to escalate to the web or web-based chat when needed; others prefer starting with a phone call and then moving to the personalized, online space. Regardless of the scenario, the software used to enable eCRM must be able to take full advantage of every communication channel and easily transfer information from one to another. The business offers the channels it can best support, and the customer chooses from among the channels offered.

*The second eCRM tenet is that every interaction with the customer must result in genuine value to both the customer and the business.* There is little value in responding to a customer like "Your e-mail has been received and successfully routed to an agent - someone will respond to your inquiry within 24 hours," because all the customer can do is wait for a meaningful response at a later time. Such a response, however, is a common one for many organizations, and indicates that they have failed to make the shift to true eCRM. A good eCRM system would attempt to resolve the question asked or to lead the customer to a personalized website where they could explore the issue a little further. Instead of *waiting*, the customer can *act*. At the same time, the organization could automatically modify the content of its knowledge base based on the customer's indication of whether or not they have found the correct solution to a support problem. In order to accomplish this, however, the organization must agree with the tent three below.

*The third eCRM tent is to capture business knowledge, and the context during the customer interaction.* Customers expect businesses to remember them, remember what they said and bought, and remember when they bought. When the business remembers such customer information, the customer feels that the organization cares about him/her (which hopefully it does). To achieve true CRM, however, the business has to go beyond remembering the *who*, *what*, and *when*. It also has to remember the *why*. The captured information must have enough "context" to become useful in a future customer interaction. For example, if a regular customer calls and cancels an order, it is useful for the business to remember that the customer has had several unsuccessful attempts at getting service on products that he had purchased earlier. Immediate steps can be taken by management to remedy the problem (especially if the customer is a profitable one). Context helps to turn information into knowledge, and knowledge powers eCRM systems.

*The final tenet for a successful eCRM is that it should result in the customer becoming an integral part of the value-chain*, and not just at the level of the financial transaction. The business cannot just collect the money from its customers and move on. In order to provide true eCRM, businesses must think outside the traditional boundaries of what gets exposed to the customer and what remains hidden. The web should be used to facilitate direct interaction between customers, letting them address critical issues as part of a shared-interest group, instead of

keeping them isolated from each other for fear of what they may discover. Companies are currently learning how to use customer relationships to create joint planning and designing processes, create online communities, and even have certain customers solve problems for other customers (Keen, 2001). As the bond between an organization and the customer gets strengthened, each brings more to the relationship. Figure 1 shows the complete eCRM chain.



## BENEFITS OF eCRM

Electronic customer relationship management is rapidly being accepted as an important strategic tool to enhance the competitiveness of modern organizations. There are several important benefits of implementing an eCRM system. However, not all these benefits are quantifiable. A healthy balance of measurable business benefits and intangible benefits is needed in a well-thought-out justification for pursuing eCRM. The major eCRM benefits, both intangible and measurable, are described below.

The *first* major benefit of Electronic CRM is that it allows organizations to *conduct "intelligent" interactions with customers using several communication channels*. This enhances customer satisfaction and loyalty. Since it costs \$30 to \$50 (Seminerio, 2000), to attract customers in many organizations (especially online customers), it makes great economic sense in retaining existing customers. For example, Ted Ross, who is the manager of owner loyalty at Nissan Motor Corporation, says that the eCRM software from E.piphany "provides us with the products we need to really understand who our customers are. Their technology allows us to get a single view of our customers' behavior over multiple purchases through a variety of different touch-points." Using an eCRM system, customers can seamlessly use different communications channels while interacting with the organization. For example, a customer can call from a cell phone regarding a notice sent to him from the company, explaining that he had sent an e-mail and a fax letter a week ago describing his situation. Unless all these customer interactions via different channels are integrated, an employee answering the phone call cannot respond immediately and effectively.

A *second* benefit of eCRM is *to maximize sales to existing customers by helping to cross-sell and up-sell products* to customers (Seminerio, 2000). Cross-selling is the process of coaxing the customer to try new products which are related to the customers interests and past buying habits. Upselling is the process of coaxing the customer to try upgrades of products that they have purchased before. Cross-selling and up-selling need extensive customer data and analysis to develop a deep understanding of the customer. The end result is a more satisfied customer, and larger profits for the organization. For example, Xchange Analytics (product from Xchange, Inc.) is a software that provides the critical customer and profit analyses required to conduct intelligent, economics-based marketing, sales and service campaigns, and then measure the results. Similarly, Xchange Campaign (Xchange Inc.'s campaign management software) enables companies to plan, create and execute highly targeted, cross-channel marketing campaigns. Xchange Inc. has been widely recognized as the leader in campaign management software for several years running by analysts, trade press, and marketing trade associations.

People usually recognize and reject "junk" offers because the item being promoted is not something of interest to them, and it comes from an unfamiliar source. Customers are more likely to trust a direct marketing piece from a company with which they are already doing business. For example, a bank might extend an offer for college loans to all of its customers who have children in their senior year of high school. By uncovering the identity of their customers, businesses can begin to understand their needs and therefore offer the right service for each individual.

The ability to *route, track, respond, and manage ever-increasing volumes of customer e-mail* is a *third* eCRM benefit. Many organizations are currently using e-mail to enhance customer service. However, if there is no timely response to the customer's e-mail, the customer is left with a bad experience. Companies such as eBay (the world's largest personal online trading community) use a eCRM tool called Kana Response (product of Kana Communications Inc.) to manage their huge volumes of e-mail. Keith Antognini, Director of Customer Support at eBay has a very daunting task because eBay receives 125,000 to 150,000 e-mail inquiries from eBay's user community each week. Amazingly, eBay responds to most of these inquiries in less than 12 hours (Kana, 2000). The increase in CSR (Customer Service Representative) productivity was dramatic after installing Kana Response. The advantages to eBay include (i) an immediate 50 to 75% improvement in productivity, (ii) a significant reduction in additional hiring, (iii) the ability to provide "12-hour service level" for 90% of the inquiries, and (iv) improved decision-making due to better reporting and analysis (due to valuable metrics and content analysis capabilities).

A *fourth* eCRM benefit is the *enhancement of web-based self-service*. Organizations can dramatically decrease their operational costs, and significantly enhance customer satisfaction if they allow customers to help themselves via the web. Organizations can use eCRM software to customize their web sites by tailoring it to suit the customers needs. Xchange7 (a CRM product of Xchange, Inc.) for example, has the capability of creating customized personal home pages for users, which provide instant access to a person's preferred reports and analyses.

Some of the major vendors of CRM systems include Siebel Systems, Accrue Software, Kana Communications, Primus, E.piphany, BroadVision, Vignette, Blue Martini and MicroStrategy. The benefits of using eCRM systems indeed seem significant, but the adoption rate in organizations has been rather slow. Some of the factors that slow the adoption of eCRM software systems include (Sweat, 2000b):

- High cost of implementing eCRM systems
- Difficulty of data integration with existing systems
- Concerns over the "quality" of customer data - their reliability
- Internal resistance to new applications

Managers know that customer information is very valuable. But they are also overwhelmed with the sheer volume of data and are stymied in their desire to tap this information due to lack of skilled people, resources, standard definitions, and domain expertise (Cutler & Sterne, 2000). Implementing an eCRM system needs much planning and patience. According to the Gartner Group (Callaghan, 2001), 60% of CRM software implementations fail. After studying many cases, the following strategies have been recommended for a successful eCRM implementation.

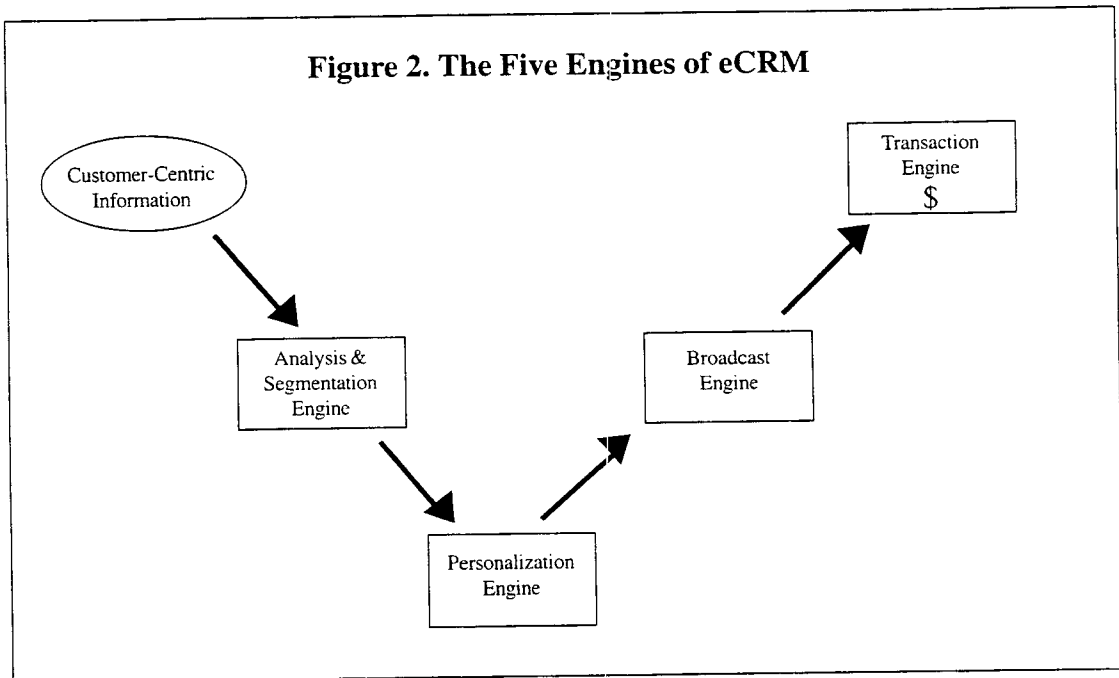
- Make an experienced business manager take ownership of the eCRM system so that there is accountability and assurance that business processes are followed.
- Take advantage of opportunities to cross-sell and up-sell — and not just focus on the most profitable products.

- Adopt a step-by-step phased approach in the number of features added and integration with other systems.
- Resist the temptation to "over customize" the system.

### DEVELOPING THE eCRM SYSTEM: THE FIVE ENGINES OF CRM

It is clear that eCRM is (or can be potentially) beneficial to organizations, but the steps to get the technology in place, however, are nontrivial. It is important to rapidly build the technology infrastructure and do so cost effectively. Many organizations have failed in their eCRM efforts because of improper implementations. Recent research indicates that 39% of online shoppers failed in shopping attempts, and less than 5% of unique visitors ever became customers (MicroStrategy, 2000). It is, therefore, important to design the eCRM system correctly from the start.

Figure 2 shows the five engines of eCRM (MicroStrategy, 2000). The *first* engine, *Customer-centric Information Store*, generates a unified view of every customer. It gathers and integrates data from different sources such as web sites, transactional systems, operational databases, call centers, enterprise resource planning systems, and third party data. This engine must be highly scalable (very easy to get terabyte-sized data store very rapidly) and flexible (accommodate multiple data models and architectures to allow for easy back-end integration). The benefits of this store include getting a rich view of each customer as the customer interaction volume grows, and presenting a unified data for marketing campaign formulation, execution, and testing.





The *second* engine is the *Analysis and Segmentation Engine*, which performs business analysis, segmentation and prediction so that customer interactions are personalized and appropriate. This is the "intelligence" component of the eCRM system. The benefits of this engine include precise targeting of customer segments, scientific basis for managing customer interactions, more insightful understanding of consumer demand patterns, and identification of risk factors that result in customer loss.

The *Personalization Engine* is the *third* component of an eCRM system. Until very recently, it was very expensive and labor intensive to provide personalized attention and services to all customers (it was, however, done for the "big" customers who were worth the cost and effort). The eCRM personalization engine significantly lowers the marginal cost of personalization. Amazon.com, for example, is able to personalize every customer's on-line interaction (recommends books suited to that customer) due to eCRM -- and there is very little effect on their cost structure to provide this service to several thousands of more new customers (MicroStrategy, 2000). Artificial intelligence methods such as Inference models and Rules-based technologies, along with database technologies, are often used to provide such customer personalization.

The *Broadcast Engine* is the *fourth* eCRM engine, which allows 24/7 customer interaction via multimedia/multi-channel (MMMC) capabilities. Each channel (such as web, cell-phone, e-mail, etc.) has unique benefits, and the customer is given the opportunity to interact using any channel. A business can also use this engine for getting to the customer "first." A video store can, for example, immediately alert a film buff about a new film release using voice mail on his cell phone - and allow him to conduct the transaction on the phone - this allows the video store to secure the customer's business before some other business gets it!

The *fifth* and final engine is the *Transaction Engine*, which leverages the other four eCRM engines to develop trusted relationships between the organization and customers. One of the important functions of the Transaction Engine is to maintain customer contact and transmit information to the Customer-centric Information Store (the first engine). Other functions include permission fathering from customers and avoiding information inundation. It is important for organizations to get permission to interrupt the flow of their customers' daily lives, and permission capabilities are a core characteristic of Transaction Engines. To avoid information overload, Transaction Engines also allow customers to subscribe to and manage their personalized interactive information services.

The five engines of eCRM hence allow organizations to establish and nurture long-term relationships that benefit both the customer and the organization. The customer is able to conduct transactions efficiently and effortlessly in a manner that he is comfortable with, and the organization gets extra business.

## **CASE: COMPAQ CORPORATION USES SIEFEL eCRM SOFTWARE**

Compaq Computer Corporation is one of the world's largest suppliers of computing systems. Compaq sells its products and services in more than 200 countries, primarily to customers

from the business, home, government, and education sectors. Compaq has always focused on providing world-class customer service, and as competition intensifies, the company believes that this commitment to service distinguishes it in the marketplace and will ensure its continued success.

Recently, Compaq saw an opportunity to further strengthen the level of service it provides to its business customers, which represents a significant proportion of the company's revenue. "As our products became more complex," explains Martin Haagoort, CRM Manager at Compaq, "our sales process became more involved, and our business customers began to demand support over multiple channels." In response to this demand, Compaq decided to introduce a network of 18 contact centers throughout Europe, the Middle East, and Africa. Following an extensive review of eBusiness solutions, Compaq chose Siebel eBusiness Applications for all of its contact center deployments.

The Siebel eCRM system allows Compaq to achieve the following:

- Manage, synchronize, and coordinate all customer and authorized business partner interactions over multiple channels
- Obtain up-to-the-minute information and in-depth customer and product knowledge for quick and accurate problem resolution
- Create more selling opportunities
- Increase overall customer revenues
- Increase call center call throughput
- Generate forecasts based on individual product line items, market sectors, or customer groups
- Identify emerging trends for the creation of targeted marketing campaigns

By giving Compaq a single view of all its customers, Siebel eBusiness Applications enables them to successfully respond to more than 17,000 daily customer inquiries and communicate with more than 4,000 senior decision makers - allowing Compaq to generate more than \$750 million of revenues every year. Using Siebel eBusiness Applications, Compaq can better identify customer needs, ensure continued customer loyalty through superior service, and generate higher revenues.

## **CONCLUSIONS AND SUMMARY**

Electronic Customer Relationship Management (eCRM) is a strategy by which an organization changes the way it interacts with its customers. Ideally, it is a win-win situation in which both the customers and organization benefit. Some of the major benefits of deploying an eCRM system include: (i) integrated view of the customer, (ii) personalized communication with the opportunity to cross-sell and up-sell, (iii) fast and effective responses to customers, and (iv) highly targeted marketing campaigns.

The benefits of capturing and sharing knowledge in the aforesaid ways include not only the higher customer satisfaction resulting from improved product and services offerings, but also greater operational efficiency for the organization itself. Customers receive fast and accurate answers via e-mail auto-response, web-based self-service, online chat, or from a customer service representative over the phone. Users throughout an organization save valuable response time via ready access to customer information. Businesses benefit on both the front end through more effective customer interactions and on the back end through improved processes.

Some of the leading CRM vendors today include Kana Communications, Seibel Systems, Oracle, E.piphany, and Xchange, Incorporated. Gartner Group projects that the total CRM market for 2004 will be \$40 billion, up from about \$13 billion in 2000 (Agnew, 2000). CRM is still in its infancy and researchers and practitioners will, no doubt, find new and better ways to leverage this innovative new technology. One-to-one marketing is a beautiful vision, but it is essentially a vision currently (Sweat, 2000b) because it brings overwhelming complexity to the business. More than half the eCRM implementations are not successful because too much is attempted at the first stage of implementation. It is better to implement eCRM in a step-by-step, phased approach - adding complexity and integration to other systems gradually.

Electronic Customer Relationship Management is still in its infancy, and there is a log of room to improve. ECRM will not succeed merely by implementing software - it has to be complemented with sound managerial policies and decision-making. In the future, the "C" in eCRM could very well involve *all* the constituents of the business (Sweat, 2000a), instead of just the customer. Hence, the interactions of customers, suppliers, employees, and business partners can be integrated to form an environment in which managers make effective organizational decisions.

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