FUNCTIONAL REQUIREMENTS OF eCRM SOLUTIONS FOR THE SOUTH AFRICAN SME SECTOR

by

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- The Music … for pulling me through
Summary

The issue of Customer Relationship Management (CRM) within organisations has gained importance over the last five years, and the trend is set to continue with new CRM software vendors entering the market regularly. For a business, it is cheaper to retain existing customers than to acquire new ones, therefore increased customer loyalty and interaction is important. The value that electronic CRM (eCRM) allows is that it increases customer interaction, by eliminating physical intervention and subsequent errors. The Internet has allowed this interaction to become more sophisticated, with service information instantly available to both the customer and the business. The number of channels for interaction has also increased.

Specifically, small and medium enterprises (SMEs) need low cost eCRM solutions that adapt to their business models and IT structures. The South African SME is limited by certain budgeting, resource and time constraints, and the owner of the SME cannot always devote time in search of a suitable eCRM solution for his business. The multitudes of vendors, offering various levels of functionality with increased focus on the SME sector, allow the SME many choices. However, companies selecting eCRM software vendors often lack an objective basis due to a lack of alternative information sources. Vendors making unsubstantiated and incorrect claims about the functionality of their software, further complicate the problem.
From an SME point of view, the functionality and cost criteria of the eCRM solution is the most important. However, the minimum functionality criteria that vendors’ software packages must adhere to, in order to be considered an eCRM suite are: Customer Analysis; Marketing Automation; Sales Automation; Customer Service and Support; and Web-centricity.

The research problem lies therein that South African SME owners or managers are unsure which functionalities are available, and which to deem important when considering eCRM solutions for their businesses. The objective of this study is to formulate a matrix of functionality that eCRM solutions must adhere to in order to be successfully implemented by the SME. This matrix is not prescriptive, but will guide SME management by identifying criteria and functionality that the solution needs to contain. The aim is to help SMEs select the right software, not to select the software for them.
Funksionele Vereistes van eKVB Sagteware vir die Suid-Afrikaanse Klein- tot Medium Sakesektor

Opsomming

Die onderwerp van Kliënt-Verhoudingsbestuur (KVB) binne organisasies het binne die laaste vyf jaar in belangrikheid toegeneem, en die neiging sal voortduur soos die bemarkers van nuwe KVB sagteware die mark betree. Vir ‘n besigheid is dit goedkoper om sy huidige klante te behou as om nuwe klante te verkry. Dus is verhoogde klantelojaliteit en -interaksie belangrik. Die waarde wat elektroniese KVB (eKVB) na vore bring, is dat dit interaksie met klante verhoog deur fisiese intervensie en foute uit te skakel. Die Internet het meegebring dat hierdie interaksie meer gesofistikeerd geword het, met diens-informasie onmiddelik beskikbaar aan beide die klant en die besigheid. Die getal kanale vir interaksie het ook verhoog.

Klein- en mediumgrootte ondernemings (KMOs) benodig spesifiek lae koste eKVB sagteware wat by die onderneming se besigheidsmodel en IT-struktuur aanpas. Die Suid-Afrikaanse KMO word deur begrotings-, hulpbron- en tydsbeperkings aan bande gelê, en die eienaar van die KMO kan nie altyd tyd belê in die soeke na ‘n gepaste eKVB stelsel vir sy besigheid nie. Die getal bemarkers van eKVB sagteware, wat met verskillende grade funksionaliteit al hoe meer op die KMO-sektor fokus, verskaf aan die KMO-eienaar vele keuses. Maatskappye wat op soek is na eKVB bemarkers, kort egter eendersyds ‘n objektiewe basis, as gevolg van ‘n gebrek aan alternatiewe inligingsbronne. Andersyds maak eKVB bemarkers ongegronde en verkeerde aannames oor die funksionaliteit van hul sagtewarepakke, wat die probleem verder kompliseer.
Vanuit die oogpunt van die KMO is funksionaliteits- en kostekriteria van eKVB sagteware die belangrikste. Die minimum funksionaliteits-kriteria wat sulke sagteware aan moet voldoen om as 'n eKVB sagtewarepakket geklassifiseer te word is: Klante-analise; Bemarkingsautomatisasie; Verkoopsautomatisasie; Klantediens en Ondersteuning; en Internet-funksionaliteit.

Die navorsingsprobleem lê daarin dat Suid-Afrikaanse KMO-bestuurders en eienaars meestal onseker is oor die beskikbaarheid en belangrikheid van funksionaliteit wanneer eKVB sagteware pakkette vir hul besighede geëvalueer word. Die doel van hierdie studie is om 'n matriks saam te stel van funksionaliteit waaraan eKVB pakkette moet voldoen om suksesvolle implementasie deur KMOs te verseker. Hierdie matriks is nie voorskrywend nie maar beoog om KMO-bestuur te lei deur kriteria en funksionaliteite te identifiseer wat die sagteware moet bevat. Die doel is om KMO-bestuur te help om die sagteware te kies, en nie om die sagteware vir hulle te kies nie.
# Table Of Contents

Summary ........................................................................................................................................ iii

Opsomming ................................................................................................................................... v

Table Of Contents .................................................................................................................. vii

Table Of Figures ................................................................................................................... xi

Chapter 1: Introduction ............................................................................................................. 1
  1.1 INTRODUCTION .................................................................................................................. 1
  1.2 THE INTERNET ................................................................................................................ 3
  1.3 SMALL AND MEDIUM BUSINESS ............................................................................... 4
  1.4 PROBLEM STATEMENT .................................................................................................. 5
  1.5 OBJECTIVES OF THIS RESEARCH ............................................................................. 6
  1.6 RESEARCH METHODOLOGY ...................................................................................... 6
  1.7 RESTRICTIONS OF THIS STUDY .................................................................................. 7
  1.8 ROADMAP TO THIS STUDY .......................................................................................... 7
    1.8.1 Chapter 1: Introductory Chapter ............................................................................. 7
    1.8.2 Chapter 2: Defining the SME ............................................................................... 9
    1.8.3 Chapter 3: Customer Relationship Management .................................................. 9
    1.8.4 Chapter 4: Electronic Customer Relationship Management .................................. 9
    1.8.5 Chapter 5: South African SMEs and eCRM ........................................................... 10
    1.8.6 Chapter 6: Current eCRM packages ..................................................................... 10
    1.8.7 Chapter 7: The eCRM solution matrix ................................................................. 11
    1.8.8 Chapter 8: Research summary ............................................................................. 11
    1.8.9 Appendices ........................................................................................................... 11

Chapter 2: Overview of SA SMEs .......................................................................................... 12
  2.1 PREAMBLE .................................................................................................................. 12
  2.2 INTRODUCTION ............................................................................................................ 13
  2.3 SEGMENTING THE SMALL BUSINESS ECONOMY ................................................. 14
  2.4 DEFINITION OF A SME ............................................................................................ 15
  2.5 IMPORTANCE OF THE SME SECTOR IN SOUTH AFRICA .................................... 16
  2.6 SME CONSTRAINTS .................................................................................................... 17
  2.7 SUMMARY ................................................................................................................... 18

Chapter 3: Overview of CRM ................................................................................................. 19
  3.1 PREAMBLE .................................................................................................................. 19
  3.2 INTRODUCTION ............................................................................................................ 20
  3.3 DEVELOPMENT OF CUSTOMER RELATIONSHIP MANAGEMENT ....................... 20
  3.4 DEFINING CUSTOMER RELATIONSHIP MANAGEMENT (CRM) ............................ 22
    3.4.1 A Customer-Centric Business Philosophy ......................................................... 24
    3.4.2 CRM Starts with a Business Strategy ................................................................. 25
    3.4.3 Profitable Long-Term Relationships .................................................................. 26
    3.4.4 Mutual Value Creation, Sharing During the Customer Life-Cycle ......................... 29
Chapter 4: Overview of eCRM

4.1 PREAMBLE .............................................................................................................. 41
4.2 INTRODUCTION ....................................................................................................... 42
4.3 DEVELOPMENT OF ELECTRONIC CRM .............................................................. 42
4.4 DEFINITION OF ELECTRONIC CRM ..................................................................... 43
4.4.1 CRM and the Internet are Related Issues ......................................................... 44
4.4.2 Synchronising Relationships across Channels .................................................. 46
4.4.3 Managing Personal, Relevant and Productive Interactions ............................... 47
4.4.4 Retaining Customers through Increased Satisfaction and Loyalty .................. 47
4.4.5 Definition Summary ......................................................................................... 48
4.5 IMPORTANCE OF eCRM ....................................................................................... 49
4.5.1 Customer Satisfaction ....................................................................................... 49
4.5.2 Reduced Costs, Increased Revenues ................................................................. 50
4.6 CUSTOMER INTERACTION IN eCRM .................................................................... 51
4.6.1 E-Commerce Sell-Side Platforms .................................................................... 51
4.6.2 eCRM Communication Infrastructure ............................................................... 52
4.6.3 eCRM Applications .......................................................................................... 52
4.7 COMPONENTS OF eCRM ...................................................................................... 53
4.8 THE CUSTOMER RELATIONSHIP PATH ............................................................... 54
4.8.1 The Customer Sales Path .................................................................................. 55
4.8.2 The Customer Relationship Path ..................................................................... 57
4.9 eCRM TECHNOLOGY ............................................................................................. 60
4.9.1 Presentation Tier .............................................................................................. 61
4.9.2 Business Logic Tier .......................................................................................... 62
4.9.3 Data Tier ............................................................................................................ 62
4.9.4 Security ............................................................................................................ 62
4.10 SUMMARY ............................................................................................................. 63

Chapter 5: SMEs AND eCRM

5.1 PREAMBLE .............................................................................................................. 65
5.2 INTRODUCTION ....................................................................................................... 66
5.3 NEED FOR CRM in SMEs ..................................................................................... 66
5.4 THE SME AND INFORMATION TECHNOLOGY .................................................... 67
5.4.1 Phase 1: Kick-Off - Week 1 .............................................................................. 69
Table Of Figures

Figure 1.1: Roadmap to this Study ........................................................................................................8
Figure 2.1: SME Definition Criteria ..................................................................................................16
Figure 3.1: The CRM Pyramid ...........................................................................................................25
Figure 3.2: Relationship Domains Involved in an Organisation .........................................................27
Figure 3.3: The CRM Solutions Map ...............................................................................................31
Figure 3.4: IT Factors in CRM .........................................................................................................34
Figure 3.5: The CRM Ecosystem ......................................................................................................36
Figure 4.1: eCRM Through the Customer Lifecycle ..........................................................................54
Figure 4.2: The Customer Sales Path ...............................................................................................55
Figure 4.3: The Customer Relationship Path ....................................................................................58
Figure 4.4: eCRM System Architecture ...........................................................................................61
Figure 5.1: SME IT Strategy .............................................................................................................69
Figure 5.2: CRM for the SME ............................................................................................................74
Figure 6.1: Major CRM and eCRM Vendors and Categories ...............................................................93
Figure 6.2: Gartner’s Key SME Functional Requirements for eCRM .................................................94
Figure 6.3: Overall Application Selection Criteria Weightings ........................................................96
Figure 6.4: eCRM Vendors Targeting the Medium-Sized Market .....................................................102
Figure 6.5: Summary of eCRM Functionality .....................................................................................107
Figure 7.1: The eCRM Software Functionality Matrix for SMEs.......................................................112
Chapter 1: Introduction

1.1 INTRODUCTION

Companies are being confronted by an increasingly sophisticated customer universe, which expects and demands a higher level of immediate service across multiple access channels. Customers feel that customer service should occur via the channel of communication that they specify to be communicated, or at least the channel through which contact with a company was initiated. Service has become the last remaining way for a business to effectively differentiate itself. So, by ensuring and improving customer service, a business can withstand the pressures of competition (Kraft, 2001:60).

The issue of Customer Relationship Management (CRM) within businesses has increased in prominence over the last five years, and will continue to do so in the future. This is evidenced as follows:

- The market of CRM products in all economic sectors will explode to $125 billion by 2004, up from $34 billion in 2002 (Iconocast, 2003:1).

- Studies in 2002 revealed that spending on CRM software by small and midsized businesses would reach $651 million by 2006 and make up 19% of the entire CRM market, up from 10% in 2001 (Campanelli, 2002:1).

- The relationship between small to medium enterprises (SMEs) and their customers will become more complex, and as the number of customer touch points
points increase, businesses will increasingly look at software and services to help them manage these relationships (Campanelli, 2002:1).

- Traditionally, the CRM software market has been dominated by the likes of IBM, Oracle, PeopleSoft and Siebel. Recently, new CRM players have begun to flood the market, including E.piphany, FrontRange, Kana, SalesLogix, BroadVision and Salesforce.com (Iconocast, 2003:1 & McKenna, 2001:1).

- The entrance of software marketer Microsoft (MS) into the SME market, who launched its CRM package in January 2003, is seen as an endorsement of the future of CRM products in this market (Curry, 2002:4). To put the anticipated competition into perspective, within two months of the release of MS CRM, Microsoft already had 900 partners worldwide to market the product and ultimately aims for over 5 000. By comparison, Salesforce.com, a Web-based alternative, has less than 50 resellers (Business Week, 2003:2).

- Research circa 2001 showed that only 17% of South African SMEs were of the belief that any form of e-Commerce was critical to their business. This was compared to Europe, where a fifth of SMEs regarded the Internet as part of their business strategy. Reasons for local SMEs not being enthusiastic about e-Business include cost of technology, service and support (Brkic, 2001:51).

- A study published in June 2003 indicated that South African SMEs have faith in the ability of Information Technology (IT) to reduce costs and bring about
profitability. 64% of companies surveyed indicated that they expect to win and retain customers in future as a result of IT (Goldstuck, 2003:1).

CRM has become a key strategy for companies big and small. A company’s customer care strategy and its CRM software go hand in hand (Baumeister, 2002:1). The reason for this is that it costs up to five times more to acquire a new customer, than to get an existing customer to make a new purchase. This translates to mean that for every Rand spent to acquire a new customer, it will cost a company only 20c to retain that customer (Silverstein, 2000:326). The role of CRM is to know and understand the customer. Specifically, a small to medium enterprise (SME) needs CRM software that can easily adapt to its customer care needs while being low in cost (Baumeister, 2002:2).

1.2 THE INTERNET

Prior to the emergence of the Internet, customer care and relationship management was limited to telephone, fax, video, mail and face-to-face conversations. With the explosion of the Internet, faster processor speeds, the advent of XML and numerous other technologies, the abundance of new communication tools available to customers complicate relationship management, as each customer interaction presents the opportunity for a company to capture valuable information or data, which can help better serve that customer. This data can now also be captured across various electronic touch-points, or interactions, that include email, text chat, voice over Internet protocol (VoIP), wireless, Web forms and Web collaboration (Talisma, 2001:1-2).

Unfortunately, most of the interactions are lost due to disparate information systems haphazardly connected with very little data synchronisation, if any. Customers would
like to interact with a company in the medium that they choose. The reality is that
companies, due to cost restrictions, sometimes split process from technology. A certain
process might require a certain technology. For instance, when a process dictates that
customers have to be sent fax confirmations for orders via telephone, the company
needs to implement an automatic fax-out service separately. Therefore, instead of
offering a full suite of technology options, they develop or implement processes
specifically to work around a technology hole. These interactions can only fully benefit
from integrated relationship management technologies. The technology deployed to
manage these interactions is the purpose of CRM software, or eCRM (Talisma, 2001:1).

1.3 SMALL AND MEDIUM BUSINESS

Compared to larger businesses which, in most cases, have established teams that tend
to client, customer and supplier relationships, small business owners or managers
usually have to manage these relationships personally. Large organisations also have
access to larger and more complex IT systems and have dedicated teams for
maintenance. Skills are easier to acquire due to the ability to employ and remunerate
human resources, and capital is easier to obtain due to investments and access to
finance. Again, the small business relies on its owner or manager to implement and
maintain these systems and processes. Compared to big business in South Africa and
other countries, small to medium businesses face a wider range of constraints and are
therefore less able to address resulting problems on their own. These constraints relate,
among others, to time, access to markets, the acquisition of skills and expertise, access
to appropriate technology and, in most cases, access to finance (DTI, 1995:9).
SMEs need a low cost customer relationship management solution that adapts to their business model and IT structure, instead of having to adapt their business model to the CRM software. In addition, it should be possible to introduce the software gradually as not to disrupt the current business. The business process will have to react to changes in the future, thus the software should easily be adaptable once installed (Baumeister, 2002:4).

Currently, available CRM and eCRM software packages targeted at large organisations, provide all-encompassing, inflexible solutions that are difficult to implement. On the other hand, CRM and eCRM software packages targeted at SMEs only support part of the needed functionality. For example, they might include Interactive Voice Response (IVR) but might not include Message Routing (Baumeister, 2001:2).

1.4 PROBLEM STATEMENT
As mentioned, SMEs are limited by budgeting, resource and time constraints. Also, due to a lack of in-house expertise, a manager of a SME often cannot devote time in pursuit of a suitable eCRM solution for his business. Meanwhile, the success of eCRM cannot be ignored. The multitudes of vendors, offering various levels of functionality, who are increasingly focusing on the SME sector, allow the SME owner or manager many choices.

Problem statement
South African SME owners/managers are unsure which functionalities are available and which to deem important when considering an eCRM solution for their businesses.
The problem lies in how the SME owner or manager decides whether the functionality of an eCRM solution will be viable, in order to satisfy the SME’s unique needs.

1.5 OBJECTIVES OF THIS RESEARCH

The overall purpose of this dissertation is to find out to which criteria and functionality an eCRM solution must conform, in order for it to be successfully implemented and used by a small to medium enterprise in South Africa. The objective of the study is to then compile a functionality matrix that SMEs in South Africa can use when considering an eCRM solution to aid increased service levels to their customers. Although this is not prescriptive, it will guide the management process by identifying certain broad criteria and functionalities that an eCRM solution needs to contain.

Research Objective

To compile a matrix of functionalities and criteria that eCRM software must adhere to, in order for South African SMEs to successfully implement an eCRM solution.

1.6 RESEARCH METHODOLOGY

The research methodology employed in this dissertation is one of qualitative research, and the study takes the form of a literature study. Books, and articles as published in journals are used, but the main sources of information are articles published in electronic journals and data gathered from the Internet. This approach aids in gathering of background information, establishing our priorities and supplying further information leads (Emory & Cooper, 1991:144-148). The area under investigation is relatively new
in South Africa and a certain number of experience surveys (interviews) were conducted. These interviews supplemented the published data by input from thought-leaders in the local industry, and allowed for a local perspective on the topic.

1.7 RESTRICTIONS OF THIS STUDY
This research does not distinguish between small differences in the marketing and technology mixes as in the case of large-scale qualitative research. The area under study, eCRM for SMEs, is new in South Africa and available literature does not always distinguish between the components of either CRM or eCRM. The interviewed parties might not have accurately reported their feedback as the presence of the researcher might have affected their feedback. Also, due to the newness of the field, the responses might not have been representative of the population of interest to the author.

1.8 ROADMAP TO THIS STUDY
This dissertation consists of eight chapters. The flow is conveniently illustrated and summarised in the roadmap in Figure 1.1 on page 8. Each following chapter will feature a diagram of the roadmap up front, in order for the esteemed reader to visualise the thought-process behind the research. Each chapter will now be briefly overviewed.

1.8.1 Chapter 1: Introductory Chapter
This is the current chapter which introduces the overall study, and aims to explain the problem faced by small and medium enterprises (SMEs) with regards to Customer Relationship Management (CRM). The influence of technology and the Internet is described. We define both the problem statement and the research objective. The
research methodology that the study will follow is presented and the restrictions to which this study was subjected are overviewed. The roadmap is illustrated and discussed.

Figure 1.1: Roadmap to this Study
1.8.2 Chapter 2: Defining the SME

This chapter will focus on the Small to Medium Enterprise (SME) in South Africa. We begin by segmenting the small business economy, distinguishing between the SMME and SME sectors, the latter being a subset of the former. A definition of an SME is presented and the importance of this sector in the South African economy is discussed, as well as certain constraints facing SMEs locally.

1.8.3 Chapter 3: Customer Relationship Management

Chapter 3 will concentrate on Customer Relationship Management (CRM). We begin by discussing the development of CRM through time and then formulating a workable definition of CRM. In the discussion of the definition we touch on customer-centric organisations, the CRM Pyramid, organisational relationships, Customer Lifetime Value, the pillars of CRM and the Identification-Differentiation-Interaction-Customisation (IDIC) process with the relevant IT-factors supporting it. We conclude the chapter by discussing the CRM Ecosystem and its supporting technology.

1.8.4 Chapter 4: Electronic Customer Relationship Management

In the fourth chapter the focus shifts from CRM to electronic CRM (eCRM). We open with a discussion of the development of eCRM. Various definitions of eCRM are discussed and we formulate a workable definition. Aspects such as Internet-centricity and the synchronisation of relationships across various communication channels are discussed. We look at the importance of eCRM for a business and discuss customer satisfaction, reduced costs and increased revenues. The concepts of customer interaction and touch points are also reviewed. A discussion of the components of
eCRM follows using the Customer Relationship Path as illustration. We close the chapter with a discussion of eCRM technology, which includes an overview of security.

1.8.5 Chapter 5: South African SMEs and eCRM

In Chapter 5, we discuss eCRM technology in the SME sector. We begin the discussion with the need for CRM in SMEs and why good customer relationships are important to the SME. Next we have an overview of the SME and its Information Technology (IT), beginning with the 6-step IT strategy process. Then, the 7-step process of selecting CRM for the SME is discussed with an emphasis of the functions of CRM software. The discussion then turns to the Internet and how the SME should approach an Internet strategy. We also look at IT security and the business and technology risks that the Internet holds for the SME. Finally, we have a brief discussion on Internet security.

1.8.6 Chapter 6: Current eCRM packages

Chapter 6 will focus on the eCRM software packages that are available for purchase through vendors or resellers in South Africa, or via download through the Internet. We will start with a brief overview of the vendors playing in the overall relationship marketing field, and the criteria on which to evaluate software vendors when choosing an eCRM solution. We will list and briefly discuss some vendors and their eCRM packages aimed at the medium-sized and small business market respectively. Our summary will include a list of possible functionalities that could feature in an eCRM solution and also additional features that would be needed in order to make these packages beneficial to the South African SME. The purpose of this chapter is to help SMEs select the right software, not to select the software for them.
1.8.7 Chapter 7: The eCRM solution matrix
This chapter presents a matrix to the reader. It is the crux of the research as it contains the criteria that an eCRM solution should contain, in order to be successfully implemented by a South African SME regardless of the relevant industry in which it operates.

1.8.8 Chapter 8: Research summary
The eighth and final chapter in this dissertation summarises the research, and also draws a number of conclusions that are supported by the findings. Finally, some recommendations for future research topics flow from the subject matter.

1.8.9 Appendices
The final section contains a list of the main abbreviations used throughout this study. This is followed by a list of sources consulted in the research of this dissertation, and the compilation of both the list of eCRM functionality in Chapter 6 and the eCRM functionality matrix as it appears in Chapter 7.
2.1 PREAMBLE

This chapter will focus on the Small to Medium Enterprise (SME) in South Africa. We begin by segmenting the small business economy, distinguishing between the SMME and SME sectors. A definition of an SME is presented and the importance of this sector in the South African economy is discussed, as well as certain constraints facing SMEs.
2.2 INTRODUCTION

In first-world countries like Japan and Germany, smaller businesses contribute more than half to the gross domestic product (GDP) in each of these economies. South African SMEs currently account for only 30% of the GDP, and the sector remains more than a decade away from where it should be in terms of its representation (Klopper, 2003:1).

In the economic rebuilding efforts of post-1994 South Africa, the promotion and support of the small, medium and micro enterprise (SMME) sector has become a major policy issue. There has been a dramatic shift from the pre-1994 period when the SMME economy was largely neglected by policy makers (Khosa, 2000:1).


Policy instruments, required to affect the policy objectives, range from technology support, research and development support, literacy and numeracy training, and access to basic information and finance (Khosa, 2000:4). In addition, 2003 saw the launch of the South African Alternative Stock Exchange (Alt*), aimed at facilitating the listing of small and medium-sized businesses. Smaller businesses will be allowed to list for the first time, without having to adhere to the stringent requirements of a main-board listing. This will provide financial access to many small businesses (Klein, 2003:1).
2.3 SEGMENTING THE SMALL BUSINESS ECONOMY

In the National White Paper on Small Business, which draws on international patterns, the Small, Micro and Medium Enterprise (SMME) economy in South African is segmented into survivalist, micro, very small, small and medium enterprises (DTI, 1995:9).

- **Survivalist enterprises:** Survivalist enterprises are a set of activities undertaken by unemployed people, unable to find regular employment. This includes hawkers, vendors and subsistence farmers. Income falls short of minimum standards, little capital is invested, skills-training is minimal and there are few prospects for growth into a viable small business enterprise.

- **Micro enterprises:** A micro enterprise involves the owner, some family members and at most, one to four employees. These businesses are often not formalised in terms of licenses or formal premises, and include spaza shops, minibus taxis and household industries. The owners have basic business skills or training, and many of these enterprises have potential to change into viable small businesses.

- **Very small enterprise:** Very small enterprises employ less than 10 paid employees and operate in the formal market with access to technology.

- **Small enterprise:** Small enterprises have an upper staff limit of 50 employees, and these enterprises are generally more established than very small enterprises. They also exhibit more complex business practices.
- **Medium enterprises**: Medium-sized enterprises employ a maximum number of 200 people. Medium enterprises are often characterised by the decentralisation of power to an additional management layer (Falkena, 2000:25-27).

The latter two categories of enterprise, i.e. the Small and Medium Enterprise industry, constitute the basis of the SME economy and are usually owner-managed, operate from fixed premises and have all the characteristics associated with formality (DTI, 1995:9).

The SME sector differs from the SMME sector. Micro and very small enterprises are excluded from the SME definition as they normally include a survivalist element. The focus of this topic is on small and medium enterprises rather than on the micro or very small sector. Therefore, the acronym ‘SME’ will be used throughout. As the SME sector will be the focus of this study, this chapter will focus on defining the role of the SME sector in South Africa.

### 2.4 DEFINITION OF A SME

Despite its importance, there is no generally agreed or universally acceptable definition of SMEs (Falkena, 2000:25). The most widely used framework in South Africa is the definition of the National Small Business Act. This act defines a Small to Medium Enterprise (SME) as a separate and distinct entity that cannot be part of a group of companies. It is managed by its owner so it can be a sole proprietorship, partnership, or it can be a legal entity, such as a close corporation, co-operative or a company (KNC & Associates, 2002:3). Figure 2.1 on page 16, further clarifies the categorisation. The original tables were adapted by this author to include a larger amount of criteria.
Figure 2.1: SME Definition Criteria

<table>
<thead>
<tr>
<th>Enterprise Size</th>
<th>Annual Turnover</th>
<th>Employees</th>
<th>Management</th>
<th>Gross assets, excl. fixed property</th>
<th>Financial Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>Less than R2 million to R25 million</td>
<td>Fewer than 50</td>
<td>Owner</td>
<td>Less than R2 million to 4.5 million</td>
<td>R50 000 to R2 million</td>
</tr>
<tr>
<td>Medium</td>
<td>Less than R4 million to R50 million</td>
<td>Fewer than 100 to 200</td>
<td>Owner / Manager</td>
<td>Less than R2 million to R18 million</td>
<td>R2 million to R5 million</td>
</tr>
</tbody>
</table>

Source: Adapted from: Falkena, 2000:26, KNC & Assoc, 2002:3 and DTI, 1995:10

Small enterprises will usually be owner-managed or directly controlled by the owner-community. They are likely to operate from business or industrial premises, be tax-registered and meet other formal registration requirements. Medium enterprises are also viewed as owner/manager-controlled, though the shareholding or community control base could be more complex (DTI, 1995:8).

2.5 IMPORTANCE OF THE SME SECTOR IN SOUTH AFRICA

The SME sector is of particular interest to the government because of the important contributions it makes to employment creation and poverty reduction. In the developed world, statistics indicate that for every ten jobs created, seven are generated by SMEs (KNC & Associates, 2002:4). In South Africa, SMEs contribute 37% of employment, which is important in the light of the decrease in formal employment. This sector also contributes about 30% to the GDP of the economy. This is compared to the 1% of large organisations that contribute 65% to the GDP and 46% to employment (KNC & Associates, 2002:4).

Given South Africa’s legacy of big business domination, constrained competition and unequal distribution of income and wealth, the smaller business sector is seen as
important in generating employment and more equitable income distribution. It is also important in activating competition, exploiting both local and international niche-markets, and enhancing productivity and technical change. Through all of this, the smaller business sector stimulates economic development (DTI, 1995). One of the main strategies is for government policies to ensure that SME ventures do not remain in a stagnant market, thereby being forced to enter a survivalist mode (Lewis, 2003:6).

2.6 SME CONSTRAINTS
As mentioned earlier (refer 1.3), smaller businesses face a myriad of constraints. These include, among others: time, access to markets, the acquisition of skills and expertise, access to appropriate technology and, in most cases, access to finance (DTI, 1995:9). The problem with access to Information Technology (IT), skills and expertise is of particular importance. Smaller businesses usually rely on their owners to implement and maintain IT systems, and also to manage customer relationships personally, leaving the owner with little time to concentrate on the core business at hand. Budgetary constraints also hamper technology investment for the SME.

In a recent South African SME survey, the main finding was however that SMEs have faith in the ability of IT to reduce costs and bring about profitability (Goldstuck, 2003:1). Cost reduction was the most significant benefit that SMEs derived and expected to keep getting from IT. About 64% of surveyed SMEs expected to win and retain customers in future because of IT.

The impact of big business monopolies on SMEs are, however, still felt at the time of writing this dissertation. The Telkom monopoly is a case in point. For example, there
are numerous competitive advantages for SMEs to have reliable connections to the Internet, such as Internet banking, the ability to market its products online or maintain relationships with its customers. A SME with its own leased line can host its own online relationship management facility. However, the cost of the line is high and the return on investment is heavily influenced (Klopper, 2001:37). The SME will spend more money on the leased line and the maintenance of that line than it spends on the relationship management facility and process, which will only be used for a fraction of the time but is more important to use in the building of relationships with customers.

2.7 SUMMARY

Since 1994, the South African government has established new policy objectives to promote the Small and Medium Enterprise (SME) economy. The policy instruments range from technology support to research and development support.

The SME sector is a subset of the SMME sector and excludes the micro enterprises and very small enterprises as these businesses usually include a survivalist element. The South African government has a particular interest in the SME sector due to the important contributions it makes to employment creation and poverty reduction. Government policies should actually ensure that SME ventures do not remain in a stagnant market and thereby be forced to become survivalist businesses.

SMEs face a host of budgetary, technological, skills and financial constraints but the majority of SMEs believe in the benefits that IT can provide them with. However, the impact of big business monopolies is still felt, especially on the technology side. In the following chapter, we will discuss the topic of CRM more closely.
3.1 PREAMBLE

Chapter 3 will concentrate on Customer Relationship Management (CRM). We begin by discussing the development of CRM and then formulating a workable definition of CRM. In the discussion of the definition, we touch on customer-centric organisations, the CRM Pyramid, organisational relationships, Customer Lifetime Value, the pillars of CRM and the Identification-Differentiation-Interaction-Customisation (IDIC) process with the IT-
factors supporting it. We conclude the chapter by discussing the CRM Ecosystem and its supporting technology.

3.2 INTRODUCTION

Relationships permeate every aspect of people’s lives, both personal and business. We find positive and negative relationships, some need to be nurtured and some need merely be tolerated. Business partnerships assume a prominent role in the strategies of businesses, large and small. Successful business partnerships are built on trust, confidence and understanding. These relationships require a pro-active effort to sustain future growth (Bedford Group, 2002:1).

Every time a customer approaches a business, he does so with an expectation. It may be a service need or a product need, but in every case, the expectation accompanies an interest in the relevant business. A good experience might increase loyalty and a poor experience might transfer the customer’s business to a competitor. The ability to recognise this process, and to actively manage it, forms the basis of customer relationship management, or CRM (Greenberg, 2002:6).

3.3 DEVELOPMENT OF CUSTOMER RELATIONSHIP MANAGEMENT

At the beginning of the 1900s, the focus was on consumer marketing with companies having the ability to adapt their offerings to treat each customer as an individual. After the World Wars the focus shifted to manufacturing and industrial development, focusing on companies and their abilities to improve products. By 1950 the focus moved to better production processes, and marketing efforts focused on acquisition strategies with new communication media. In the 1980s, direct marketing helped to differentiate products
from the mass market, and service quality and satisfaction made marketing more focused. The following decade brought on the information era and the ability to deliver a customised offering to individual customers, where retention of the most profitable customers, became the focus. By the year 2000, communication mediums have changed, which allowed companies to know more about the customer, thus allowing businesses to target and customise their offerings (van Eeden, 2000:32-34).

Marketing has evolved from being about making the sale, to companies having to come to terms with the need to develop more personal, long-term bonds with their clients. There is a need for a social responsibility far beyond the mere delivery of a product and service. The need now is to move from a sale, to a friendship, to a romance (van Eeden, 2000:31).

Contact Management afforded sales people a means to keep information about their prospects; i.e.: telephone numbers and addresses. Sales Force Automation (SFA) evolved out of contact management and includes activities such as opportunity and account management (CRMCommunity, 2002:4). Next, the need arose to keep track of conversations with prospects and to set reminders for follow-up contacts. By integrating all of the information with their personal calendars, sales people could more efficiently manage their time and customer interactions. Customer Relationship Management (CRM) was the next evolution of thought and evolved from SFA. Sales people were not the only people interacting with customers and the technology was extended to the entire company, including field service groups, the marketing organisation, the billing department and the help desk (Brunjes & Roderick, 2002:1). The entire organisation thus became responsible for relationship marketing, not just Sales and Marketing.
3.4 DEFINING CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

In order to find a meaningful definition of CRM, we consider the following five definitions:

- In his definition, Peel describes CRM as understanding the nature of the exchange between customer and supplier, and managing it appropriately. The exchange not only contains monetary consideration between supplier and customer, but also communication. The challenge to all supplier organisations is to optimise communication between parties, so as to ensure profitable long-term relationships (Peel, 2002:3).

- Greenberg defines Customer Relationship Management (CRM) as a business strategy to select and manage customers in order to optimise long-term value. It requires a customer-centric business philosophy and culture to support effective marketing, sales and service processes across all direct and indirect interactive channels. CRM applications can enable effective customer relationship management, provided that a business has the right leadership, strategy and culture (Greenberg, 2002:36).

- van Eeden encapsulates her view of CRM as about treating customers differently. It is an ongoing process of identifying and creating new value with individual customers, customising the offer to meet their needs, interacting with each on a personal level and to differentiate between customers of different value to the company (van Eeden, 2000:60).
• Brunjes and his co-author view CRM as the ongoing process of identifying and creating new value with individual customers, and then sharing the benefits from this value over a lifetime of association. It involves the understanding and focused management of ongoing collaboration between an organisation and its selected customers for mutual value creation, and then sharing this value through interdependence and organisational alignment (Brunjes & Roderick, 2002:1).

• Finally, Gray and Buyn bring a technological element into their definition of CRM. However, they maintain that CRM remains primarily a strategic business and process issue rather than a technical issue. They define CRM as a business strategy that goes beyond increasing transaction volume. Its objectives are to increase profitability, revenue, and customer satisfaction. To achieve CRM, a company-wide set of tools, technologies, and procedures promote the relationship with the customer to increase sales (Gray & Buyn, 2001:7).

The above definitions include six concepts which are discussed in more detail in sub-sections 3.4.1 to 3.4.6. We will then formulate our own definition in sub-section 3.4.7.

• A customer-centric business philosophy
• CRM starts with a business strategy
• Profitable long-term relationships
• Mutual value creation and sharing during the customer life-cycle
• Identification, Differentiation, Interaction, Customisation
• Information technology
3.4.1 A Customer-Centric Business Philosophy

There are two types of companies: Product-centric and Customer-centric companies. The former type focuses on product features. The latter type focuses on the needs and wants of the customer, and tries to offer solutions to their problems. In order for CRM to work, a company needs to shift its focus from selling its products to servicing its customers (Brondmo, 2000:15-17). Greenberg identifies three powerful trends that have caused the shift of power to the customer (Greenberg, 2003:37):

- Enterprise Resource Planning (ERP) systems are no longer a source of competitive advantage for most companies. The back-office of most companies is by now mostly automated.

- The product life cycle has accelerated, leaving customers with an abundance of options and a shrinking market window for vendors to take action in.

- The Internet makes it easier for customers to switch vendors and suppliers, and this now occurs with the click of a mouse-button.

Product advantages have been reduced and the relationship with the customer has now gained importance. The reason for this is that winning new customers is costly and ultimately unproductive. On the other hand, the retention of customers and winning their loyalty is becoming increasingly more complex, as the channels they use to buy and receive service proliferate (Peel, 2002:6).
3.4.2 CRM Starts with a Business Strategy

A business strategy is a plan that dictates how a business should operate. Greenberg’s definition of CRM states that CRM must start with a business strategy, which drives change in the business, and influences work processes. These processes are enabled by information technology (IT) and are illustrated by the CRM Pyramid in Figure 3.1.

*Figure 3.1: The CRM Pyramid*

![CRM Pyramid Diagram](image)

Source: Greenberg, 2002:37

The reverse of the above flow cannot work, i.e. a business cannot automate its way to a new business strategy (Greenberg, 2002:36), or use implemented technologies and existing processes to ultimately formulate its business strategy. An example of this process is a medical aid provider that feels the need to foster loyalty with its members. A culture of customer retention must be nurtured throughout the organisation and existing work processes like claim processing must be mapped and adapted. Members could start earning points for on-time submission of medical aid claims and these points could be redeemed through partner companies. Once this new culture has diffused...
through the organisation, IT must enable and facilitate this new process to make point-allocation and point-redeeming seamless.

3.4.3 Profitable Long-Term Relationships

CRM is the transition from a transaction-based business model to a relationship-based model, concentrated on the acquisition, development, and retention of profitable customer relationships, with communication at the very centre (Peel, 2002:28). It is a challenge for the organisation to see these relationships as an explicit and fundamental component of strategy, and to consider how to add value through these relationships to all stakeholders, who together comprise the chain that continuously develops value with customers (Brunjes & Roderick, 2002:3).

As seen in Figure 3.2 following on page 27, each organisation, regardless of size, has relationships with six different markets or domains. These domains together influence the perception that a customer has about a specific company and its products. In order to be profitable, these relationships need to be managed and maintained. Within each market there are customers and suppliers, but all the supplier markets centre around the most important focus, namely the customer market. The original figure was adapted by this author to better explain the customer market. Each market can be called a market domain. These domains have to be managed by the marketing department with a relationship marketing strategy at heart. True customer-focus requires a company to reach equilibrium within these six markets. The following domains are relevant, i.e. the customer market, supplier and alliances, referral markets, influence markets, recruitment markets and internal market domains (van Eeden, 2000:17-21). We discuss these domains individually.
Figure 3.2: Relationship Domains Involved in an Organisation

- **Customer Market Domain**: Traditional marketing used to focus only on the direct buyers or consumers, but relationship marketing broadens this perspective to include the other two groups; buyers and intermediaries. Companies are focusing market segmentation techniques to one-to-one strategies (van Eeden, 2000:18).
• **Supplier and Alliance Markets:** This domain consists of suppliers and vendors, who provide physical resources to the business, and alliance markets that provide knowledge and added value. The emphasis has moved from keeping these services in-house to a virtual organisation where competencies are combined with shared goals and objectives (van Eeden, 2000:19).

• **Referral Market Domain:** In this domain we encounter customer and non-customer referral sources such as intermediaries and agents. The creation of positive word-of-mouth communication through outstanding service delivery is becoming more important. Referrals have a direct impact on purchasing behaviour and in turn, on profits. Customers need to become advocates of the organisation and this is the role of customer loyalty (van Eeden, 2000:19).

• **Influence Market Domain:** This domain consists of different groups in the macro environment. Among others, we find press, unions, trade bodies, financial groups, environmental groups, governmental groups, user groups, regulatory bodies and competitors. A company needs to manage and maximise the positive value and lobbying potential of these groups (van Eeden, 2000:20).

• **Recruitment Market Domain:** In this domain we come across all prospective employees, with skills and qualifications ideally suited to the company’s profile and culture. Here we also consider recruitment agencies, tertiary institutions and consultants (van Eeden, 2000: 21). Companies should seek to manage these relationships and develop a certain culture from within. A company can recruit or
foster employees according to its culture through employment agencies and universities, so that costs are spared in further training. This culture can ricochet through the company and ultimately influence its customers.

- **Internal Market Domain**: Here we focus on the company’s staff. Internal cooperation and retention of the internal customer is important. Internal marketing requires the development and fostering of a customer-centric culture among internal customers, such as staff, while also building relationships with customers (van Eeden, 2000:21).

3.4.4 Mutual Value Creation, Sharing During the Customer Life-Cycle

For any company, it is cheaper to retain existing customers than it is to acquire new customers. It costs five times more to acquire a new customer than it does to retain an existing customer (Reichheld, 1996:38). Improving retention reduces the number of customers that must be acquired to sustain any given growth rate.

Customer Lifetime Value (CLV) is a concept that looks at customers from the point of view of their revenue and profitability to a company over the time of their relationship with that company. This needs to be taken into account when companies start thinking of building long-term relationships with their customers. Taylor states that the lifetime value of a customer is influenced by the length of an average “lifetime”, the average revenues generated per relevant period over the lifetime, sales of additional products and services over time, and referrals generated by the customer over time (Taylor, 2001:85). The challenge is to increase repeat buying, thus increasing the lifetime value of each customer. CLV is the single most important number affecting customer
acquisition, retention and development efforts (Taylor, 2001:86). It condenses the profit-stream of a customer over a lifetime of his relationship with a company into one number, and one of the dominant variables shaping lifetime value is customer loyalty.

The customer lifecycle is the process the customer has undergone in order to be with a company over the time of his relationship with that company (Greenberg, 2002:43). It would typically include the acquisition efforts and his purchase history. In order to find out what the expected revenue is from a single customer over the anticipated lifetime of that customer’s relationship with the company, the customer lifecycle needs to be analysed. The capture of the data that needs to be analysed, is the task of collaborative CRM, or more specifically, the front office applications like Web portals, customer interaction centres (CIC), email, voice applications (IVR) or normal postal mail, also known as “snail mail”.

By its nature, the customer relationship lifecycle requires a fair amount of customer interaction and there are a number of business processes involved in this relationship lifecycle. Also known as the pillars of CRM, these processes are: Marketing; Sales; e-Commerce; and Service (Greenberg, 2002:38), and are illustrated in the CRM Solutions Map in Figure 3.3 following on page 31. A discussion on each follows in more detail.

- **Marketing**: The process of targeting prospects and acquiring new customers through data mining, campaign management, and lead distribution.
Figure 3.3: The CRM Solutions Map

- **Sales**: The process of closing selling business with effective selling processes, using proposal generators and configurators, knowledge management tools, contact managers, and forecasting aids.

- **E-Commerce**: In the Internet age, selling processes can transfer seamlessly into digital purchasing transactions, made speedily, conveniently, and at low cost.

- **Service**: The process of handling post-sales service and support issues, with call centre applications or Web-based customer self-service products.

Also evident from the CRM Solutions Map in Figure 3.3, we see that there are various CRM applications that support these pillars or, business processes. Traditionally,
enterprise employees have been the primary users of CRM applications. Then, e-Business or eCRM applications were introduced to allow enterprises to interact directly with customers via corporate Web sites, e-Commerce storefronts, and self-service applications. Partner Relationship Management (PRM) applications, designed to support channel partners and other intermediaries between an enterprise and its end customers, entered the market circa 1999 (Greenberg, 2002:37).

3.4.5 Identification, Differentiation, Interaction and Customisation
CRM is a process of understanding the customer better, and by doing so, anticipating the customer’s needs, as well as having the ability to predict behaviour and profitability. In its most basic understanding, CRM determines the different customer needs and then fulfils those identified needs (van Eeden, 2000:62). Peppers and Rogers stated that customers have different needs to a company, and that they represent different valuations to a company. CRM requires a company to identify its customers and segment them according to their different values and needs. A company should meet these different needs and build a relationship, which will create loyalty and, in the long term, be beneficial to the company (Peppers & Rogers, 1997:31).

Furthermore, CRM requires a company to interact with customers on a more efficient and cost-effective, yet personal way, and finally, to customise each offering. This process is known as the IDC Methodology. This process contains four basic tasks to achieve the basic goals of CRM, namely identification, differentiation, interaction and customisation (Gray & Buyn, 2001:22-23).
• **Identification:** In serving or providing value to the customer, the company must know to identify the customer through marketing channels, transactions, and interactions over time. Customer-identifying information is information that can be used to separate one particular customer from another, track transactions and interactions with the customer over time, or contact the customer individually.

• **Differentiation:** As mentioned before (refer 3.4.4), the lifetime value of a customer is a basic concept of CRM. Each customer has their own lifetime value from the company’s point of view, and each customer imposes unique demands and requirements on that company. Differentiation defines how the organisation actually behaves towards an individual customer. Customers can be ranked by value or be differentiated by their needs. In this way, the top customers, the most costly customers and the most preferred customers can be identified.

• **Interaction:** Customer demands, preferences and information change over time. From a CRM perspective, the customer’s long-term profitability and relationship to the company is important. Therefore, the company needs to learn about the customer continually. Keeping track of the customer, his contact information, and behaviour and needs is an important task of a CRM program. Interaction therefore requires the customer’s active participation and involvement, and the customer’s continuous feedback is important.

• **Customisation:** Customisation is important as the aim of the entire CRM process is to treat each customer uniquely. Through the customisation process, the
A company can increase customer loyalty and CRM would mean very little if there isn’t a change in the company’s actual behaviour towards the customer. Customising, in most cases, is reserved for detailed services, high priced products or the most valuable customers, as it is expensive for a business to undertake (Viljoen, 2000:40). The automation of customisation is being made feasible by information technologies (Gray & Buyn, 2001:23).

3.4.6 Information Technology Factors of CRM

Traditional marketing, also known as mass marketing, doesn’t need to use information technologies extensively as there is no need to distinguish between, differentiate, interact with customers, and customise for individual customer needs. Each of the four CRM tasks identified previously (refer 3.4.5 on page 32) is heavily dependent on information technologies and systems (Gray & Buyn, 2001:23). Figure 3.4 below shows this relationship for the marketing processes, for the goals, for traditional mass marketing, for CRM, and for the information technologies that support the CRM process.

![Figure 3.4: IT Factors in CRM](image)

<table>
<thead>
<tr>
<th>Process</th>
<th>Identification</th>
<th>Differentiation</th>
<th>Interaction</th>
<th>Customisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>- Identify individual customer</td>
<td>- Evaluate customer value and needs</td>
<td>- Build a continuing relationship</td>
<td>- Fulfil customer needs - Generate profit</td>
</tr>
<tr>
<td>Traditional Mass Marketing</td>
<td>- Not done</td>
<td>- Clustering</td>
<td>- Call centre</td>
<td>- Sales - Services</td>
</tr>
<tr>
<td>CRM</td>
<td>- Customer profiling</td>
<td>- Individual level analysis</td>
<td>- Call centre management - Auto response system</td>
<td>- Sales automation - Marketing process automation</td>
</tr>
<tr>
<td>Information Technologies</td>
<td>- Cookies - Web site personalisation</td>
<td>- Data mining - Organisational learning</td>
<td>- Web application - Wireless communication</td>
<td>- ERP - E-Commerce</td>
</tr>
</tbody>
</table>

*Source: Gray & Buyn, 2001:23*
3.4.7 Definition Summary

Taking into consideration the most important concepts from the above definitions, we formulate our own definition of CRM, as follows:

**CRM is a business strategy that flows from a customer-centric business philosophy, and uses information technology to establish and maintain profitable long-term relationships with customers, through mutual value creation and value sharing during the customer’s life-cycle with a company.**

3.5 THE CRM ECOSYSTEM

In the previous point (refer 3.4) we dissected various definitions of CRM in order to formulate our own working definition. We will now focus on the segments of CRM.

If we consider the CRM Ecosystem as depicted in Figure 3.5 following on page 36, we see that CRM consists of three segments, namely: Operational CRM; Analytical CRM; and, Collaborative CRM. The original illustration was slightly simplified by this author to more clearly illustrate the segments. We proceed by broadly defining the various CRM segments, with a brief overview of the most important elements of each CRM segment.

3.5.1 Operational CRM

Operational CRM refers to typical business-relationship functions involving customer service and order management. Invoicing and billing, which are sales and marketing automation and management functions, both form part of this segment.
Operational CRM has been the primary use of CRM. One area of operational CRM is the ability of integration with the financial and human resource functions of enterprise resource planning (ERP) applications. With this integration, end-to-end functionality from lead management to order tracking can be implemented (Shahnam, 2000:4). A major obstacle is normally the ability to integrate with legacy systems, which are large, monolithic and difficult-to-modify computer systems and programs that continue to be used because of the prohibitive cost of replacing or redesigning them, despite their poor competitiveness and compatibility with modern equivalents (Gold, 1998:2). We also include customer call centres, or customer interaction centres, in this segment of CRM.
3.5.2 Analytical CRM

Analytical CRM includes the capture, storage, extraction, processing, interpretation, and reporting of customer data. Companies like MicroStrategy have applications that can capture this customer data from multiple sources and store it in a single customer data repository or a data warehouse (DW). A series of algorithms then analyse and interpret the data (Shahnam, 2000:2). The ability to individually personalise responses to queries using this data is now possible.

3.5.3 Collaborative CRM

Collaborative CRM is the communications centre, or the coordination network, which provides the neural paths to the customer and his suppliers. It could be a portal, PRM application, or a customer interaction centre (CIC). Communications channels like the World Wide Web (WWW), email, voice applications or normal mail is used. It also involves channel strategies, or any function that provides a point of interaction between the customer and the channel (Shahnam, 2000:3).

CRM is commonly assumed to be a single, purchased software package. To mitigate risk of project failure, enterprises must master the notion of CRM as a business philosophy enabled by a component architecture or ecosystem (Shahnam, 2000:1). Each of the segments, as discussed above, i.e. Operational, Analytical and Collaborative CRM, has a set of technology components that supports it and will now be discussed as part of the CRM Ecosystem (refer 3.6 following on page 38).
3.6 TECHNOLOGY SUPPORTING THE CRM ECOSYSTEM

The types of CRM-related technology are broken down into four components. The four technology components are: The CRM Engine; Front-Office solutions; Enterprise Application Integrations (EAls); and, CRM in the Back-Office (Greenberg, 2002:40-42). These components support the three CRM segments (Operational; Analytical; and Collaborative CRM) as discussed earlier (refer 3.5 on page 35). We will now discuss the four technology components in more detail.

3.6.1 CRM Engine

The CRM Engine is the customer data repository, or the customer data warehouse (CDW), where all data on customers is captured and stored. This database lies at the heart of any CRM programme. This could not only include basic fields such as name, address and birth date, but also increasingly more sophisticated information, such as the number of times and length of time a page on a Web site was viewed. It can also include helpdesk support and helpdesk history for that Web site. The ultimate purpose is to have a single gathering point of all individual customer information in order to create a unified customer-view throughout all company departments.

3.6.2 Front-Office Solutions

These are unified applications that run on top of the CDW. It could include sales-force and marketing automation, or service, support and customer interaction applications. This provides employees with informed choices on what to do next with a customer.
3.6.3 Enterprise Application Integrations (EAIs) for CRM

EAIs are pieces of code that sit between the CRM system and legacy systems, also known as middleware. They provide messaging and data mapping services that allow one system to communicate with disparate systems, regardless of formatting. With the Internet moving into the mainstream, Extensible Mark-up Language (XML) became the universal link, allowing these systems to correspond with each other (Walsh, 1998:1).

3.6.4 CRM in the Back-Office

The analytic tools are the back-office applications for CRM. They operate behind the scenes and are transparent to both customer and user. They are used for personalisation and produce purchase history, and financial or demographic analysis.

3.7 SUMMARY

Business relationships need to be sustained to sustain future growth. Customer Relationship Management (CRM) recognises the process that a customer follows through his lifetime with a company and manages it. CRM evolved from Sales Force Automation when the interaction with customers and technology was extended to include the entire company, not only sales people.

CRM is defined as a business strategy where a company takes a comprehensive view of its customers, both current and potential new acquisitions. The strategy is implemented through the building and maintenance of long-term relationships. The aim is to intelligently use and apply the knowledge gained during the above process to maximise mutual value during the customer life-cycle. The process is one of identification,
differentiation, interaction and customisation. Gathering of information and knowledge usually take place through integrated business processes and technology.

Relationships with all stakeholders are key to CRM, and each organisation has to maintain relationships with the six markets or domains that influence the perception a customer has with that company. As it is cheaper to retain customers than it is to acquire new ones, the management of the customer’s lifecycle is very important, in order to learn as much of his behaviour and preferences as needed. The lifetime value of a customer is a concept that looks at customers from the point of view of their revenue and profitability to a company over the time of their relationship with that company.

The pillars of CRM are also known as the business processes that support CRM. These are marketing, sales, commerce and service. CRM consists of three segments, also known as the CRM Ecosystem, i.e. Operational, Analytical and Collaborative CRM. The most important technologies supporting these CRM segments are the CRM Engine, Front-Office solutions, EAI's and the Back-Office analytics.

As CRM is a process of understanding the customer or client better, a process of identification, differentiation, interaction and customisation is followed to ascertain a customer's preferences. These preferences are captured in data warehouses and are analysed by the back-office applications. For a company to get increased feedback from the customer, emphasis must be placed on the interaction with the customer, which is the task of the front-office solutions. This interaction is a critical component of CRM, especially online CRM, or eCRM, which will be defined in the following chapter.
4.1 PREAMBLE

In the fourth chapter the focus shifts from CRM to electronic CRM (eCRM). We open with a discussion of the development of eCRM. Various definitions of eCRM are discussed and we formulate a workable definition. Aspects such as Internet-centricity and the synchronisation of relationships across various communication channels are discussed. We look at the importance of eCRM for a business and discuss customer
satisfaction, reduced costs and increased revenues. The concepts of customer interaction and touch points are also reviewed. A discussion of the components of eCRM follows using the Customer Relationship Path as illustration. We close the chapter with a discussion of eCRM technology, which includes an overview of security.

4.2 INTRODUCTION

In business, loyalty can be increased by maintaining relationships with customers. In this sense, relationships are defined as the sum of all interactions between a company and a customer. These interactions may range from exposure to informational messages to all types of direct contact, which can also include Web searches, Web form entries, email, text chat, and voice conversations (Talisma, 2001:1).

4.3 DEVELOPMENT OF ELECTRONIC CRM

If an organisation’s revenue is based on its customers’ spending habits, chances are good that it has implemented some form of customer relationship management (CRM) project. The concept of CRM, like any business science, changes constantly. The advent of the Internet allowed CRM to morph into eCRM, or Web-based CRM (Norton, 2001:1). The Internet is an interconnected network of millions of computers, which communicate via certain protocols, and are connected via the telephone system consisting of copper cables, fibre optics, and microwave and satellite links (Vine, 2000:19).

eCRM evolved out of CRM, which was seen as being more call-centre-centric and sales-force-automation centric (Goldshlager, 2001:2). The development of eCRM has changed the way CRM projects are managed. However, as a term, eCRM is not always
accepted by all of the leaders in the CRM field. For example, The Aberdeen Group, an influential Boston-based consultancy, does not use eCRM in its lexicon but rather treats eCRM as an implied progression of CRM (Norton, 2001:1). This chapter will examine the eCRM topic more closely and we begin with formulating a definition of eCRM.

4.4 DEFINITION OF ELECTRONIC CRM

In order to find a meaningful definition of eCRM, we consider the following definitions:

- Curry offered a two-fold, yet rudimentary definition of eCRM in 2000. He suggested that Customer Marketing, Customer Relationship Management, and the Internet are inseparable issues. One of the reasons for this statement is that the Internet helps solve some major and universal problems related to CRM as it captures, analyses and uses customer information. Another reason is that the Internet makes CRM a necessity due to the fact that if a company does not manage the relationship with its customers in the face of Internet-based competition, it will simply go out of business (Curry, 2000: 188-189).

- Forrester Research defines Electronic Customer Relationship Management (eCRM) as a Web-centric approach to synchronising customer relationships across communication channels, business functions and customers. It evolved from CRM, which was more call-centre centric and sales-force automation centric. eCRM leverages integrated information on customers to improve marketing processes, particularly customer acquisition, development and retention, by managing deep and long-lasting relationships with customers (Goldshlager, 2001:2).
• The eCRM Group terms eCRM as follows: Electronic Customer Relationship Management is a way to manage consistently personal, relevant, and productive interactions across all communication channels throughout an enterprise. It is a means to build successful relationships with customers, vendors, employees, investors and others by using new technology (eCRM Group, 2003:2).

• eWorld Research views eCRM as a business process integrated via the Internet, which involves a series of activities related to developing and retaining customers through increased satisfaction and loyalty, which will ultimately boost a company’s sales revenue (eWorld Research, 2003:1).

We identify and subsequently discuss the following concepts, which are evident from the above definitions, in more detail in the sub-sections 4.4.1 to 4.4.4 and we will then conclude the section by formulating our own definition in sub-section 4.4.5.

• CRM and the Internet are related issues
• Synchronising customer relationships across communication channels
• Managing personal, relevant and productive interactions
• Retaining customers through increased satisfaction and loyalty

4.4.1 CRM and the Internet are Related Issues
CRM and the Internet are inseparable issues because, not only does the Internet aid in solving CRM issues, but the Internet also makes CRM a necessity (Curry, 2000: 188).
• **Solving CRM Issues:** The Internet helps solve one of the major and universal problems related to CRM, and that is the quality of the data underlying the CRM initiative (Hobbib, 2003:1). Data collected from different systems can be incomplete, outdated or could contain no history of the customer’s interaction with the company. The Internet is perfectly suited to capture, analyse, and use customer information as customers can update their own data, and information from customer interaction can be captured in real time. Marketing and technology are joined through communication and distribution methods such as the Internet (Curry, 2000: 189). This Internet-centric approach can deliver:

- information that is useful for determining customer potential and communicating with the right customer about the right product at the right time
- new customer information that completes currently held customer information
- customer information that is updated constantly and in real time
- a system that makes it easier to analyse customers and communicate with them via several marketing methods, including mail, telephone and face-to-face contact
- a system that, unlike legacy mainframes, can be rapidly changed, at less cost, to meet the changes in the marketplace
- a system that can distribute customer information to anyone and everyone in a company who needs it, via universal and user-friendly Web browser technology. (Curry, 2000: 189-190)

• **Making CRM a Necessity:** The main business of a company is to create and keep customers, and to maximise customer profitability. Customer acquisition,
and especially customer retention, is easier when customers are forced to do business with a company due to physical proximity, or if customers do not have the capability to compare prices with other suppliers. Being connected to the Internet now allows customers to source quotes worldwide and place orders directly. Customers are less likely to switch suppliers if they are satisfied with a company. On the other hand, a company wants to achieve high customer profitability with the minimum marketing and sales energy (Curry, 2000:189-191).

4.4.2 Synchronising Relationships across Channels

Customers communicate with companies via the communication channels they prefer and companies communicate with their customers via channels that the customers prefer. The Internet has connected diverse databases and applications that were originally deployed as pocket solutions. Islands of information have been bridged and enabled by the Internet, such as Intranets that allow internal sharing of customer information. Applications that were separately developed and deployed can now work in tandem or as one, such as Extranets that embrace dealers and resellers in collaborative e-Commerce sales models (Tanoury, 2003:2). A company can now have one universal view of his customers.

Communication, when the customer wants and in the manner that he or she prefers, is key to energising the service delivery model. Communication technologies as well as CRM applications are converging on the Internet (Tanoury, 2003:2), and include:

- Telephone, Fax and e-Mail
- Interactive Dialogue or, Chat Windows
4.4.3 Managing Personal, Relevant and Productive Interactions

CRM is important for business prosperity, which can be achieved through customer loyalty. As customer numbers increase and their requirements become more complex and subjective, the operational costs and efforts involved in delivering good CRM practices through traditional word-of-mouth and physical means have escalated. eCRM allows businesses to deliver a one-to-one experience to customers while it helps to manage increasing customer bases. In the process, eCRM helps generate more revenue by being able to handle larger numbers of customers across various locations simultaneously. Additionally, eCRM reduces the cost of customer-facing operations by removing manual intervention. For the customer, eCRM aids in enhancing the experience by adding value and quality to the interaction, ultimately helping to keep the customer loyal (Maheshwari, 2001:1).

4.4.4 Retaining Customers through Increased Satisfaction and Loyalty

McCarthy is of the opinion that one of the economic advantages of customer loyalty is that the financial health of a business, especially in the long term, depends not only on the number of customers that a business has and the revenues they are producing, but also on the length of time that a business is able to retain those customers. The longer
a customer has been with a business, the more profit is generated each time a sale is made (McCarthy, 1997:24).

eCRM involves a series of activities related to the development and retaining of customers through increased satisfaction and loyalty, ultimately increasing a company’s sales revenue. These activities are (eWorld Research, 2003:1):

- Knowing and understanding the customer base
- Understanding the customer’s experience with the company
- Measuring the effectiveness of transactions
- Determining the most profitable customers
- Measuring the effectiveness of marketing campaigns

4.4.5 Definition Summary

Taking into consideration the most important concepts from the above definitions, we formulate the following definition of eCRM:

| eCRM is an Internet-centric approach to CRM that synchronises customer relationships across communication channels, thereby managing personal, relevant and productive interactions between a company and its customers. The result is retaining customers through increased customer satisfaction and loyalty. |
4.5 IMPORTANCE OF eCRM

For any business, a fundamental goal is to increase revenues while reducing costs (Maheshwari, 2001:2). In order to reach this goal, the customer needs to increase its transactional interaction with the company. If transactions are made more convenient, useful and less expensive for the customer, he will more than likely give the company repeat business. Provided the first experience is good, a customer who buys once will be more likely to buy again (Maheshwari, 2001:2). As mentioned earlier, (refer 3.4.4), it is easier and cheaper to retain existing customers than to generate new ones. eCRM helps to increase customer satisfaction and increases revenue.

4.5.1 Customer Satisfaction

The first step in fostering customer loyalty is improving customer satisfaction and, in turn, customer relationships. eCRM improves customer satisfaction by being flexible and accommodating, as well as facilitating faster transactions (Maheshwari, 2001:1-2):

- **Flexible and Accommodating:** e-Services are flexible and accommodating, and can be made available around-the-clock. Self-service can be done via the Web and IVR. These services are immediate and tailored to personal choices, making them easier to access. Customers could have the option to access these services directly from the desktops on their PC screens, thus eliminating the need to access the Web. Businesses with call-centres in different time-zones can also offer around-the-clock manual support.

- **Faster Transactions:** Orders and requests are processed and delivered faster by electronic means. The customer needs not be routed from person to person,
desktop to desktop, or mailbox to mailbox. At the same time, the customer’s actions within the electronic framework are monitored and registered in a unified database, giving the business insight into the customer’s individual needs, preferences and dislikes. This information allows the business to tailor services and messages to meet the customer’s specific needs.

4.5.2 Reduced Costs, Increased Revenues

eCRM can deliver 24-hour service without a business having to invest in an around-the-clock physical operation. The per-transaction cost of an eCRM-based system is reduced due to the elimination of physical intervention and any subsequent errors. Operational costs are reduced by collaboration and communication (Maheshwari, 2001:2-3):

- **Collaboration:** The same data can be made available across functions, departments and locations, thereby facilitating the sharing of knowledge bases.

- **Communication:** Effective communication aids in faster and cheaper transactions, e.g. an order received in Cape Town can be processed in Johannesburg, communicated to a dealer in Pretoria and shipped from a warehouse in Port Elizabeth to a customer in East London, much quicker than a manual system.
4.6 CUSTOMER INTERACTION IN eCRM

Internet technology brings value to CRM in that increased customer interaction does not need to occur face to face. The customer has the convenience and the ability to get information without having to rely on a human being. If a customer sees an impersonal, analytic recommendation for a specific book on a website, such as Amazon.com that was formulated from his reading habits, he would be more inclined to look at it than if a strange salesman had to recommend that same book (Greenberg, 2002:43).

What used to be dealt with by customer service or helpdesk calls, can now be done via the Internet, with customers helping themselves to answers. Interaction with a company in earlier times used to be limited to faxes, but with the advent of the Internet, interaction has become far more sophisticated with service information being instantly available to both the customer service representative and customer alike. This interaction is a critical component of CRM, especially the online variety (Greenberg, 2002:43).

Recent research by Gartner indicates that the eCRM components that a company needs in order to obtain real-time, online access to customer databases and enjoy Web-supported customer service; include e-Commerce sell-side platforms, eCRM communication infrastructure, and eCRM applications (Norton, 2001:2). We will now look at each more closely:

4.6.1 E-Commerce Sell-Side Platforms

These platforms allow enterprises to interact in Web-based business-to-business (B2B) and Web-based business-to-consumer (B2C) relationships. It should ideally include the following functions (Norton, 2001:2):
• Order placement, order management, and order execution tasks
• Catalogue and content management functionality
• Secure transportation of data between browsers and servers

4.6.2 eCRM Communication Infrastructure

The term “touch points” is used in the relationship marketing field to refer to the many ways in which customers and firms interact with each other (Gray & Buyn, 2001:3). In order for a company to provide unified customer communications at various customer touch points, it must be borne in mind that online, customers can connect with a company through various channels. Communication infrastructure should ideally contain (Norton, 2001:2):

• Chat/browser control
• Voice-over IP (VoIP)
• Multilanguage support
• Messaging and workflow applications
• Web measurement tools
• Email inbound/outbound support

4.6.3 eCRM Applications

eCRM applications are applications that enable the CRM process online and include (Norton, 2001:2):
• Content management
• Product and pricing models
• Customer service support, including technical support, problem resolution and automated response agents
• Marketing automation tools and campaign management functions

4.7 COMPONENTS OF eCRM

eCRM embraces the front-office business functions of sales, marketing and customer service, and supports the back-office business and analysis operations spanning these functions, all in a Web-centric fashion (Talisma, 2001:2).

Figure 4.1 following on page 54 illustrates how eCRM functionality supports each of the five business components of marketing, sales, customer service and support, e-Commerce and the electronic processes in the back-office analysis. This will be discussed in the following section (refer 4.8 on page 54) using the Customer Relationship Path.

The numbered components in Figure 4.1 correspond to the numbered components that follow in Figures 4.2 and 4.3. The original figure was adapted by this author in order to more clearly illustrate the business components and to lead and cross-reference the discussion of the Customer Relationship Path that will follow.
4.8 THE CUSTOMER RELATIONSHIP PATH

The Internet and digital interactivity in general, allows for customers to get closer to brands. They can interact and experience brands directly and can gain immediate new benefits on a one-to-one, often customised, basis (Dru, 2002:179). A typical Customer Relationship Path integrates, and continues from where the Customer Sales Path leaves off.

We will first discuss how the business processes, or components of eCRM as identified and numbered previously in Figure 4.1, support the phases in the Customer Sales Path as illustrated in Figure 4.2 on page 55. To reiterate, the numbering in Figure 4.1 corresponds to the numbering in Figures 4.2 and 4.3.
4.8.1 The Customer Sales Path

As seen in Figure 4.2, a typical Sales Path is made up of a series of phases that take a consumer from a prospect to a buying customer. The illustration also indicates how and where the various components of eCRM, i.e., marketing management, the sales cycle, customer service, back-office analysis and e-Commerce, engage to convert the prospective customer. The components are now discussed.

- **Marketing Management:** The first phase in any sales process is to create awareness, interest, and desire in a company, its brand or its offerings. This is the task of Marketing Management and is the place of traditional advertising (Dru, 2002:180). Interactive technology, such as the Internet, adds the all-important CRM dimension of involvement. Federal Express transformed itself when it allowed customers to track their packages online. That interactive experience became an integral part of the FedEx brand (Dru, 2002:181). Marketing automation encompasses a wide range of capabilities, some of which are customer facing, such as automated email response systems, campaign
management and execution tools, and the management and distribution of marketing materials to sales people and partners (Greenberg, 2002:28).

- **The Sales Cycle**: The sales cycle takes over in the process of converting the prospect within the Sales Path and the next phase in the path is the research phase. Interest has been sparked and the customer does some research into the company or the specific brand offering. The Internet has simplified this phase with companies displaying their offerings on Web sites. Depending on the offering, consumers often demand a demonstration prior to purchase. The Internet allows for the requesting of test-drives of vehicles to the requesting of a free sample of beauty products on-line (Dru, 2002: 182). The sales cycle, specifically Sales-force Automation, engages during this stage and can include capabilities such as lead qualification, generation and tracking, opportunity and contact management, and account management (Greenberg, 2002:28).

- **E-Commerce**: Mass customisation became a reality with the Internet when companies like Dell created new business models allowing customers to customise individual products from on-line catalogues prior to purchase (Dru, 2002:181). Digital technologies such as e-Commerce, that facilitates online order processing, billing and payment, also play an important role at the Purchase phase. PlayStation took pre-orders for its PS2 product on its Web site prior to the product launching (Dru, 2002:182-183). Similar to global online book retailer Amazon.com, Kalahari.net, a South African online retailer, also uses a virtual shopping cart for customers to use in the purchase phase. eCRM has to ensure that vital customer behaviour and information is monitored and captured
throughout the purchasing cycle. Content Management is also prevalent in this stage and refers to the printed word online, and includes documentation, information pages and data that describe items offered in online catalogues or marketplaces (CRMCommunity, 2002:7). An eCRM solution could include a module that manages content, and the editing and publishing thereof to a Web site.

4.8.2 The Customer Relationship Path

In 1998, an Economist Intelligence Unit report noted that customer profitability was likely to become the second most important measure of business by 2002 (Dru, 2002:183). Customer value is both the value created for customers, such as tailoring messages, products and service, and the value created by customers, which is the segmentation and targeting of the most attractive customers. The Customer Relationship path follows on from where the Customer Sales Path left off and is discussed on the overleaf.

As illustrated in the Relationship Path in Figure 4.3 following on page 58, digital technologies play a key role in cost-effective tailoring of one-to-one communications, mass customisation and the sophisticated segmentation of customer databases. The eCRM components of customer service and support, and back-office analysis both support the entire Customer Relationship Path, and are now discussed.
• **Service and Support:** Customer service and support can include Web self-service and incident tracking. Kalahari.net emails the status of goods in transit during the shipment process to the customer. The actual delivery of products has also been influenced by digital technology (Dru, 2002: 183). Music no longer has to be delivered on a CD but can now be delivered in MP3 format, which allows for compression of sound files small enough to be sent via e-mail. Books can also be delivered online in PDF format which allows the customer to buy and read the entire book or extracts of the book online.

Once the product or service has been delivered, the customer support phase begins. A company needs to help a customer get more productivity, value and customer satisfaction out of a purchase. Sony created a Web site, Imagestation.com, to aid its customers in editing images taken with digital cameras, thus enabling its customers to be more creative with Sony products, thereby reinforcing the brand’s innovative image.
Viral Marketing is also known as word-of-mouth (WOM) advertising and relies on customers passing along a message on behalf of a company to peers. Digital media, such as email, makes it possible for customers to refer others to a company’s online offering by forwarding these emails to friends. The final three stages in the Customer Relationship Path involve directly leveraging the customer relationship into further sales. Digital technologies allow for the right message to be delivered to the right customer at the right time (Dru, 2002:183-185).

• **Back-Office Analysis:** This is the final stage and is where Analytical CRM and customer profiling and segmentation engage. Analytical CRM are the analytical components of a CRM strategy including data marts, decision support tools and customer behaviour modelling, and analytical tools. In an eCRM environment, the customer data is captured via the Internet by the operational components of a CRM system and then stored, retrieved, analysed and reported for performance and results measurement (CRMCommunity, 2002:4). The ultimate aim is to measure the return on investment (ROI) for marketing, sales, e-Commerce and, support and service initiatives.

Customer profiling and segmentation is used to describe all activities and system capabilities that capture large amounts of customer information in order to do a more effective task of dividing the customer base. The customer base is first segmented by the value they represent to an organisation, and then by the needs they may have for specific products or services (CRMCommunity, 2002:4).
We have now seen how eCRM embraces the various business components throughout the relationship lifetime with the customer. We will now look at the technology architecture behind this process.

4.9 eCRM TECHNOLOGY

An eCRM system must be accessible by customers, and company users and administrators, from all supported access points, around the clock on a 24/7 basis (Technosoft, 2003:1). Figure 4.4 on page 61 illustrates an overview of an eCRM system architecture.

The eCRM system should provide access to customers through a variety of touch points; i.e.: Web self-help, email, Web forms, chat, VoIP, fax, phone, wireless, and face-to-face contact. It must also provide access to users of the system through various client systems, such as personal computers, cellular phones and personal digital assistants (PDAs). The eCRM system needs to support integration with customer interactions taking place in Web-based media, such as email and Web forms, along with those from traditional channels, such as the telephone.

Given that the managing of customer interactions is fundamental to eCRM, the system must also have facilities to maintain a complete, organised history of a customer’s contacts with a company, regardless of the communication channel used. Ideally, an eCRM solution should feature a three-tier architecture, to provide scalability, offer flexibility, and to simplify maintenance (Technosoft, 2003:1). An open architecture is necessary to allow eCRM solutions to be extended and integrated with external systems on all three levels, or tiers. The three tiers, as illustrated by Figure 4.4, are the
presentation, business logic and data tiers. The original illustration was adapted by this author in order to add a fourth tier, the security tier, which will be discussed under 4.9.4.

**Figure 4.4: eCRM System Architecture**

4.9.1 Presentation Tier

The Presentation tier includes interfaces for various types of access methods from both a customer and client user or administration point of view. Depending on available
technology and the accessibility thereof, provision should be made for Local Area Network (LAN) access, Wide Area Network (WAN) access, remote access, wireless access, portal access via the Internet and offline access (Technosoft, 2003:1).

4.9.2 Business Logic Tier
This tier consists of the core application logic, the accompanying objects and services.

4.9.3 Data Tier
This tier should comprise of a full-function database management system which could be software such as Microsoft SQL Server or Oracle.

4.9.4 Security
Although it was not originally included as a tier, the author of this study is of the opinion that Information Security Architecture (ISA) should feature as a separate tier within the eCRM architecture and therefore adapted Figure 4.4 on page 61. The reason for this is that we are looking at eCRM solutions for the SME industry and, due to cost restrictions, SMEs need a low cost solution that adapts to their business model and IT structure (refer 1.3 on page 4 and 2.6 on page 17). Ideally the ISA should be built into the eCRM solution so that the SME does not have to implement separate security architectures.

When we revisit the Forrester Research definition of eCRM (refer 4.4 on page 43), we see that part of the definition states that eCRM leverages integrated information on customers to improve marketing processes, particularly customer acquisition, development and retention, by managing deep and long-lasting relationships with customers (Goldshlager 2001:2). The flow of information to and from the customer is
necessary for eCRM to function. Our focus now turns to the flow of information that is necessary for e-Commerce and CRM to occur over the Internet as well as the customer data that is housed in the data warehouse.

The electronic world provides for the same information to be widely accessible via various media. Therefore, it is crucial to ensure that information is only available to those for whom it is intended. It is also crucial that instruments, which will ensure verification of parties involved in a transaction, are available (Taylor, 2001:65).

Information security management seeks to establish controls and measures to minimise the risk of loss of information and system resources, corruption of data, disruption of access to the data, and unauthorised disclosure of information. Security management is achieved through effective policies, standards, and procedures that will ensure the confidentiality, integrity, and availability of information (Tudor, 2001:1) and will be discussed in more detail in the following chapter.

4.10 SUMMARY
In this chapter we took a closer look at electronic Customer Relationship Management (eCRM). eCRM developed from CRM with the advent of the Internet. CRM and the Internet are inseparable issues as, not only does the Internet help in solving universal CRM issues related to data, but it also makes CRM a necessity. Customer relationships have been synchronised across various communication channels such as fax, e-mail, bulletin boards and digital conferencing. eCRM is able to manage customer interactions more productively and can remove manual intervention, aiding in keeping the customer satisfied and loyal.
eCRM helps to increase customer loyalty for the company as it is flexible, accommodating and facilitates faster transactions. Revenue is increased and costs are reduced by the collaboration and communication elements of eCRM. Customer interaction has become more sophisticated with eCRM and the components needed for this interaction include e-Commerce sell-side platforms, eCRM communication infrastructure such as VoIP, and eCRM applications such as marketing automation tools.

Electronic CRM supports the components of marketing, sales, customer service and support, e-Commerce and analytical back-office e-processes. These components in turn, support the various phases in the Customer Relationship Path which starts from awareness, through purchase and finally ends with viral marketing and re-purchase.

Furthermore, eCRM technology must provide access to customers and system users via all supported touch points and client systems. The system should feature a three-tier open architecture for scalability, flexibility and maintenance purposes. The tiers are the presentation tier, the business logic tier and the data tier. We have included a fourth tier, namely the security tier as a SME is constrained by budgets to implement a separate ISA. The next chapter will examine eCRM in South African SMEs more closely.
5.1 PREAMBLE

In Chapter 5, we discuss eCRM technology in the SME sector. We begin the discussion with the need for CRM in SMEs and why good customer relationships are important to the SME. Next we have an overview of the SME and its Information Technology (IT), beginning with the 6-step IT strategy process. Then, the 7-step process of selecting CRM for the SME is discussed with an emphasis of the functions of CRM software. The
discussion then turns to the Internet and how the SME should approach an Internet strategy. We also look at IT security and the business and technology risks that the Internet holds for the SME. Finally, we have a discussion on Internet security.

5.2 INTRODUCTION
Statistics indicate that only 3.7% of the South African population are entrepreneurs, compared to an international average of 10% (Klopper, 2003:1). Big businesses have consistently been shedding jobs over the last decade, while smaller business have been maintaining consistent growth in most economic sectors, especially in trade and business services. Such development underlines the importance of small business in South Africa and is in line with worldwide trends that have seen small business becoming a more weighty force on the global economic landscape.

5.3 NEED FOR CRM in SMEs
Focusing on the customer is becoming a key factor for any business as it requires up to five times more money to acquire new customers than to get more business from an existing customer (Silverstein, 2000:326). Customer retention is therefore of particular importance to SMEs due to their limited resources. By SMEs focusing on the customer, and knowing the customer and his problems, also allows for easier acquisition of new customers and facilitates targeted cross-selling (Baumeister, 2002:1).

Maintaining good customer relationships is imperative for the SME. For very small SMEs, i.e. less than ten employees, it is possible to personally be familiar with the customer and his preferences. For larger SMEs, there is a need for a common customer preference-memory, i.e. computer software. It is important to note at this
stage that establishing and maintaining good customer relationships is a strategic
endeavour. Relationship management software installed on its own does not ensure a
successful customer relationship. Business processes and the SME’s company culture
have to be redesigned to allow for customer focus. The software then becomes a tool
for the SME to implement a customer strategy (Baumeister, 2002:1).

When we consider that, at its core, CRM is an integration of technologies and business
processes, then in IT terms, CRM means an enterprise-wide integration of technologies
working together such as data warehouse, communications systems and marketing
(Bose, 2002:1). If we add the fact that eCRM requires these technologies to be Web-
enabled (Goldshlager, 2001:2), we see that the SMEs IT, CRM and Internet strategies
need to be sound.

5.4 THE SME AND INFORMATION TECHNOLOGY

Today’s SMEs often experience a paradox in terms of budget and resource allocation.
On the one hand, there are limited employees already stretched over numerous
functions and a limited budget; and on the other hand, their operational complexity is
often on par with bigger companies (PeopleSoft, 2001:2). Above all, the SME, like any
business, needs to focused and efficient. The IT concerns of SMEs include the need to
measure return on the IT investment, analysing and understanding control of costs,
understanding what benefit technology can add to the business both currently and in the
future, and, attracting and maintaining skilled consultants necessary to run a network.
There is also the pressure to analyse, understand and assimilate new technology into a
business, skills that the SME normally does not have or can not afford. (Klopper, 2003:1)
Limited resources can cause SME managers to focus more on the day-to-day IT tasks, and they may fail to address the need for an IT strategy (Anderson, Browning & Rosser, 2002:1). This places them in a reactive, rudderless position where they are vulnerable to savvy competitors with the foresight to align current and future technology investments with evolving business objectives. Without an IT strategy to guide them, ad hoc decision making by the SME, which appears to save money in the short term, can prove myopic later when the total cost of ownership is analysed.

An IT strategy starts with the business model and business strategy, and should provide the SME with a medium-term road map of objectives of how technology can deliver the greatest business effect and payoff. A business model is the distinctive joining of four things: business drivers, business definition, competitive advantage and how the company makes money (Boar, 2001:10). The IT strategy then becomes the standard point-of-reference for technology investments, project selection and prioritisation, and day-to-day consistency in decision making. The process can then proceed to the kick-off phase.

Many enterprises perceive an IT strategy as a long drawn out process. In 2002, Gartner Research proposed a road map whereby a SME can devise and create an IT strategy in ten weeks and document it in ten pages (Anderson et al, 2002:1). An illustration of this process appears in Figure 5.1 on page 69, and each of the steps or phases will subsequently be discussed in more detail.
5.4.1 Phase 1: Kick-Off - Week 1

Once the business objectives of the SME are understood, it becomes easier to decide where IT can have potential impact. An executive championing the strategy exercise must show support for and reiterate the need for corporate business strategy to drive IT strategy. Key decision makers from the SME’s different business units, i.e. marketing, manufacturing and support, along with the IT staff and, if possible, key suppliers and customers in the strategy development process, must be brought together.
Together, business participants should identify and document key business functions such as responsibilities, business processes, goals, strategies for improvement, business objectives and metrics for success. The key overarching goal of this meeting is to ensure that the SME’s corporate business strategy and objectives are well understood, committed to and accepted as the principle driver for IT strategy development (Anderson et al, 2002:2).

5.4.2 Phase 2: Process Prioritisation - Weeks 2-3

This phase involves the SME reviewing the business processes and technologies, and their competitive impact on the outlined business objectives. The identified business processes should then be pegged to competitive benchmarks because SMEs need to know what business success looks like before they begin developing the IT strategy. This can be accomplished by comparing the SME’s business process competency against those of its competitors (Anderson et al, 2002:2).

5.4.3 Phase 3: Competency Analysis - Weeks 4-5

The third phase involves the SME mapping business processes to its IT competencies by defining and ranking the strength of the SME business application portfolio, internal capabilities and underlying technologies against its business process requirements. Capabilities provide a strategic framework asserting that the focus of strategy is the nurturing of the primary business processes, and practices that deliver value and satisfaction to the customer. The SME’s strategic positioning should concentrate on enabling the infrastructure to support robust capabilities and selecting the capabilities on which to compete (Boar, 2001:167).
This process is then examined, based on whether it is a current opportunity or threat, given the ability of the business to support that process relative to the competition. Based on these inputs, an average ranking is assigned. Key business processes with low competency rankings highlight the need for investment. This will serve as the basis for IT investment and project selection that will follow (Anderson et al, 2002:3).

5.4.4 Phase 4: Initiative Selection - Weeks 6-7

This phase involves the SME translating the ranked business processes and IT competencies into projects, and prioritising them based on the degree of business performance improvement versus the cost and probability of success. This exercise should provide the SME’s management with the basis for making technology investment decisions (Anderson et al, 2002:4).

The SME should make statements of direction and desired outcome for each project, known as strategy statements. These statements are supported by developing a future business scope and revised positions. Objectives for each project are developed and strategic moves are formulated to achieve these objectives (Boar, 2001: 227-228).

5.4.5 Phase 5: Project Prioritisation - Week 8

Once major initiatives have been identified and prioritised, they can be segmented into specific projects, and assigned the necessary resources and dependencies for each project. Projects must be sequenced in such a manner that the SME’s employees are neither kept idle or overloaded. The key considerations at this stage is to determine which projects require external resources, the cost of technology acquisition versus
outsourcing, and whether the SME has the skills and competency to undertake the project (Anderson et al, 2002:4).

5.4.6 Phase 6: Document Preparation, Presentation - Weeks 9 -10
The outcome of this phase is the SME’s IT strategy team producing a conclusion-oriented document that focuses on the project costs, length and results of the planned IT investments, as well as the criteria by which they were chosen. The SME should review the strategy exercise and accompanying document annually. The investment in strategy development is often returned only in the measure that it is continually used, reviewed and updated, thus further strengthening the strategy. Finally, it is important to remember that although the process is valuable to participants, goals will only be attained if the SME’s IT strategy is communicated and that incentives are aligned with action plans.

5.4.7 IT Strategy Summary
A SME’s solid IT strategy, aligned with its corporate business objectives can guide the SME’s day-to-day activities, while delivering major business returns on IT investments (Anderson et al, 2002:4).

5.5 SELECTING CRM FOR THE SME
As customer retention is important to the SME due to its limited resources, the SME needs to manage the interaction with the customer and measure customer satisfaction and retention. When the SME considers CRM software, it must be borne in mind that CRM software can be broadly divided into two categories, namely customer interaction software, and behaviour analysis software (Baumeister, 2002:1).
• **Customer Interaction:** The first category manages customer interaction, and contains applications for customer service and support, sales force and marketing automation. These applications allow the SME to establish a personalised relationship with the customer.

• **Behaviour Analysis:** The second software category analyses the behaviour of the customer and contains reporting and data-mining tools. This allows the SME the measurement of customer satisfaction and retention, and enhances the understanding of the customer’s problems and preferences. This, in turn, allows for a more targeted marketing and sales strategy.

SMEs need a low cost CRM solution that adapts to their business model and IT structure, instead of having to adapt their business model and IT structure to the CRM software (refer 1.3 and 4.9.4). In addition, it should be possible for the SME to introduce the software in small phases so as to not interrupt the current business processes. The business processes will have to react to the changes in the future, thus the software should be easily adaptable to these future changes once installed.

Curry identified a seven-step process for SMEs to follow when considering a CRM solution as illustrated in Figure 5.2 following on page 74 (Curry, 2003b:3-5). The original schematic was slightly adapted by this author in order to illustrate the process-flow more clearly. We will now discuss each of the steps in more detail.
5.5.1 Step 1: Getting Familiar With CRM

From a total relationship marketing point of view, we could include Partner Relationship Management (PRM), Enterprise Resource Planning (ERP) and Enterprise Relationship Management (ERM) functionality here, but this study concentrates only on the functions supporting relationship management for customers. CRM software primarily supports the following CRM functions and processes: Customer Analysis; Sales; Marketing Management and the Customer Contact Centre (Curry, 2003b:3-6). We will briefly discuss each CRM function but will again summarise the functionality conveniently at the end of Chapter 6.
• **Customer Analysis:** The CRM software can segment and profile the customers of the SME based on data analysis. Customer potential is then estimated on the amount of money that customers could spend on the SME’s products or services. Customer share calculates the share of the total spend that one individual customer is expected to contribute to the SME. The customer’s operational profitability to the SME can then also be calculated. A customer’s current and expected time span, or lifetime, with the SME leads to a calculation of his expected profit contribution to the SME over that lifetime. Ultimately, the satisfaction level of each customer on the SME’s products, services and relationship issues can be measured.

• **Sales Functions:** Lead Management manages relationships with prospective customers that signal an interest in starting a dialogue, while the contact management function manages and documents multi-media contacts, such as sales visits, telephone calls, and email correspondence. Sales forecasting estimates actual revenues of the SME over a period of time and compares it to planned revenues. A sales cycle management function manages the different phases of a structured sales method while pipeline management analyses all current sales cycles. Key Account Management (KAM) then manages contacts with the decision-making unit of a client and customer team management allows for the SME’s marketing, sales or service teams to plan and coordinate marketing and sales activities. Territory management enables a SME’s sales manager to monitor and control the activities of his sales people while quotation management manages the process of making, revising and approving quotations for products
or services. Finally, a calendar and scheduling function enables the SME to plan and schedule activities regarding a customer or prospect.

- **Marketing Communication:** Campaign Management manages, plans and monitors the SME’s marketing communications campaigns. On a more personal level, direct mail management functionality manages, plans and executes a direct mail project. This can also be done digitally via an email management function. If telephone marketing is used, a telemarketing management function can manage, plan and execute in- and outbound telemarketing projects. A show and seminar management function does the same for seminar and exhibition events. If a project needs brochures and documentation, a document and collateral management function will manage, plan and execute for the SME. In an online environment, a banner advertisement management function will plan, manage and execute a banner advertising project on the World Wide Web. A marketing communication module can ensure that the SME’s brand management function is digitised.

- **Customer Contact Centre:** Order Management manages order entry and communication to logistics, production or fulfilment departments. A service management function can plan, manage and monitor service-related activities for the SME while a help-desk management function manages incoming help requests, frequently asked questions (FAQs) and knowledge databases. Fax and email traffic facilities can manage high volume incoming and outgoing correspondence for the SME. Finally, an online chat facility enables online dialogue between the contact centre and customers or prospects.
5.5.2 Step 2: Preliminary Requirements List

Considering the list of CRM processes and functions discussed in 5.5.1, the SME can now start to identify those functions and processes that will be needed for the company. The list must be divided in those processes and functions that the company implements already, should implement, might implement, do not need and are not sure of. This checklist can determine the base CRM functional and process requirements. As these lists are not exhaustive, other functionality and processes can be added as needed.

Management must also consider the uniformity of the SME’s product offering and the value that customers will place on a customised interaction with the SME. Another point to consider is the extent to which various levels in the SME could use the information. There are two categories for such interaction, namely: customer interaction points and decision interaction points (Bose, 2002:3).

- **Customer Interaction Points:** The firm should identify how, when and where it will be interacting with customers. These interaction points, or touch points must be identified and it must be determined whether to retain, modify or remove these points. These interactions could originate from a toll-free telephone line, help desk, Web site or a third-party partner and should be recorded into an information system with access to all employees.

- **Decision Interaction Points:** Decision interaction is the second consideration. Management needs to use this information to improve the quality of their decisions. As with customer interaction points, the company will need to identify the current decision-making processes and determine whether each should be
maintained, modified or removed to accommodate the new customer-centric approach. The identification of critical decision-making data and the required information is crucial.

5.5.3 Step 3: The CRM Quick Scan

Industry-specific packages are usually the more ideal business process software for smaller companies. For example, an advertising agency will be best served with advertising agency-related software. The same holds true for a car dealership being served with automobile dealership-related software. Most industry-specific software packages do not have extensive CRM functions, but most upgrades have that functionality and most software packages are becoming modularised.

5.5.4 Step 4: The Industry Quick Scan

The CRM quick scan should also be reversed in order to locate CRM software suppliers and consultants with expertise in the industry. The SME could contact similar companies in the same or relevant industry. Vendors and resellers of software are also good points of departure.

5.5.5 Step 5: CRM Partner Selection

The short listed candidates should be rated and scored according to experience and expertise criteria in the key areas of the relevant industry, CRM in general and product knowledge. For the SME, the cost of the solution, including the relevant service and support, should also be a key criterion.
5.5.6 Step 6: Reference Sites

The SME, together with the CRM partner, should shortlist software products and observe the results of an implementation at a company similar to the SME. The users, salespeople, service people and marketers should be interviewed.

5.5.7 Step 7: Final Decision

The final selection of the CRM software package should adhere to the question of which vendor ultimately understands the specific SME’s industry and business.

5.6 THE INTERNET AND THE SME

Customer Relationship Management is an area that, second only to e-Commerce, has grown the fastest in the Internet marketing environment. In many ways, the Internet has become a symbol of the ultimate customer relationship for both business-to-consumer (B2C) and business-to-business (B2B) marketers with new innovations such as customer self-service areas, Internet-based help desks, intelligent search engines, solutions databases, and “call me” buttons on Web sites. The Internet presents a new, cost-effective, and lasting way for the SME to build all-important relationships with customers (Silverstein, 2000:309).

It must be noted at this stage that an SME should have a clearly defined Internet strategy. Research shows that the success of online ventures lie in the physical business’s ability to align business processes with Web site strategy (Burgess, 2002:232). There are four components of Internet strategy that may be useful for SMEs to consider when engaging in any form of online commerce (Burgess, 2002:323-233). This model is used as a tool to evaluate the level of SME involvement in the
development of an Internet strategy and how this may impact on the success of the SME’s venture into Internet commerce. The four components are goals, content, process and functionality.

5.6.1 Goals
The goals component of an Internet strategy is sub-categorised into primary and secondary goals. The benefit of incorporating primary and secondary goals is for the SME to recognise potential economic benefits and that there is more than one indicator of success.

5.6.2 Content
The content dimension of an Internet strategy identifies the main uses of an SME’s Internet resources. This component enables an SME to clarify, for example, why it has a Web site, and its current major uses and future plans for the site.

5.6.3 Process
The Internet strategy’s process component is basically a method to identify whether the initiation and leadership of the strategy was from the top management level or further down the chain of command, and whether the Internet resources were developed utilising internal or external resources and expertise.

5.6.4 Functionality
Finally, the functionality component of the Internet strategy examines the functions of the Internet resources. This could incorporate B2B e-Commerce, B2C e-Commerce or the implementation of a method for increasing and retaining customers, or eCRM.
5.7  IT SECURITY

Tudor states that security management is achieved through effective policies, standards, and procedures that will ensure the confidentiality, integrity, and availability of information. We now discuss the reasons for the lack of security measures and the sources of security problems (Tudor, 2001:1).

5.7.1 Reasons for the Lack of Security Measures

In general, small companies lag behind big businesses in the use of IT due to a condition commonly referred to as resource poverty (Burgess, 2002:158). This condition is characterised by several constraints on financial resources, a lack of in-house expertise and a short-term management perspective imposed by a volatile competitive environment. However, smaller businesses can be more innovative than larger companies as they are less bound by bureaucracy and cumbersome organisational systems. Due to scarce financial resources, smaller businesses tend to choose the lowest costing information systems (IS) and often underestimate the amount of time and effort required for IS implementation. This may cause that IT security is overlooked.

5.7.2 Sources of Security Problems

Computer security problems come from many sources with the expanded use of IS, the Internet and email applications being among the more common. Companies that are connected to the Internet are significantly exposed to deliberate attacks; to the tune of eight times more than non-connected companies (Burgess, 2002:160). Other risk factors are having data links with other companies, for the purposes of Electronic Fund Transfer (EFT), and companies with infrastructure including Remote Access Servers (RAS). The latter allows employees to dial into a company’s IT network via modem.
One fact is often overlooked when discussing Internet security and that is that a company’s computer systems and network also faces risk even if it not connected to the Internet. Other sources of security issues result from inadequate or nonexistent data backup, operating errors such as accidental deletion of data, and the introduction of viruses via diskettes or writeable CDs.

5.8 INTERNET RISKS

SME organisations and employees that consider using the Internet for more than personal reasons should be aware of the risks associated with e-Commerce and the Internet. These risks include business and technological risks (Labuschagne, 1999:4-8).

5.8.1 Business Risks

Trading and communication over the Internet could incur the risks of businesses’ reliance on technology, the pace of technological change, the increase of IT-related crime, the shortage of IT professionals and the liability of Internet risks.

- **Business’ Reliance on Technology:** Most companies already rely heavily on IS for their business functions. By connecting these systems to the Internet, these organisations become even more dependent on technology, while exerting less control over it.

- **The Pace of Change:** In future, businesses will be judged by their ability to rapidly change and meet new demands. Change however, increases vulnerability which actually should be minimised to affect the anticipated outcome.
• **The Increase of IT Crime:** IT-related crime statistics show an increase in the number and proportions of these crimes. A recent well-publicised Internet banking fraud case involving ABSA, one of South Africa’s largest banks, exposed the vulnerability of companies in South Africa to Internet crime (Thiel, 2003:3).

• **Shortage of Information Security Professionals:** The Internet presents a relatively new and unknown domain, for which security technology is still in its infancy. Human resources are needed to implement and maintain these security technologies, and these specialists often charge high rates for their services.

• **Responsibility/Liability for Internet Risks:** Due to the “non-ownership” that the Internet presents us with, no one can be held responsible for Internet-related problems. Entities using the Internet must do so at their own risk and should manage these risks.

5.8.2 Technological Risks

As with business risks, trading over the Internet also incurs technological risks, such as the magnitude of the Internet, the ready availability of hacker tools, the complexity of Internet security measures and the unpredictability of Internet technology (Labuschagne, 1999:4-8).

• **Internet Magnitude:** The Internet is an ever-changing technology and it is this dynamic nature that makes it difficult to secure. Organisations have no control over the Internet outside their own network parameters.
• **Availability of Hacker Tools:** The Internet allows ready access to information and tools that could be used in attacking the information of other parties, also known as hacking. The lures of possible rewards have made the Internet the ideal stomping ground for unscrupulous individuals and groups to exploit other Internet users.

• **Complexity of Measures to Secure the Internet:** The technology on which the Internet is based is extremely complex, therefore the technology to secure it is equally complicated, if not more so. Internet security is for most part, intangible, which precludes many subscribers from understanding it. The incorrect implementation of security technologies only creates more vulnerability.

• **Unpredictable Nature of Internet Technology:** As the Internet is still a relatively new technology, new uses for it are discovered on a daily basis. Therefore new vulnerabilities and weaknesses are also being discovered. These weaknesses are usually discovered and exploited very quickly by the hacker community. We therefore cannot assume that the Internet activities of any organisation will be secure at any point in time.

5.9 **INTERNET SECURITY**

There are some security issues that are important to consider when a SME develops a presence on the Internet or swaps information electronically. This has always been an area of considerable interest and the various issues are related to authentication, site security, privacy, encryption and identity verification (Ellsworth & Ellsworth, 1995: 257).
5.9.1 Authentication and Secure Transactions

eCRM involves doing business and marketing via a Web-based portal. It also involves the exchange of information, which brings numerous authentication issues to the fore, involving authentication of data, people, products and transactions. Authentication is the unique identification of network users (De Kock, 1999:20) or the assurance that the user who is requesting access is really who the user claims to be. Appropriate authentication is necessary for effective access control (Tudor, 2001:293). One of the technologies that offer secure electronic transaction over the Web is Secure HTTP (Hypertext Transfer Protocol). Secure HTTP, or SHTTP, offers secure transactions between user and server when the user is busy with a data entry from. The user can click on a secure submission button, and the client program will generate a secure key for the session using the form. (Ellsworth & Ellsworth, 1995:258)

5.9.2 Site Security

Most businesses have security concerns involving their Internet presence. These concerns include the security of transaction information, and the modification or destruction of data (Ellsworth & Ellsworth, 1995:264). There are methods that can help prevent this, i.e. firewalls, which segment portions of a network to prevent damage from unauthorised access or threats such as computer viruses (Tudor, 2001:212).

5.9.3 Privacy

Privacy is ensuring that non-readable information is not disclosed during the transfer of data (De Kock, 1999:20). Internet traffic generally offers a modicum of privacy but other issues need to be considered, such as email-privacy and Web site traffic logs.
5.9.4 Encryption

Encryption is the process of making readable information unreadable through the use of mathematical conversion or processes (Tudor, 2001:201).

5.9.5 Identity Verification

Access control involves network and file authorisation and falls into three major categories, i.e. administrative, physical and technical controls (Tudor, 2001:202).

- **Administrative**: These controls are security policies and procedures
- **Physical**: Physical controls constrain direct, physical access to equipment
- **Technical**: These are logical controls that include anti-virus software, encryption and audit trails.

5.10 SUMMARY

Chapter 5 took a closer look at the issues facing a SME when considering an eCRM solution. Smaller businesses have been maintaining consistent growth in South Africa and will become a greater force on the economic landscape. Customer retention is of particular importance for the SME and therefore the maintenance of good customer relationships is imperative. CRM software becomes a tool in implementing this customer strategy. The concept of eCRM requires this software to be Web-enabled.

A SME should have an IT strategy in order to align current and future technology requirements and to measure the return on IT investment. The IT strategy should start with the business model and business strategy. This strategy does not have to be a lengthy process and could be finalised in ten weeks. CRM software manages customer
interaction and also measures customer satisfaction and behaviour. The SME needs a low cost CRM solution that adapts to its business model and IT structure, and its introduction into the firm should not interrupt the current business. A process should be followed when the SME considers a CRM solution and should include an analysis of the functions of CRM and a comprehensive investigation of the CRM industry.

The Internet has become a symbol of the ultimate customer relationship as it presents a cost-effective way of building lasting relationships with clients and customers. The SME’s Internet strategy must be aligned to its business processes and must address goals, content, process and functionality. Resource poverty leads to SMEs overlooking the matter of IT security. The Internet and email applications are among the more common sources of security problems and there are certain business and technology risks associated to e-Commerce. Internet security has always been an area of interest, and there are a number of issues that need consideration, including authentication, site security, privacy and encryption. We will now examine current eCRM solutions available to the South African SME market and their functionalities.
Chapter 6: eCRM Solutions in South Africa

6.1 PREAMBLE

Chapter 6 will focus on the eCRM software packages that are available for purchase through vendors or resellers in South Africa, or via download through the Internet. We will start with a brief overview of the vendors playing in the overall relationship marketing field, and what criteria to evaluate software vendors on when choosing an eCRM solution. We will list and briefly discuss some vendors and their eCRM packages aimed
at the medium-sized and small business market respectively. Our summary will include a list of possible functionalities that could feature in an eCRM solution and also additional features that would be needed in order to make these packages beneficial to the South African SME. The purpose of this chapter is to help SMEs select the right eCRM software, not to select the software for them.

6.2 INTRODUCTION

Selecting appropriate customer relationship management software can be a difficult task. SME decision makers need to be more informed, and software selection outcomes need to be facilitated. The aim of this chapter is to facilitate more informed decision making in order to improve software selection outcomes. One of the reasons for relationship management software failing to deliver, is that after implementation, the software does not always meet user requirements. The reasons for this are that companies selecting the software lack an objective basis, CRM software vendors often make unsubstantiated or incorrect claims on the functionalities, and that problems experienced with Enterprise Resource Planning (ERP) software selection are now repeating themselves with CRM (Lee et al, 2001:7).

- **Customers Lack an Objective Basis:** The majority of software purchasers do so blindly because vendors, rather than objective sources, provide the vast majority of the information that buyers will use to decide which software systems to evaluate and which to buy. There is a lack of alternative information sources accessible to buyers, and, the little objective information that does exist is neither widely distributed nor based on input from customers. The customer should be the final arbiter (Lee et al, 2001:7).
- **Unsubstantiated and Incorrect Claims by Vendors:** Selecting relationship management software on the sole basis of vendor authority can be problematic (Lee et al, 2001:7). A common problem is inappropriate CRM software failing to support user requirements, due to vendors making over-ambitious functionality and adaptability promises.

- **ERP Selection Problems Repeating Themselves in CRM:** Back office ERP technology preceded CRM, its front office relative, and the struggles to successfully implement ERP still continue (Lee et al, 2001:8). At the purchase stage, many ERP buyers also only knew of vendors’ sales and marketing messages.

### 6.3 VENDOR OVERVIEW

The major vendors that serve the CRM market change over time as the Marketing and CRM industries change. In 1993, the leaders of Sales Force Automation (SFA) were Brock Control, GoldMine, Sales Technologies, and Aurum (Gray & Buyn, 2001:6). The following changes took place in the SFA market after 1993:

- Brock Control became Firstwave Technologies
- GoldMine, an early contact management system, was acquired by FrontRange
- In 1998, Sales Technologies merged with Walsh International, and is now consolidated into Synavant to provide pharmaceutical and healthcare industry relationship management solutions
- Aurum was merged into Baan, which in turn was acquired by Invensys in 2000.
In the Customer Services (CS) area, Scopus, Vantive and Clarify were the major vendors before 1995 (Gray & Buyn, 2001:6). The following changes took place in the CS market from 1995 until presently:

- In 1995 Siebel merged with Scopus and dominated the consolidated CRM market with 68% market share
- In 1999 Vantive was acquired by PeopleSoft
- Also in 1999, Clarify was bought out by Nortel

In 1998, the Customer Relationship Management (CRM) market was jointly owned by Siebel, Vantive (now PeopleSoft), Trilogy, Clarify (now Nortel), and Oracle, plus less than 20 other companies with small market shares (Gray & Buyn, 2001:6). The technology vendors had their own specialities. Some examples are as follows:

- Siebel specialised in SFA
- Remedy focused on helpdesk systems
- Davox were experts in call centre systems
- eGain’s main focus was e-mail management
- BroadVision specialised in front-end applications

Today, however, there is no specific boundary for vendors as they are all aiming to expand their products over the entire CRM spectrum. For example, Siebel focuses on the entire CRM spectrum, Davox entered into customer contact management, and BroadVision can now backward-integrate with ERP (Gray & Buyn, 2001:7-14).
Most CRM vendors originated from either back-end or front-end applications:

- **Back-End Application:** Traditional ERP vendors such as SAP AG, Oracle Corporation, Baan (now called Invensys), and PeopleSoft acquire, build, and partner their CRM applications for ERP functionality.

- **Front-End Application:** Some companies started with front-end solutions such as Personal Information Management Systems (PIMS). Siebel, BroadVision and Remedy are in this category. Starting in late 1998, with the development of e-Business, many of the larger players acquired or merged with mid-sized companies to allow them to offer services across the entire CRM spectrum.

At the beginning of 2000, Siebel was the market leader with a 35% share with PeopleSoft and Nortel following. SAP and Oracle were introducing new applications to the market based on their software development capabilities. In addition, a reverse movement took place as many companies in fields such as data warehousing and ERP began offering CRM software (Gray & Buyn, 2001:6).

Today, the rapid development of network and communication technologies leads each CRM vendor to move towards new technologies, such as data warehousing, knowledge management, and portals on the Web, or eCRM. Recent entrants offering eCRM with Web applications and services include Silknet, E.piphany, and netDialog (Gray & Buyn, 2001:7). Figure 6.1 following on page 93 summarises some of the current major categories and players across the CRM spectrum.
6.4 eCRM VENDOR EVALUATION

In our discussion of eCRM vendor evaluation, we will keep solution size, or the estimated size of the organisation that the software vendor/solution is targeting, to small and medium enterprises. Solution size is an indicator of the size of the organisation that is purchasing the software, not of the software vendor. To reiterate, the purpose of this chapter is to help SMEs select the right software, not to select the software for them.

Gartner suggests six primary evaluation criteria when SMEs consider a vendor to supply an eCRM solution, namely: functionality, viability, service and support, technology, cost, and vision (Outlaw & Close, 2001:1). These criteria will now be discussed more closely.
6.4.1 Functionality

This is the most important criteria for SMEs to consider before commencing their search for an eCRM vendor. An eCRM application suite should enable SMEs to have greater insight into their customers, increase their customers' access to the enterprise, enable more-effective customer interactions, and integrate all their customer channels and key back-office functions (Outlaw & Close, 2001:3). Gartner identified key functionalities that software should adhere to in order to increase their customers’ access to the enterprise, enable more-effective customer interactions, and integrate all their customer channels and key back-office functions (Outlaw & Close, 2001:4). These are depicted in Figure 6.2, which is a slight adaptation from the original author’s work for the sake of clarity.

**Figure 6.2: Gartner’s Key SME Functional Requirements for eCRM**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seamless integration:</strong></td>
<td>Between CRM functions: sales, marketing and customer service</td>
</tr>
<tr>
<td><strong>Integrated support for all channels that face the customer:</strong></td>
<td>Web site, e-mail, phone, fax, face-to-face meetings and all customer-facing roles, including self-service, field sales, telesales, customer service, technical support, field service and partners</td>
</tr>
<tr>
<td><strong>Integrated support for CRM marketing functions:</strong></td>
<td>Such as data capture, cleansing and reconciliation, campaign management and content management</td>
</tr>
<tr>
<td><strong>Multilingual support:</strong></td>
<td>A major requirement in countries across Europe. Might become important in South Africa in future, considering eleven official languages</td>
</tr>
<tr>
<td><strong>Integrated support for CRM analysis:</strong></td>
<td>Including “out-of-the-box” reports and a common, simple reporting tool across the suite</td>
</tr>
<tr>
<td><strong>Industry-specific:</strong></td>
<td>Application templates and industry process flows</td>
</tr>
</tbody>
</table>

*Source: Adapted from: Outlaw & Close, 2001: 3*

6.4.2 Viability

Ideally, the vendor under consideration should have strong financials and solid management, as there will then be resources to spend on research and development, and sales and marketing. Alliances with complementary vendors and a committed installed base can aid in gathering references, and can verify the quality of their relationships with the vendor, in addition to the quality of the products and services.
6.4.3 Service and Support
Post-purchase support should include responsive phone support, quality online and printed documentation, online user-group discussions and Web sites with diagnostic applications. Vendors with a track record of providing timely, easy-to-install upgrades with reasonable additions of new functionality should be considered.

6.4.4 Technology
Complex technology adds time and expense to the implementation and ongoing support of an eCRM product. The programming of the application should be in a common development language, such as Sun Microsystems’ Java 2 Enterprise Edition (J2EE) or Microsoft's development tools, and should be supported by a common relational database management system for SMEs, for example, MS SQL server or Oracle. Products with well-designed user interfaces will enhance a user's productivity and minimize the often-costly dependence on training and phone support from the vendor.

6.4.5 Cost
In planning CRM spending, SMEs should factor in the initial costs and the total cost of ownership (TCO). Initial costs include customisation and consulting, education and training, managing the implementation of the product into the business, hardware, networking, communications and software. A software package typically consists of the application package, database, systems software, security and network management, and other software needed to run the product. Ongoing costs include custom enhancements, education and training, maintenance payments, services and upgrades.
6.4.6 Vision

Vendors that lose their SME focus will be less responsive to SME needs and will be unable to provide the appropriate service and support. As smaller vendors become more successful, some will likely refocus their efforts on larger customers. Vendors such as Pivotal and Onyx are already pursuing the low end of the large enterprise market. Gartner also suggests adding certain weighting to the criteria for SMEs to use when evaluating CRM products as illustrated in Figure 6.3 below.

Figure 6.3: Overall Application Selection Criteria Weightings

Source: Outlaw & Close, 2001:1
6.5 eCRM FOR MEDIUM BUSINESS

We commence our examination of eCRM software with solutions that target the medium-sized market. At the time of writing this dissertation, three vendors were considered to be market leaders in the medium-business customer relationship management market, namely Onyx, Pivotal and SalesLogix (Close, 2003:1). However, vendors that traditionally focused on large enterprises continue to challenge, as players such as Microsoft enter the market allowing the choices facing medium-sized businesses to grow. However, Gartner Research is of the opinion that these choices will soon shrink because of consolidation (Close, 2003:1). Gartner Research predicts a number of milestones that will influence the eCRM and SME markets (Close, 2003:1 -3). These predictions are as follows:

- By the end of 2004, 50% of today’s vendors that focus on medium-sized business will have merged, been acquired, left the market or will have narrowed their focus to an specific industry

- By the beginning of 2004, major players such as Oracle, JD Edwards and SAP will also offer medium-sized business-focused solutions, primarily targeting their own existing customer bases

- By the end of 2004, eCRM application service revenue will account for more than 25% of the medium-size business CRM application market
The minimum criteria for a software package to be regarded an eCRM application, are support for the three primary applications that make up a CRM suite, i.e. sales, customer service and marketing automation (Close, 2003:2), and Internet-centricity (Goldshlager, 2001:2). Although these functionalities are found in all of the suites that we examine below, the balance of functionality varies significantly from suite to suite. Most of the packages offer stronger and deeper sales or customer service than marketing functionality. In some cases, these variations reflect the application development heritage of these vendors, as discussed earlier (refer 6.3), but the emphasis on sales and customer service is also reflective of the emphasis and demand of the medium-sized business. We will now examine the eCRM players in a bit more depth according to the Leaders, Challengers, Visionaries and the Niche players as identified by Gartner Research (Close, 2003:1-5).

6.5.1 Leaders: Medium-Sized Enterprise Vendors

The vendors that specifically focus on the medium-sized business include Onyx Software, Pivotal and SalesLogix. They typically offer the various eCRM functionalities as modules.

- **Onyx Software**: Onyx offer sales, service and marketing solutions as modules, but has strengths in contact-centre-based customer service and inside sales.
- **Pivotal**: Pivotal’s strengths lie in sales, particularly e-sales, customer service, contact centre support and marketing automation.
- **SalesLogix**: SalesLogix’s strength is primarily multi-channel sales automation, but it also offers sales and support channels for partners.
6.5.2 Challengers: The Larger Vendors

Vendors that have traditionally focused on large enterprises have recently started focusing on the medium-sized business sector. They include Siebel and PeopleSoft.

- **Siebel Systems**: Siebel currently offer two suites for the medium-sized business. Siebel’s MidMarket Edition has strong and balanced functionality across the functions of sales, customer service and marketing, but also offers a range of industry-specific add-ons.

- **PeopleSoft**: PeopleSoft’s Accelerated CRM targets medium-sized firms with large enterprise functionality and also offers industry-specific add-ons.

- **Kana**: Kana’s iCare is aimed at the higher end of the medium-sized market. It enables communication across all customer touch points and across operational functions.

6.5.3 Visionaries: All-In-One Medium-Sized Vendors

The following vendors also focus on the medium-sized market but usually offer one all-encompassing CRM suite or solution and support multiple technology platforms, such as Microsoft (MS), Oracle and Lotus. Visionary vendors include Oncontact, SalesForce.com and Microsoft.

- **Oncontact**: Oncontact Software balances functionality with support for multiple technologies, such as MS Outlook and Lotus Notes for messaging and MS SQL, Oracle, Sybase and IBM’s Informix databases.
• **SalesForce.com:** SalesForce.com’s strongest functionality is sales automation but is not apt for medium-sized companies with industry-specific requirements.

• **Microsoft CRM:** MS CRM’s strength is in the .NET architecture and integration with the Outlook application.

6.5.4 Niche Vendors: Focused eCRM Solutions

Various niche players operate in the medium-sized market. These vendors usually focus on one or a few specific functionalities built around their Web-centric offerings.

• **Talisma:** Talisma’s strength is specifically its support for multi-channel contact-centre customer service and support.

• **iET:** iET’s fortes are its customer service functionality and analytics capabilities. Industry-specific solutions are a future focus.

• **Saratoga Systems:** Saratoga’s speciality is data synchronization for mobile sales users. It also features a built-in Web-client and supports Microsoft Outlook and Lotus Notes.

• **Epicor Software:** Epicor has strengths in customer service and support functionality, which made the transition to the .NET architecture.

• **FrontRange Solutions:** FrontRange’s applications, GoldMine and Marketing 2002, support sales and marketing, while it’s HEAT application provide customer services and support with asset tracking, knowledge management, self-services and Web-enabled helpdesk solutions.
- **Relavis**: Relavis does not focus on Microsoft architecture, but is built on Java 2 Enterprise Edition (J2EE) based on IBM, DB2 and other collaborative technologies such as WebSphere and Domino. It supports integration with Lotus Domino Messaging and also, MS Outlook through a Lotus connector.

- **NetLedger**: LetLedger’s NetCRM is a new entrant and is a hosted service.

- **Connect-Care**: Connect-Care targets midsize B2B-focused hardware and software vendors with its CRM suite, based on Sybase’s PowerBuilder and J2EE/JavaServer Pages technology, supporting bi-directional integration with MS Outlook and Lotus Notes.

- **Bigfoot Interactive**: Interactive Relationship Manager enables marketers to implement email programs, using segmentation and dynamic content assembly.

- **interlinkONE**: One of interlinkONE’s strengths is that they target high-technology manufacturing and financial services organisations with relationship management applications.

- **Soffront Software**: Soffront offers a Web-architecture CRM suite from its help desk and defect-tracking legacy. Sales force automation and marketing automation should follow suit.

### 6.5.5 Summary of Medium-Market Vendors

Onyx, Pivotal and SalesLogix are the medium-size business customer relationship management market leaders while vendors traditionally focused on large enterprises continue to challenge this market. With Microsoft and more traditionally large enterprise-focused application vendors entering the market, the choices medium-sized businesses have appear to be growing, but should shrink eventually because of consolidation.
Vendor commitment to the market requirements and viability will become key decision criteria (Close, 2003:1). Medium-sized businesses are advised to begin their search for customer relationship management applications only after creating an enterprise-wide CRM vision and strategy. Figure 6.4 below summarises the eCRM vendors for the medium-sized business market. The original matrix was slightly adapted by this author to include all the vendors discussed on the previous four pages. There must also be noted that the matrix was correct as of April 2003 and could have altered since.

**Figure 6.4: eCRM Vendors Targeting the Medium-Sized Market**

As of April 2003

Source: Adapted from Close, 2001:3
6.6 eCRM FOR SMALL BUSINESS

Where the previously discussed eCRM solutions aimed their offerings at the medium-sized market, we now discuss the eCRM software solutions aimed at the Small Business. One should also note at this stage that an overlap can occur in the focus of the software vendors between the small and medium end of the market. For the sake of clarity, all of the software solutions listed below are focused on the lower end of the SME market, unless otherwise stated. We now list the vendors and briefly discuss their eCRM offerings circa April 2003.

- **BLI**: BLI’s OpenBOX Multi-Channel Contact Centre is an enterprise application, encompassing all aspects of Contact and Database Management. It provides live access to a sales force via a Web site using Web chat or Voice chat (VoIP).

- **TechExcel**: FrontOffice suite from TechExcel aids in optimising the Customer Lifecycle. It offers marketing and sales force automation, as well as product tracking and customer support.

- **Parature**: Parature’s eCRM Software is a Web-based help desk solution featuring Web self-service, a tracking facility and account management capabilities. Parature eCRM targets small through to large businesses.

- **Relate Technologies**: With rSuite, Relate Technologies can allow a SME to handle customer service, sales and marketing online. Customers can be communicated with via Secure Messaging, and Web guides streamline service requests. Customer and sales interactions and marketing campaigns are handled with an event manager and a marketing module.
• **Primus**: Primus Knowledge Solutions offers Answer Engine, a SME-focused solution that enables customers to ask questions in plain English and receive answers online. This pre-empts the need to escalate customer questions to more expensive customer service channels.

• **GWI Software**: GWI offers c.Support, a browser-based solution for managing information technology environments developed for Lotus Domino and MS .NET frameworks. GWI’s c.Support offers help desk, knowledge management and end-user self-support tools.

• **Akiva**: Akiva offers the ChatSpace Community Server, which offers real-time community and support applications that includes chat, live events, queued help and instant messaging (IM).

• **Digi-Net Technologies**: Digi-Net offers Groopz, enabling SMEs to view real-time site populations, offer personalised interactive assistance online and gather in-depth customer profile information.

• **e-Resolve**: e-Resolve’s Customer Interaction Management allows SMEs to interact with customers without a complicated support infrastructure in place.

• **EchoMail**: EchoMail Customer Care receives, routes and tracks inbound email originating from a Web site or Internet address.

• **HydraNet**: HydraNet offers CRM-gx, a customisable, Web-based CRM solution that integrates with Microsoft’s Outlook.

• **Interlogics**: With Netsymphony, Interlogics targets the higher end of the SME market with eMarketing, eSelling, eService, eAnalysis and Content Management.
• **Isosceles Partners:** SiteFox identifies behaviour from a Web site which indicates that a customer needs help, and enables customer service representatives to then interact with customers in real-time.

• **Neotonic:** With Trakken, Neotonic offers a Web-based email customer support system with an integrated, customisable self-help Web site.

• **Orcim Technologies:** Orcim offers MarsHelp, an interactive, chat-based, online customer support solution and the ability to track a customer’s movements on a Web site.

• **Tariva:** Tariva’s iCRM solution offers a full-function, Web-based CRM solution.

• **Xencoders:** With their ChatAnywhere solution, Xencoders offer Web-based chat software and canned responses for a scripted sales pitch, as well as live video conferencing functionality.

6.7 SUMMARY
Companies selecting software for customer relationship management purposes usually lack an objective basis due to vendors making unsubstantiated and incorrect claims. The vendors that serve the overall CRM market have changed over time as the Marketing and CRM industries changed. Most CRM vendors originated from either the back-end or front-end application market. A number of acquisitions and mergers have taken place and traditionally focused vendors have broadened their scopes to include a greater range of CRM solutions. The development of network and communications technologies has caused vendors to move toward new technologies such as data warehousing, knowledge management, and portals on the Web, or eCRM. New entrants to the market now offer eCRM with Web applications and services.
SMEs considering CRM application suite vendors should use certain evaluation criteria when considering eCRM solutions, namely: functionality, viability, service and support, technology, cost and vision. From a SME point of view, the functionality and cost criteria are the most important. The minimum functionality criteria that a vendor’s software package must adhere to, in order to be considered an eCRM suite, are: Customer Analysis; Marketing Automation; Sales Automation; Customer Service and Support; and Web-centricity.

SMEs should, however, steer clear of vendors that focus mainly on larger enterprises and look for easy-to-use products that deliver "good enough" CRM functionality without overly taxing internal IT resources and budget.

Considering our discussion on functionality in the previous chapter (refer 5.5.1 starting on page 74), Gartner’s recommendations (refer 6.4.1 on page 94) and the subsequent discussion of eCRM vendors in the SME market (refer 6.5 on page 97 and 6.6 on page 103), we now present a consolidation of functionality that eCRM software could contain, and that would apply to the general SME market, in Figure 6.5 following on the next page. The table is divided into the following functionality:

- Customer Analysis
- Marketing Automation and Brand Management
- Sales Automation
- Customer Contact (Service and Support)
- Other
### Figure 6.5: Summary of eCRM Functionality

<table>
<thead>
<tr>
<th>Customer Analysis Functionality</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Segmentation</td>
<td>Creates clearly defined segments based on data analysis</td>
</tr>
<tr>
<td>Customer Profiling</td>
<td>Assigns customers to previously determined customer segments</td>
</tr>
<tr>
<td>Customer Potential</td>
<td>Estimates “Total Spend”, i.e. the amount of money a customer will spend on the SME’s products or services</td>
</tr>
<tr>
<td>Customer Share</td>
<td>Calculates the present and expected percentage share per customer – “Total Spend”</td>
</tr>
<tr>
<td>Customer Profitability</td>
<td>Calculates the current and expected operational profit of each (before taxes, interest and depreciation)</td>
</tr>
<tr>
<td>Customer Lifetime</td>
<td>Calculates the current and expected time span during which a customer will continue to buy from the SME</td>
</tr>
<tr>
<td>Customer Lifecycle Management</td>
<td>Management of the customer throughout his lifecycle, during his lifetime with the SME</td>
</tr>
<tr>
<td>Customer Lifetime Value</td>
<td>Calculates current/expected customer profit contribution during a customer’s lifetime with the SME</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>Measures the satisfaction level of each customer on a variety of product, service and relationship issues</td>
</tr>
<tr>
<td>Site Population Monitoring</td>
<td>Monitors and records Web site and online movement and behaviour by site visitors</td>
</tr>
<tr>
<td>Database Management</td>
<td>Managing the current and incoming data in a database from prospect to sale and beyond</td>
</tr>
<tr>
<td>Digital Analysis (eAnalysis)</td>
<td>All the above analysis functionality but purely in a digitally networked environment (include Web, email, cellular, fax, phone)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marketing Automation / Brand Management Functionality</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campaign Management</td>
<td>Manages, plans and monitors marketing communication campaigns and tracks feedback</td>
</tr>
<tr>
<td>Communication Management</td>
<td>Manages communications across all touch points and operational functions</td>
</tr>
<tr>
<td>Direct Mail Management</td>
<td>Manages, plans and executes a direct mail project, including mail merging and labels</td>
</tr>
<tr>
<td>Email Management</td>
<td>Manages, plans and executes permission-based email projects and monitors, routes and tracks incoming email from Web/IP addresses. Including dead addresses, “delete without opening” and read-receipts</td>
</tr>
<tr>
<td>Telemarketing Management</td>
<td>Manages, plans and executes inbound and outbound telemarketing projects</td>
</tr>
<tr>
<td>Show/Seminar Management</td>
<td>Manages, plans and executes a seminar or exhibition project, including the gathering of leads</td>
</tr>
<tr>
<td>Collateral Management</td>
<td>Manages, plans and executes a brochure or documentation project and tracks recipients and potential leads</td>
</tr>
<tr>
<td>Banner Ad Management</td>
<td>Manages, plans and executes a banner advertising project on hosting Web sites on the Internet</td>
</tr>
<tr>
<td>Digital Marketing (eMarketing)</td>
<td>All the above marketing functionality but purely in a digitally networked environment (include Web, email, cellular, fax, phone)</td>
</tr>
<tr>
<td>Sales Automation Functionality</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Lead Management</td>
<td>Manages relationships with non-customers that signal interest in starting a dialogue. Includes current and potential leads and intelligence sharing</td>
</tr>
<tr>
<td>Contact Management</td>
<td>Manages and maintains customer information and contact histories for existing customers and multi-media contacts (sales visit, telephone, email, fax, online chat, etc.) with relations</td>
</tr>
<tr>
<td>Communication Management</td>
<td>Communicates via e-mail and fax</td>
</tr>
<tr>
<td>Sales Analysis</td>
<td>Analyses sales data</td>
</tr>
<tr>
<td>Sales Forecasting</td>
<td>Estimation of actual revenues compared to planned revenues</td>
</tr>
<tr>
<td>Sales Cycle Management</td>
<td>Manages the phases of structured methods for a sale/order placement</td>
</tr>
<tr>
<td>Pipeline Management</td>
<td>Analysis of all current sales cycles</td>
</tr>
<tr>
<td>Key Account Management</td>
<td>Manages relationships with the decision-making unit of a client</td>
</tr>
<tr>
<td>Customer Team Management</td>
<td>Allows a marketing/sales/service team to plan and coordinate activities</td>
</tr>
<tr>
<td>Territory Management</td>
<td>Enables sales manager to monitor/control the activities of salespeople</td>
</tr>
<tr>
<td>Quotation Management</td>
<td>Manages the process of quotations for products/services</td>
</tr>
<tr>
<td>Order Management</td>
<td>Traris online quotes and transforms enquiries into orders</td>
</tr>
<tr>
<td>Product Selection &amp; Config</td>
<td>Select products/assemble alternate product specifications and pricing</td>
</tr>
<tr>
<td>Document Management</td>
<td>Develops and retrieves standard and customisable management reports and presentation documents</td>
</tr>
<tr>
<td>Marketing Encyclopaedia</td>
<td>Provides updated information about products, prices, promotions, and also sorts information about individuals and competitors; i.e. buying influence and R&amp;D patterns</td>
</tr>
<tr>
<td>Activity Management</td>
<td>Enables the planning and scheduling of sales activities regarding a customer/prospect around a calendar</td>
</tr>
<tr>
<td>Digital Sales (eSales)</td>
<td>All the above sales functionality but purely in a digitally networked environment (include Web, email, cellular, fax, phone)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Contact (Service &amp; Support) Functionality</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Management</td>
<td>Order entry and communication to logistics, production or fulfilment departments</td>
</tr>
<tr>
<td>Service Management</td>
<td>Manages, plans and monitors service-related activities, including Web-self-service, status tracking and event managers</td>
</tr>
<tr>
<td>Help Desk Management</td>
<td>Manages incoming help requests, FAQs, Web guides, answer engines, queued help and knowledge databases, etc.</td>
</tr>
<tr>
<td>Email Traffic Facility</td>
<td>Manages high volume incoming and outgoing emails from an email client such as Microsoft Outlook</td>
</tr>
<tr>
<td>Fax Traffic Facility</td>
<td>Manages high volume incoming and outgoing faxes from a fax client such as RightFax</td>
</tr>
<tr>
<td>Online Chat Facility</td>
<td>Facilitates online dialogue between the SME’s contact centre and customers or prospects via the Web, VoIP and live video and audio conferencing</td>
</tr>
<tr>
<td>Call Centre Management</td>
<td>Provides automated, end-to-end call routing, tracking and quality control</td>
</tr>
<tr>
<td>Salesman Access at Web site</td>
<td>The ability to interact with a sales person, in real-time, via the Web at point of purchase</td>
</tr>
<tr>
<td>Community Applications</td>
<td>Fostering an online support and knowledge community</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>The ability to send secure instant messages to either a Web-based interface or via SMS to a cellular phone</td>
</tr>
<tr>
<td>Web Traffic Monitor</td>
<td>Monitors online traffic, clicks, page views, identifies “need help” customers, content-specific help menu’s, etc.</td>
</tr>
<tr>
<td>Digital Servicing (eServicing)</td>
<td>All the above servicing functionality but purely in a digitally networked environment (include Web, email, cellular, fax, phone)</td>
</tr>
<tr>
<td>Other Functionality</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Partner Relationship Management (PRM)</td>
<td>Most of the above functionality but in an Extranet environment, dealing with partners, suppliers or vendors</td>
</tr>
<tr>
<td>Employee Relationship Management (ERM)</td>
<td>Most of the above functionality but in an Intranet environment, dealing internally, amongst employees of a company</td>
</tr>
<tr>
<td>Product Management</td>
<td>Most of the above functionality but managing the products or services of an organisation, including specification monitoring and sharing</td>
</tr>
<tr>
<td>Defect Tracking</td>
<td>Monitoring reported defects in products, monitoring usage</td>
</tr>
<tr>
<td>Content Management</td>
<td>Assembles and compiles content for Web sites and online help pages</td>
</tr>
<tr>
<td>Integration</td>
<td>Seamless integration between eCRM functions: sales, marketing and customer service; and with Web enablement</td>
</tr>
<tr>
<td>Marketing Function Support</td>
<td>Integrated support for CRM marketing functions: Data capture, cleansing and reconciliation, campaign management and content management. Including multilingual support</td>
</tr>
<tr>
<td>Support for CRM Analysis</td>
<td>Integrated support for CRM analysis: Including &quot;out-of-the-box&quot; reports and a common, simple reporting tool across the suite</td>
</tr>
<tr>
<td>Security Architecture</td>
<td>Provides security for Internet, Intranet and Extranet. Including encryption, for email, and privacy measures for data security.</td>
</tr>
<tr>
<td>Industry-Specific Support</td>
<td>Industry-specific application templates and industry process flows</td>
</tr>
</tbody>
</table>

The next chapter will look at the eCRM matrix, cross-referencing the above functionality consolidation with the small and medium enterprise sectors respectively, in order to aid SME owners in the decision-making process when choosing an eCRM software solution and vendor.
7.1 PREAMBLE

This chapter presents a matrix. It is the crux of the research as it contains the criteria that a South African small or medium-sized business owner or manager should consider when evaluating an eCRM solution for a business, regardless of the relevant industry in which it operates. Nowhere in existing South African literature was such a matrix overtly
prevalent, and the author compiled it through the consolidation of various functionality criteria that became evident through literature studies, Internet searches, vendor whitepapers, and software comparisons.

The ideal solution would have been to list all the vendors as identified in the previous chapter (refer 6.5 on page 96 and 6.6 on page 102) and cross reference each vendor with each functionality as listed at the end of Chapter 6 (refer Figure 6.5 commencing on page 105). A matrix of this magnitude would have been impractical due to space limitations, and the fact that vendors and their offerings change as technology changes. This author has also deliberately omitted the cost of these solutions from the study, as most vendors offer their software solutions on a modular basis, and also offer additional services that are normally built into the price of the overall solution. This, coupled with the fact that some software packages are only available via download from the Internet from various foreign countries, makes it difficult to finalise a total ZAR-based costing.

7.2 INTRODUCTION
We conclude this study with a matrix compiled from the functionality list in the previous chapter (refer Figure 6.5 starting on page 105) and the two SME categories as identified in Chapter 2 (refer 2.4 on page 15). A business owner can now identify criteria that would be pertinent to the eCRM needs in his specific business sector and compile a list of functionality required. The resultant list can then be referenced against the identified software vendors, and the SME-owner can individually contact the relevant software vendor or its distribution partners for quotations. This matrix will provide the SME owner with an objective basis to evaluate the software functionality, and would minimise the influence of unsubstantiated and incorrect functionality claims by software vendors.
### Figure 7.1: The eCRM Software Functionality Matrix for SMEs

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Small Business Sector (e.g.: BLI, Primus, Akiva, Interlogics, Tariva, Orcim, GWI, Parature)</th>
<th>Medium Business Sector (e.g.: SalesLogix, PeopleSoft, Talisma, Bigfoot, Microsoft, Kana, Onyx)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Analysis Functionality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Segmentation</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Customer Profiling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Potential</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Customer Share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Profitability</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Customer Lifetime</td>
<td>x</td>
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<tr>
<td>Customer Lifecycle Management</td>
<td></td>
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<tr>
<td>Customer Lifetime Value</td>
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<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Population Monitoring</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Database Management</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Digital Analysis (eAnalysis)</td>
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<td></td>
</tr>
<tr>
<td><strong>Marketing Automation / Brand Management Functionality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campaign Management</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Communication Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Mail Management</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Email Management</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Telemarketing Management</td>
<td></td>
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</tr>
<tr>
<td>Show/Seminar Management</td>
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<tr>
<td>Collateral Management</td>
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<tr>
<td>Banner Ad Management</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Digital Marketing (eMarketing)</td>
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</tr>
<tr>
<td><strong>Sales Automation Functionality</strong></td>
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<tr>
<td>Lead Management</td>
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</tr>
<tr>
<td>Contact Management</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Communication Management</td>
<td></td>
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<tr>
<td>Sales Analysis</td>
<td></td>
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<tr>
<td>Sales Forecasting</td>
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<tr>
<td>Sales Cycle Management</td>
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<td></td>
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<tr>
<td>Pipeline Management</td>
<td></td>
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<tr>
<td>Key Account Management</td>
<td></td>
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<tr>
<td>Customer Team Management</td>
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<tr>
<td>Territory Management</td>
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<tr>
<td>Quotation Management</td>
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<tr>
<td>Order Management</td>
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<tr>
<td>Product Selection/Configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Encyclopaedia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Sales (eSales)</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
### Functionality

<table>
<thead>
<tr>
<th>Customer Contact (Service &amp; Support) Functionality</th>
<th><strong>Small Business Sector</strong>&lt;br&gt;(e.g.: BLI, Primus, Akiva, Interlogics, Tariva, Orcim, GWI, Parature)</th>
<th><strong>Medium Business Sector</strong>&lt;br&gt;(e.g.: SalesLogix, PeopleSoft, Talisma, Bigfoot, Microsoft, Kana, Onyx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Management</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Help Desk Management</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Email Traffic Facility</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Fax Traffic Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Chat Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Centre Management</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Salesman Access at Web site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Applications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Web Traffic Monitor</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Digital Servicing (eServicing)</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><strong>Other Functionality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner Relationship Mngt (PRM)</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Employee Relationship M (ERM)</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Product Management</td>
<td></td>
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<tr>
<td>Project Management</td>
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<tr>
<td>Defect Tracking</td>
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<tr>
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<td>x</td>
</tr>
<tr>
<td>Marketing Function Support</td>
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<td>x</td>
</tr>
<tr>
<td>Support for CRM Analysis</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Security Architecture</td>
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<td>x</td>
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<tr>
<td>Industry-Specific Support</td>
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#### 7.4 SUMMARY

The managers or owners of SMEs usually lack an objective basis from which to effectively evaluate the functionality of eCRM software. They are also influenced by eCRM software and solution vendors that make unsubstantiated and incorrect functionality claims about their offerings. The eCRM Software Functionality Matrix for SMEs in Figure 7.1 will aid SME decision-makers in selecting an eCRM solution that will nurture customer relationships and, overall, be beneficial to their businesses in the long term.
Chapter 8: Summary & Recommendations

8.1 PREAMBLE

The eighth and final chapter in this dissertation summarises the entire literature study, and also includes a number of conclusions drawn from the study that are supported by the findings. Finally, some recommendations for future research flow from the subject-matter as discussed in this dissertation and are listed in conclusion of this chapter.
8.2 RESEARCH SUMMARY

8.2.1 Introduction

Customers are becoming increasingly more sophisticated and demand higher levels of immediate service across multiple access channels. The emergence of the Internet has simplified, but also increased the number of access channels. Small and medium businesses lack the resources and budgets of large corporations. As a result, customer relationships and information technology must be handled by the SME owners or managers themselves. Therefore, SMEs need a low cost customer relationship management solution that adapts to their business models. Also, due to a lack of in-house expertise, a manager of a SME often cannot devote time in pursuit of a suitable electronic relationship management solution for the business. SMEs selecting eCRM solutions often lack an objective basis as software vendors often make unsubstantiated and incorrect claims regarding the functionality of the software. The problem lies in how the SME owner or manager decides whether an eCRM project’s functionality will be viable and satisfy the SME’s unique needs.

8.2.2 SMEs in South Africa

In the South African economy, the Small to Medium Enterprise sector is a subset of the Small, Medium and Micro Enterprise sector, but differs from the latter in that micro and very small enterprises are excluded, due to a survivalist element. A SME is defined as a separate and distinct owner-managed entity that cannot be part of a group of companies. The SME sector is important in generating employment and activating competition in order to stimulate economic development in South Africa. However, SMEs face a number of constraints, particularly related to technology, human and monetary resources.
8.2.3 CRM

Every time a customer approaches a business, he arrives with an expectation. A good experience might increase loyalty and a poor experience might transfer the customer’s business to a competitor. Marketing has evolved from being sales-driven to relationship-driven, hence the need for Customer Relationship Management (CRM). CRM is defined as a business strategy, flowing from a customer-centric business philosophy that uses information technology to establish and maintain profitable long-term relationships with customers through mutual value creation and value sharing during the customer’s lifecycle with a company.

Each company has relationships with six different domains, which influence the perception a customer has about that company. These relationships need to be managed and maintained for the sake of profitability. For any company it costs five times more to acquire a new customer as it does to retain an existing customer and the concept of Customer Lifetime Value needs to be considered when a company starts thinking about building long-term relationships with their customers. To find out the expected revenue from a single customer, the customer’s lifecycle with the company needs to be analysed and this involves the capturing of the customer’s transactional and demographic data via all possible channels. This data is used to identify, differentiate, customise and interact with the customer. The pillars of CRM (marketing, sales, e-Commerce and service) are the business processes involved in the relationship lifecycle, and are supported by various CRM applications, of which eCRM is one.

CRM consists of three segments, namely Operational CRM, Analytical CRM and Collaborative CRM and is supported by a series of technology components, i.e. the
8.2.4 eCRM

As any business science, the concept of CRM changes constantly. The arrival of the Internet allowed CRM to develop into a Web-centric phenomenon, known as electronic Customer Relationship Management (eCRM). eCRM is an Internet-centric approach to CRM that synchronises customer relationships across communication channels, thereby managing personal, relevant and productive interactions between a company and its customers. The result is retaining customers through increased customer satisfaction and loyalty, as the customer can now communicate with the company through the channel he or she prefers. The Internet has connected diverse databases and allowed for a company to have one universal view of the customer, thereby reducing the cost of customer-facing operations by removing manual intervention. Customer interaction has now become more sophisticated, with service information instantly available to both the customer service representative and the customer.

The Customer Relationship Path starts off with the Sales Path and is made up of a series of phases that aid in taking the consumer from a prospective buyer to a loyal supporter, eCRM supports the business components of marketing, sales, customer service and e-Commerce throughout this path.

An eCRM system architecture must allow for easy around-the-clock access by both customers and company users from all supported access points. An open architecture is necessary to provide scalability, flexibility and easy maintenance. An Information
Security Architecture (ISA) tier should be included so that the SME does not have to be concerned with implementing separate security architectures. Due to the nature of eCRM, the management of SMEs should establish controls and measures to minimise the risk of loss of information and system resources, corruption of customer data, disruption of access to the data, and unauthorised disclosure of confidential customer information.

8.2.5 SMEs and eCRM

As it costs up to five times more to acquire a new customer than to retain an existing one, customer retention has become particularly important to the SME due to his limited resources. Maintaining good relationships with customers is therefore imperative and larger SMEs need a common memory of customer preferences. eCRM requires data warehouse and communications systems to be Web-enabled and therefore the SME needs a sound IT, CRM and Internet strategy.

Limited resources can cause SME managers to neglect an IT strategy. We discussed a roadmap whereby an SME can devise and create an IT strategy in ten weeks. Similarly, the SME owner is pressed for time and monetary resources and needs a low cost CRM solution that adapts to the SME’s business model. A seven-step process for SMEs to follow when considering a CRM solution was therefore discussed. It requires the SME to understand the functionality through which CRM software supports the CRM functions of customer analysis, sales, marketing and customer support.

Second only to e-Commerce, Customer Relationship Management is an area that has grown the fastest in the Internet marketing field. The Internet has become a symbol of
the ultimate customer relationship for businesses. The SME should also have a clearly defined Internet strategy and there are four components to this strategy, namely: goals, content, process and functionality.

Due to scarce financial resources, smaller businesses often choose the lowest costing Information Systems and overlook IT security. The Internet is one of the biggest sources of IT security risks and there are both business risks and technological risks. The SME needs to consider all the security issues when developing a presence on the Internet or swaps information via the World Wide Web.

8.2.6 eCRM Solutions Available in South Africa

Selecting customer relationship management software can be a difficult task and SME decision makers often lack an objective basis and in turn, CRM vendors often make unsubstantiated claims on the functionality of their solutions.

Just as CRM evolved as business discipline, so did the vendors offering solutions evolve their offerings over time. The rapid development of network and communication technologies allowed CRM vendors to move towards new technologies such as data warehousing, knowledge management and eCRM. When it comes to eCRM-vendor evaluation, there are six criteria to consider, namely functionality, viability, service and support, technology, cost and vision. We focus on functionality in this study as it is the most important issue for the SME.

We discussed the software vendors that target the medium-sized business and these technology players can be divided into the Leaders, the Challengers, the Visionaries and
the Niche-players. There are also a set of vendors that target the lower end of the SME market, the small business, and their offered functionalities vary between Visionary and Niche players. The minimum functionality criteria that the software packages of any eCRM vendor must adhere to in order to be considered an eCRM suite are: Customer Analysis; Marketing Automation; Sales; Customer Service; and Web-centricity. We concluded by presenting a list of possible eCRM functionality for SMEs as a summary.

8.2.7 The eCRM Matrix
The managers or owners of SMEs usually lack an objective basis from which to effectively evaluate the functionality of eCRM software. They are also influenced by eCRM software vendors that make unsubstantiated and incorrect functionality claims about their offerings. As the crux of this research study, we presented the reader with the eCRM Software Functionality Matrix for SMEs, which could aid SME decision-makers in selecting an eCRM solution that will be beneficial to their businesses in the long term.

8.3 FUTURE RESEARCH RECOMMENDATIONS
Most of the eCRM-related literature currently available typically focuses on traditional Internet-based solutions for companies within a sales environment. Research topics and subject matter that flow from the discussions in this dissertation could potentially include the following:

- The eCRM needs for specific service-related SMEs, such as Advertising Agencies or Law firms
• Functionality comparisons of eCRM vendors targeting specific industries such as Medical, Engineering or Media industries
• Functionality needed for eERM (Electronic Employee Relationship Management)
• Including Project Management functionality into eCRM and/or eERM
• Extending eCRM to current non-traditional (wireless) Internet-based technologies such as SMS, WAP, WIG, Bluetooth and GPRS, and the required technological functionality
• Modifying current eCRM to other wireless (mobile) technologies such as CDMA, DECT, MExE, SyncML and UMTS
• wCRM (wireless Customer Relationship Management) functionality for South African businesses, and more specifically, South African SMEs
• The security implications for wireless technologies, specifically for CRM
• Guidelines for evaluating wireless CRM vendors
The following is an explanatory list of the most common abbreviations used throughout this short dissertation:

**Alt** - South African Alternative Stock Exchange for SMEs

**B2B** - Business-to-Business

**B2C** - Business-to-Consumer

**BI** - Business Intelligence

**CD** - Compact Disc

**CDMA** - Code Division Multiple Access

**CDW** - Customer Data Warehouse

**CIC** - Customer Interaction Centre

**CLV** - Customer Lifetime Value

**CRM** - Customer Relationship Management

**CS** - Customer Services

**DECT** - Digital Enhanced Cordless Telecommunications

**DW** - Data Warehouse

**EAI** - Enterprise Application Integration

**eCRM** - Electronic Customer Relationship Management

**EFT** - Electronic Fund Transfer

**ERM** - Enterprise / Employee Relationship Management

**ERP** - Enterprise Resource Planning

**FAQs** - Frequently Asked Questions

**GDP** - Gross Domestic Product

**GPRS** - General Packet Radio Service

**HTTP** - Hyper Text Transfer Protocol

**IBM** - International Business Machines (IT solutions vendor)

**IDIC** - Identification; Differentiation; Interaction; Customisation

**IS** - Information Systems

**ISA** - Information Security Architecture

**IM** - Instant Messaging

**IT** - Information Technology
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>IVR</td>
<td>Interactive Voice Response</td>
</tr>
<tr>
<td>J2EE</td>
<td>Java 2 Platform, Enterprise Edition</td>
</tr>
<tr>
<td>KAM</td>
<td>Key Account Management</td>
</tr>
<tr>
<td>LAN</td>
<td>Local Area Network</td>
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<tr>
<td>MExE</td>
<td>Mobile Station Application Execution Environment</td>
</tr>
<tr>
<td>MP3</td>
<td>MPEG version 1.0 Layer 3 (Compressed music data format)</td>
</tr>
<tr>
<td>MS</td>
<td>Microsoft (IT software and solutions vendor)</td>
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<tr>
<td>MS CRM</td>
<td>Microsoft Customer Relationship Management software</td>
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<tr>
<td>MS SQL</td>
<td>Microsoft Structured Query Language</td>
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<tr>
<td>PC</td>
<td>Personal Computer</td>
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<tr>
<td>PDA</td>
<td>Personal Digital Assistant (such as Palm Pilot or Compaq IPAQ)</td>
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<td>PIMS</td>
<td>Personal Information Management Systems</td>
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<td>Partner Relationship Management</td>
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<td>Remote Access Server</td>
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<td>Relational Database Management System</td>
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<td>ROI</td>
<td>Return on Investment</td>
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<tr>
<td>SAP</td>
<td>Systems, Applications, Products in Data Processing (IT solutions vendor)</td>
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<tr>
<td>SFA</td>
<td>Sales Force Automation</td>
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<tr>
<td>SME</td>
<td>Small to Medium Enterprise</td>
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<td>SMME</td>
<td>Small, Medium and Micro Enterprise</td>
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<tr>
<td>SMS</td>
<td>Short Message Service</td>
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<td>SyncML</td>
<td>Synchronization Markup Language</td>
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<tr>
<td>TCO</td>
<td>Total Cost of Ownership</td>
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<tr>
<td>UMTS</td>
<td>Universal Mobile Telecommunication Services</td>
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<td>Voice over Internet Protocol</td>
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<td>Wide Area Network</td>
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<td>Wireless Access Protocol</td>
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<td>Wireless Internet Gateway</td>
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<td>Word-of-mouth</td>
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<td>World Wide Web</td>
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<tr>
<td>XML</td>
<td>Extensible Mark-up Language</td>
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<tr>
<td>ZAR</td>
<td>South African Rand (Monetary currency)</td>
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Bibliography


