ECRM, THE EVOLUTION TO ONLINE CUSTOMER SERVICES

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**This dissertation was submitted in part fulfilment of the degree of
MSc Information Management**

**DEPARTMENT OF INFORMATION SCIENCE
UNIVERSITY OF STRATHCLYDE**

September 2000

Declaration

This dissertation is submitted in partial fulfilment of the requirements for the degree of MSc in the Strathclyde Business School.

I declare that, in accordance with University Regulation 20.1.20, this dissertation embodies the results of my own work and that it has been composed by myself. Following normal academic conventions, I have made due acknowledgement to the work of others.

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Abstract

The arrival of e-commerce and its popularity have led to high competition in most industries because it offers companies, either new or old, big or small, opportunities to reach global customers more rapidly and more effectively than ever. To keep themselves competitive and retain their position in the intense market, companies must be aware of the importance of online business and attempt to make best use of these opportunities. Many companies that already have their presence online or do business online have now started to realise that online service is a next step they have to go for. Concurrently, companies that already exploiting the Customer Relationship Management (CRM) concept in the form of call centre have found out that such a traditional CRM is ineffective to improve customer satisfaction, retain customer loyalty or reduce operating costs. As a result, their focus has shifted from traditional CRM channel to online service.

Electronic Customer Relationship Management (eCRM) is based on the attempts to integrate different service delivery channels, including online service, and build the consistent view of their customers throughout the organisation. Services through online media in forms of the Internet, e-mail, online self-service, or live chat can enhance these companies to focus on better service delivery for existing customers while change their prospects into loyal customers. ECRM enables companies to form more effective relationships with their customers while opening up opportunities to reach customers in broader markets, and improve sales and market share.

This dissertation discusses the different aspects of eCRM in terms of the eCRM concept, key strategies, relevant technologies, benefits from eCRM, the eCRM market and major vendors, and the eCRM practices in the real business world. It was discovered that eCRM has not been broadly accepted in terms of the concept and the system. However, the fundamental concept of eCRM deals with the interactions between companies and their customers mainly through the Internet. In the eCRM market sector, there is no real leader while the complete eCRM system will be launched probably about the end of 2000 at the earliest.

In addition, key issues of eCRM implementation plus customer opinions regarding online services were analysed and discussed in the dissertation. It was discovered that the main reason many companies decided to implement the eCRM system was to improve their customer satisfaction. They were reasonably satisfied with the entire implementation of the eCRM system. For the study of customers' opinion, it was discovered that customers were generally satisfied with online services and online services had the potential to become more accepted as a powerful alternative of service delivery channels.

ACKNOWLEDGEMENT

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CHAPTER 1 : INTRODUCTION

Electronic Customer Relationship Management (eCRM) is a new business direction. Its basic concept focuses on customers and how to manage services that keep them satisfied through the use of both traditional and electronic channels. It can be considered as the second generation of Customer Relationship Management (CRM)[1]. This dissertation is a study of trends in CRM, and the major vendors in the sector with a specific focus on eCRM. The aim of this dissertation is to study how and why enterprises can keep themselves competitive in fierce markets by implementing eCRM solutions.

The reasons eCRM has become an interesting topic are the rapid growth of CRM markets all around the world and its importance to all sizes of business. As the hottest sector of CRM, eCRM can provide companies faster return-of-investment than Enterprise Resource Planning (ERP). ECRM is expected to take the place of the traditional CRM in next few years, and will become indispensable for both brick-and-mortar and dot-com companies to gain competitive advantage.

The research objectives the researcher sought to achieve were accomplished in two ways. The first one was to conduct secondary research in order to gather information on the selected topic. This was done by reviewing CRM related literature by various authors. The objectives of the secondary research was to study and establish an insight into the following issues:

- what eCRM is
- how eCRM has evolved
- what eCRM strategies there are
- how eCRM works
- what the benefits from eCRM implementation are
- what technologies are related to eCRM
- who plays an important role in eCRM market

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[1] http://www.crm-forum.com/crm_forum_white_papers/4ecrm/ppr.htm

The CRM related information, particularly eCRM topic, is relatively new business direction. The source of information in the form of actual book is quite rare. Most of CRM and eCRM related information comes in forms of articles from business journals or magazines. The other essential source of the information is from the Internet. Many useful CRM related literature the researcher used as secondary research were from many CRM websites.

The second method was to conduct primary research in order to analyse

- what the future of eCRM will be in the opinion of major vendors and their customers
- how successful eCRM is when enterprises implement it
- what criteria companies use to measure their satisfaction level toward eCRM
- whether the promises from eCRM vendors can really be accomplished.

The primary research was conducted through questionnaires. 4 survey forms were sent to 4 targeted groups.

The first survey form was sent to 19 vendors with 3 responses from them. The researcher obtained the list names of these vendors from various business magazines and articles, search engines from the Internet, CRM related websites, and the experience with previous CRM project. Even though this survey form was semi-structured, most of the questions were required a vendor to write or type in.

The second form was sent to 31 companies whose eCRM implementation had been completed. This group of companies was targeted as case studies for the research. The researcher haphazardly chose these companies based on eCRM vendors' success stories. In addition, the researcher randomly sent the questionnaire to major players in different industries which had their presence online or run business online. No positive response was made from any of them. This might result from the survey form which required each selected company to complete by writing or typing sentences. Therefore, the researcher had to ask for permission from 3 different vendors to use their existing case studies as a part of this dissertation.

The third form was sent to 252 companies. These companies were randomly selected based on vendors' customers, Fortune e-50 companies and Media Metrix 's top 500 companies. 9 companies participated in this survey. The survey form for these companies was semi-structured with some multiple-choice questions. The researcher designed this survey in order to receive some comments from these companies. Subsequently, these comments could be used on analysis section.

The last form was designed and aimed to study the additional issue, which is

- how online service could impact customers' buying habit.

Originally, the researcher was not aware of this issue. However, due to few responses from companies in early research period, the recommendation from a student fellow from other university who did his own dissertation in similar topic and the awareness of incomplete of eCRM lifecycle without customers' opinions, the researcher added this questionnaire in order to complete eCRM lifecycle. Due to the time constrains, the researcher sent this survey form to 50 acquaintances that at least had access to the Internet and had potential to be online customers. 45 responses were made from this group of people. The survey form was designed as semi-structured for the same purpose as stated in the third form.

All survey forms were sent to all prospects by e-mail. The researcher mainly used university e-mail address as a major media to contact all targeted groups. The university e-mail address supported the formality and reliability of the researcher when contacting companies. Regarding communication via e-mail, it was the most effective way for the researcher to get in touch with a large number of companies and people who were in different countries and continents.

The use of post mail proved to be inefficient. Some American dot com companies sent the complete survey form back to the researcher. However, the researcher did not receive any form at all.

Regarding the entire dissertation, it has followed the aims and objectives as mentioned earlier by dividing the work into 6 chapters, which are summarised below.

Chapter 1: Introduction :: This chapter introduces the summary of how the researcher conducted the research. The research methodologies used during the research are included in this chapter as well.

Chapter 2: eCRM Overview :: This chapter gives a holistic view of eCRM in terms of what it is, how it has evolved, what the strategies are, how it works, what technologies are exploited and what benefits there are. It is aimed at establishing an insight into eCRM.

Chapter 3: Major Vendors :: In this chapter, the researcher discusses the current CRM and eCRM market and major players. An investigation of future trends in the market is also included.

Chapter 4: Case Studies :: 3 companies from different industries are discussed in terms of why and how they implemented eCRM systems.

Chapter 5: Survey of Customer Satisfaction :: This chapter is about the survey results in terms of why and to what extent the customers of eCRM vendors are satisfied with the systems. Furthermore, to complete the eCRM lifecycle, the survey of customers' satisfaction with online service is discussed in this chapter.

Chapter 6: Conclusion :: The conclusions, future trends and recommendations concerning eCRM are stated in this chapter.

CHAPTER 2 : ECRM OVERVIEW

The management of customer services is one of the hottest sectors in the context of e-business. To be able to compete and survive under such intense competition, companies need to quickly realise that the customer is an important asset. Customers can help them remain competitive in today's business. As a result, they have to put all their efforts into retaining them as long as possible. Simultaneously, the Internet enables companies to run business online and reach customers globally. Consequently, customer service for online customers is indispensable and has become one of today's fast growing business areas.

2.1 What is eCRM?

eCRM is electronic Customer Relationship Management. More specifically, it is web-enabled CRM using the Internet to integrate, automate and simplify customer oriented business processes of sales, marketing and service. With eCRM system, companies can conduct interactive, relevant and personalised communications with customers through electronic (i.e. World Wide Web, e-mail, Internet) channels, synchronise these channels with the traditional (i.e. call centre, toll free, direct mail) ones and reduce the costs of customer-facing systems. It enhances the permission-based practices where the customer has the right to choose how, when and whether they prefer to communicate with the companies.

The comprehensive understanding of customer activities, personalisation, relevance, permission and timeliness can help companies to make decisions about sales campaigns, messaging, and channel delivery. Consequently, this can enhance the customer experience and eventually improve customer satisfaction and retain their loyalty.

It is worth noticing that there are many similar abbreviations in the CRM market as a whole such as eCRM, eRM, PRM and iRM. Basically, eCRM shares the similar notion of iRM (Internet Relationship Management) and/or eRM (Enterprise Relationship Management). Different vendors use different term simply for business purposes since there is no official authority to provide an exact definition[2].

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[2] http://forum.crm-forum.com/~CRM-Forum

2.2 The evolution of eCRM

Compared to ERP and CRM, eCRM is still in its infancy. Once it reaches a mature state, the business environment will have become even more intense. It is interesting to trace eCRM back to its origins. Fundamentally, eCRM initiatives have evolved from 2 major business phenomenon, CRM and e-commerce, each of which is complementary to the other and can bring a faster return-of-investment (ROI).

The first phenomenon was CRM. eCRM derives from the CRM concept, which exploits call centre and direct marketing technologies to process mass products and services. CRM and eCRM share the same fundamental philosophy of managing the relationship with customers to enhance their experience. CRM itself deals with phone-based or in-person customer interactions but it does not help companies to form truly personalised, cross-functional relationships with customers on the web. Since an increasing amount of customers have shifted to the online channel and thousands of dot-com start-ups have popped-up, CRM can no longer serve customers' demand.

The other phenomenon has been the emergence of e-commerce. The booming of e-commerce and thousands of dot-com start-ups are the catalysts of the development of eCRM. Companies need to keep themselves competitive as customers have many choices. By only one click, they can shift to another company if they are not satisfied with the current one. As a result, the management of online customer service has to be taken into serious consideration because service can genuinely differentiate one company from the others.

CRM and e-commerce are both essential for brick-and-mortar and dot-com companies. However, it is a real mistake if organisations implement them separately. The co-ordination of CRM and e-commerce capabilities can eliminate the channel conflicts, create a single view of the company and therefore, improve customer satisfaction. This is why eCRM has evolved and developed.

2.3 The eCRM strategies

eCRM itself is a powerful tool for realising business strategy. For companies, in order to achieve their fundamental goals of increasing revenue and reducing costs, they have to clearly understand the following strategies of eCRM before implement the whole system.

2.3.1 Integration of major contact points

A complete, integrated eCRM system is characterised by faster, automated services available online or on the desktop 24 hours a day. One of the crucial strategies of eCRM is to integrate front and back office activities and cross-divisional functions. The integration of all major customer contact points through eCRM system can establish a seamless operation within different business sections and that is the key challenge enterprises need to accomplish.

3 primary areas where the customer contacts the enterprise are Sales, Marketing and Service. Each of them has different functionality that is discussed below :

- ➢ *Sales :* The interaction of the sales force with prospects either via e-mail, voice mail, or phone call can turn a prospect into a customer and subsequently the companies have to maintain a loyal relationship as the next step. This is the major concern for the success of the enterprise.

- ➢ *Marketing :* An initial mass marketing approach is often used for the first contact and then followed up by more focused campaigns. Personalisation becomes the expected norm of interactions. Web-based marketing activities give prospects a better experience by allowing them to retrieve relevant information on their own terms and whenever they want.

- ➢ *Services:* Service seems to be the most critical area when it comes to the concept of customer relationship management. Pro-active relations with customers have become important as the current market environment is highly competitive. Therefore, companies have to provide different channels of communications for them in order to provide them with more convenience, which will result in their increasing satisfaction and retention. However, self-service is another fast

growing requirement because more customers prefer to use the web to make queries or track their order status themselves.

The integration of front and back office activities and the cross-divisional functions create a positive and professional image of the entire enterprise. As online customers and their demands are increasing, the enterprise must be able to provide fast, effective and accurate cross-divisional services. That is why the integration of major contact points is a vital strategy. Through such integration, the companies can reduce the operating costs while widening the customer base and gaining customer loyalty. However, the lack of integration of these functions can lead to inaccurate and duplicate customer information and eventually customer attrition.

2.3.2 Consistency within organisation

It is essential and critical for the enterprise to have a central repository of customer information. Sales, marketing and service areas should communicate with customers or within the organisation via this shared repository. Independent sources of information can cause duplication, and conflicting and obsolete information. In contrast, consistent information can provide better chances for the enterprise to transform some prospects into customers and retain their satisfaction. Information consistency is essential in the following aspects:

- ➢ *Customer information :* Customer information including financial, demographic, channel preference information must be kept updated. The information itself should be easily accessible to anyone within the enterprise who may have customer contact. Once a customer reports any problem to a company, such a problem should be addressed no matter who originally handles it and passes it to another representative. The problem should be clearly understood within representatives without the customer's repetition of such issue.

- ➢ *Business rules :* Business rules and regulations are often dispersed within an organisation causing inconsistent and confusing business decisions. Like customer information, they must be available to employees, sales and customer service representatives.

➢ *Company and product information :* It is essential that company and production information is always updated and consistent throughout the entire enterprise. Company and product information should be easily available to anyone who may interact with customer.   The consistency is very vital in this issue. It is unacceptable that the promotion of specific product is launched on the web site but sales or customer service representatives do not know anything about it[3].

As customers realise their bargaining power and larger number of choices, they expect to receive services with high quality and a quick professional response no matter through what channel they interact with the enterprise. Once they receive inconsistent and conflicting answers or information from the same question through different channels, they are likely to go to the competitors who may offer a better product or service and are just a click away. The enterprise will suffer from the missed opportunities and the erosion of customer loyalty. As a result, the information about customer, company, and product must be accurate and consistent.

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[3] http://www.crm-forum.com/crm_vp/pnmn/ppr.htm

2.4 How eCRM works

The eCRM concept and strategies may seem straightforward. However, making eCRM work efficiently and effectively is not as easy as it seems to be. To ensure success, companies need to be aware of the critical driving forces, which enable their eCRM business process.

According to a study by MicroStrategy Incorporated, the comprehensive platform used within eCRM to support companies to widen their customer base and retain their customer loyalty can be divided into 5 main factors, which are:

- *The customer-centric information repository* – to store all detailed information on millions of customers such as their preferences, permissions to interact with companies and other information that can become useful for the companies

- *The analysis and segmentation tools* – to leverage the information mentioned above to create a business campaign strategy and assess its success

- *The personalisation tools* – to personalise the entire customer experience, configuring unique sets of messages and offer to each individual

- *The broadcast tools* – to pro-actively deliver information and offer to every customer via the media of his or her choice

- *The transaction tools* – to facilitate the interactions between customer and the company to either exchange the information or process the transactions[4].

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[4] http://www.microstrategy.com/Publications/WhitePapers/ecrm/overview.htm

The five major factors of eCRM
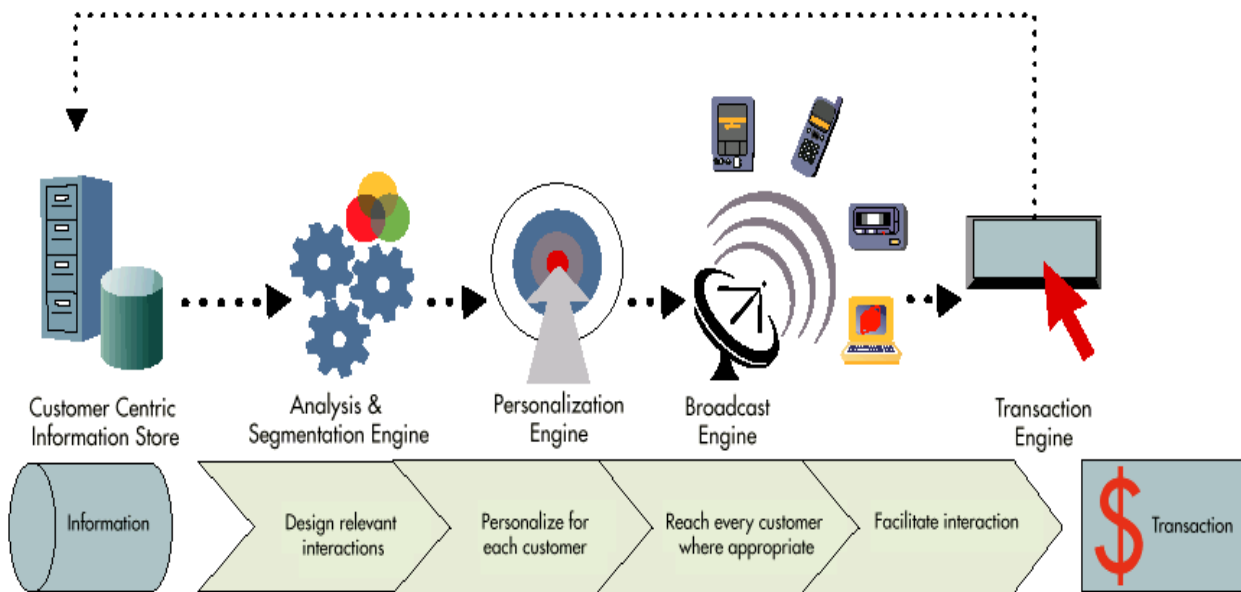
Figure 2.4 5 Factors as a platform for an eCRM business process[5].

The details of each factor are discussed below:

2.4.1 The customer-centric information repository

The eCRM concept is based on a single view of every customer. A customer-centric information repository integrates data from various information sources such as web sites, transactional systems, operational databases, call centres, enterprise resource planning systems and third party data. The companies can recognise and respond to customers precisely no matter what channels customers use to order or buy products, make contact or complain.

Once customer data, which has been fragmented across multiple sources within the companies, is integrated through data warehouse technology, it can enable a single view of customer and enable companies to create a better relationship with their customers. However, to achieve the purposes of a customer-centric information repository, there are 3 critical issues, which need to be taken into consideration :

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[5] http://www.microstrategy.com/Publications/WhitePapers/ecrm/overview.htm

> *Scalability*: each company doing business online tends to interact with a high and increasing volume of customer data every day. It is vital for them to plan for terabyte sized information repositories.

> *Flexibility*: The customer-centric information repository must facilitate multiple data models and database architectures, and allow for integration with other back-end information systems. Without such flexibility, the usefulness of this repository will diminish when newly developed data models become widely used.

> *High Performance*: Access speed and accuracy of customer information is essential to enhance true value exchange with customers. The ability to aggregate information at different levels of abstraction makes it possible to discern patterns of customer behaviour.

2.4.2 The analysis and segmentation tools

The analysis and segmentation tools perform business analysis, segmentation and prediction so that the customer interactions can be operated in an appropriate and personalised manner. 3 major techniques used in analysis and segmentation are Online Analytical Processing (OLAP), Data mining, and Statistics.

OLAP tools perform complex queries on a database while data mining tools discover unforeseen associations using pattern-matching algorithms. Statistical tools are used to deal with complex mathematical operations on sets of data. eCRM requires the co-operation of these 3 techniques to understand customer behaviour at a deeper level that will lead to the definition of new campaigns or sales promotions.

The analysis and segmentation development is built on iterative, collaborative ROLAP (Relational OLAP) tools plus the powerful features of statistical and data mining analysis techniques. ECRM marketing campaigns are iterative because they require ad-hoc questions about customer preferences, demographics and transaction patterns. With ROLAP, campaign formulation evolves through experimentation and discovery. Iteration takes place between a server, where data is stored, and the middle tier applications that are used for complex

analytical operations. This approach is essential for extracting maximum benefit from an integrated customer-centric information repository.

With analysis and segmentation tools, companies can obtain a deeper insight into customer demand patterns, determine products/services in accordance with customer preferences and, as a result, target their customer segment precisely. Moreover, these tools help the companies identify factors of customer attrition.

2.4.3 The personalisation tools

Cost-effective personalised products and services become possible for customers because of the personalisation tools. It can help lower the marginal cost of personalisation. In traditional CRM, personalised products and services require a huge amount of labour and the scalability needed to serve a large customer base remains considerably expensive.

The concept of customer experience personalisation (CEP) exploits rule-bases, collaborative filtering and inference models in conjunction with large volumes of information to create a unique experience for each customer. One common personalisation tool is online subscription service. Naturally, customers dislike information clutter. If they are given a chance to make the decisions about any transaction, they will indicate their preference for the type of information they receive, the periodicity of subsequent communication and the channel for reaching them.

Although web-content personalisation is necessary, it is not sufficient for CEP. A customer who usually contacts the company through e-mail may prefer to get in touch through telephone or other channels. With powerful personalisation tools, companies can provide unique experiences to the same customers on different channels. As a result, they can gain a richer picture of customer preferences.

2.4.4 The broadcast tools

The broadcast tools enable 24-hour and 7-day customer interactions. Although the Internet is becoming increasingly pervasive, it does not indicate that all customers are online all day. They can also be reached through other communication channels. Successful eCRM requires a tool that reaches millions of customers wherever they are, at home, via phone, at work, via e-mail or on the road via mobile phone or pager. A scalable broadcast tool that is built on an open architecture and supports all communication devices enables this level of customer interaction.

The characteristics of broadcast tools are :

➢ *Multi-Channel capability*: To reach customers through their preferred channels is essential. E-mail on its own may not be sufficient to create a unique customer experience. With multi-channel broadcasting, the customer-related information can be rapidly transferred to the relevant section to take action. The intelligent broadcast tools deliver information through web, wireless and by voice.

➢ *Open architecture*: With fast technological change, new information sources can be developed/evolved along with the new information transfer methods. It is critical to develop broadcast tools on an open architecture where different databases and different systems can seamlessly communicate with one another. The open architecture enables the integration of new information sources and transmission methods. Above all, it enables enterprises to keep pace with e-business as it continues to evolve.

➢ *Scalability* : The broadcast tools must be able to reach millions of customers. Without large-scale reach, eCRM systems will become static while a business grows.

With multi-channel capability, companies can leverage each channel's unique benefits. In addition, customers are unlikely to shift to a new service provider if they have to renew e-mail address, account, password, or PIN number with new service provider again and again. This can increase the possibility of customer retention.

2.4.5 The transaction tools

The transaction tools develop life-long customer relationships. An effective transaction tool can support information exchange between every customer and the company. It allows the company to maintain customer contact and transfers information to the customer-centric information repository for further use.

One important thing companies have to take into consideration is the customer's permission. This permission allows companies to contact or send relevant information about products and services to him according to his preferences. Without it, a company is locked out of a potential relationship. Permission capabilities are actually a core characteristic of the transaction tools. Through the utilisation of subscription methods, customers can sign up for unique interactive information services based on their own preferences. In such case, customers give companies the permission to contact them through their preferred channels. This value exchange is important to the company as it represents the customer's trust and loyalty which translate directly the success for campaigns in terms of higher response rates and lower conversion costs. In addition, permission-based methods can help companies avoid giving customers too much unwanted information and services.

For success, these 5 factors work together in a seamless manner. The customer-centric information repository provides an integrated view of both online and off-line interactions between a company and the customer. Simultaneously, the analysis and segmentation tools help to determine the type of products/services the customer is likely to purchase or use. The personalisation tools provide the customised experience for the customer. The broadcast tools reach out to the customer and presents him or her with a unique bargain, while the transaction tools facilitate the flow of information between the customer and company and closes the ensuing transaction. This is how one-to-one interaction can be created through the use of eCRM[6].

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[6] http://www.microstrategy.com/Publications/WhitePapers/ecrm/overview.htm

2.5 The promised benefits

By effectively implementing eCRM system in conjunction with good practice in terms of business processes within the organisations, enterprises can be guaranteed clear benefits from an eCRM business strategy. These benefits that enterprises can reap are:

2.5.1   Improved customer satisfaction

The interaction between companies and customers becomes more effective and efficient as online customer services are always available 24 hours a day and 7 days a week. Customers can easily access a company's web site in order to look for information on products/services, check their order status or initiate any interaction with companies. With 24-hour availability of services, customers' orders can be processed and delivered in a faster manner and their feedback to the companies is immediate. Therefore, the customers are gratified by knowing that they can easily communicate their needs. In addition, customer can access services from the home or the office. This also adds convenience and satisfaction. Consequently, shopping and purchasing has become much easier and more time effective than ever.

One feature of online customer services is online self-service, which is immediate, private, relevant and easy to access. When a customer requires any help or information, they can get answers to their own questions from FAQs or from their current or previous transactions in their own profile with the company. If their request is very specific and requires assistance from an agent, they can choose to ask for help from a live agent by clicking "chat", "live sales/agent" or "call me" buttons or e-mail. These immediate interactions are more efficient and relatively less expensive for customers than other channels.

As online customer services can offer customers convenience and more time and cost effective communication, customers' satisfaction with the companies is potentially improved.

2.5.2 Increased revenue

Basically, when customers are satisfied with products and services, they will continue to use products and services from the same company. Once that company launches promotions of new products and services, in which customers may possibly be interested, customers tend to be less sensitive to product/service price and likely to pay more because their perception about the companies is positive. Thus, the chances for up-selling and cross-selling are relatively high.

Moreover, online transactions enable companies to reach a wider market and that leads to more opportunities to sell products and services. Through the use of dynamic business analytical tools, companies can effectively create real-time reports of customer/market demands and respond immediately to such demands. Additionally, the web can create new sources of per-service and per-transaction revenues for companies.

Fundamentally, revenue generation is the ultimate purpose of business. Through the collaboration of good business practice and eCRM technology, the revenue can be increased more rapidly.

2.5.3 Better performance within organisation

The unified view of customer information can eliminate any confusion, conflict and task repetition across different business sections. As a result, staff in each section can focus on their main responsibility while the collaboration across sections can be dramatically improved. Furthermore, the integration of front-office and back-office can enable staff to perform marketing, sales and service tasks more effectively. Once staff feel comfortable with their work conditions and find that their focus is on their own tasks, their morale will improve and that can result in better service delivery as well.

In addition, with business analytical tools, unknown patterns of customer behaviours and market trends can be discovered. In the business world, to understand market trends is a strategic advantage for companies. Decision-makers can use these patterns to respond to market demands more rapidly and that can increase the possibilities of reaching customers

and prospects before competitors[7]. These patterns can also help the marketing division set business directions, organisational strategies, policies and campaigns in a long run. They can use the information from these tools to establish one-to-one relationships with their preferred group of customers[8].

The eCRM system can reinforce the performance of staff in different levels within the organisations. Concurrently, the improvement of staff performance can result in other financial benefits as well.

2.5.4   Reduced operating costs

With the single, integrated view of customer databases, processes associated with multidivisional collaboration can become more accurate and simpler. The confusing customer information that usually caused companies and customers to waste time and money can be eliminated effectively. Through business intelligence tools, companies can produce better analysis of customer behaviour, without hiring any research company to do so. Better analysis results in more accurate decision making. On the other hand, the inaccurate understanding of customer behaviours can lead to wrong decisions regarding a company's policies and campaigns. That can cost the company dearly.

Additionally, the full implementation of eCRM leads to electronic automation, which allows the companies to provide 24-hour services without incurring 24-hour operating costs. As a part of the electronic automation, automated sales systems can result in lower cost per-transaction for purchases. Furthermore, the communications with customers have become less expensive and more efficient because of the use of more efficient data transfer technologies[9].

The reduction in operating costs is actually the by-product of eCRM implementation. Reduced operating costs may not be main purposes of eCRM concept but at the end of the day, companies can still reap this benefit.

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[7] http://www.xchangeinc.com/tools/whitepapers.asp
[8] http://www.crm-forum.com/crm_forum_white_papers/cssc/ppr.htm
[9] http://webassociates.com/eCRMwhitepaper.PDF

2.6 Relevant Technologies

The benefits of the online customer services mentioned in the previous section can be achieved through a good combination of enterprise strategy and the implementation of the relevant technologies. The following diagram indicates the basic components and architecture of online customer services[10]
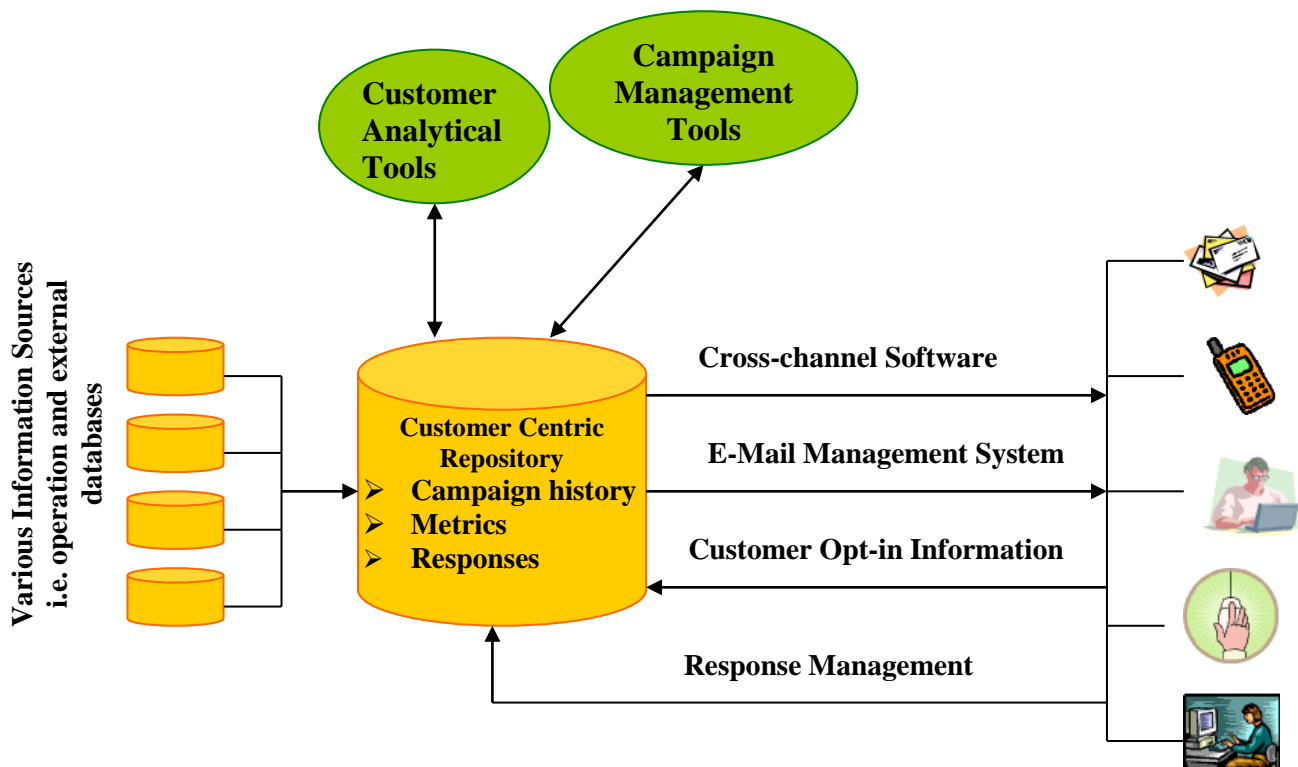
Figure 2.6 Basic architecture of eCRM/online customer services

From the figure 2.6, the major technologies that enable successful online services are based on data warehouses, data mining techniques, and web technologies. The data warehouse processes help produce the integrated view of customer data while the data mining techniques through different tools can discover unknown customer patterns that companies can make use of. The communications within organisations and with global customers are based on web technologies.

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[10] Frawley, Andy *Evolving to eCRM: How to optimise interactive relationships between you and your customers.* An Xchange Inc. White Paper
www.xchangeinc.com

2.6.1 Data Warehouse

To obtain a single customer view, the customer data from different sources such as operational systems, legacy systems and external sources can be integrated through the data warehouse system. By definition, a data warehouse is a structured extensible environment, which is designed for the analysis of non-volatile data. These data are logically and physically transformed from multiple sources to align with business structure. They will be updated and maintained for a long period of time for further use in the simple business terms and quick analysis[11].

Within a data warehouse system, the customer data are processed through different stages, which are extracting, transforming, cleansing, matching, merging and loading. These data will be archived and kept in the central repositories for further analysis. The following diagram shows the functional requirements for customer data warehouse preparation
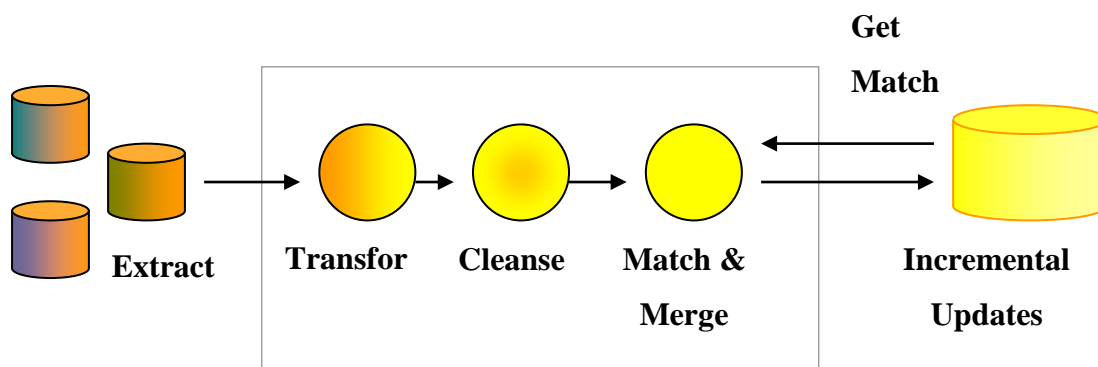
Figure 2.6.1.1 Functional requirements for customer data warehouse preparation[12]

This integrated customer data should be accessed and updated real-time by all business sections directly interacting with customers and even customers themselves. This can create a consistent view of customers while confusing customer contacts can be eliminated.

Through the processes of data warehousing, the complete integrated customer data can be analysed and assessed in order to create and increase products/services sales opportunities by using data mining tools.

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[11] http://system-services.com/dwintro.asp
[12] http://www.crm-forum.com/crm_forum_white_papers/4dw/ppr.htm

2.6.2 Data Mining

Data mining is the process of automating information discovery through the use of the analytical tools. The key success of data mining lies in the process of building a model. The creation of a model based on a clean customer data set from the data warehouse enables companies to understand market trends, patterns of customer behaviour and data correlation for example customer preferences. This can lead to better predictions and forecasts based on the outcomes[13]. The data mining tools can consist of query languages such as SQL, reporting systems, multi-dimensional analysis i.e. OLAP, data visualisation and some statistics tools.

Data mining can produce discovered patterns from a large volume of data through several techniques including:

- *Visualisation* – where data is presented graphically. This technique takes a large amount of data and reduces them into more easily interpreted pictures.

- *Clustering* – where data is distinguished according to characteristics between sets of records. This technique is suited to customer segmentation since the clustering is identified by similarities and can lead to further relationship exploration.

- *Association* – where the correlation between one set of items with another set of items can be identified. This technique can be applied with the concept of Market Basket Analysis where certain items are always bought at the same time. That is why this technique is effective in retail business.

- *Sequential Association* – where patterns or dependencies evolve over time. This technique searches for links relating these sequential patterns or dependencies. Once companies understand the sequence of customers' use of web facilities and services, they can personalise their website to each customer.

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[13] Groth, Robert. *Data Mining: A hands-on approach for business professionals.* Upper Saddle River, N.J : Prentice Hall PTR c1998.

- *Distillation/Summarisation* – where pattern searching can enable discovered patterns to be used for various purposes. The use of business rules can reduce large amounts of data to meaningful summaries[14].

More interestingly, data mining techniques have been used not only with the data from data warehouses but also with customers' movements within a website. Click-stream analysis tools have been launched to monitor customers' activities while they visit a company's website[15]. What information they look for on the website, how long they stop in any particular page of the site, what products/services they are interested in and their information they provide online to that company themselves have all become the raw material for data mining. As a result, the website can be used to provide, in real-time, the relevant products/services that customers may be interested in as well.

2.6.3 Web Technologies

Web technologies in the forms of the Internet, Intranet and Extranet have reached a mature stage where they can allow enterprises to communicate within the entire organisation, and with their customers, suppliers and partners globally. However, the online customer service concept is relatively new.

The advent of Internet/World Wide Web originally enabled companies to present their existence online. Subsequently, many of them have exploited web technologies as a platform to run their business and recently, they have to provide online services to their customers. This scenario has become possible because of the development of Client/Server architecture. In this architecture, a client is defined as a requester of services and a server is defined as the provider of services[16]. The form of client/server architecture that plays crucial role in the eCRM system is n-tier architecture. The most common form of n-tier architecture is the 3-tier architecture[17]. The concept of the architecture is that the user system interface is located in the user's desktop environment and the database management services are in a server which is more powerful and provides services to many clients, with the business logic lies in between

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[14] http://www.crm-forum.com/crm_forum_white_papers/emmm/ppr.htm
[15] http://www.ftc.gov/bcp/privacy/wkshp97/comments2/johnson0.htm
[16] http://www.sei.cmu.edu/str/descriptions/clientserver_body.html
[17] http://www.whatis.com/

as middle tier . This client/server architecture is scalable and flexible because it supports thousands of concurrent users.

To establish standards to improve interoperability across languages and platforms, the n-tier client/server architecture has been developed through technologies that support distributed objects and exploit the common Object Request Broker (ORB□)[18]. This leads to the notion of open architecture where different operational systems, legacy systems and databases can be seamlessly integrated.

With user-friendly applications, and complex queries and commands being hidden, customers can simply go online, update their profile, look for answers to their questions, choose how and when they prefer the company to contact them, track their order status and/or contact the company for further assistance. Based on web technologies, the real-time interactions with customers offer online companies opportunities to reach customers globally, create more varieties of service delivery channels more rapidly, and as a result, increase customer satisfaction.

Clean data from data warehouse can be processed through data mining techniques and interactively used online to help companies to create better customer profiles. As a result, they can strengthen the customers' preferred products/services and decrease those that customers rarely use. Companies can also introduce or promote new services, which are complementary to the existing ones. However, data warehouses, data mining techniques and web technologies are just the technological part of the entire eCRM concept. Whether companies can maintain customers' loyalty and retention is dependent on corporate strategies and decision-makers.

eCRM is a hot topic in both e-business and CRM arenas. The online customer service market is the new wave of business war. The major players in this business are discussed in the next chapter.

□ ORB enhances a client program to request a service without having to understand where the server is in a distributed network or what the interface to the server program looks like exactly.
[18] http://www.sei.cmu.edu/str/descriptions/clientserver_body.html

CHAPTER 3 : MAJOR VENDORS

3.1 eCRM Market

Due to the growth of e-business and the attempts of many enterprises to have their presence online, the CRM market has shifted its battlefield towards online customer services where the main interaction with the customer is web-based. AMR research forecasts that worldwide CRM related sales will top $16 billion in 2003[19]. Meanwhile, there have been successive major acquisitions within the market. The major ones have been the acquisitions of Clarify by Nortel Networks, Vantive by Peoplesoft and Silknet by Kana, Octane by E.piphany and Mustang by Quintus. Kana's acquisition of Silknet brought eCRM into the limelight as the merger agreement valued of $4.2 billion[20]. However, the eCRM market still lacks a market leader because no vendor can provide a complete suite of eCRM tools. Gartner Group forecasts that the lack of functionality and incompleteness of eCRM suites will continue until 2001[21].

The acquisitions within CRM and eCRM markets will continue as every vendor tries to expand the functionality of their suite to cover all aspects of web-enabled customer relationship management while partnership programmes within these two markets have become common. The web-native CRM companies that helped to ignite the business battle are Kana, Broadvision, Quintus, eGain, Brightware, and Pegasystems for example. These companies primarily aim to target dot-com companies or the dot-com unit of brick-and-mortar companies. Simultaneously, the major CRM vendors like Siebel, Clarify, Vantive and Oracle are expected to launch new applications that cover web functions, which are tightly integrated with back office in 2000.

In this report, the researcher has focused on the major vendors who currently dominate the online CRM market because their solutions have been highly recognised and proved to be successful. These vendors are Kana Communications, Broadvision, Quintus Corporation, E.piphany Inc. eGain Communication Corp. and Siebel Systems which is the leader of CRM market and has recently launched an application suite to cover web features.

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[19] http://www.amrresearch.com/press/files/99929.asp
[20] *Computer business review*. CRM-eCRM: The next level. New dimensions in customer relationship management. March, 2000. p.34
[21] http://www.gartnerweb.com/public/axl/reprints/quintus/00087069.html

3.2 Vendors

3.2.1 Kana Communication Inc.

www.kana.com

Company

Kana is the leading provider of customer communication and commerce tools for e-businesses. It offers enterprise-wide solutions for fast growing e-businesses. The principal concepts of Kana solutions are the integration of marketing, sales and service into a single, powerful e-business platform and customer interactions across multiple channels: e-mail, phone, chat, voice-over-the-internet and person-to-person exchanges

Market

In February, 2000, the announcement of the merger between Kana and Silknet Software valued at $4.2 billion dollars indicated that the eCRM had rapidly become the hottest sector of CRM. Gartner Group stated about this merger in February, 2000.

"*This deal is good news for an e-service marketplace that continues without a leader and is likely to speed up the consolidation of the tactical e-service vendors[22]*".

Yankee Group commented on this merger that :

"*This (merger) is a blockbuster for the rapidly growing category of Internet-based customer relationship management, involving two of the most successful public software companies in the market place.[23]*"

In July, 2000, Kana announced its revenues for the second quarter, 2000 were $28.7 million, a 301% increase over revenues of $7.2 million in the same period in the prior year[24].

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[22] http://www.kana.com/press/analyst.html
[23] http://www.kana.com/press/analyst.html
[24] http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=KANA&script=410&layout=-6&item_id=107499

Kana's customers include both pure Internet companies and brick-and-mortar companies. As reported in Media Metrix in March, 2000, Kana solutions were used by over 700 leading Internet and Global 2000 companies, leading dot-coms and 8 of the 10 most visited site on the web. These companies are based on various industries such as retail, e-commerce, financial services, technology, travel and manufacturing[25].

Product

The Kana application suite is a web-native architecture. At the core of the Kana suite lies the eBusiness Platform, which allows companies to create global view of customer interactions, better business workflow and scalability to meet high volume of interactions. As a web-based application suite, the Kana suite can seamlessly integrate with applications, systems and databases from different vendors. Its features are comprised of real-time personalisation, e-mail response management system (ERMS), sales automation, self-service, universal queuing, collaborative chat, knowledge base, Voice over Internet Protocols, and real-time report management. Kana has reinforced its application suite through acquisitions of various vendors such as Silknet, Connectify, netDialog, etc.. Since the suite and its features are built upon different applications from different vendors, the integration of each acquired solution has become the critical issues that Kana has to address quickly. Moreover, Kana has to improve online marketing features in the form of analytical tools and campaign management.

3.2.2   Broadvision Inc.

www.broadvision.com

Company

Broadvision, Inc. is the leader in personalised e-business applications. Its comprehensive suite of integrated applications is built for service delivery via the web and wireless devices.

Market

According to Broadvision, its entire product line has experienced strong growth and increasing acceptance by Global 2000 businesses, government agencies and dot-coms. It

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[25] http://www.kana.com/kanalinks/silknetframe.asp?maindoc=newsevents/q200financialspr.asp

currently has more than 1,000 customers in B2B commerce within such industries as financial services, retail/distribution, technology, manufacturing, telecommunication and travel.

In July, 2000, the company reported its second revenues this year as $95.3 million, a 306% increase over revenues of the same period last year. Its applications are now available in more than 120 countries worldwide[26].

Product

Broadvision's One-To-One solutions help companies to accomplish their online services. All solutions are designed to provide an open and extensible environment and can be easily integrated with existing enterprises' database system. Its application suite include analytic tools, click stream analysis, real-time personalisation, business rule workflow, self-service, knowledge base and WAP support. In its administration tools, Broadvision enables non-technical business users to easily design web page and edit it content. These One-To-One solutions are designed to specifically serve various business requirements such as retail, e-commerce, corporate knowledge management and financial services. Even though these solutions can provide the interaction between web, e-mail and call centre, there remain many web features that Broadvision needs to cover. According to the high rate of acquisition within CRM and eCRM markets, it is possible that Broadvision may consider to other vendors whose products can fulfil the incomplete sections of Broadvision's suite. Concurrently, partnership and alliance programs seem to be another practical solutions for Broadvision to extend its application suite to cover the entire eCRM system.

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[26]

http://www.broadvision.com/OneToOne/SessionMgr/about_us/factsheet.jsp?BV_SessionID=NNNN188583959 0.0967569911NNNN&BV_EngineID=falijhigkkibfdmckgcfhhclf.0

3.2.3 Siebel Systems, Inc.

www.siebel.com

Company

Siebel is broadly acknowledged as the world-leading vendor in CRM market. In April, 2000, the company launched its e-business suite, Siebel eBusiness 2000, which enables companies to manage, integrate and co-ordinate marketing, sales, and service across all service delivery channels, including web, call centre, field sales and service, and reseller.

Market

In July, 2000, Siebel announced its revenues for the second quarter of 2000 at $387.4 million, an increase of 119% for the same period last year[27]. Its customers are in various industries such as financial services, networking, transportation, computer hardware and software, consumer goods, and energy. Siebel Systems now operates in more than 28 countries and 97 offices worldwide.

Product

Dominant in CRM market, Siebel has launched its eBusiness 2000 suite in order to extend its functionality to meet online market. Like other vendors in this chapter, Siebel has developed its eBusiness suite on open technologies, which allow the integration between various systems, databases and specifically call centre and web-based applications. Siebel's eBusiness Industry applications have been developed to specifically meet requirements from such industries as High Technology, Insurance, Financial Services, Public Sector, etc. The 2000 suite enhances companies to deliver online services through its web functionality, which include sales automation, tracking system, campaign management system, self-service, ERMS, universal queuing and WAP support.

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[27] http://www.siebel.com/news-events/pr_re.html

As the CRM market leader, it is possible that Siebel will further integrate its robust CRM features with other web functionality in order to create the seamless operation across these major service channels and gain market position in eCRM domain. In addition, although Siebel has added new web-based features in its eBusiness suite, it is still required some critical web functionality in order to compete with other eCRM major vendors. As a common practice in today's business, acquisitions of other vendors may be a faster solutions for Siebel.

3.2.4 Quintus Corporation

www.quintus.com

Company

Quintus Corporation is the leading eCRM vendor whose eCRM solution allows Internet, e-mail and traditional call centre work together. Gartner Group commented on Quintus solution as the most complete e-service suite. Nevertheless, it has not met all criteria to become an eCRM market leader[28].

Market

According to the Major Vendor survey form (please see Appendix A) completed by Quintus, its revenue for the first quarter of 2001 fiscal year[] is at $18.5 million, an increase of 80% for the same period last year. In May, 2000, Quintus announced the complete acquisition of Mustang.com Inc. This acquisition has strengthened its e-mail management system[29]. For the future of its eCRM suite, Quintus plans to further integrate more service delivery channels through partnership programmes with other CRM vendors such as Siebel and Vignette and acquisitions. Its current customers range from companies in different areas, including financial services, telecommunications, government, manufacturing, retail, energy, high technology, travel, airline, communications and e-business.

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[28] http://www.gartnerweb.com/public/axl/reprints/quintus/00087069.html
[] Quintus' fiscal year starts on 1st April of each year.
[29] http://www.quintus.com/rela/stories/0005018_mustang.html

Product

Quintus eContact Suite (QeS) is the eCRM application suite that integrates traditional CRM and electronic functionality i.e. Computer/Telephony Integration (CTI), Interactive Voice Response (IVR), speech recognition, Voice over Internet Protocols (VoIP), e-mail, web and live chat, together. Based on open technologies, the eContact Suite can work with applications from other companies, back office systems, legacy systems and any databases such as Microsoft SQL Server, DB2, and Oracle. Concerning its web functionality, the acquisition of Acuity Corp has added critical web functionality to the eContact Suite. QeS includes campaign management, business rule workflow, case tracking and escalation, universal queuing, self-service, knowledge base, collaborative chat, e-mail response management system (ERMS), Voice over Internet Protocols (VoIP), log and track inquiries, and real-time personalisation. However, some components of its administration tools are not expected to be fully integrated until end of 2000. Furthermore, the acquisition of Mustang.com in May, 2000 will strengthen its current ERMS. Nevertheless, the integration of these 2 suites will not be fully integrated until the end of 2000[30].

3.2.5 E.Piphany Inc.

www.epiphany.com

Company

E.piphany is the leading provider of web-based, customer centric analytic tools, who integrates CRM and e-business applications together. E.piphany is known as the leading vendor of the customer analysis applications.

Market

In May, 2000, E.piphany announced the acquisition of Octane Software, Inc., valued at $3.2 billions. This merger has added the automated customer interactions to E.piphany application suite[31].

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[30] http://www.gartnerweb.com/public/axl/reprints/quintus/00087069.html
[31] http://www.epiphany.com/news/2000press/2000_05_31.html

In July, 2000 - E.piphany, Inc. announced its revenues for the second quarter, 2000 at $24.5 million, an increase of 70% over the first quarter of 2000 and an increase of 659% over revenues of $3.2 million in the second quarter of 1999[32].

Regarding its customers, E.piphany serves more than 125 enterprises in e-commerce, financial services, communications, retail, high technology and automotive industries.

Product

E.piphany E.4 System is an integrated suite of software solution that enables business users to collect, analyse, and make decision on customer data from existing systems and external systems. Based on multi-tier architecture, which allows the connectivity between different systems and databases, the core competence of E.piphany E.4 lies on its analytic tools i.e. web-based OLAP, data mining and campaign management feature to create real-time personalisation. However, this application suite still lacks some crucial features of web functionality. The acquisition of Octane is expected to fulfil this point. The web functionality of Octane suite, which are expected to reinforce E.piphany suite, has a knowledge base at its core and other components, including self-service management, logging, tracking and escalation, universal queuing, collaborative chat, sales automation and ERMS. E.piphany is expected to launch a new application suite that combines strong features of these 2 companies within 2000.

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[32] http://www.epiphany.com/news/2000press/2000_07_19.html

3.2.6 eGain Communications Corp.

www.egain.com

Company

Founded in 1997, eGain is the leading provider of customer service infrastructure for the Internet. eGain solution helps companies to establish and maintain personalised customer interactions.

Market

In August, 2000, eGain announced record revenues of $6.3 million for its fourth fiscal quarter, and for twelve months of the fiscal year ended June 30, 2000. The revenues for this quarter represented a 90% increase over the previous quarter[33].

EGain claimed that its solutions have been used by 9 of the 20 largest global companies. With over 600 customers in more than 32 countries worldwide, eGain has served customers in various industries for example, financial services, communications, automotive, high technology and e-commerce[34].

Product

EGain's comprehensive suite is eGain Commerce 2000 Platform. Built on open web architecture along with extensive integration tools, the solution can integrate seamlessly with existing systems, including call centres, e-commerce platforms, and front-back office applications. This comprehensive suite includes crucial functionalities that can improve customer experience with online service. These functionalities consist of online self-service through knowledge base, e-mail response management system (ERMS), sales automation, live chat, voice over Internet protocols (VoIP), and case tracking. During its quarter ended in June, 2000, eGain strengthened its suite with campaign management, web FAQ self-service and VoIP functionalities. In the same period, eGain completed the acquisition of Inference Corporation which was expected to enhance its personalised one-to-one self-service and

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[33] http://www.egain.com/pages/Level2.asp?sectionID=6&pageID=719
[34] http://www.egain.com/pages/Level2.asp?SectionID=4&PageID=4

knowledge management[35]. In addition, eGain provides administration tools that reinforce the integration with other e-commerce and e-business providers. However, there remains some eCRM functionalities that eGain has to consider to add in its suite such as log cases, universal queuing capability and WAP support.

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[35] http://www.egain.com/pages/Level2.asp?sectionID=6&pageID=719

3.3 Vendor Analysis

Features	Kana	Broadvision	Siebel	Quintus	E.piphany	eGain
Administration tools	□□	□□	□□	□	□	□□
Analytic tools	□	□□□	□	□	□□□	□
Business rule workflow	□	□□	N/A	□□	N/A	N/A
Campaign management	□	N/A	□□	□□	N/A	□□
Case tracking & escalation	□□	N/A	□□	□□	□□	□□
Collaborative chat	□□	□□	N/A	□□	□□	□□
E-mail Response Management System	□□	□□	□□	□□	□□	□□
Integration with call center	N/A	□□	□□	□□	N/A	□□
Knowledge base management	□□	□□	□□	□□	□□	□□
Logs and tracks inquiries	N/A	N/A	N/A	□□	□□	N/A
Real-time personalisation	□□	□□	N/A	□□	N/A	□□
Real-time report management	□□	□□	N/A	□□	□□	N/A
Sales automation	□□	□□	□□	N/A	□□	□□
Self-service management	□□	□□	□□	□□	□□	□□
Universal queuing	□□	N/A	□□	□□	□□	N/A
Voice over internet protocols	□□	□□	N/A	□□	N/A	□□
WAP support	N/A	□□	□□	N/A	N/A	N/A
Web call-back	N/A	N/A	N/A	N/A	N/A	□□
Comprehensive suite	□□□	□□	□□	□□□	□□	□□□

Explanation of the symbols

N/A	Not applicable
□	Available in basic level/ Average

□□	Available/ Good
□□□	Available and outstanding/ Excellent

Please note that the analysis above applies only to the time the researcher did this research. Each vendor might develop or introduce new applications or solutions during the time the research was written or complete. Some features in each vendor could be improved, modified or added through internal developments or acquisitions. However, all vendors above have shared the following features:

- System architecture : All eCRM suites are built on multi-tier or n-tier architecture and open technologies which allow their applications to work with other applications or even later technologies.

- Scalability and flexibility : As a result of the system architecture, each eCRM suite from these vendors can serve thousands of concurrent users

- Web interaction : Even though most vendors cannot meet all web interaction features, their direction is to improve and add these features. They all realise the importance of web interaction.

- System features : Fundamental features of eCRM each vendor provides include administration tools, analytic tools, ERMS, knowledge base, and self-service management.

- Partner program and acquisition : Due to the lack of essential features in their application suite, and the increasingly intense competition in eCRM market, partner programme and acquisition seem to be the more practical solutions for all vendors.

Since eCRM market and vendors are discussed in this chapter, the next chapter is to study the actual practice of these solutions through case studies.

CHAPTER 4 : CASE STUDIES

The previous chapters discussed the background and concept of eCRM system, including relevant technologies, strategies and major vendors. This chapter aims to give the more concrete vision of eCRM system through the actual practices from companies implementing eCRM system and how they benefited from it. Originally, the researcher planned to present case studies through primary research in the form of the Case Study survey (Appendix B) and further interviews. The survey was sent to 31 companies to ask their permission to participate in case studies. Unfortunately, 10 of them declined as they considered the information regarding eCRM system sensitive data and the nature of their business is highly competitive. No response was received from the other 21 companies. As a result, the following case studies, based on vendors' websites, have been used to provide an insight into how eCRM systems are used in the real world.

4.1 eBay

4.1.1   Company background

Founded in 1995, eBay created a new market for one-to-one trading in an auction format on the web. According to Media Metrix, in June, 2000 measurement period (1-30 June, 2000), eBay is the most visited online auction[36]. At its web site, individuals can buy and sell items in more than 4,320 categories, including automobiles, collectibles, antiques, sports memorabilia, computers, toys, etc. It now provides over 4 million new auctions, and 450,000 new items every day[37]. eBay has developed an efficient and entertaining trading site on the Web that is available 24 hours a day, seven days a week. eBay has more than 10 million registered users and had more than twelve million unique visitors to the site in March 2000[38].

4.1.2   Reasons for change

In 1997, eBay's customer support team received a volume of approximately 500-800 customer support inquiries per week. The system was mostly manual. The company exploited

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[36] http://www.mediametrix.com/data/thetop.jsp
[37] http://pages.ebay.com/community/aboutebay/overview/index.html
[38] http://www.kana.com/customers/case_studies/ebay/index.html

a variety of different e-mail clients, a manual routing process and a largely ad hoc tracking mechanism. The system was very tedious and incurred a large administrative cost. Therefore, Keith Antognini, the Director of Customer Support, started to look for a solution, which would enhance the customer support functions to scale effectively.

4.1.3   eCRM solution

Since the nature of eBay's business deals with online activities, electronic mail acts as the major communication medium. From existing problems and bottlenecks of its manual queue management system, eBay's fundamental requirement was obviously how to manage the response of high-volume of inquiries. The company chose an eCRM solution from Kana Communications. The Kana 's Response included routing and tracking features, and reporting mechanisms. The routing and tracking features allowed Antognini's team to organise and streamline the response process, and increase message throughput.

The reporting mechanisms include more than 80 pre-configured reports, which can easily be customised or modified. Through such mechanisms, information that was not available before has become easily accessible. One feature in the reporting mechanisms is content analysis capability, which can search and match required text in such forms as reports and e-mail. The analysis of content and patterns of customer communication can improve decision-makings. Antognini regularly reports to eBay executives by using information and analysis from these reporting mechanisms. He stated that "*Our ability to closely monitor and interpret customer metrics with Kana Response is incredibly important. In today's business environment, retaining customers through world-class service is an absolute requirement.*"

4.1.4   Benefits from the solution

Installed in March, 1998, Kana's solution immediately improved eBay's workflow and response management capabilities. Antognini reported an immediate 50 to 75 percent improvement in productivity. The average response time per message was cut by more than half after only one week of using the implemented solution. 2 months after adopting the new system, Antognini's team could attain 24-hour response time on most inquiries although the e-mail volume was already hit 20,000 messages per week. Concurrently, Antognini was able

to reduce the headcount projections. He commented that "*Kana definitely enabled us to lower our headcount expectations through increased efficiency.*"

2 years later, the e-mail volume is approaching 7 times of that amount, the team still can manage to respond inquiries in half of that time. With Kana's solution, the team now maintains 12-hour service level, at least 90% of the time. Today, about 425 CSRs, growing from 40 CSRs at early deployment, perform 24-hour and 7-day customer support operations.

The consistency is one of the benefits eBay gains from the solution. In the Kana Response category hierarchy, prepared response templates are stored centrally. As a result, eBay 's customer support representatives (CSR) can locate and insert accurate information into their personalised response. Moreover, it can suggest the appropriate response template based on message content analysis. The information in the category hierarchy of the knowledge base is automatically shared among team members. Since important information has been categorised and kept in the shared knowledge base, it makes the training of new employees in terms of preparing appropriate response to customers or report to team manager or executives become easier [39].

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[39] http://www1.kana.com/customers/case_studies/ebay/index.html

4.2 Macromedia

4.2.1 Company background

Macromedia is a $250 million software company based in San Francisco with more than 1,000 employees. It has been recognised as both a Fortune e-50 and USA Today e-Business 50 company[40]. Successfully transformed itself from a provider of shrink-wrapped multimedia and CD-ROM creation software, the company is now a market leader in a new generation of Internet content authoring software and technologies, which are designed to transform a web into an interactive, highly entertaining experience.

The company enables professional web developers, dot com companies and enterprises to create effective next-generation web sites, manage the web content lifecycle from content authoring, management, delivery, and display to personalisation and analysis. Its product line includes Director, Dreamweaver, Fireworks, Flash, FreeHand, Generator, Aria, LikeMinds and Shockwave that help its customers build high-impact, automated, interactive sites that deliver motion, sound, graphics, and rich media[41].

4.2.2 Reasons for change

Macromedia triggered an aggressive e-commerce strategy in order to maximise its presence on the Internet. The company wanted to provide a customer experience on its various web sites and sell its products directly to customers worldwide. Therefore, it needed an e-commerce and marketing platform that could meet visitors' requirements to its various sites. Concurrently, it wanted to provide a high-performance engine to meet its anticipated traffic growth.

4.2.3 eCRM solution

Macromedia chose the Broadvision's solution, One-To-One Enterprise and One-To-One Retail commerce, in order to maintain its position as the leader in all its business categories and provide more robust backbone for the growth of its sites.

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[40] http://www.macromedia.com/software/flash/survey/
[41] http://www.macromedia.com/macromedia/

At the corporate website, www.macromedia.com, Broadvision's system helps the company to provide its customers with information about its products and services and enable them to purchase products through the online store. Once a customer completed his own profile, he can trace back products and selections he made by accessing his own shopping cart and account history. When the purchase process is completed, he can choose to download a product himself or have it shipped to him. Furthermore, customers can receive targeted information and customised e-mail newsletters based on their interests identified in their profiles.

In addition, shockwave.com, a subsidiary of Macromedia, uses Broadvision technology to create a community of millions of customers through its registration program. Users just complete profiles when they enter the web site. Subsequently, they can receive information and content based on their interests and navigation patterns. Moreover, they can organise content by category of their choice and save an unlimited number of Shockwave titles onto a virtual device called the Shockmachine.

The long-term goal of Macromedia is to create customer communities using information given by customers through purchase forms and profiles. The additional features of customer personalisation include news, e-mail product alerts and related product updates targeted to each customer based on interest and purchase history.

4.2.4   Benefits from the solution

Macromedia's requirements of on-going marketing and customer relationship are supported by Broadvision's solutions. These solutions enable the company to manage personalised customer lifecycle relationship through different aspects of its various online business. Consequently, the company can serve its customers better by providing information they are interested in. The customers themselves will, in turn, visit the sites more and more.

In addition, Broadvision's platform reinforces Macromedia's sites in terms of system performance and scalability in order to meet increasing numbers of users. On the macromedia.com site, the percentage of preinstalled Flash Player is 91.8% and while 248

million users have the Flash Player already installed[42]. "*The Broadvision system has kept pace with our diverse customer needs, explosive traffic, and leading edge e-commerce requirements*." Rob Burgess, Chairman and CEO of Macromedia said.

Macromedia and Broadvision tightened their relationship through partnership programme in late 1999. On one hand, Broadvision resells a customised version of Dreamweaver, Macromedia's web authoring environment, for its suite of One-To-One applications. On the other hand, Macromedia's eBusiness Infrastructure solution chooses Broadvision's application suite as the first platform for delivering dynamic web sites to its customers[43].

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[42] http://www.macromedia.com/software/flash/survey/whitepaper/
[43] http://www.broadvision.com/OneToOne/SessionMgr/customers/customers.jsp?BV_SessionID=
NNNN0753877580.0965987725NNNN&BV_EngineID=haligjjfijkbfdmckgcfhhclf.0&Industry=All

4.3 Suretrade

4.3.1 Company background

Suretrade, Inc. is a subsidiary of FleetBoston Financial. Established in 1997, Suretrade has grown to over 500,000 customer accounts, over $2 billion in customer assets. It is a leading player in the rapid growth of online trading. It has been recognised as a leader among online brokers by well-known business magazines for example, SmartMoney[44], Time[45], and Business Week[46].

Suretrade offers free research, real-time quotes, news, charting, portfolio and life planners, stock and mutual fund screeners, 24-hour online broker-assisted help. Its low commission, $7.95 per trade, is one of the lowest margin rate schedules on the Internet. It also offers trading in NYSE listed, NASDAQ and Bulletin Board securities as well as Initial Public Offerings, Bonds, Options and over 3,000 Mutual Funds all available for trading 24 hours a day[47].

4.3.2 Reasons for change

Suretrade has grown quickly since the company started. This is mainly because it offers one of the lowest costs traded on the Internet. Due to low margins in the online brokerage market, Suretrade has to keep its costs as low as possible but remains a high level of customer service. Suretrade Director of Marketing, Peter Seed said that "*Usually when a customer has a question regarding their brokerage account, it's a serious question—it's money, it's their retirement funds, it's something where they need an answer right away*." The 1-800 number that the company had implemented in July 1998, served a high volume of calls that occupied 40 CSRs and reached levels of 1,500–2,500 calls per day. Hold times could be 10–12 minutes and even reach 18 minutes during peak periods, adding dramatically to its 1-800 costs.

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[44] http://www.smartmoney.com/si/brokers/online/index.cfm?story=stack
[45] http://www.time.com/time/digital/reports/daytrading/bazzar3.html
[46] www.businessweek.com/common_frames/bws.htm?http://www.businessweek.com/2000/00_21/b3682009.htm
[47] www.suretrade.com/Homepage/VISframe.html?info=/pg/pr.html&menu=Learn&ref=splashpage

As the cost of its call centre rose considerably, the customer satisfaction became an issue. Suretrade decided in 1999 to implement a web-based live help system in order to keep its commitment to premium service with low cost.

4.3.3   eCRM solution

Suretrade chose an eGain solution. eGain Live is easy-to-use application. It enables CSRs to provide real-time personalised assistance over the Internet. eGain Live combines browser sharing, form synchronisation, text chat and phone call-back all together and offers CSRs the tools to provide outstanding customer service. Through the live help over the Internet, eGain Live enhances Suretrade to reduce the volume of incoming phone calls and deliver prompt customer satisfaction at the same time.

Suretrade decided to deploy the solution through the eGain Hosted Network, which makes the full functionality of the application available through a standard Internet connection and provides IT services, system monitoring and maintenance. The Network also maintains the security of customer confidentiality.

Peter Seed stated that the selection of eGain was based on 2 key factors. "*First, eGain Live was designed specifically to work within the call centre model that we wanted to maintain, providing comprehensive reporting to help us measure performance and improve our efficiency. Second, the eGain Hosted Network makes the software accessible from virtually any network. The nature of our business calls for a highly secure proxy that prevents most types of rich media and Java applets, but we found that eGain Live works seamlessly with our impenetrable network and gives us the kind of access that is essential to our success*.*"*

4.3.4   Benefits from the solution

The implementation of eGain's solution was started on a small scale by offering live help through certain pages of the website and the feedback from its customers was overwhelming. Subsequently, Suretrade expanded the live help in every page of its site, and had 25 CSRs ready to offer live help all the time and everyday. As a result, the volume of live session increased from 50–100 calls per day to 2,300 per day within two months. At this point, the benefits of the eGain Hosted Network became dramatically clear. Seed said that "*Our*

decision to host the application with eGain paid off big-time. We were able to ratchet up our server capacity quickly and seamlessly to support higher levels of traffic; there were no network people running around tweaking things—it was all outside the company, so it allowed us to concentrate on our core business."

As more of Suretrade's customers turned to use the live help system, 55 percent of customer interaction has shifted from 1-800 number to the Internet, and Suretrade can manage to cut hold times and phone costs. With the new system, Suretrade's CSRs can increase their productivity. They can greet a customer, look up account information for another, and handle as many as 4 calls simultaneously. Consequently, the cost per CSR is now a third or less compared to phone-based support. The average hold time for a customer is reduced to merely 38 seconds.

"*By adding eGain Live, we found that we could vastly improve customer satisfaction, which we measure month to month. The system has given us the ability to handle situations in real-time, and ward off the kind of customer frustrations that can fester over time*," says Seed. "*If we can prove that we can provide world-class customer service through the Internet, which is what our customers use almost exclusively, then we will keep pace with the best in the industry.*"

Suretrade currently uses the live help to handle an average of 2,000 sessions per day. As Suretrade is still growing in the online brokerage market, it considers using eGain Live to allow a visitor of the web site to connect directly to a CSR. Seed said that "*It's the perfect way to introduce Web site visitors to our product and the level of service we offer, by letting them ask specific questions and establish that one-to-one relationship right from the outset,*"[48]

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[48] http://www.egain.com/pages/Level2.asp?SectionID=4&PageID=554

4.4 Factors of success from case studies

All these case studies present the positive view of eCRM implementation from the real business practices. Each case study shows different features of eCRM. The core feature of solution that eBay implemented is the e-mail response management system (ERMS) by Kana. The important feature that Macromedia implemented to support its business is online marketing and sales automation where opt-in information from customers is crucial asset for the business lifecycle. Regarding Suretrade, the company implemented the powerful live help by eGain to instantly interact with customers over the Internet. All these companies reported the service improvement after the implementation. The success of these companies are based on 3 factors:

First, each company knew exactly what they needed. Since their requirements were clear, they did not simply select any ideal eCRM solutions that might not suit to their requirements and business environment. Therefore, the success is primarily based on the solution that fitted to their needs.

Second, the system architecture in eCRM technology greatly supported the integration of the new system and the existing ones. As the implementation period did not take too long, these 3 companies could start using it quickly. Consequently, the success or failure of the new system could be measured and proved in a short period of time.

Last, as all these 3 companies are web-based. Their staff are very likely to be aware of the importance of the Internet as a powerful business weapon. Any new system that can enhance their online performance tends to be positively accepted from all levels. As a result, the resistance of new system is negligent while their efforts to make use of the new system help improve the productivity.

It is certain that they will not stop looking for new solutions to better their existing service delivery channels since each of these companies is striving for the best position in their market sector. Nevertheless, it is critical for these companies to be aware of the new solution selection and the technical problems that may occur due to the integration of many eCRM solutions from different vendors.

CHAPTER 5 : SURVEY OF CUSTOMER SATISFACTION

This chapter aims to study why companies decided to implement eCRM system and how satisfied they are with the new system. Moreover, it would be incomplete if the researcher did not mention customers who are supposed to be the core of the entire customer relationship lifecycle and whose views and demands are vital and must be heard. Their point of view towards online services had been analysed and included in this chapter as well.

5.1 Companies' satisfactions towards eCRM implementation

5.1.1 Company Survey

The 252 companies the researcher chose to send the survey (Appendix C) to are either pure dot-com or brick-and-mortar companies. These companies are from different industries such as retail, communications, telecommunications, aviation, travel, public sector, hi-technology, pharmaceutics, medical business, financial services and e-commerce. However, the response rate for the survey is relatively low. 9 companies took part in the survey. There are 4 main reasons causing such low response rate.

First, the researcher found out that many companies were not aware of what online customer service was. Second, some companies were at the early stage of the general study of eCRM. Therefore, they considered themselves not qualified to complete the survey form. Third, many of selected companies considered answers of the survey very confidential and sensitive. They claimed that the nature of their business was highly competitive. Last, this was the most common reason. They did not want to participate in the survey and they simply did not provide any response at all.

9 companies were willing to fill out the survey. Clearly, a return of only 9 companies will not represent the entire group of companies that have implemented eCRM systems. However, the researcher still believes that this small figure can indicate some characteristics of eCRM implementation and simultaneously answer the objectives of the dissertation about the success and satisfaction that these companies have experienced from the system.

These 9 companies range from start-up companies, small-medium enterprises and large enterprises in such industries as financial services, aviation and e-commerce. The most common service delivery channel that all of these companies currently provide is through e-mail/the Internet. For some companies, e-mail and the Internet are the only ways to serve their customers. Please see figure 5.1.1.

Service Delivery Channels

Channel	Percentage
Phone	66.67%
Call centre	44.44%
Voice mail	55.56%
Direct mail	44.44%
E-mail/Internet	100.00%
Toll Free	55.56%
Office	33.33%
Other (New technology)	33.33%
Other (Traditional approach)	33.33%

Percentage of companies participating in the survey
<Multiple response included>

Figure 5.1.1 Service delivery channels
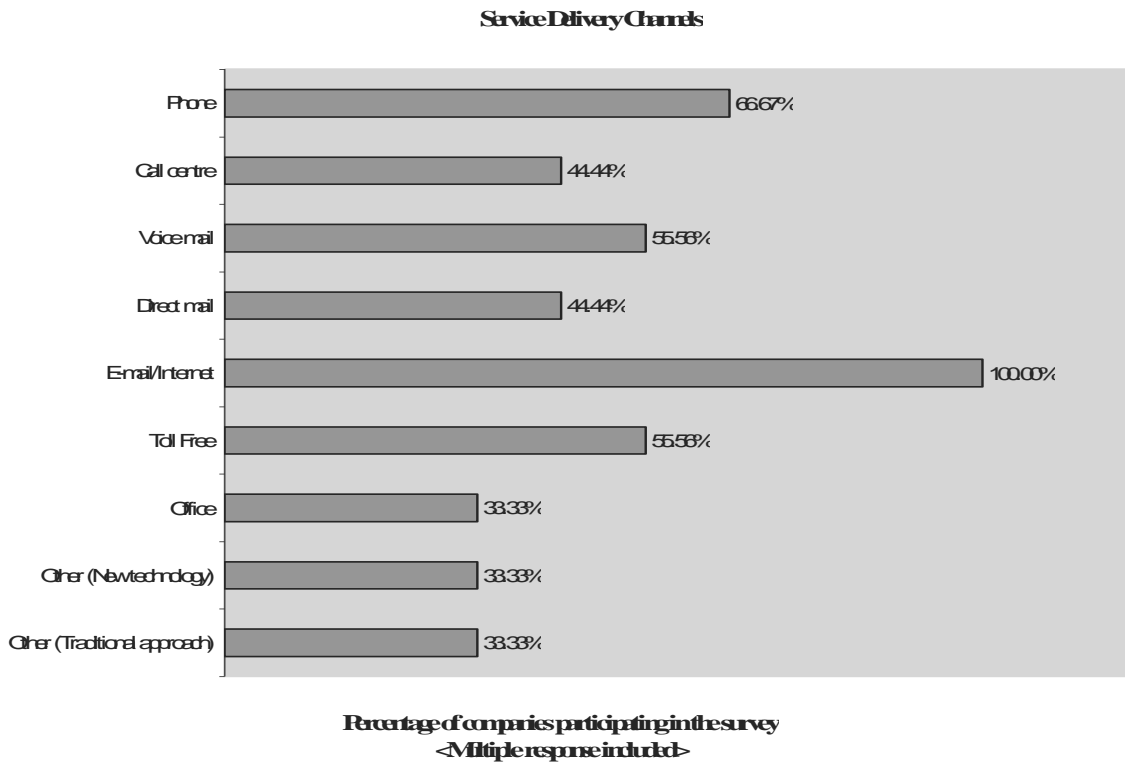
50% of participants have actually started eCRM implementation while the other 50% are still in the stage of gathering general information about eCRM, setting business objectives or selecting vendors. The most important reason that influenced their decision to implement the online customer service system is to improve the satisfaction level of their customers. Please see figure 5.1.2.

Figure 5.1.2 Factors influencing companies to eCRM system

The eCRM solutions that these companies have implemented consist of diverse features, such as live chat, e-mail response management systems, personalisation tools, customer data warehouses and marketing automation. The vendors providing these solutions include eGain, Broadvision, Kana, SAS, LiveAssistance.com, NCR and Teradata. Furthermore, some participants revealed that they have developed in-house applications to serve the demands of online customers. Regarding companies that are in the stage of general study, some of them stated that they might go for mainstream vendors such as Siebel, Oracle, etc. Possibly, it is because they have not thoroughly looked for solution that suits to their requirements. For the implementation period, it can range from 3-4 months to 3 years, depending on size of business and numbers of solutions implemented.

The 5 implementing companies stated that they were reasonably satisfied with the overall implementation. The criteria used to measure their satisfaction in terms of implementation are based on 3 sections: the implementation, the system itself and the expected benefits. The criteria these companies used to rate their satisfaction level are shown in the table below.

(Scoring: *1= Unacceptable; 2= Poor, 3=Average; 4=Good; 5=Excellent*)

Criteria	Score
Implementation Phase	**3.25**
• Implementation period	3.25
• Ease of implementation	3.25
System	**4**
• Ease of use	4.5
• Compatibility with existing systems and databases	3.5
• System functionality	4
Benefits	**3.94**
• More efficient service delivery in the faster manner	4.75
• Reduced operating costs	3.5
• More effective collaboration across different business sections	3.5
• Obviously improved ROI	4
Overall Implementation	**4**

Figure 5.1.3 Satisfaction level of companies implementing eCRM solutions

75% of the implementing companies accepted that the crucial factor that impacts the success or failure of their eCRM implementation is organisational culture. However, some companies state that it depends on strategies they use and/or technology itself.

Survey conclusions

The survey completed by these 9 companies points to the following conclusions:

- All companies are aware of online customer services as a powerful channel to reach and serve their customers. Concurrently, they also provide services to customers through other channels for example, telephone, toll-free, call centre, or even actual office itself.

- The improvement of customer satisfaction is the fundamental reason that made all these companies decide to implement eCRM system since it can lead to further sales increases and advantages over their competitors.

- All companies who have implemented the online service system are satisfied with the implementation. Still, there is plenty of room for improvement that vendors should be aware of, especially the implementation period and the ease of implementation.

5.1.2 Analysis and discussion

From the study of eCRM implementation through the survey, there are some issues that the researcher would like to discuss.

- *Service delivery channels*

It is obvious that e-mail and the Internet have been exploited as powerful service delivery channels. Companies must provide services through these channels if they want to keep themselves competitive in today's market. Most companies, whether dot-com or traditional ones, have realised this fact. However, it does not mean that companies can have only these channels to serve their customers. Other channels such as the phone, direct mail or even the office itself remain indispensable. For companies, more service delivery channels mean more opportunities to reach customers, do business with them and provide them services. For customers, more channels lead to more opportunities to contact companies and better satisfaction. Consequently, it is likely that companies can retain the loyalty from their customers.

For dot-com start-ups, their channels for serving customers are now restricted to e-mail and the Internet. However, the researcher strongly believes that once their companies grow, they will certainly increase ways to communicate with customers. New channels can come in the forms of traditional ones i.e. phone and direct mail, and/or more advanced technologies i.e. WAP. The fact that these start-ups need to be aware of is that not all customers are online and not all online customers want to contact the companies only through e-mail or the Internet.

- *Implementation of online service system through vendors vs. in-house development*

To implement online customer service system, Small-Medium Enterprises (SMEs) and large enterprises tend to go for outsourcing because external vendors can provide solutions that fit their requirements. The advantages of outsourcing eCRM implementation are that companies can focus on their core business while leaving professionals to do what they are good at. However, enterprises must be cautious in selecting products or solutions. They should ensure that such products or solutions really meet their requirements. One reason for failure comes from the mismatch between the requirements and the actual solution. It can cost both parties dearly. Due to the varied requirements of each company, products or solutions from only one vendor may not be enough. It seems common in current eCRM market that an SME or large enterprise has implemented different solutions from more than one vendor. In such case, the issue of integrating different solutions must be taken into consideration.

On the other hand, there are some companies which prefer to develop online customer service system in-house because of their readiness in terms of resources and understanding of eCRM concept. In-house development can probably meet companies' requirements better than outsourcing because the new application or solution is designed and specified to suit the particular requirements within the organisation, based on their system infrastructure and business environment. When applying in-house development, enterprises can gain a vital advantage of better communications between business users and technical staff. They can understand organisational workflow, foresee any potential problems and know where to solve such problems. Apart from that, business users may feel freer to tell what and how they want online service system to be. Since relevant staff have taken part in the development, the new system tends to be well accepted across the organisation.

Nevertheless, in-house development requires collaborations from both technical staff and business users. This can distract them from their main responsibilities. Furthermore, since eCRM system implementation may not be the core business of most of enterprises, they may have to invest more time and money in order to build their own system. The human resources issue is another serious matter they need to be aware of. Companies must be aware of the importance of their IT resources and ensure that once any of these resources leaves the companies, the entire business still can operate as normal.

- *eCRM Implementation by dot-com start-ups vs. by large enterprises*

The success or failure of eCRM implementation by dot-com start-ups and large enterprises is based on different factors. For dot-coms, it is more likely that eCRM implementation can be achieved easier and faster than by large enterprises. The critical issues leading to the success are discussed below.

For dot-coms, the organisational structure is not as complex as that of traditional large enterprises. Working for a web-based company, staff in dot-coms tend to be more enthusiastic and aware of new technologies that can improve their performance and productivity, facilitate their work environment and help their company grow. Moreover, they do not have to worry much about integration of different systems. As "*start-ups*", it is likely that they will not have legacy systems or sophisticated systems that may cause difficulties in terms of integration with new eCRM system.

In addition, service delivery channels provided by dot-coms are not that varied, compared to those offered by large enterprises. This can lead to fewer requirements than those of big companies, when the idea of eCRM implementation has been raised within the organisation. With a less complex structure within the organisation, less resistance from staff who are aware of changes, less concern and limited requirements for the system integration, the implementation of online service system tends to experience few serious problems while the system implementation can be completed in short period of time. Eventually, these will lead to success of the implementation.

Regarding large enterprises, they have more a sophisticated organisational structure. Any changes within the organisation in terms of technologies or business processes, which will

affect the existing workflow tend to take a long time and meet obstacles along the way. One major reason is because of the resistance from staff in relevant business sectors. Early efforts to inform and clarify such changes and related business directions or strategies can soften resistance and result in better co-operation.

Apart from those issues, large corporations usually provide many service delivery channels. The advantages of having many channels have been discussed earlier. On the other hand, for the companies, offering services through different channels is like carrying burdens because each channel must work synchronously with others and provide relevant staff consistent view of customers. When enterprises consider implementing online service system and integrating each channel, it can lead to more complicated requirements for eCRM implementation. Moreover, they still have to consider the integration of existing systems, databases and the eCRM system as well.

As a result, the implementation period will take a longer time for large enterprises, especially when no real complete eCRM system currently exists in the market. They are forced to choose different features of eCRM system, which can fit their business environment, from different vendors. More significantly, these big companies are likely to experience technical problems due to the integration of different systems and many eCRM solutions from different vendors. Even so, eCRM implementation is considered a must for them. Once enterprises complete the implementation and all integrated channels works synchronously, they can be guaranteed to reap their investment rapidly.

It is likely that large enterprises will experience more difficulties when integrating different channels because of organisational and technical issues. However, the researcher believes that as long as they are aware of these potential issues and try to address these issues earlier, such serious issues can be softened or solved. Ultimately, they will be able to experience the success of the eCRM implementation.

- *Success of entire eCRM implementation*

Companies usually judge the success of eCRM implementation through their increased revenues and more effective and faster service delivery. In general, companies are satisfied with the overall implementation. Considering the implementation of eCRM, companies

naturally want the system implementation to be completed as soon as possible so that they can make use of it. However, the period of implementation is often based on the size of the system and the difficulties of integrating it with existing systems and databases. Regarding the eCRM system itself, companies can see that an eCRM system is normally designed as user-friendly. For users, it does not take long time to learn how to operate it skilfully. Additionally, its system functionality is designed to enable more powerful and effective interactions between CSRs and customers. For the implementation of an online service system, it may take time to achieve but once they start using it, they can take advantages of the system in short period of time.

However, the success of the implementation may not produce expected benefits if companies do not plan appropriate strategies, which can allow better workflow, more efficient decision-making and business performance and collaboration across the entire business. Above all, support and collaboration from the entire organisation can lead to a successful implementation. The support and co-ordination from relevant business sections can shorten the implementation period, and customer lifecycle. This also reflects the unity of the organisation and can lead to better service delivery and faster ROI.

Such a vision seems idealistic. To make it realistic, companies primarily need to be aware of organisational culture. The support from staff in all relevant divisions is the key factor of the success. Relevant staff who will potentially be users of the eCRM system should be informed about the arrival of a new system in order to reduce their resistance and establish their basic knowledge of the concept behind the system. As a representative of the company to interact with customers, it is significant for each Customer Service Representative (CSR), and even a business user, to understand what new system really is, what strategies will be delivered by it and how they can make best use of it. During the research period, the researcher found out that many CSRs from online companies, especially those in UK, did not realise what system they were using nor which business sector in their organisation took care of the eCRM implementation. It reflected that they did not really understand the concept of the system and the collaboration across the organisation was ineffective. Consequently, it can be difficult for them to effectively deliver services in satisfaction level. As one of the survey participants commented

"Organisational culture ...in my opinion, it is the vital factor for all CRM activities within a company: not only the IT side has to be solved, but in the same run the mental side needs changes...the mind set today is far away from being customer-centric."

The eCRM system is only a tool that allows enterprises to create better relationship with their customers. However, the actual one-to-one relationship required for the success of the implementation comes from the real service mind of the entire organisation.

5.2 Customers' satisfaction with online services

5.2.1 Customer Survey

The lifecycle of the CRM concept can be completed by a study of customers themselves. Customers are now considered as kings whose satisfaction is what all companies, both dot-com and brick-and-mortar companies, want to improve and retain. A survey (Appendix D) of how online services can impact buying habit of customers was sent to a targeted group of people who at least had access to the Internet. 45 people participated in this study.

71% of these participants admitted that the main reason they go to the same companies is the quality of products and services. 38% and 33% of them repeat their product/service purchase from the previous companies by using cheaper price and convenience respectively as their criteria. 13% considered post-sales services as a reason to use products/services from the same companies. Please see figure 5.2.1
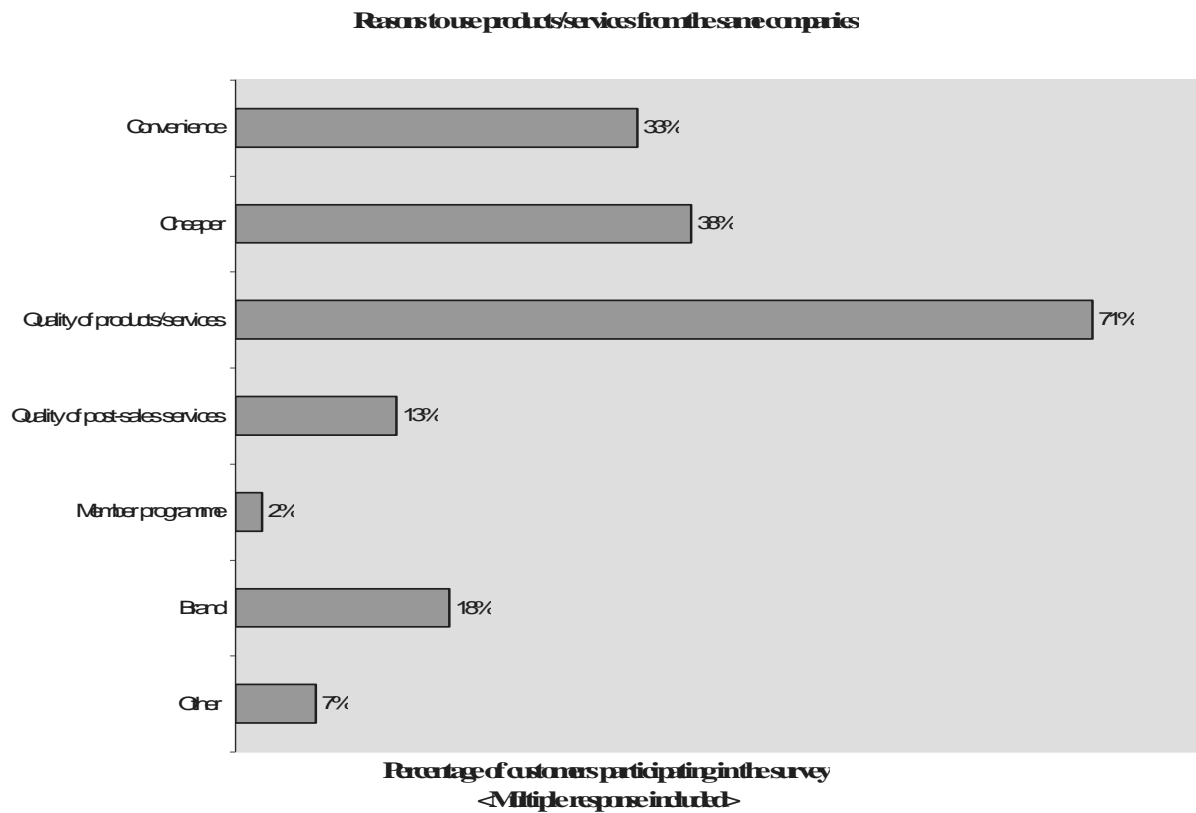
Figure 5.2.1 Factors customers repeat purchases from the same companies.

Each customer now has different channels to contact each company. According to the survey, 67% of these participants still prefer to buy products/services directly from shops or companies themselves. The main reason is because they prefer to see and try products/services by themselves. 47% of them accepted that telephone is another popular channel to contact vendors or service providers while 38% chose e-mail/Internet as one of their preferred channels. Other service delivery channels are included in figure 5.2.2

Preferred Service Delivery Channels

Percentage of customers participating in the survey
<Multiple response included>
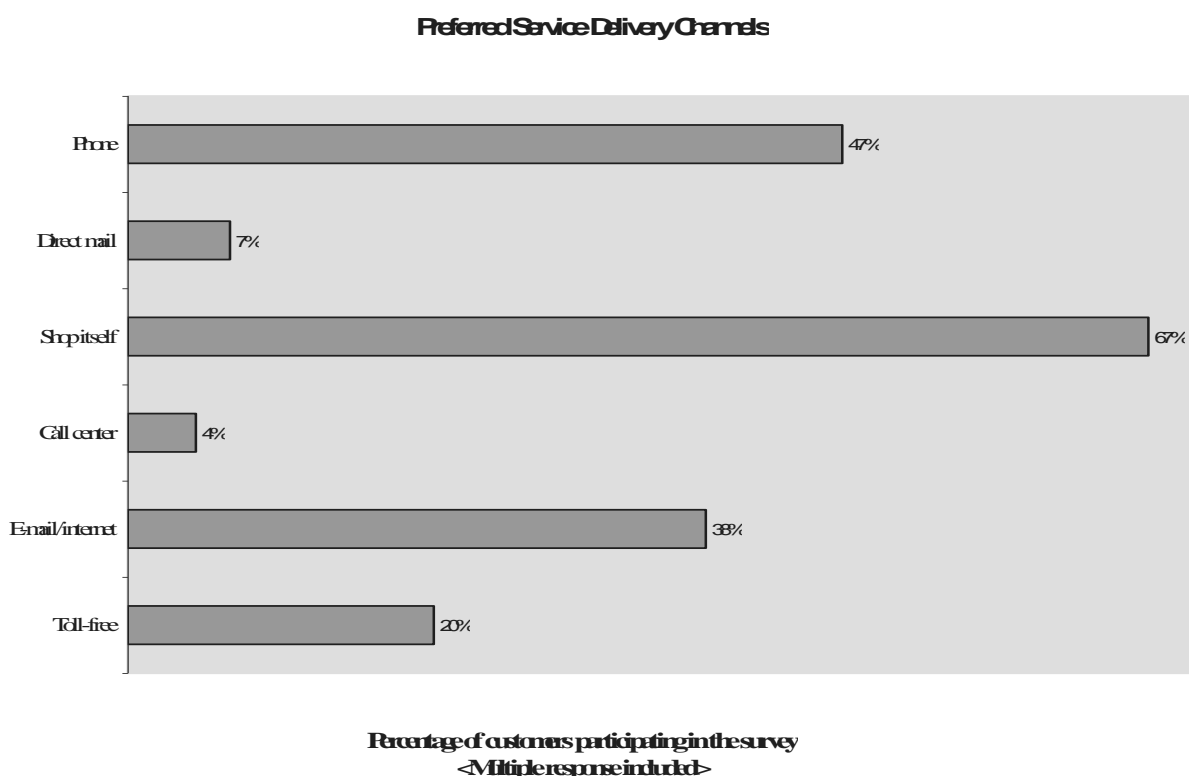
Figure 5.2.2 Service delivery channels customers choose to use.

Although online service is not the most popular channel, gradually, it is well accepted because it can provide many advantages that other channels cannot. 60% of the participants indicated that the ease of accessing online products/services attracted them to use this channel of service. 27% accepted that online service provided faster response than other channels and 24% used this channel because it is cheap and always available. Reasons that customers choose to use online service are included in figure 5.2.3.

Easy to access	60%
Faster respond than other channels	27%
Only way to contact companies	11%
Cheap	24%
Always available	24%
Curious to know	2%
Other	7%

Percentage of customers participating in the survey
<Multiple response included>
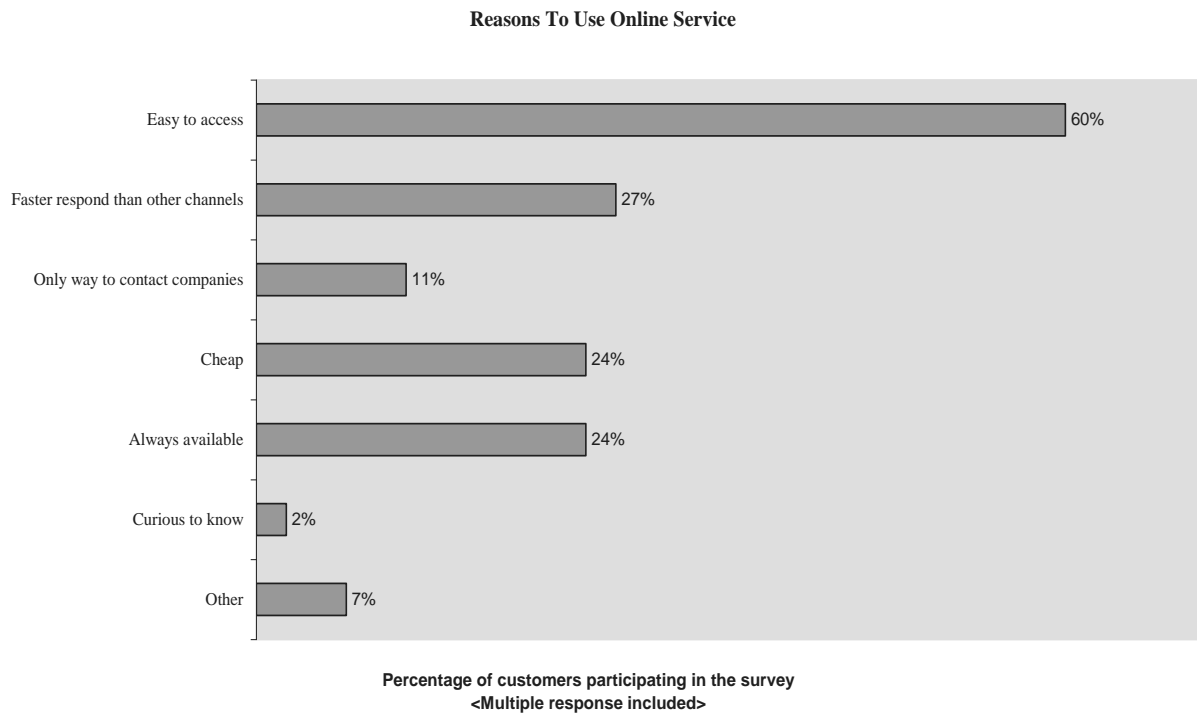
Figure 5.2.3 Reasons customers choose to use online service

From the question whether online service can attract them to use more products/service from the same companies. 51% of them agreed with such statement while the other 49% disagreed. For those 51%, their perception of this channel is ease of access, more convenience, cheaper price, and a reliable way to contact companies. In addition, they admitted that online service was the faster way for them to get more information about products/services before purchasing and/or receive faster response from the companies at the same time. Through the personalised greeting, online service also builds trust for customers. Above all, when they get used to online processes and procedures, they are more confident of using more products/services from the same companies.

Regarding the other 49%, they commented that there were more varieties of choices online. Therefore, it would be much easier for them to compare prices and qualities of products/services from different companies. If other companies offer better products/services with same or lower price, they will choose other companies.

The main reason why customers want to change to other companies is the price. 60% of them will change if products/services from other companies are cheaper. 53% and 51% indicated that they would change to other companies if they were not satisfied with services from current company and quality of product/services, respectively. Please see figure 5.2.4

Why Do Customers Change To Other Companies?

Percentage of customers participating in the survey
<Multiple response included>
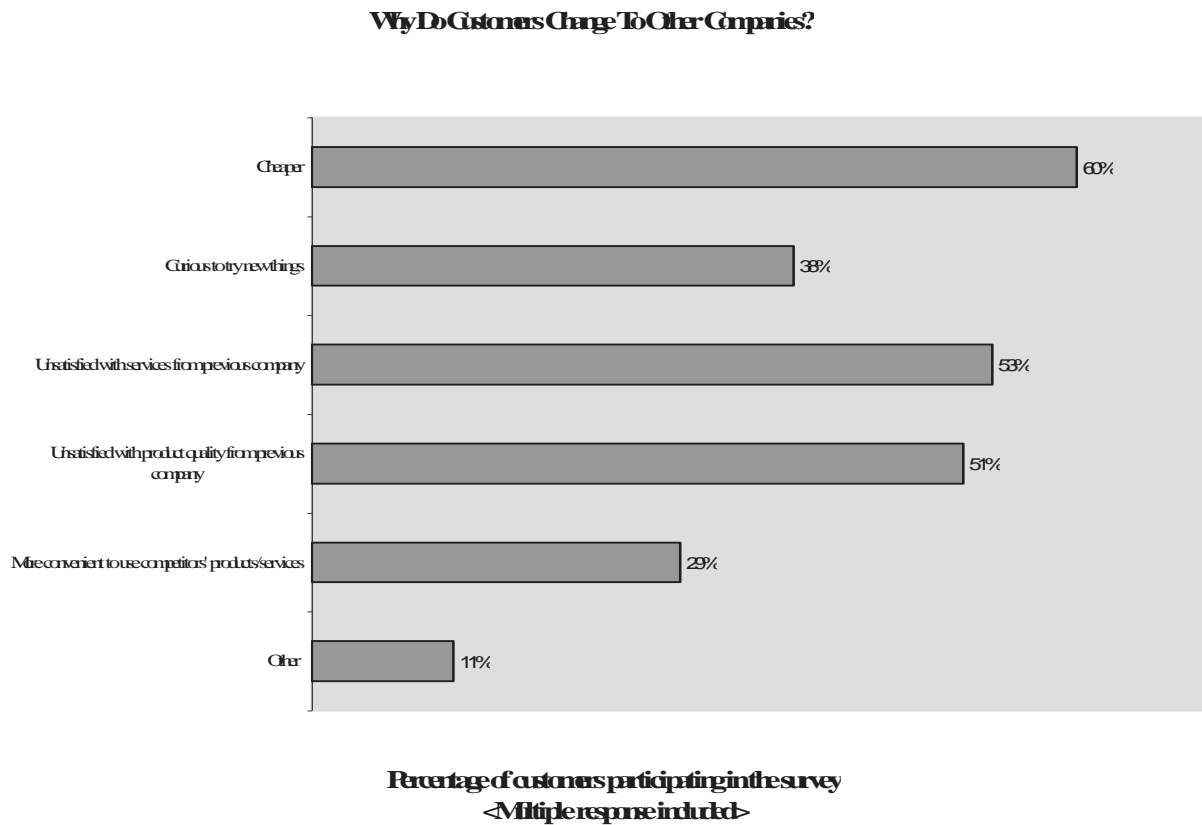
Figure 5.2.4 Reasons customers change to other companies.

Many companies, especially dot-com ones provide customers with online service as a major channel to communicate with them. 69% of participants agreed that as an alternative of service delivery channel, online service could attract them because it is more convenient, faster, cheaper and available all the times. Some of them commented that they used online service solely to find primary information on products/services. 31% of them still prefer to use products/services from stores. They will use online products/services only if they have no choice.

Concerning their experience with online services, 56% are satisfied. 22% feel indifferent. 13% admitted that they are very satisfied while 9% are dissatisfied.

5.2.2 Customer Analysis

- *Quality of products and services are major concern*

All sorts of business sectors these days are highly competitive. Companies have launched many marketing plans in various forms such as price cuts, promotions, or even give-aways in order to gain more market share and increase sales. For customers, increased competition in the markets mean better quality of products/services with reasonable prices. Customers have become the real group of people who can benefit from such competitions. Previously, good quality products/services at a reasonable price were rather rare. Customers did not have many choices and had to go to certain companies even though they were not satisfied with the products/services provided. Fortunately, such situations have been changed drastically. Since more choices with low price are now everywhere, customers can focus more on the quality of products/services. The have used the quality of products/services as their major criteria. Bad quality of products/services is now unacceptable and customers no longer stand it. Furthermore, they are less price-sensitive than before mainly because they are aware that many companies have usually tried to put the price down in order to attract more customers. With many channels provided to give them information of products/services, customers can easily change from one company to another. Through the Internet, such changing has become even easier and faster.

Obviously, customers now have power to negotiate for better quality of products/services. More significantly, they gradually realise their buying power. Vendors and service providers need to be aware of this power rapidly. Concurrently, the improvement of quality of products and services in conjunction with reasonable price is what they have to consider seriously. Otherwise, they may have some difficulties to compete in the market.

- *Online service is a powerful alternative of service delivery channels*

It is indisputable that online service has provided chances for customers and companies to communicate each other more efficiently and faster. Many companies have realised the advantages online service provides. Therefore, they have added services online as an alternative to reach customers in wider market and keep themselves competitive. The core advantages of online service for customers include more convenience to receive information of products/services and get in touch with companies, and more opportunities to choose any products/services. Online service is suitable particularly for customers who want to look for information on products/services to help them make buying decisions, who have less time to go buy products/services themselves, who prioritise convenience as the most important factor, who are price-sensitive, and/or who cannot find products/services they want from their local stores.

Even though online service offers many benefits to customers, interestingly, many customers still prefer to use other service delivery channels specifically shops/companies and telephone. This is because many customers are concerned about the security system to buy products/services online. In addition, many of them prefer to see and try actual products/services directly before they make decision to buy. Some of them consider actual interactions between them and vendors or service providers as a social habit, which they still want to experience and reserve.

Online service as a powerful service delivery channel has played important role in market competitions. Companies, which provide online services as an option, can gain competitive advantages over their competitors. In contrast, companies providing merely online service have eliminated their chances to reach customers in broader market.

- *Online service substantially impacts customers' loyalty*

In spite of the fact that many companies try to establish customer loyalty by providing better services through more service delivery channels especially online, they have provided better and faster chances to customers to go for other companies as well. Relevant information of products/services such as quality, price and availability can be found quickly and reliably through the Internet. Therefore, customers can use the Internet as a tool to get information in

order to help them decide which products/services are worth their money and time. Subsequently, they may end up purchasing competitors' products/services through the telephone or at competitors' shops directly.

In general, customers are satisfied with services provided online since they can easily and quickly find and then choose products/services they are interested in. Simultaneously, they are aware that if there is any wrong with such products/services, they can easily contact companies in order to take further action about these products/services. If they experience any bad service from a company only one time, even though they have received excellent services before, customers are willing change to other companies who give them better offer.

Customers who are less price-sensitive prefer to use products/services from the same companies as long as the quality of products reaches their satisfaction level and they receive good service. They tend to be more loyal than customers who prioritise best price-quality ratio are. The second group of customers uses online services only as a tool to find a good quality product at a reasonable price without caring who is the provider. They are ready to change to other companies whenever they can find better option. No real loyalty exists between them and product vendors or service providers.

CHAPTER 6: CONCLUSION

The research of eCRM system as an evolution in customer services during the dissertation period allowed the researcher to gain an insight into eCRM systems, achieve most of research objectives, and make the following conclusions concerning eCRM systems.

6.1 Point to watch

Even though eCRM systems are relatively new, the eCRM market has become more and more dynamic. Today, there is no standard definition for eCRM systems but they are commonly viewed as the combination between customer services and the Internet/World Wide Web. The comprehensive picture of a system varies according to different vendors. However, they all share the same direction, the Internet related path. This new buzzword, eCRM, has become more accepted as more companies have implemented the system and obtained expected benefits. However, in the nature of new technology concept, eCRM still has to go through different stages before it will become stabilised. Concurrently, there are some issues to be considered

6.1.1 The complete eCRM suite is yet to come

As eCRM technologies remain in the process of evolving and developing, no vendor can really offer a complete eCRM system, even though many of them claim they can. Any dot-com or brick-and-mortar companies planning to implement such a system should study the possibility of eCRM implementation carefully. If possible, they should wait until 2001 when complete eCRM suites will become available. At present, eCRM systems consist of different functionalities that can be implemented and work separately according to specific requirements from companies. The integration of different eCRM functionalities from different vendors is technically and theoretically possible but technical issues still exist.

Regarding the eCRM market, any vendor who can introduce a complete eCRM suite first will certainly enjoy substantial profits and simultaneously gain competitive advantages over others. However, such success may not last long because other vendors are developing complete systems as well. Consequently, the competition in eCRM market will be more and more intense. Acquisitions and partnerships will possibly play a pivotal role in this issue.

6.1.2   eCRM implementation is a must

Any companies that either have their presence online or do online business will sooner or later consider eCRM implementation if they want to be able to compete in the cutthroat market. ECRM implementation can enable them to integrate their existing service delivery channels with additional online services. As a result, all channels can work synchronously. This can lead to better satisfaction for customers and result in their repeated purchase of products/services.

Online service has gradually gained positive reputation because of the advantages that other existing channels cannot offer. The immediate interaction, the convenience and the global availability at all hours can lead to more effective communications between companies and their customers at a lower cost.

Currently, many companies may consider that eCRM is not the immediate requirement for them but it surely will be tomorrow. Right now, it is actually time for them to seriously determine their business directions and requirements and synchronously consider the utilisation of eCRM concept and system in order to achieve corporate goals.

6.1.3   Organisational culture is a big issue

eCRM tends to be interpreted only as technology that help companies improve customer satisfaction, retain their loyalty and at the same time gain competitive advantages over their competitors. However, organisations need to realise that only eCRM system as the necessary technology cannot lead to the success of the entire eCRM process. The good business practices in forms of strategies and the organisational culture are the influential issues they have to consider.

Concerning strategic issue, the methods for building, managing and maintaining good relationships with customers still depend mainly on human visions and decisions. Strategy planners and decision-makers need to pro-actively scrutinise eCRM systems and subsequently set strategies that can make best use of the system. Without well-planned strategies, eCRM technology may not be able to deliver services in the satisfaction level.

Above all, the success of eCRM is not encompassed merely by technology or strategies companies use. The most crucial issue companies have to seriously take into account is their own organisational culture. Practically, The change or modification of a system can be done faster and simpler than that of the organisational culture because the organisational culture affects the whole organisation, from operation to top executive levels. The fundamental concept of CRM is to integrate divisions, whose activities deal greatly with customers, together. When any organisation plans to implement eCRM, the organisational culture is a serious issue they cannot neglect.

Rather similar to Business Process Re-engineering (BPR), eCRM leads to the improvement of workflow, the elimination of repetitive but unproductive business processes and the increase of organisation productivity through relevant divisions. Moreover, eCRM technology can facilitate and simplify tasks for staff. It can make their responsibilities become more interesting and challenging. Consequently, their morale will be increased. To improve the collaboration from relevant divisions and reduce the resistance to the new system and business practice, such positive sides of eCRM should clearly be informed and clarified to staff as the success of eCRM implementation and exploitation lies on support from staff at every single level.

On the other hand, the advantage of eCRM systems in term of ease-of-use enables companies to train new employees to handle the system in a short period of time. Consequently, existing staff can be threatened by the feeling that their tasks can easily be replaced. Apart from that, eCRM requires individual staff to increase the performance and productivity. It also forces the staff to share their knowledge, both implicit and explicit, through the idea of knowledge base. This can threaten staff at all levels since their individual knowledge and capability have been set in the direction that cause them feel insecure. As their knowledge has to be shared and kept in the knowledge base, they are forced to improve their performance and increase their productivity while being slightly threatened by the notion of the ease of new replacement.

Interestingly, the concept of traditional CRM in the form of call centre may be positively considered as a way to employ more people and soften the unemployment problem. In contrast, the eCRM technology can be viewed as a way to make existing employees work

more productively. If not, they may be worried about losing their job since the eCRM technology allows only one staff to handle many customers at the same time.

6.1.4   Customers still need human touch anyhow

Through modern technologies, communications between vendors and their customers which once took place mostly in the form of face-to-face, can now happen anytime, any place and even without both parties' presence in the same place at the same time. Customers have been offered many different channels to contact companies of their choice, mainly based on their convenience and preference. The Internet technologies have provided companies with opportunities to automate the interactions with customers in more cost-and-time effective manner. Many dot-com and brick-and-mortar companies have provided online services and tried to persuade customers to get in touch with them through this channel in forms of the Internet, World Wide Web, and e-mail for example. These visual touches offer customers convenience and less expensive, but more efficient ways of communication. It is indisputable that online services can help companies reach customers in broader markets and allow them to provide their customers with a better online experience.

The industries where service is the core of the business include hotels, airline, transportation, etc. Online transactions and services are an effective alternative for service providers to offer their customers a more convenient way to interact. Online services have actually been used as a critical weapon to keep customers using their services.

However, companies need to be aware that the human is a gregarious animal. The face-to-face interaction provides them with chances to socialise with others. Customers themselves enjoy the feelings of shopping and interacting with real people. They still prefer to see, touch and try products/services in order to help them make decision to buy. Some customers prefer face-to-face interaction because such interactions with company staff allow them to judge how reliable and professional their products/services are. Many times, their decisions to choose each product/service are based on the face-to-face interaction. The human interactions as stated above can significantly affect many industries, particularly retailers, where the trial of products/services is highly important. As a result, companies should provide customers with a face-to-face service delivery as an alternative channel along with online services.

Companies, which already have their offices or shops, should realise the significance of this channel and improve the quality of human interactions with their customers. For companies without actual office, where customers can contact in person, this issue should be seriously taken into their consideration as well.

6.2 Future of eCRM

When an eCRM system is completely developed, implemented and exploited, it will certainly return benefits to eCRM vendors, companies implementing the system and customers.

Companies, either big or small, have attempted to increase their profits and market share while retain their position in the market through different methods. Recently, they have realised that customers are actually the centre of the business lifecycle. They are the actual key factor that can help all kinds of business gain benefits they have been struggling for. As a result, many companies have to reconsider how to manage relationships with their customers more effectively. The concept of customer management, in fact, has been exploited for sometime. This concept has now been interpreted in the form of the call centre. A call centre does not represent the entire CRM process. It is only a channel where companies provide services and manage their relationship with customers. Through the advent of advanced technology and the increasing popularity of the Internet, call centres have gradually been overshadowed by online services. The new era of customer management has shifted online in such forms as e-mail, online self-service, live chat, and even Voice over Internet Protocols. Potentially, the real-time interactions between customers and online CSRs will take place high-cost call centre and become norm. This will increase the convenience for customers to communicate with companies of their choice and possibly attract more customers to go online for products/services.

Apart from live chat and real-time online conversation, customers may possibly be able to interact with online CSRs and see real products/services through video cameras. For dot-com companies, to increase the human touch feeling for customers, this may be one solution. Unfortunately, they still cannot touch or try these products/services.

As long as the Internet is used in business and the telecommunication technologies are continuously improved, online customer service will remain a powerful service delivery channel. However, new channels of service delivery will still be developed and discovered. The recent technology in the form of WAP can reinforce the flow of information between companies and their customers to be transferred more rapidly, anytime and any place.

Furthermore, digital TV has gradually been widespread and may become another option for service delivery channel in the future.

Concerning eCRM market sector, each vendor is now engaged in strengthening and building its complete eCRM suite through the development, the acquisition and the partnership programme. This will open up the opportunities for IT consultancy companies such as IBM, Andersen Consulting, Cap Gemini, Pricewaterhouse Coopers and ICL to concentrate on the bigger revenue generation by providing their large corporate customers with services related to the eCRM implementation and the integration of existing CRM channels with different eCRM solutions from different vendors. The collaborations between eCRM vendors and these consultancy companies come in forms of partnership and affiliate programmes. Such opportunities in eCRM market are still abundant and will continue to increase.

6.3 Research

During the dissertation period, after reviewing many CRM and eCRM related articles from different business journals and magazines, and from the Internet, the researcher's comprehension about eCRM related questions stated in the research objectives in Chapter 1 had been considerably improved. Through the literature review methodology, the research objectives were achieved and the researcher gained an insight of the entire eCRM system.

Concerning the primary research, the researcher had contacted many companies as eCRM vendors, as companies which successfully implemented the eCRM system and as potential companies which might have implemented eCRM system. Due to the time constrains and the high competitions in today's business, the response rate from these companies was relatively low and the researcher could not completely accomplish the research objectives for this methodology. Even though some research objectives could be answered and used for further analysis, the analysis might not apply to the entire eCRM market sector. For the research objectives that the researcher could not achieve though the primary research, the secondary research had been used instead.

Furthermore, in order to complete the lifecycle of eCRM concept, the researcher added customers' view about online service as another research objective. This additional objective was fulfilled through the primary research. The main reason this objective could be achieved is because the response rate was reasonably high and data received was reliable. As a result, the researcher could use these data to answer and analyse the issue about customers' opinions.

Concerning the conduct of primary research, most companies the researcher contacted were located in USA and Europe. The interview with appropriate staff from these companies seemed impossible for the researcher. Actually, telephone was another option for the researcher to contact them. However, the cost of the phone was too high and the time difference was another major issue. These problems would have been lessened if eCRM had been more accepted and pervasive among British companies, especially dot-com. It is likely that in the near future, more British companies will implement eCRM system and their perception of this concept will be broader.

Furthermore, due to the researcher's misperception about the use of e-mail as the fast and reliable way to communicate with a large number of online companies, the researcher completely ignored the idea of direct mail. Many companies the researcher approached stated their preference to receive the survey form via post mail. However, the researcher neglected such demand because the researcher did not trust in the post mail delivery. This could be a real practical method to communicate with these online companies.

In addition, the design of survey could impact the response rate. The survey form that required a company to complete with long sentences proved to be impractical because a company officer might not have time to complete and simply ignore it. The semi-structured survey seemed to be practical because a person who filled out the form could select their preferred choices and provide some comments. However, the amount of questions within a survey form should not be too many.

Regarding eCRM as a research topic, eCRM is relatively new and the entire concept of eCRM system is not completely stabilised. The researcher experienced the fast changing information about application suites from the selected vendors and the ignorance of many CSRs from chosen online companies about the concept of online service. However, it is likely that in 2001, the eCRM market will become more stabilised while the eCRM concept itself will be more accepted. This is because many vendors will have started to launch their complete eCRM system at the end of 2000; simultaneously, the eCRM system will be widely used among online companies. As a result, anyone who wants to study or conduct a research about eCRM may find it slightly easier.

In addition, during conducting the survey the researcher noticed 2 interesting points that could be useful for further studies in this area. The first point is that small-medium-size dot-com companies are rather eager about the idea of online customer services. Further studies of how this group of companies can compete with large enterprises in terms of online customer services can prove to be challenging.

The second point is the eagerness and willingness to participate in the survey from large European corporations especially from Germany and Switzerland. It led to the researcher's perception that although eCRM system was more pervasive and well accepted in USA than in Europe, the real concept of customer-centric system has be better practised within European

companies. This also reflects that European companies, even though slower than American companies in terms of eCRM technology, tend to put effort to thoroughly understand the concept of this technology before seriously start to exploit it. The comparison of eCRM implementations within American and European companies and their success are worth studying.

As a new business direction, there remains many aspects of eCRM to explore. Further studies of eCRM can be conducted in directions of the studies of eCRM in specific industries or particular size of business, or the development of specific eCRM features that can improve personalised relationship with customers.

APPENDICES

APPENDIX A

Major Vendor Survey

The survey is designed to target merely major vendors providing online customer services or eCRM system within the market.

1) **The company name : _____**

2) **The company's growth in terms of size and revenue**

_____

_____

_____

3) **Type(s) of your customers' industry**

☐ Financial Services   ☐ Telecommunications

☐ Government   ☐ Travel

☐ Manufacturing   ☐ Airline

☐ Retail   ☐ Pharmaceuticals

☐ Energy   ☐ Health Care

☐ Chemicals   ☐ Communications

☐ High Technology   ☐ E-Business

☐ Other, please specify: _____

4) **What is eCRM in your business definition?**

_____

_____

5) **What is/are your eCRM application(s)/suite?**

_____

_____

_____

6) Which of the following functionality included in your eCRM suite? Please tick

Functionality	*Availability*
Administration Tools	
Business Rule Workflow	
Campaign Management	
Case Tracking & Escalation	
Collaborative Chat	
E-mail Response Management System	
Knowledge Base Management	
Logs And Tracks Inquiries	
Real-Time Personalisation	
Sales Automation	
Self-Service Management	
Universal Queuing	
Voice Over Internet Protocols	
Other, please specify	

7) The system architecture in terms of platform and databases used

Operating system(s) supported

- Client : _____

- Server : _____

Database(s) supported: _____

Open Architecture supported : _____

8) The future of your eCRM applications/suite

_____

_____

_____

Thank you very much for your precious time and co-operation

APPENDIX B

Case Study

The survey aims to study why companies choose to implement online customer service or eCRM system and how successful the system is, from companies in different industries that successfully implemented this system.

1) **Company name :** _____

2) **Type of industry :** _____

3) **Brief history of the company :**

   _____
   _____
   _____
   _____

4) **Why did your company decide to implement online customer service or eCRM system?**

   _____
   _____
   _____
   _____
   _____

5) **What eCRM applications/solutions did you implement?**

   _____
   _____
   _____
   _____
   _____

6) **How the eCRM system impacts your company?**

_____

_____

_____

_____

_____

7) **What are the key factors for the success of eCRM system in your industrial sector?**

_____

_____

_____

_____

_____

8) **What criteria do you use to measure the benefits of eCRM?**

_____

_____

_____

_____

_____

9) **What direction do you foresee in the eCRM system your company currently uses over the next five year?**

_____

_____

_____

_____

10) **Lessons learned**

_____

_____

_____

_____

11) Further comment

_____

_____

_____

_____

_____

_____

_____

Thank you very much for your precious time and co-operation

APPENDIX C

Company Survey

The survey aims to study how successful the implementation of online customer services/eCRM system is and how satisfied a company is with the implementation of the system.

1) Company name : _____

2) Type of business : _____

3) Size of company in terms of revenue :

    ☐ £ 1-10 M   ☐ £ 11-50 M

    ☐ £ 51-100 M   ☐ £ 100 + M

4) What is/are your current service delivery channel(s)?

    ☐ Phone   ☐ Direct mail   ☐ Office

    ☐ Call Centre   ☐ E-mail/Internet   ☐ Toll-free

    ☐ Voice mail   ☐ WAP

    ☐ Others. Please specify: _____

5) Has your company implemented online customer services/eCRM system?

   Yes/No

   If yes, please go to question 8. If not, please go to question 6.

6) Does your company intend to implement eCRM system?

   Yes/No

7) At what stage are your plans :

   ☐ General study of the eCRM system   ☐ Setting of business objectives

   ☐ Vendor selection   ☐ Contracting

8) At what stage of implementation are you:

   ☐ Complete   ☐ ¾ of the completion

□ Half way   □ Beginning of the implementation

9) How long do you expect the implementation to take? _____

10) Which of the following factors influenced your decision to implement online customer services project?

   □ Increase sales   □ Increase market share within industry

   □ Improve customer satisfaction   □ Increase service delivery channel

   □ Follow technology trend   □ Follow market trend

   □ Improve work processes within the organisation

   □ Gain competitive advantage over competitors

   □ Catch up with competitors

   □ Others, please specify: _____

11) Which vendor did you/are you going to choose?

   _____

12) What products/services/solution did you choose?

   _____

   _____

13) How would you rate the overall implementation of online customer services/ eCRM system in terms of following criteria? Please score from 1 - 5.

(Scoring: *1= Unacceptable; 2= Poor, 3=Average; 4=Good; 5=Excellent*)

Criteria	**Score**
Implementation	
Implementation period	
Ease of implementation	
System	
Ease of use	
Compatibility with existing systems and databases	
System functionality	

Benefits	
More efficient service delivery in the faster manner	
Reduced operating costs	
More effective collaboration across different business sections	
Obviously improved ROI	
Overall Implementation	

14) Any problem encountered during the implementation :

_____

_____

_____

_____

_____

15) What is the most crucial factor of the success/failure of the implementation?

☐ Implemented technology   ☐ Organisational culture

☐ Applied strategy   ☐ Other, please specify: _____

16) Further comment on the implementation of eCRM system :

_____

_____

_____

_____

_____

Thank you very much for your precious time and co-operation

APPENDIX D

Customer Survey

The questionnaire is designed to survey how online customer services can impact buying habits of customers.

1) Why do you buy/use products and services from the same company?

   ☐ Convenience ☐ Cheaper than others

   ☐ Quality of products/services ☐ Quality of post -sales services provided

   ☐ Member programme ☐ Brand

   ☐ Other, please specify _____

2) What is/are your preferred channel(s) to contact companies or service providers?

   ☐ Phone ☐ Direct mail

   ☐ Go to that shop/company directly ☐ Call Centre

   ☐ E-mail/Internet ☐ Toll-free

   ☐ Voice mail ☐ WAP

   ☐ Others. Please specify: _____

3) Have you ever bought or used online products and/or services?

   Yes/No

   If your answer is "No", please go to question 4.

   If your answer is "Yes", please go question 5.

4) Would you consider using online customer services in the future?

   Yes/No

   Why?

   _____

   _____

   _____

   _____

5) What are the reasons you choose to buy/use online products and services?

☐ Easy to access   ☐ Faster respond than other channels

☐ Only way to contact the company   ☐ Cheap

☐ Always available   ☐ Curious to know what online service is

☐ Other. Please specify _____

6) Do online services keep you buy/use more products/services from the same company?

Yes/No

Why?

_____

_____

_____

_____

7) What makes you change to use products/services from other companies?

☐ Cheaper

☐ Curious to try new products/services even though satisfied with the current company

☐ Unsatisfied with services from previous company

☐ Unsatisfied with product quality from previous company

☐ Other companies provide online products/services which are more convenient to buy/use

☐ Other, please specify _____

8) Compared with other service delivery channels (i.e. phone, mail, WAP) you have used, how would you rate online services you have experienced?

☐ Very satisfied   ☐ Satisfied

☐ Indifferent   ☐ Dissatisfied

☐ Very dissatisfied

9) Is it true that if any companies offer online service as an alternative to communicate with them, you tend to go online to buy/use their products/services?

Yes/No

Why?

_____

_____

_____

_____

Thank you very much for your precious time and co-operation

REFERENCES

1. *Four elements of Customer Relationship Management*. Cap Gemini. p.3 Available: URL http://www.crm-forum.com/crm_forum_white_papers/4ecrm/ppr.htm

2. http://forum.crm-forum.com/~CRM-Forum

3. *The CRM Phenomenon.* Magic Software Enterprises Ltd. 2000. p.7-8 Available : URL http://www.crm-forum.com/crm_vp/pnmn/ppr.htm

4. *The Power of eCRM: A Primer on the Five Engines of eCRM.* Microstrategy Incorporated. p.3 Available : URL www.microstrategy.com/Publications/WhitePapers/ecrm/overview.htm

5. *ibid.,* p.3

6. *ibid.,* p.4-10

7. Frawley, Andy. *Evolving to eCRM: How to optimise interactive relationships between you and your customers.* Xchange Inc. p.12 Available : URL http://www.xchangeinc.com/tools/whitepapers.asp

8. *Critical Steps to Successful Customer Relationship Management.* Staffware eCRM, Inc. 2000. p.3 Available : URL http://www.crm-forum.com/crm_forum_white_papers/cssc/ppr.htm

9. *e-Everything: Technology Enabled Customer Relationship Management.* Web Associates, Inc. 1999,2000. Available : URL http://webassociates.com/eCRMwhitepaper.PDF

10. Frawley, Andy. *op.cit.,* p.7

11. Gupta, Vivek R. *An Introduction to Data Warehousing.* System Services Corporation, Chicago, Illinois. August, 1997. Available: URL http://system-services.com/dwintro.asp

12. *The Four Challenges of Customer-Centric Data Warehousing.* Carleton Corporation. MN. USA. 2000. p.10-12 Available : URL www.crm-orum.com/crm_forum_white_papers/4dw/ppr.htm

13. Groth, Robert. *Data Mining: A hands-on approach for business professionals.* Upper Saddle River, N.J : Prentice Hall PTR c1998. p.1-3

14. Meltzer, Michael. *E-Mining Myth & Magic: Using Data Mining Successfully.* 2000. p.9-11 Available : URL www.crm-forum.com/crm_forum_white_papers/emmm/ppr.htm

15. Ando, Karen., Clemena, Lilian., Robbins, Michael., and Strebeck, Jennifer. *An Examination of the Role of Clickstream Data in Marketing through the Internet.* May 12, 1997 Available : URL www.ftc.gov/bcp/privacy/wkshp97/comments2/johnson0.htm

16. Software Engineering Institute, Carnegie Mellon University. Client/Server Software Architectures--An Overview. *Software Technology Review.* 1997. Available : URL http://www.sei.cmu.edu/str/descriptions/clientserver_body.html

17. http://www.whatis.com/

18. Software Engineering Institute, Carnegie Mellon University. *op.cit.*

19. http://www.amrresearch.com/press/files/99929.asp

20. *Computer business review*. CRM-eCRM: The next level. New dimensions in customer relationship management. March, 2000. p.34

21. Fluss, D. *The Harsh Reality of E-Service Suites.* Gartner Group, Inc. 10 March, 2000. Available : URL http://www.gartnerweb.com/public/axl/reprints/quintus/00087069.html

22. http://www.kana.com/press/analyst.html

23. *ibid.*

24. http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=KANA&script=410&layout=-6&item_id=107499

25. http://www.kana.com/kanalinks/silknetframe.asp?maindoc=newsevents/q200financialspr.asp

26. http://www.broadvision.com/OneToOne/SessionMgr/about_us/factsheet.jsp?BV_SessionID=NNNN1885839590.0967569911NNNN&BV_EngineID=falijhigkkibfdmckgcfhhclf.0

27. http://www.siebel.com/news-events/pr_re.html

28. Fluss, D. *op.cit.*

29. http://www.quintus.com/rela/stories/0005018_mustang.html

30. Fluss, D. *op.cit.*

31. http://www.epiphany.com/news/2000press/2000_05_31.html

32. http://www.epiphany.com/news/2000press/2000_07_19.html

33. http://www.egain.com/pages/Level2.asp?sectionID=6&pageID=719

34. http://www.egain.com/pages/Level2.asp?SectionID=4&PageID=4

35. http://www.egain.com/pages/Level2.asp?sectionID=6&pageID=719 *op.cit*

36. http://www.mediametrix.com/data/thetop.jsp

37. http://pages.ebay.com/community/aboutebay/overview/index.html

38. http://www.kana.com/customers/case_studies/ebay/index.html

39. *ibid.*

40. http://www.macromedia.com/software/flash/survey/

41. http://www.macromedia.com/macromedia/

42. http://www.macromedia.com/software/flash/survey/whitepaper/

43. http://www.broadvision.com/OneToOne/SessionMgr/customers/customers.jsp?BV_Sessi onID=NNNN0753877580.0965987725NNNN&BV_EngineID=haligjjfijkbfdmckgcfhhclf .0&Industry=All

44. http://www.smartmoney.com/si/brokers/online/index.cfm?story=stack

45. http://www.time.com/time/digital/reports/daytrading/bazzar3.html

46. www.businessweek.com/common_frames/bws.htm?http://www.businessweek.com/2000/ 00_21/b3682009.htm

47. www.suretrade.com/Homepage/VISframe.html?info=/pg/pr.html&menu=Learn&ref=spla shpage

48. http://www.egain.com/pages/Level2.asp?SectionID=4&PageID=554

Bibliography

Ando, Karen., Clemena, Lilian., Robbins, Michael., and Strebeck, Jennifer. *An Examination of the Role of Clickstream Data in Marketing through the Internet.* May 12, 1997 Available : URL www.ftc.gov/bcp/privacy/wkshp97/comments2/johnson0.htm

Caufield, Simon. *Does Customer Relationship Management Really Pay?* Mitchell Madison Group. Available : URL www.crm-forum.com/crm_forum_white_papers/dpay/ppr.htm

Competitive Brief : Silknet and the new eRM technology. Datamonitor Plc., London. November, 1999. Available : URL http://www.silknet.com/resource/DATAMON0200WP.ASP

Computer business review. CRM-eCRM: The next level. New dimensions in customer relationship management. March, 2000.

Critical Steps to Successful Customer Relationship Management. Staffware eCRM, Inc. 2000. Available : URL http://www.crm-forum.com/crm_forum_white_papers/cssc/ppr.htm

CRM Overview. Information Technology Toolbox, Inc. 1999. Available : URL http://www.ittoolbox.com/help/crmoverview.asp

Edelstein, Herb. Building profitable customer relationships with data mining. *Executive Briefing*. SPSS. Inc. 2000. Available : URL http://www.spss.com/registration/index.cfm?CFID=111492&CFTOKEN=89687660&WP_ID=60

e-Everything: Technology Enabled Customer Relationship Management. Web Associates, Inc. 1999,2000. Available : URL http://webassociates.com/eCRMwhitepaper.PDF

Fluss, D. *The Harsh Reality of E-Service Suites.* Gartner Group, Inc. 10 March, 2000. Available : URL http://www.gartnerweb.com/public/axl/reprints/quintus/00087069.html

Four elements of Customer Relationship Management. Cap Gemini. 1999. Available: URL http://www.crm-forum.com/crm_forum_white_papers/4ecrm/ppr.htm

Frawley, Andy. *Evolving to eCRM: How to optimise interactive relationships between you and your customers.* Xchange Inc. Available : URL http://www.xchangeinc.com/tools/whitepapers.asp

Gormley, J. Thomas III., Dolberg, Stan., Cole, Stephen J., Chun, Hayle., and Gatoff, Jason. The Demise Of CRM. *The Forrester Report.* Forrester Research, Inc. June, 1999. Available : URL http://www.forrester.com/ER/Research/Report/Excerpt/0,1338,7473,FF.html

Gormley, J. Thomas, III, and Woodring, Stuart D., and Gatoff, Jason, and Chun Hayle. Web-Centric Customer Service. *The Forrest Report: Quick View*. Forrester. 1999. Available : URL http://www.forrester.com/ER/Research/Report/0,1338,5675,FF.html

Groth, Robert. *Data Mining: A hands-on approach for business professionals.* Upper Saddle River, N.J : Prentice Hall PTR c1998.

Gupta, Vivek R. *An Introduction to Data Warehousing.* System Services Corporation, Chicago, Illinois. August, 1997. Available: URL http://system-services.com/dwintro.asp

http://forum.crm-forum.com/~CRM-Forum

http://pages.ebay.com/community/aboutebay/overview/index.html

http://www.amrresearch.com/press/files/99929.asp

http://www.broadvision.com/OneToOne/SessionMgr/about_us/factsheet.jsp?BV_SessionID=NNNN1885839590.0967569911NNNN&BV_EngineID=falijhigkkibfdmckgcfhhclf.0

http://www.broadvision.com/OneToOne/SessionMgr/customers/customers.jsp?BV_SessionID=NNNN0753877580.0965987725NNNN&BV_EngineID=haligjjfijkbfdmckgcfhhclf.0&Industry=All

http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=KANA&script=410&layout=-6&item_id=107499

http://www.egain.com/pages/Level2.asp?SectionID=4&PageID=4

http://www.egain.com/pages/Level2.asp?SectionID=4&PageID=554

http://www.egain.com/pages/Level2.asp?sectionID=6&pageID=719

http://www.epiphany.com/news/2000press/2000_05_31.html

http://www.epiphany.com/news/2000press/2000_07_19.html

http://www.kana.com/customers/case_studies/ebay/index.html

http://www.kana.com/kanalinks/silknetframe.asp?maindoc=newsevents/q200financialspr.asp

http://www.kana.com/press/analyst.html

http://www.macromedia.com/macromedia/

http://www.macromedia.com/software/flash/survey/

http://www.macromedia.com/software/flash/survey/whitepaper/

http://www.mediametrix.com/data/thetop.jsp

http://www.quintus.com/rela/stories/0005018_mustang.html

http://www.siebel.com/news-events/pr_re.html

http://www.smartmoney.com/si/brokers/online/index.cfm?story=stack

http://www.time.com/time/digital/reports/daytrading/bazzar3.html

http://www.whatis.com/

Khera, Mandeep. *Customer Relationship Management. – Beyond the "buzz".* IT Toolbox Portal. Available : URL http://crm.ittoolbox.com/peer/docs/ucms_contributed_article.htm

Meltzer, Michael. *E-Mining Myth & Magic: Using Data Mining Successfully.* 2000. Available : URL http://www.crm-forum.com/crm_forum_white_papers/emmm/ppr.htm

Nash, John and Lorack, Stephen. *E-business Strategies are changing the marketplace.* Andersen Consulting. 2000. Available : URL http://www.crm-forum.com/crm_forum_white_papers/ebiz/ppr.htm

Parke, J. Shepard. *Realizing the Potential of Web-enabled ERM – Enterprise Relationship Management and the Extraprise*. Andersen Consulting. 2000. Available : URL http://www.crm-forum.com/crm_forum_white_papers/weberm/ppr.htm

Sambasivan TN. *CRM for Dummies*. IT Toolbox Portal. 2000. Available : URL http://www.crmassist.com/peer/docs/crm_dummies.asp

Sir Heygate, Richard. *Harnessing Technology to win Customer Loyalty*. 1998. Available : URL http://www.crm-forum.com/crm_forum_white_papers/htcl/sld01.htm

Software Engineering Institute, Carnegie Mellon University. Client/Server Software Architectures--An Overview. *Software Technology Review.* 1997. Available : URL http://www.sei.cmu.edu/str/descriptions/clientserver_body.html

The CRM Phenomenon. Magic Software Enterprises Ltd. 2000. Available : URL http://www.crm-forum.com/crm_vp/pnmn/ppr.htm

The Four Challenges of Customer-Centric Data Warehousing. Carleton Corporation. MN. USA. 2000. Available : URL www.crm-orum.com/crm_forum_white_papers/4dw/ppr.htm

The Power of eCRM: A Primer on the Five Engines of eCRM. Microstrategy, Incorporated. Available : URL www.microstrategy.com/Publications/WhitePapers/ecrm/overview.htm

The Role of the OLAP Server in a Data Warehousing Solution. Hyperion Solutions Corporation. Available : URL http://www.hyperion.com/whitepaperreq.cfm

www.amrresearch.com

www.applix.com

www.brint.com

www.broadvision.com

www.businessweek.com/common_frames/bws.htm?http://www.businessweek.com/2000/00_21/b3682009.htm

www.crmassist.com

www.crmcommunity.com

www.crm-forum.com

www.crmguru.com

www.dwinfocenter.org

www.egain.com

www.epiphany.com

www.forrester.com

www.ittoolbox.com

www.kana.com

www.quintus.com

www.siebel.com

www.suretrade.com/Homepage/VISframe.html?info=/pg/pr.html&menu=Learn&ref=splashp
age

www.tbcresearch.com